



## **SECTION 82 REPORT**

# **Rotorua Operative District Plan**

**Proposed Plan Change 9:  
Housing for Everyone**

**August 2022**



**ROTORUA**

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## 1.0 Executive Summary

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### Purpose of PC9

This Section 32 report is prepared by Rotorua Lakes Council (“**Council**”) to fulfil the statutory requirements of section 32 of the Resource Management Act 1991 (“**RMA**”) for Proposed Plan Change 9 – Housing for Everyone (“**PC9**”). PC9 is an Intensification Planning Instrument (“**IPI**”) under Section 80E of the RMA and amends the Operative Rotorua District Plan (“**District Plan**”). The Council is required to prepare and notify an IPI by the Resource Management (Territorial Authorities Required to Prepare and Notify Intensification Planning Instruments) Regulations 2022 (“**Amendment Act**”).

The National Policy Statement Urban Development 2020 (“**NPS-UD**”) that came into effect on 20 August 2020 promotes the concept of "well-functioning urban environments." The NPS-UD classifies Rotorua as a Tier 2 Urban Environment.

On 14 March 2022 an Order in Council (“**OIC**”) was made to incorporate the Council in the requirements of the Amendment Act, after the Council requested to be included, based on its acute housing need. Rotorua’s inclusion means that it is now a “specified territorial authority” under the Amendment Act, which requires Council to amend the District Plan to:

- 1) Give effect to Policy 5<sup>1</sup> of the NPS-UD; and
- 2) Ensure every relevant residential zone incorporates the Medium Density Residential Zone Standards (“**MDRS**”) unless a qualifying matter exists.

This is the purpose of PC9. A range of other supporting changes are also proposed that will support the implementation of the MDRS and Policy 5.

### Medium Density Housing

The application of the MDRS will enable medium density housing to be built across most residential areas in urban Rotorua. This supports an increase in the variety of sizes and forms, including detached dwellings, terrace housing and low-rise apartments. This will enable greater development capacity to cater for population growth within the existing urban footprint, supporting the delivery of a compact and sustainable urban form.

The MDRS will have legal effect from 20 August 2022 and the Amendment Act specifies that the provisions in the District Plan other than the IPI will “cease to have effect”, meaning that the MDRS will be treated as if they are the operative rules. The MDRS, however, will not have immediate legal effect where a qualifying matter applies (see section 3.6 below for further explanation on qualifying matters). Put differently, the new rules proposed in PC9 will only have immediate legal effect if they permit a residential unit in a relevant residential zone in accordance with the MDRS, and no qualifying matter applies to the site.

The MDRS, i.e. those standards that the Amendment Act specifies will have immediate legal effect, relate to the following controls:

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<sup>1</sup> Policy 5 requires district plans applying to tier 2 Councils to enable heights and density of urban form commensurate with the greater of:

- a) the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services; or
- b) relative demand for housing and business use in that location.

- Number of residential units per site
- Building height
- Height in relation to boundary
- Setbacks
- Building coverage
- Outdoor living space
- Outdoor space (per unit)
- Windows to street
- Landscaped areas

Other provisions that are proposed in the Plan Change that are not part of the MDRS include:

- Rules that regulate minimum dwelling size, maximum building length, maximum impervious area and fences;
- Assessment criteria for four or more dwellings to achieve quality-built outcomes; and
- Rules associated with qualifying matters.

### High Density Housing

The Amendment Act and the NPS-UD also direct that the District Plan enable higher density housing with more building height around the city centre and suburban centres across the city, and close to public transport. It is therefore proposed within the Plan Change to broadly retain the spatial extent of the current medium density Residential 2 zone but enable high density residential development within this zone.

Being close to the City Centre, the proposed Residential 2 High Density Zone is aligned to the most accessible areas within Rotorua, enabling more people to live in areas which can access amenities and employment through active and public transport modes. It is proposed to apply a 19.5m height limit within the Residential 2 High Density zone. This will enable six storeys in this zone as opposed to the three storeys permitted through the MDRS.

### Commercial Areas

The Plan Change has further considered how to enable residential development in the Commercial and City Centre Zones, due to their accessible location relative to amenity. The primary method of doing so is by enabling a greater building height through more permissive height standards in these locations, to accommodate for a wider range of activities that are supported by a greater density- (i.e. more people living in the area).

The proposed amendments to height limits within the City Centre and Commercial zones include (*Refer to Figure 2*):

- Amending the City Centre 1 zone (Mid City) height limit from 20m to 32m.
- Amending the City Centre 3 zone (Northern Edge/ Lake Front area)- height limit from 20m to 24m.

- Introducing<sup>2</sup> a 24m height limit for the City Centre 2 zone (Central Mall).
- Amending the Commercial 1 and 2 zone (Suburban Centres e.g. Ngongotaha and Owkata) - height limit from 12m to 20m.
- Amending the Commercial 4 zone (City Entranceway/ Fenton Street and Lake Road) - height limit from 12m to 24m.
- Amending the Commercial 6 zone (Southern Edge/ Trade Central) - height limit from 20m to 24m.

Given the City Centre 2 and the Commercial 6 zones are centrally located and highly accessible it has been proposed to enable residential use within these zones. Amendments have therefore been made to the provisions of the City Centre 2 and Commercial 6 zones to permit residential units, which enables mixed-used<sup>3</sup> development.

### Papakāinga

This Plan Change also includes proposed amendments to the rules for papakāinga to make developments of this nature more enabling. The proposed amendments are in accordance with section 80E of the RMA, which enables the Plan Change to amend provisions to enable papakāinga housing in the district in both urban and rural areas.

### Qualifying Matters

The Amendment Act enables height and density to be restricted where there are “qualifying matters<sup>4</sup>”, also known as development constraints. Through the Plan Change, we must justify why qualifying matters should be given a greater level of protection than other matters in the District. These reasons or ‘qualifying matters’, can’t be used to prohibit intensification altogether, but they can be used to moderate the level of building height and density in places.

Existing qualifying matters within the District Plan include:

- National Grid;
- Natural Hazards;
- Historic and Cultural Values;
- Significant Natural Areas;
- Outstanding Natural Character;
- Outstanding Natural Features and Landscapes;
- Public Access; and
- Designations.

It is proposed to retain the current District Plan rules pertaining to these qualifying matters.

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<sup>2</sup> In the current operative District Plan there is no maximum height

<sup>3</sup> In this case we are enabling residential development above the existing commercial use

<sup>4</sup>Qualifying matters are characteristics of some properties or within some areas where it is appropriate to modify or reduce building height or density sought by the MDRS changes. This includes sites of cultural, historical, or ecological significance or to avoid development in areas with natural hazards.

New qualifying matters are proposed in areas which are incompatible with the level of development permitted by the MDRS. These new qualifying matters are as follows:

- **Flooding** – amendments to the rules to more effectively manage flood risk in higher risk locations;
- **Residential 3 zone** – retention on the Residential 3 zone applying to the cultural villages of Ōhinemutu, Whakarewarewa, and Ngāpuna given that it will enable Māori to maintain their culture and traditions with their ancestral lands;
- **Historic heritage** – amendments to the rules to ensure that the heritage values of protected buildings are maintained.

#### Additional Supporting Changes

There are also further supporting changes that are proposed through this Plan Change, which are summarised below:

- **Financial contributions for reserves** – amendments to the provisions to reduce the financial contribution requirement from 5% to 3.5% in the urban zones and 2.5% in the Rural zones, with lower rates applying to minor residential units, and related changes to the objectives and policies.
- **Transport** – amendments to the transport provisions to ensure that the access standards safely and efficiently provide for all modes of transport and that moderately scaled development ensure that effects on the immediately adjoining transport network are appropriately managed.

The Section 32 report comprehensively assesses these amendments against the applicable statutory tests in the RMA and the Amendment Act. This is supported by a range of technical analysis attached to the report.

## 2.0 Introduction

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This report is prepared by Rotorua Lakes Council to fulfil the statutory requirements of section 32 of the RMA for PC9. This report should be read together with the text of District Plan and PC9. PC9 is an IPI under Section 80E of the RMA. Council is required to prepare and notify an IPI by the Resource Management (Territorial Authorities Required to Prepare and Notify Intensification Planning Instruments) Regulations 2022.

The key drivers of PC9 are to:

- 1) Give effect to the Amendment Act and the relevant policies of the NPS-UD;
- 2) Enable a greater variety of homes that meet Rotorua’s needs;
- 3) Achieve a well-functioning urban environment;
- 4) Enable Māori to express their cultural traditions and norms with particular reference to papakāinga development;
- 5) Ensure development is integrated with infrastructure planning and funding for open space; and
- 6) Ensure that significant risks from natural hazards are appropriately managed.

PC9 introduces amendments to the District Plan in respect of the following:

- 1) Amendments to Part 2: District Wide Matters - Strategic Direction objectives and policies, which guide urban development to give effect to the relevant objectives and policies of the NPS-UD;
- 2) Amendments to Part 3: Area Specific Matters - Residential Zones to amend the Residential 1 zone to incorporate the MDRS and related amendments;
- 3) Amendments to Part 3: Area Specific Matters - Residential Zones to enable high density residential development within the Residential 2 zone and related amendments;
- 4) Amendments to the zoning maps to alter the spatial application of the Residential 2 zone to give effect to Policy 5 of the NPSUD;
- 5) Amendments to Part 2: District Wide Matters – Subdivision to incorporate the MDRS;
- 6) Amendments to Part 3: Area Specific Matters - Commercial Zones and City Centre Zones to amend building height limits and the design-based rules and matters of discretion and criteria that guide development;
- 7) Amendments to Part 3: Area Specific Matters - Commercial Zones and City Centre Zones to enable residential activities within the City Centre 2 and Commercial 6 zones;
- 8) Amendments to Part 3: Area Specific Matters - Development Areas to amend the provisions for Pukehangi and Wharenui development areas to align with the MDRS;
- 9) Amendments to Part 2: District Wide Matters – General District Wide Matters to amend the provisions for papakāinga to be more enabling of this form of development;
- 10) Amendments to Part 2: District Wide Matters – Hazards and Risks to manage development in areas of flood risk;
- 11) Amendments to Part 2: District Wide Matters – Hazards and Risks to manage geothermal features;
- 12) Amendments to Part 2: District Wide Matters – General District Wide Matters to amend the provisions relating to Financial contributions.
- 13) Consequential amendments to Part 1: Introduction & General Provisions - Interpretation to support the changes outlined above and the MDRS;
- 14) Consequential amendments to the district plan zoning maps and further amendments to zone extents to give effect to Policy 5 of the NPS-UD; and

The Rotorua Design Guidelines have also been prepared to complement the changes to the residential and business zones proposed by PC9. The Design Guidelines are a non-statutory document that will encourage high quality residential urban design outcomes for multi-unit residential developments.

The following parts of the District Plan are not proposed to be amended by PC9:

- 1) Residential 3 Zone: This zone is proposed to be retained as a new qualifying matter on the grounds that it provides for the relationship of Māori and their culture and traditions with their ancestral lands;

- 2) Residential 4 Zone: In accordance with the definition of ‘relevant residential zone’ as set out within Section 2 of the RMA this zone is excluded from the application of the MDRS on the basis that it is equivalent to a Settlement Zone;
- 3) Residential 5 zone: In accordance with the definition of ‘relevant residential zone’ as set out within Section 2 of the RMA this zone is excluded from the application of the MDRS on the basis that it is equivalent to the Large Lot Residential Zone;
- 4) Commercial 5 zone: this zone functions as a special purpose recreation / tourist zone, which does not provide for residential;
- 5) Industrial, Business and Innovation, rural, future growth, Reserves, Community Assets and Water zones; and
- 6) Existing provisions in the District Plan that protect identified features of values included associated mapping e.g. historic heritage or outstanding natural features.

Documents for PC9 are set out in *Appendix 1* and show the proposed amendments to the District Plan, and any consequential amendments.

## 3.0 Scope of Changes Proposed

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PC9 is not a full plan review, but a focussed suite of changes to enable additional housing capacity and choice through specific zoning, rule and policy changes. A full review of all the commercial and residential zone provisions and zoning across Rotorua was not undertaken. PC9 is as focussed as possible, and the scope has been deliberately limited to those changes needed to implement the intensification policies of the NPS-UD and the Amendment Act, as required by sections 77G and 80E of the RMA.

The objectives, policies and methods proposed as part of PC9 have been evaluated in accordance with Section 32 of the RMA on a topic basis. A description of the topic and an overview of the amendments categorised to each topic is provided at the beginning of *Sections 7 to 17* of this report. The mandatory changes required by the Amendment Act are identified in PC9 as required by Section 80H of the RMA. The Section 32 report does not include an evaluation of these mandatory provisions.

## 4.0 Rotorua Context

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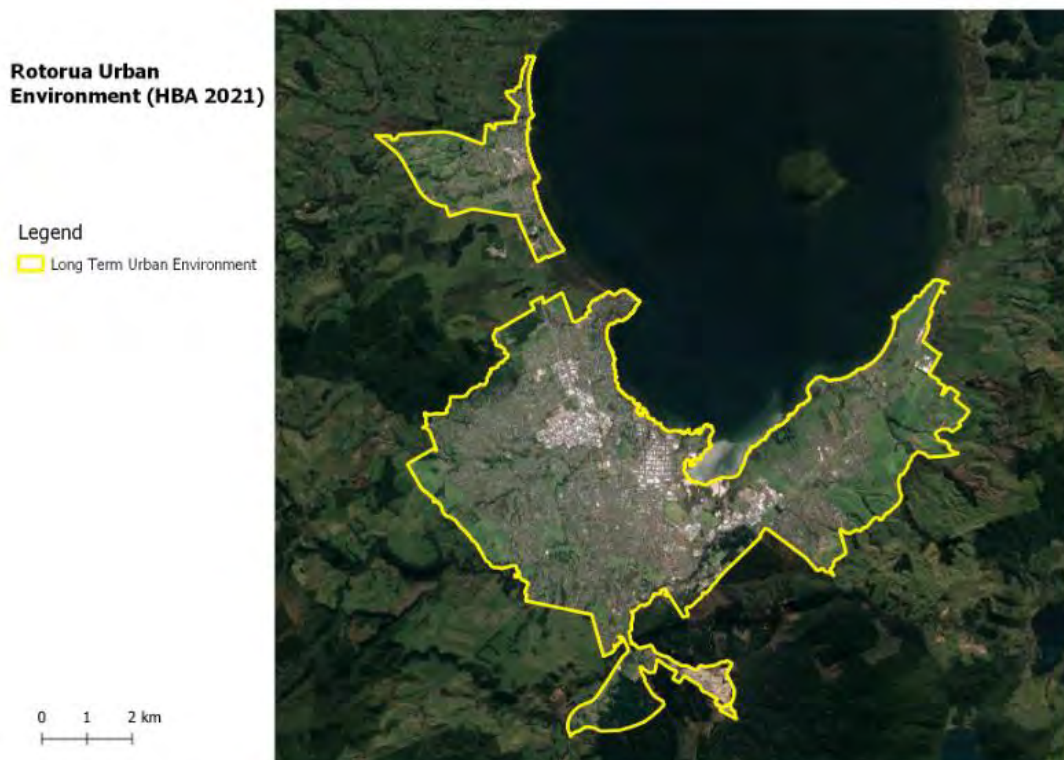
### 4.1 The Need for Additional Housing Capacity

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The NPS-UD sets out requirements relating to planning for growth and development in urban environments, including the need to provide at least sufficient development capacity to meet expected demand (Policy 2). The relevant objectives and policies of the NPSU-UD are outlined in *Section 5.3* below.

The NPS-UD requires a Housing and Business Development Capacity Assessment (“HBA”) to be prepared, which Market Economics (“M.E”) completed in 2021 in collaboration with the Council to provide a robust assessment of Rotorua’s housing and business market within the urban environment (refer *Figure 1*).

The reporting undertaken for the HBA was extensive and included a detailed evaluation of housing and business demand and plan-enabled, feasible, infrastructure ready, and reasonably expected to be realised capacity. A full copy of the HBA is available on the Council’s website<sup>5</sup>. As detailed in the sections below, the HBA concludes that there is strong demand for housing and business use over the next 30 years, however, there is insufficient feasible capacity to cater for this, which the current planning framework contributes to.



**Figure 1: Showing the extent of the Rotorua urban environment (HBA, 2021).**

#### 4.1.1 Population Growth and Household Change

The Council has adopted the population and household projections developed by Infometrics Ltd (2020). The Infometrics projections were preferred over those from Statistics New Zealand (SNZ) as they do not only consider population and household projections, but employment projections as well.

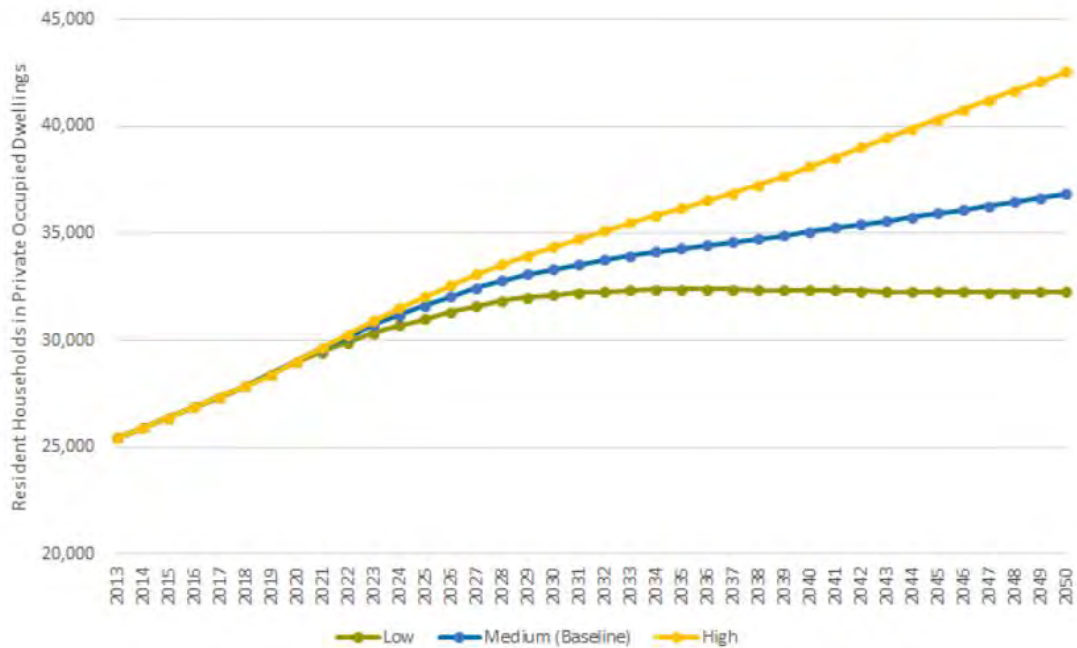
The population and household projections were produced according to three scenarios, low, medium, and high growth (in keeping with SNZ practice). The medium growth scenario is Council’s preferred growth outlook and the scenario has been used for the HBA (as well as for the Infrastructure Strategy and Long Term Plan (“LTP”) – to ensure consistency across the strategic documents). The low and high scenarios provided a range around the medium as the baseline, to account for a margin of error.

The current resident population of the Rotorua district as at 2020 is estimated at 76,190, which makes up approximately 29,000 residential households. The medium growth projection from Infometrics suggest that household numbers are projected to increase from the current 29,000

<sup>5</sup> <https://www.rotorualakescouncil.nz/repository/libraries/id:2e3idno3317q9sihrv36/hierarchy/our-services/planningservices/districtplan/districtplan/documents/proposed-district-plan/research/rdc-1225139-rotorua-housing-and-business-development-capacity-assessment-2021-main-report.pdf>



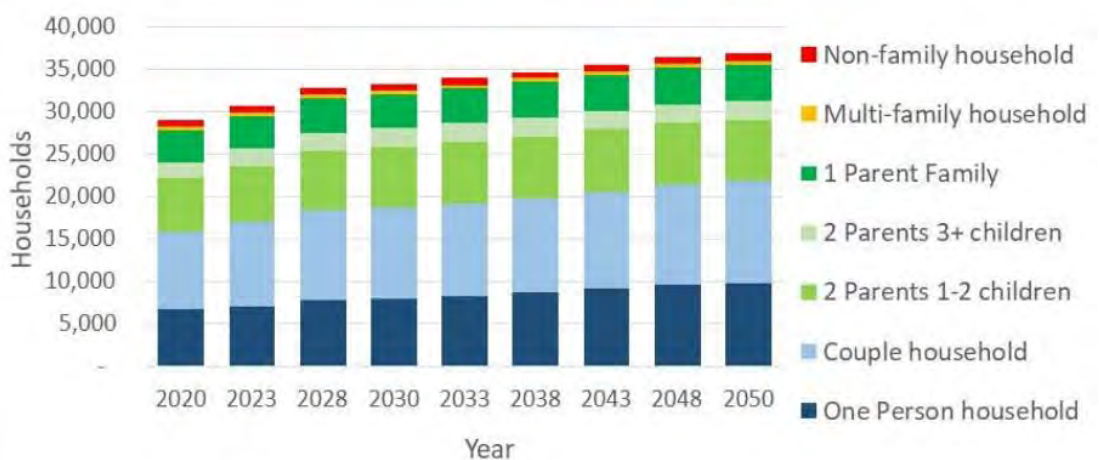
households (June 2020) by 6% (1,700 households) in the short term, then 15% (4,300 households) in the medium term, and 27% (7,800 households) in the long term (refer *Figure 2*).



**Figure 2: Graph showing Total Resident Household Growth Projections 2020-2050 by Scenario (HBA Technical Report, 2021)**

The population growth underpins the growth in household numbers. Generally, household numbers tend to increase slightly ahead of population growth so the medium population projections suggest a population growth of 4% in the short term, 11% in the medium term and 19% in the long term. This would equate to an additional 14,300 people by the year 2050 meaning a total district population of 90,593.

Given Rotorua’s net population growth will significantly occur within the 65+ age group considerable change is anticipated in the composition of households. There will be a significant increase in one person households and couple households, with significantly smaller net increases in family households with children. The shift in the socio-demographic structure of the household sector is reflected in the graph below (refer *Figure 3*).



**Figure 3: Graph showing Projected Households for the Medium Growth Scenario (HBA, 2021).**

Couple and single person households are anticipated to account for around two-thirds of the total household growth in the medium term and over three quarters of housing growth in Rotorua over

the long term which will likely result in a change in demand for different dwelling types and sizes over time.

Approximately 31% of the current population is of Māori ethnicity<sup>6</sup>. The Rotorua district is characterised by slightly lower than average household incomes. An estimated 37% of all households have income less than \$50,000 per annum, while 20% of households have incomes above \$120,000, this is lower than the national average at just under 26%. Dwelling ownership rates are higher for households of European ethnicity at nearly 70%, which is substantially higher than for households of Māori ethnicity (47%), Pacific ethnicity (41%) and Asian ethnicity (45%). Overall, 37% of resident houses in the district are rented. Acute housing need is disproportionately affecting Māori in the district with many people unable to own or effectively even rent homes and provide for their whānau’s well-being. Therefore, there is also a strong demand for public housing with emergency housing and public housing register numbers being high.

#### 4.1.2 Housing Demand

The Infometrics population projections have been used to determine the most likely scenario for housing demand over the short, medium and long term. In addition to these projections, data from the Ministry of Housing and Urban Development (“MHUD”)<sup>7</sup> indicates that Rotorua has an existing housing shortage estimated as at the end of 2019 at around 1,500 – 1,750 homes. This estimate was calculated by MHUD who carried out a place-based assessment of Rotorua’s housing demand and supply (March, 2020).

In the urban environment, there is projected demand for 2,970 additional houses in the short term, 5,200 additional houses in the medium term and 8,250 additional houses in the long term, driven by projected household growth and addressing the current shortfall in housing.

Over and above projected demand and existing shortfall in demand the NPS-UD requires that the Council provide for a competitiveness margin to support choice and competitiveness in housing and markets. The competitiveness margin adds an additional 20% in the short and medium term and 15% in the long-term to the demand numbers referenced above. Combined, the demand and competitiveness margin are referred to as the ‘housing bottom lines’ (Policy 7 – NPS-UD).

Based on the above the housing demand in Rotorua is shown below (refer *Table 1*).

**Table 1: Projected Demand for Dwellings (HBA, 2021).**

Timeframe	Demand for dwellings	Including NPSUD Competitive Margin
Short term (3 years, 2020-2023)	2,970	3,560

<sup>6</sup> The 2018 census records that Maori make up 40% of the Rotorua population. However, because the Census records all ethnicities identified by respondents (and many people specify two or more ethnicities), the census over-projects each ethnicity. The Infometrics data corrects this so that the sum of the ethnicity-based projections matches the total projection. It does this by assuming that the degree of over-count applies pro rata to each ethnicity.

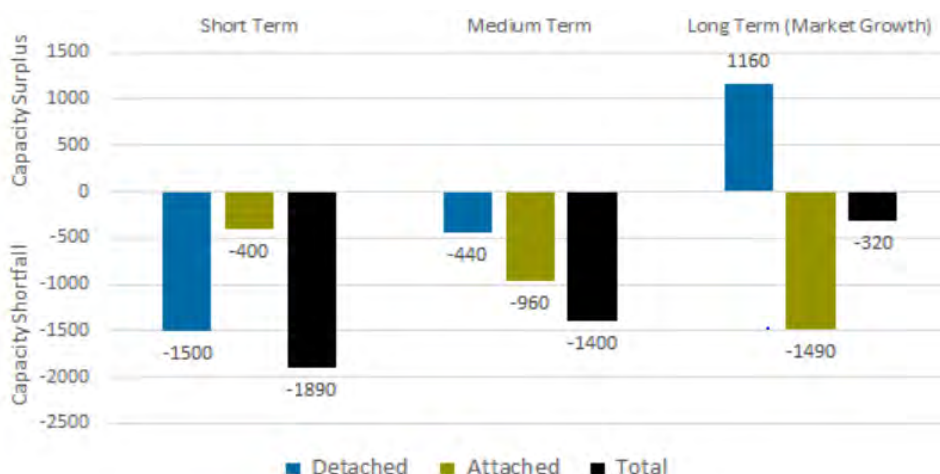
<sup>7</sup> MHUD place-based assessment of Rotorua’s housing demand and supply (March 2020).

Medium term (10 years, 2020-2030)	5,200	6,240
Long term (30 years, 2020-2050)	8,250	9,740

### 4.1.3 Existing Housing Development Capacity

As part of the HBA, an assessment of housing capacity has been undertaken in accordance with the requirements of the NPS-UD. This assessment shows that there is insufficient development capacity over the short, medium and long term. While there is a sizeable amount of plan enabled capacity, much of the capacity is unlikely to be developed into dwellings by the commercial development sector due to a lack of feasibility<sup>8</sup>.

In the short term, as shown below (refer *Figure 4*), the total shortfall is nearly 1,900 dwellings, with insufficient Reasonably Expected to be Realised capacity for all detached and attached dwelling demand. This short-term result is exacerbated by the inclusion of latent demand of 1,500 dwellings. In the medium term, the total shortfall is estimated at 1,400 dwellings. The shortfall for detached dwellings is small, but the shortfall of capacity for attached housing demand is more significant at nearly 1,000 dwellings. In the long term (and assuming market growth), the net shortfall is significantly reduced. However, this is influenced by a surplus of detached housing capacity and a significant shortfall of capacity for attached housing.



**Figure 4: Graph showing a Summary of Estimated Residential Capacity Shortfalls in the Urban Environment (HBA, 2021).**

There is a substantial shortfall of capacity to meet demand in the central urban area, and this shortfall is for both detached and attached housing. In the western urban area, there is a net surplus of just 20 dwellings in the long term, but this is made up of a significant surplus of detached housing capacity and a significant shortfall of attached housing capacity. A similar situation applies in the eastern urban area where there is a net surplus of capacity of over 1,300 dwellings but a shortfall of attached dwelling capacity. In Ngongotahā, there is a minor net shortfall created by a

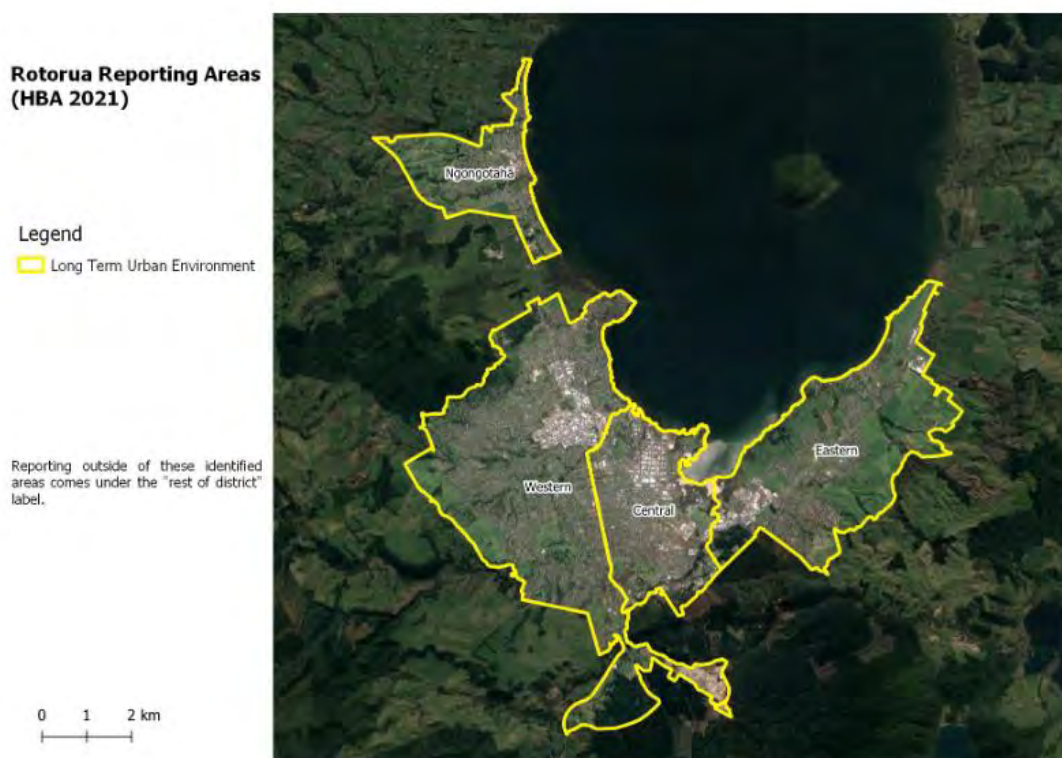
<sup>8</sup> A substantial share of the greenfield capacity and underutilised urban land capacity (within the Eastern reporting area) is leasehold land and is therefore less likely to be feasible for commercial developers. The commercial feasibility of Rotorua’s plan enabled capacity is also adversely affected by a number of constraints that increase the cost and complexity of development such as geotechnical constraints and additional costs to manage stormwater on-site and flooding hazards.

surplus of detached housing but a slightly greater shortfall of attached housing capacity. *Table 2* below provides a breakdown of the net surplus and shortfalls in capacity and the map below shows these locations.

**Table 2: Summary of Sufficiency –Plan Enabled, Commercially Feasible and RER Capacity by Urban Reporting Area.**

Reporting Area	Short Term Sufficiency			Medium Term Sufficiency			Long Term Sufficiency (Current Prices Scenario)			Long Term Sufficiency (Market Growth Scenario)		
	Plan Enabled	Commercially Feasible	RER	Plan Enabled	Commercially Feasible	RER	Plan Enabled	Commercially Feasible	RER	Plan Enabled	Commercially Feasible	RER
Central	9,070	1,480	- 700	8,190	580	- 1,340	8,190	770	- 2,370	8,190	6,880	- 1,620
Western	4,800	790	- 940	3,780	230	- 520	2,940	1,040	- 1,310	2,940	640	- 20
Eastern	5,010	1,390	- 260	4,480	880	- 700	5,910	530	- 470	5,910	1,500	- 1,320
Ngongotahā	1,270	90	-	1,010	170	- 240	2,890	560	- 420	2,990	2,040	- 40
<b>Total Urban Environment</b>	<b>20,150</b>	<b>3,720</b>	<b>- 1,890</b>	<b>17,470</b>	<b>1,030</b>	<b>- 1,400</b>	<b>20,090</b>	<b>720</b>	<b>- 3,630</b>	<b>20,090</b>	<b>11,160</b>	<b>- 320</b>

Source: M.F. 2021 Rotorua Dwelling Projection Model and M.F. Rotorua Capacity Model 2021. Figures rounded to nearest 10. Capacity based on Greenfield and Maximum Infill or Redevelopment Capacity, Medium Growth Future.



**Figure 5: Showing the reporting areas for the Rotorua HBA (HBA, 2021).**

The current planning framework does influence the feasibility of development capacity in Rotorua. The planning provisions for attached dwellings in Rotorua are largely limited to higher density apartments within the city centre and commercial zones. With the exception of the small area of Residential 2 (current Medium Density) Zone, there is limited provision for other types of attached dwellings across most of the city’s general suburban area. The extensive Residential 1 (current Low Density) Zone has a relatively large average minimum site size of 450sqm. This limits options for developers and negatively influences the feasibility of development.

A key purpose of PC9 is to amend the rules to enable a greater range of housing types and choices within the urban area. Providing a more enabling planning framework in the manner proposed will also improve the feasibility of development in the urban area and allow for more attached housing types, both of which will directly respond to the key issues raised in the HBA.

## 4.2 Infrastructure

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One of the key constraints to providing additional housing capacity and intensification is the ability to put in place sufficient infrastructure to service growth<sup>9</sup>. Council has committed funding through both its LTP<sup>10</sup> and 30-year Infrastructure Strategy<sup>11</sup> to renew and upgrade its assets to meet current demand and future growth expectations. While significant funding for infrastructure has been made available, Council operates in a financially constrained environment and it is a challenge to balance strategic priorities, core infrastructure service needs and regulatory requirements.

Currently the cost of growth is absorbed by ratepayers in the district, however, alternative funding mechanisms are being explored, or put in place, including:

- **Development Contributions:** To raise additional funds for infrastructure to service growth the Council is introducing Development Contributions (DCs) in 2022. Under the proposed policy, a development contribution will levy a developer seeking support from council to fund the expansion of water, wastewater and stormwater networks needed to support their development.
- **Partnerships:** Council is currently investigating other infrastructure funding mechanisms including government and public/private partnerships.
- **Central Government Funding:** Central Government has committed to providing financial assistance to Council in relation to stormwater infrastructure projects supporting housing, through the Kāinga Ora administered Infrastructure Acceleration Fund (IAF), which is a key component of the Government's Housing Acceleration Fund (HAF). In particular it has been announced in July 2022 that Rotorua has secured \$85m committed to stormwater solutions in Central and Western to enable 3000 more homes.

The critical development Infrastructure required to service urban growth in Rotorua is outlined in more detail below.

### 4.2.1 Stormwater

A key issue for the future growth of Rotorua is the capacity of the stormwater system to cope with heavy rainfall events especially when additional hard surfacing associated with anticipated growth and climate change are taken into consideration. A citywide Stormwater Master Plan (“SMP”) has been developed which focuses on community-based storage solutions to address these issues in part. In terms of the implementation of the SMP initial projects are underway with the required upgrades to the Linton Park Dam.

Further upgrades identified within the SMP have had funding made available within the LTP. A total of \$75 million has been committed by Council in the LTP to stormwater initiatives across 2021-2031.

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<sup>9</sup> Council is responsible for critical infrastructure, including network infrastructure for water supply, wastewater and stormwater (referred to here as ‘three waters infrastructure’) and land transport (including local roads). BOPRC is responsible for public transport services.

<sup>10</sup> Across 2021-2031 Council's 10-year capital infrastructure investment commitment through the LTP is \$421 million

<sup>11</sup> over \$4.1 billion to its total operating and capital expenditure over a 30 year period 2021-2051



In addition, Council has recently secured \$85 million for major stormwater upgrade works in the the Central and Western stormwater catchment areas. The key projects that this will fund are shown on *Figure 6* below.



**Figure 6: Map showing stormwater projects that will be funded by the IAF (Rotorua Lakes Council).**

The funding for the Central catchment is to be used specifically to upgrade stormwater infrastructure and includes redirecting water towards the east (away from the Utuhiina Stream) by upgrading Tilsey Road pump station and increasing the stormwater pipe and drain capacity. The funding is also to be used to further progress stormwater upgrades and expansion in the western suburbs. This includes construction of four major stormwater detention ponds / basins with wetlands and upgrades to existing pipes and drains.

#### 4.2.2 Water Supply

A Water Supply Master Plan (2020) has been developed as an overarching framework to consider inter-related issues including consent requirements, resilience, demand management and growth. The Master Plan anticipates that within the central and eastern areas, where most development and growth are forecast to occur, the current water supply is sufficient to cater for growth without significant upgrades. In particular, water supply in the Central Area can accommodate additional demand if the existing consented take is renewed and Council’s proposed demand management programme is implemented. This will mean that no new water source will be required until 2051 for the Central Area. The two springs (Waipā and Hemo) that supply the Eastern Area have sufficient capacity to accommodate additional demand if the existing consented takes are renewed. A total of \$52 million has been committed by Council in the LTP to water supply initiatives across 2021-2031.

#### 4.2.3 Wastewater

A key challenge for Council is managing the discharge from the Rotorua Wastewater Treatment Plant particularly given that the nitrogen limit on the discharge from the Wastewater Treatment Plant has the potential to limit future residential growth if it is not appropriately managed or offset. Council is investigating options that could be used to offset the increasing load of nitrogen in the

treatment plant discharge as the population and community grow. Capital works are also scheduled over the next few years to expand the capacity of the existing Rotorua Wastewater Treatment Plant. A wastewater treatment solution for Tarawera is expected to be completed in 2024.

Long term, Te Arawa Lakes Trust, CNI Iwi Holdings and Council are working together towards a new solution for the discharge of recovered water from the Rotorua Wastewater Treatment Plant. The parties have agreed to a sustainable forest approach that will include the upgrading of the Council's wastewater treatment plant, and the short to medium term continuation of discharging treated wastewater in Whakarewarewa Forest. Mana whenua are leading the site selection and design processes for the sustainable forest approach.

A total of \$170 million has been committed by Council in the LTP to wastewater initiatives across 2021-2031.

#### 4.2.4 Land Transport

Council has actively worked with Waka Kotahi to align transport planning with urban growth planning. There are four State Highways traversing the district. Waka Kotahi (NZTA) work in the roading network involves upgrades to State Highways, supporting Council in achieving modal shift through improved walking and cycling networks along with subsidising upgrades to the wider road network. Currently Waka Kotahi is undertaking significant upgrades on both SH5 at Ngongotahā and SH30 along Te Ngae Road. The overall Waka Kotahi work programme aligns well with the work being undertaken by the Council to support growth. A total of \$124 million has been committed by Council in the LTP to roading initiatives across 2021-2031.

### 4.3 Mana Whenua

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Te Arawa is a confederation of iwi and hapū with mana whenua throughout the Rotorua district (and beyond). Raukawa, who descend from the Tainui waka, also have interests in the district.

Raukawa and most Te Arawa iwi and hapū have entered into Treaty settlements and are represented by post-settlement entities. The exception is Ngāti Whakaue, a large Te Arawa iwi with mana whenua through most of the Rotorua urban area who have not yet completed their comprehensive Treaty settlement. In terms of Treaty settlements, Ngāti Whakaue are represented through:

- *Pukeroa Ōruawhata Trust*- Partial Treaty settlement including the return of some lands within the Pukeroa Ōruawhata block (which comprises the central business district and surrounding areas).
- *Te Kōmiti Nui o Ngāti Whakaue*- Mandated some years ago to negotiate a comprehensive settlement. Te Kōmiti Nui have concluded a partial (on account) settlement (including a share in the CNI forest lands). Not currently in negotiations with the Crown.

Usually, Treaty settlement land is returned as general land and therefore is not subject to the same legal restrictions as Whenua Māori under Te Ture Whenua Māori. In the Rotorua district Treaty settlement land is mainly held as forestry, commercial property and farming, with some recently re-zoned for residential purposes (retirement village).

Specifically within the urban area, mana whenua iwi and hapu include: Ngati Uenukukopako, Ngati Te Roro o te Rangī, Ngati Whakaue, Tuhourangi-Ngati Wahiao, Ngati Kea-Tuara, Ngati Tura te Ngakau, Ngati Rangiwewehi.

## 4.4 Whenua Māori

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The Te Ture Whenua Māori Act 1993 (or Māori Land Act 1993) recognises that land is a ‘taonga tuku iho’ (an ancestral treasure handed down) and promotes the retention of land while also facilitating the occupation, development and utilisation of Whenua Māori by its owners and their whānau, hapū and descendants. Jurisdiction over the Act rests for the most part with the Māori Land Court. Whenua Māori is often vested in a Trust or a Māori incorporation, who manage the land on behalf of the beneficiaries of the land (i.e., shareholders).

Because Te Ture Whenua Māori Act seeks to keep land in the hands of its owners and their whānau, hapū and descendants, the sale of Māori land is subject to a number of significant restrictions that don’t apply to General land (that is, ordinary privately owned land).

The most significant characteristic of Whenua Māori is that it is very difficult to sell on the open market. This is expected to be a rare occurrence and is counter to the intention that the land be retained by the iwi, hapu and whānau in perpetuity. However, in general, owners of Whenua Māori that do wish to sell their land must first offer the land to the ‘preferred class of alienees’ (essentially, members of the hapū) and must also get Māori Land Court approval. It is more likely that Whenua Māori is leased than sold.

## 4.5 Whenua Māori within the Rotorua District

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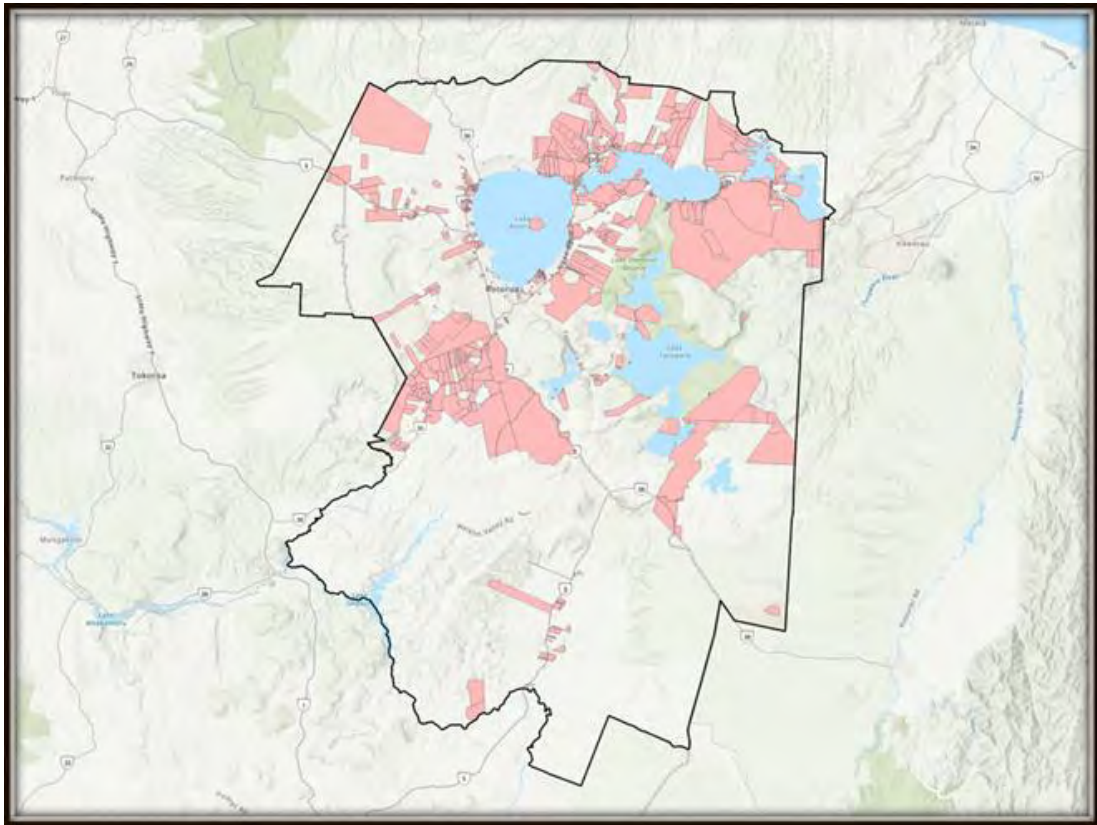
The Rotorua District has a significant amount of Whenua Māori (refer *Figure 7*). Currently there are approximately 53 million hectares of Whenua Māori, which equates to 20 per cent of the district’s land area. In many other districts, Whenua Māori is largely rural. However, in Rotorua, 13 per cent of the urban area is Whenua Māori and 20 per cent of the rural area. In total there are 1,439 Whenua Māori blocks, varying in size from larger rural lots to smaller urban allotments.

Across the district, Whenua Māori is used for a range of purposes including commercial property, tourism, forestry and agriculture. A large proportion of Whenua Māori is also set aside for community/cultural purposes (such as marae, wāhi tapu and remaining as indigenous forest).

In the urban area, Whenua Māori is mainly located in traditional areas recognised in the Plan as Residential 3, as well as the Eastside, Te Koutu, Tarewa Road and Ngongotahā. The urban Whenua Māori is both undeveloped and developed (mainly owner-occupied homes).

There is long-standing interest in developing Whenua Māori to provide more papakāinga. Papakāinga typically refers to development of three or more houses, built on Whenua Māori, operating as an intentional community according to kaupapa Māori. Developing a papakāinga on whenua Māori can be a long process, but there is help available to support Trusts in this process, including the Kāinga Whenua loan scheme, which provides loans to Whenua Māori trusts and individuals with a right to occupy multiple-owned Māori land.





**Figure 7: Map illustrating Whenua Māori in the Rotorua District (RLC GIS, 2022).**

Potential for the development of whenua Māori is different for every block and depends on owners' aspirations and the location and state of the land. Aspirations for Whenua Māori may include economic, cultural, environmental or social outcomes, or combinations of these. The use or development of Māori owned land particularly for economic and social outcomes however, is not straight forward as there are challenges to administering Whenua Māori within the structures of the Te Ture Whenua Māori Act. These challenges include a lack of capital, a lack of commercial development experience, cumbersome processes due to large numbers of owners and a requirement for a high level of owner participation/support for development proposals, Māori Land Court processes that can be time consuming and costly and restrictions on alienation. Council's relationship with tangata whenua has been established through ongoing engagement and has been expressed through relationship agreements and recognition of tangata whenua (who hold mana over their rohe) as a result of Treaty settlement processes. In 2006, the Te Arawa Lakes Strategy Group ("TALSG") was established through the Te Arawa Lakes Settlement Act 2006. It comprises a joint committee of Bay of Plenty Regional Council, Rotorua Lakes Council and Te Arawa Lakes Trust, which is responsible for monitoring the work programme for protecting and restoring the Te Arawa lakes (including Rotorua).

In 2017, Rotorua Lakes Council entered into the Te Arawa Partnership Agreement with Te Tatau o Te Arawa (Te Tatau o Te Arawa is a charitable trust established by Te Arawa to represent their interests in the Partnership). Under the Partnership Agreement, Te Tatau appoints two members as full voting members on Council's Strategy, Policy and Finance committee and the Operations and Monitoring Committee. The Raukawa Settlement Trust have a Joint Management Area with Rotorua Lakes Council for that part of the Waikato River catchment that falls within the Rotorua district. This is wholly within the rural area.

As noted in the HBA, with many Te Arawa people returning home to Rotorua the need for housing and in particular papakāinga and kōeke housing is increasing. PC9 responds to this by introducing

amendments to the District Plan to better enable housing for mana whenua to better address the needs of iwi and hapū. This is discussed in detail at *Section 17* of the report below.

## 5.0 Statutory and Planning Context

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### 5.1 Resource Management Act 1991

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The RMA provides a legislative framework for the sustainable management of natural and physical resources in New Zealand. The purpose of the Act is to promote the sustainable management of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety.

The principles of the RMA are stated in sections 6, 7 and 8 of the Act. An assessment against Part 2 of the RMA is provided in the evaluation of PC9's objectives in the relevant sections of the report below.

Section 6 of the RMA contains the matters of national importance that are required to be recognised and provided for:

*In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:*

- a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development;*
- b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development;*
- c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;*
- d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers;*
- e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga;*
- f) the protection of historic heritage from inappropriate subdivision, use, and development;*
- g) the protection of protected customary rights;*
- h) the management of significant risks from natural hazards.*

Sections 6(b), (e), (f) and (h) are relevant considerations for PC9 and they are discussed in the relevant sections of the report below.

Section 7 of the RMA contains other matters which shall be given particular regard to:

*In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—*

- (a) kaitiakitanga:*
  - (aa) the ethic of stewardship:*

*(b) the efficient use and development of natural and physical resources:*

*(ba) the efficiency of the end use of energy*

*(c) the maintenance and enhancement of amenity values:*

*(d) intrinsic values of ecosystems:*

*(e) [Repealed]*

*(f) maintenance and enhancement of the quality of the environment:*

*(g) any finite characteristics of natural and physical resources:*

*(h) the protection of the habitat of trout and Salmon:*

*(i) the effects of climate change:*

*(j) the benefits to be derived from the use and development of renewable energy*

Of these matters, section 7(a), (b), (c), (d), (f) and (i) are considered to have particular relevance to PC9 and are referenced in the relevant sections of the report below.

The principles of the Treaty of Waitangi must also be taken into account under section 8 of the RMA. Section 6.5 of this report describes the involvement of mana whenua in the development of PC9.

## 5.2 Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021

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On 20 December 2021, the Amendment Act was passed into law in order to ‘unlock’ more housing in New Zealand’s growing cities and address capacity in cities with acute housing needs. This Act amends the RMA by bringing forward and strengthening the NPS-UD, which will help to increase housing supply in cities where it is needed the most.

### 5.2.1 Order in Council

On 14 March 2022 the Resource Management (Territorial Authorities Required to Prepare and Notify Intensification Planning Instruments) Regulations 2022 were made to incorporate Rotorua Lakes Council in the requirements of the Amendment Act. Rotorua has been identified as an area of acute housing need and therefore it is now considered a “specified territorial authority” under the Amendment Act<sup>12</sup>. Under the new Section 77G of the RMA, specified territorial authorities are required to amend the district plan to:

- Give effect to Policy 5 of the NPS-UD; and
- Incorporates the MDRS set out in Schedule 3A of the RMA into relevant residential zones unless a qualifying matter exists.

### 5.2.2 Intensification Streamlined Planning Process

A new planning process has been introduced to support Councils to implement the intensification policies of the NPS-UD and the MDRS. This process is called the Intensification Streamlined

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<sup>12</sup> <https://environment.govt.nz/what-government-is-doing/cabinet-papers-and-regulatory-impact-statements/order-in-council-for-rotorua-district-council-under-rmaa2021/>

Planning Process (“ISPP”). The ISPP is based on the existing streamlined planning process under the RMA, but is intended to be faster, easier, and less costly for Councils.

Section 80E of the Amendment Act sets out what an IPI is to include and allows the Council to include related provisions that support, or are consequential to, the MDRS or Policy 5 of the NPS-UD. PC9 includes changes to a number of related provisions in the District Plan as detailed in the relevant sections of the report below.

### 5.2.3 Medium Density Residential Standards

The MDRS will enable medium density housing across most of Rotorua’s urban area, significantly increasing the potential for a greater range and diversity of housing to be delivered over time.

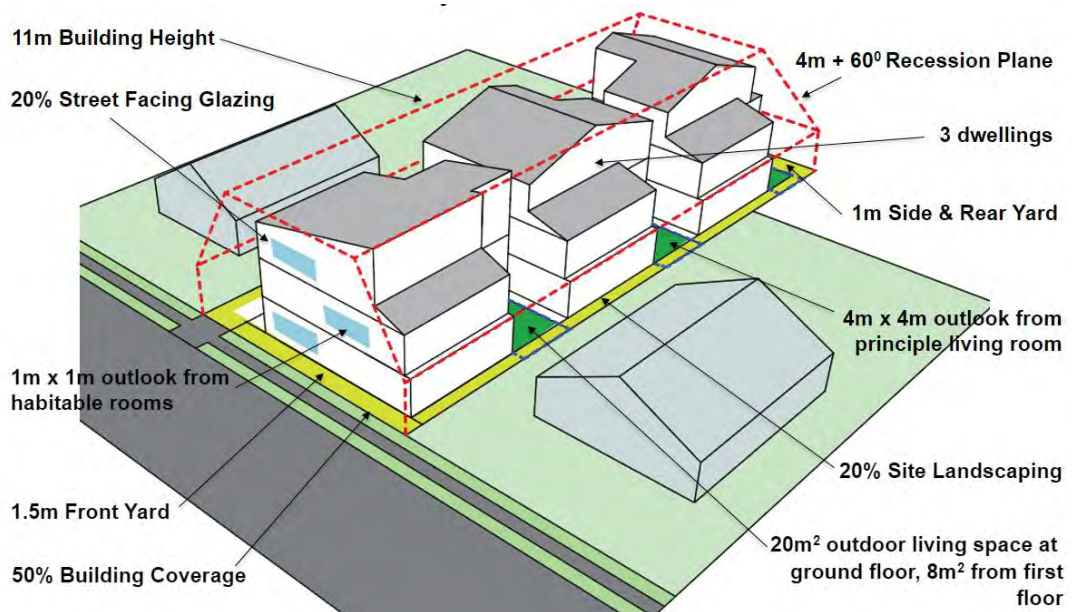
The MDRS includes mandatory objectives and policies to support the standards outlined below. These are referenced throughout the section 32 report and are shown highlighted green in PC9. The MDRS also includes mandatory non-notification requirements for up to three residential units on a site that infringe any of the density standards, and for four or more residential units on a site that comply with the density standards.

The MDRS includes seven building requirements to enable development. The requirements will enable landowners to build up to three houses of up to three storeys as a permitted activity on most sites.

The density standards are summarised as follows:

- Density: 1-3 dwellings per site – permitted and 4 or more dwellings – restricted discretionary.
- Height: 11m - Provision for up to additional 1m to enable pitched roof forms.
- Height in Relation to Boundary: 4m + 60 degrees
- Common Walls: The HIRB and yards development controls do not apply to common walls.
- Maximum Building Coverage: 50% of the net site area
- Minimum landscaping: A residential unit at ground floor level must have a landscaped area of a minimum of 20% of a developed site. May be located on any part of the development site, and does not need to be associated with each residential unit.
- Front yard: 1.5m Yards (Side and Rear): 1m (excluded on corner sites)
- Dwellings Fronting the Street: Any residential unit facing the street must have a minimum of 20% of the street-facing façade in glazing. This can be in the form of windows or doors.
- Outdoor Living Space - Residential Unit at ground floor: Must have outdoor living space:
  - a) Minimum 20m<sup>2</sup> area:
  - b) where located at ground level has no dimension less than 3m and where provided in the form of a balcony, patio, or roof terrace, is at least 8 square metres and has a minimum dimension of 1.8 metres.
  - c) May be grouped cumulatively in 1 communally accessible location or located directly adjacent to the unit.
- Outdoor Living Space Residential Unit above ground floor: Must have outdoor living space:
  - a) Minimum 8m<sup>2</sup> area with a minimum dimension of 1.8m.

- b) May be grouped cumulatively in 1 communally accessible location or located directly adjacent to the unit.
- Outlook Space: Principal living room outlook 6m depth x 4m width. All other habitable rooms – outlook 1m depth x 1m width.



**Figure 8: Building envelope enabled by the MDRS (Rotorua Lakes Council).**

#### 5.2.4 Relevant Residential Zones in the Rotorua District Plan

Within the District Plan the “relevant residential zones” where the MDRS must be applied include the Residential 1, 2 and 3 zones. The Residential 4 and 5 zones do not need to incorporate the MDRS because they are equivalent to the definition of large lot residential zone (Residential 5) and settlement zones (Residential 4) included within the National Planning Standards.

The MDRS will be significantly more enabling than the District Plan, particularly with respect to heights and densities, noting that the Residential 1 and Residential 2 zones currently enable only 1 dwelling per site as a permitted activity and have a maximum height limit of 7.5m.

#### 5.2.5 Policy 5 of the NPS-UD

Under the new Section 77N of the RMA, specified territorial authorities are also required to amend their plans to give effect to policy 5 in non-residential zones. PC9 therefore includes amendments to the heights and densities in the City Centre 1-3 zones and the Commercial 1-4 and 6 zones commensurate with their level of accessibility and relative demand. Further analysis for these changes is provided in *Section 10* below.

#### 5.2.6 Qualifying Matters

The requirement to give effect to the scale of development directed within Policy 5 of the NPS-UD and to incorporate the MDRS provisions may only be altered to be “less enabling of development” to the extent necessary to accommodate a qualifying matter. The qualifying matters and subsequent evaluation requirements are set out within the new sections 77I-L of the RMA, and include:

- (a) a matter of national importance that decision makers are required to recognise and provide for under section 6:

*(b) a matter required in order to give effect to a national policy statement (other than the NPS-UD) or the New Zealand Coastal Policy Statement 2010:*

*(ba) a matter required to give effect to Te Ture Whaimana o Te Awa o Waikato—the Vision and Strategy for the Waikato River:*

*(bb) a matter required to give effect to the Hauraki Gulf Marine Park Act 2000 or the Waitakere Ranges Heritage Area Act 2008:*

*(c) a matter required for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure:*

*(d) open space provided for public use, but only in relation to land that is open space:*

*(e) the need to give effect to a designation or heritage order, but only in relation to land that is subject to the designation or heritage order:*

*(f) a matter necessary to implement, or to ensure consistency with, iwi participation legislation:*

*(g) the requirement in the NPS-UD to provide sufficient business land suitable for low density uses to meet expected demand:*

*(h) any other matter that makes higher density development as provided for by policy 3(a), (b), or (c), as the case requires, inappropriate in an area, but only if section 77L is satisfied.*

The District Plan contains existing district-wide provisions that limit height and density in defined localities across the district in order to provide for qualifying matters listed above. These provisions have been assessed and, where appropriate, will continue to apply and limit development to the extent necessary to provide for the particular qualifying matter within the amended zone framework introduced by PC9. A list of the existing qualifying matters and the evaluation in accordance with section 77K is set out within *Appendix 2* and *Appendix 3*.

### 5.3 National Policy Statement on Urban Development 2020

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The NPS-UD came into effect on 20 August 2020. The NPS-UD promotes the concept of "well-functioning urban environments", which are those urban environments that have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport and support a reduction in greenhouse gas emissions, amongst other matters.

The NPS-UD classifies urban areas into different tiers relating to population size and projected growth rates, with Rotorua being classified as a Tier 2 urban environment.

As a Tier 2 Urban Environment under the NPS-UD the objectives and policies of the NPS-UD which have particular relevance to PC9 include:

- *Objective 1 and Policy 1 seeks to create well-functioning urban environments;*
- *Objective 4 acknowledges that New Zealand's urban environments, including their amenity values, develop and change over time in response to the diverse and changing needs of people, communities, and future generations;*
- *Policy 2 requires that there is at least sufficient development capacity to meet expected demand;*



- *Policy 5 requires district plans applying to tier 2 Councils to enable heights and density of urban form commensurate with the greater of:*
  - a) *the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services; or*
  - b) *relative demand for housing and business use in that location.*
- *Policy 6 requires particular regard to be had to planned urban built form and acknowledges that the planned urban form may involve significant changes to an area and those changes:*
  - a) *may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and*
  - b) *are not, of themselves, an adverse effect*
- *Objective 5 and Policy 9 require the principles of the treaty to be taken into account in relation to urban environments; and*
- *Objective 8 seeks to ensure that New Zealand’s urban environments support reductions in greenhouse gas emissions.*

The key driver of PC9 is to amend the District Plan to give effect to the intensification directive of the NPS-UD. The relevant objectives and policies of the NPS-UD are referenced through the section 32 analysis below.

### 5.3.1 Policy 1 – Well Functioning Urban Environments

Under Policy 1 planning decisions must contribute to well-functioning urban environments. Policy 1 defines this as follows:

- (a) *have or **enable a variety of homes** that:*
  - (i) *meet the needs, in terms of type, price, and location, of different households; and*
  - (ii) *(ii) enable Māori to express their cultural traditions and norms; and*
- (b) *have or **enable a variety of sites that are suitable for different business sectors** in terms of location and site size; and*
- (c) *have **good accessibility for all people** between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and*
- (d) *support, and **limit as much as possible adverse impacts on, the competitive operation of land and development markets**; and*
- (e) *support **reductions in greenhouse gas emissions**; and*
- (f) *are **resilient to the likely current and future effects of climate change.***



**Figure 9: Components of a well-functioning urban environment within Rotorua.**

The diagram above (refer *Figure 9*) conceptually illustrates the components of a well-functioning urban environment that PC9 will support by:

- Enabling a variety of housing choices across the city, including medium density housing within neighbourhoods and more intensive forms of housing like apartments in accessible areas, like those close to the City Centre and along Fenton Street, where there are diverse employment opportunities and good public transport connections;



- Enabling Māori to express their cultural traditions and norms by providing more opportunities for papakāinga and respecting the values associated with the cultural villages at Whakarewarewa, Ngāpuna and Ōhinemutu;
- Promoting good accessibility between housing, jobs, community services and open spaces by enabling more people to live in accessible locations close to public and active transport, which also supports a reduction in greenhouse gas emissions through reduced car dependence;
- Supporting the competitive operation of land and development markets by providing a broadly enabling zone framework and providing flexibility for the market to take up those opportunities; and
- Being resilient to the likely current and future effects of climate change through amendments to the natural hazard rules and promoting a compact and efficient urban form.

Policy 1 states that the matters listed are a “minimum”, suggesting that the Council has the ability to create their own definition of a well-functioning environment that reflects the particular values and qualities of the place. In the Rotorua context, a key part of a well-functioning urban environment will be the visual quality and amenity of neighbourhoods. Rotorua’s existing neighbourhoods have low density single-family homes, and this will change slowly over time as medium density housing develops. PC9 provides for this change, but does so in a way that places good design principles at the forefront, to ensure that the District Plan supports the creation of enduring, functional and quality places for people.

### 5.3.2 Policy 2 – Providing at Least Sufficient Development Capacity

Under Policy 2, Tier 2 authorities are required to provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term. Related to this subpart 5 of the NPS-UD requires local authorities to produce an HBA. As outlined in *Section 4* above, M.E. was commissioned by the Council to develop an HBA for Rotorua and this assessment generally finds that based on the most likely population projections, additional housing capacity is required over the short, medium and long term, and a significant increase in the number of attached housing types is needed.

### 5.3.3 Policy 5 – Heights and Densities Commensurate with Accessibility or Relative Demand

There are three components of Policy 5 that need to be interpreted within the Rotorua context to inform PC9. These components include:

- Understanding accessibility within the Rotorua context;
- Understanding relative market demand within the Rotorua context; and
- Understanding the level of height and density which is *commensurate* with accessibility and relative demand within a Rotorua context.

The interpretation and application of these three components of Policy 5 within Rotorua has been guided by the Accessibility Analysis undertaken by Barker & Associates refer *Appendix 7* and the commentary on market demand provided by Market Economics refer *Appendix 8*.

### 5.3.3.1 Accessible Catchments

In order to demonstrate compliance with Policy 5(a) of the NPSUD, it is necessary to determine the 'level of accessibility' for any given area across the entire Rotorua urban area. The Accessibility Analysis undertaken by Barker & Associates defines accessibility simply as your ability to go places so that you can do things. The assessment of accessibility is strongly driven by data (e.g. census, GIS) and is based on two key components:

- 1) the transport network serving any urban area (the how we travel); and
- 2) the spatial distribution and location of activities or destinations (the why we travel).

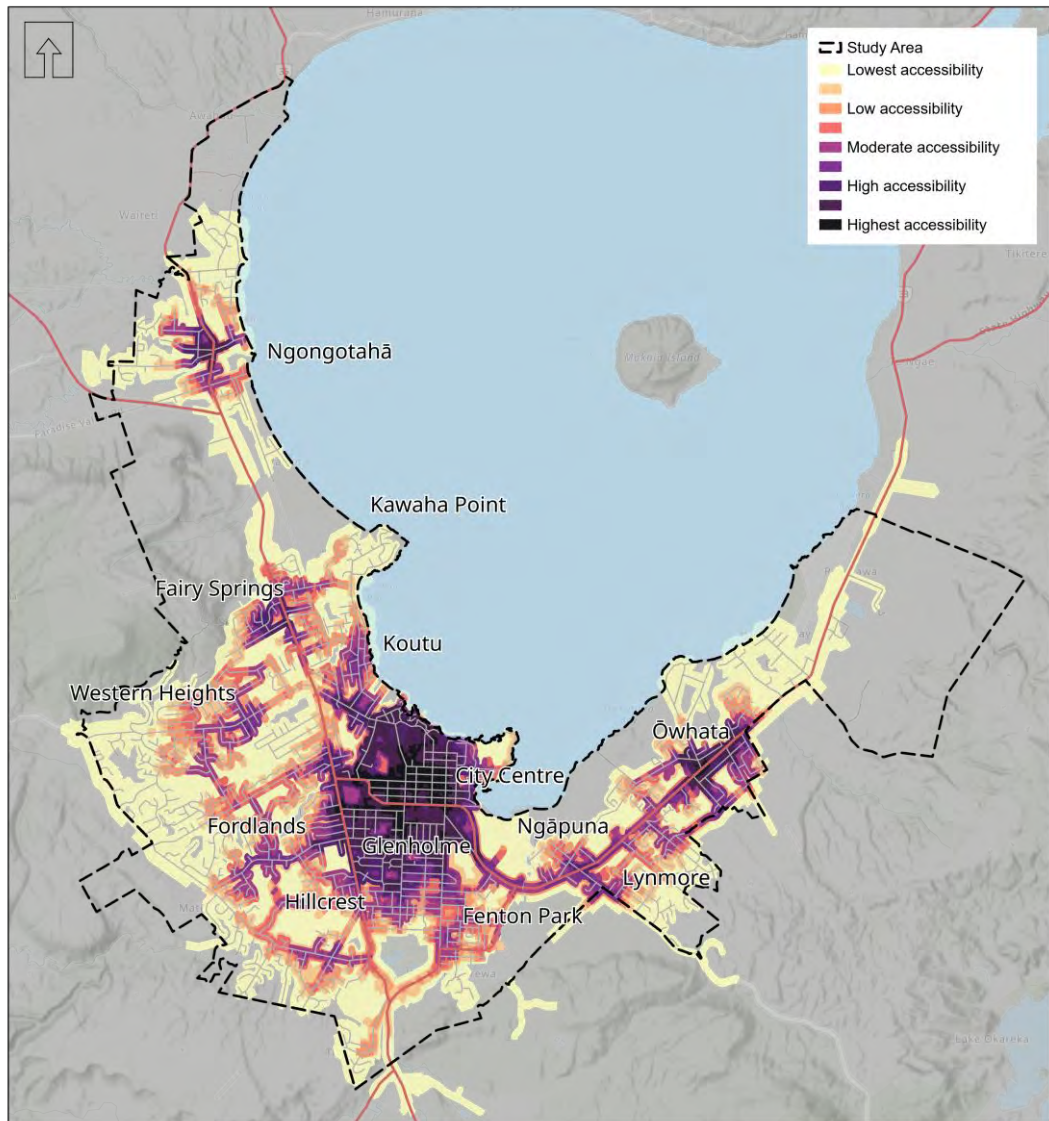
Based on this, determination of an area's 'level of accessibility' is informed by how many destinations can be accessed within a given time frame.

In applying this approach, the transport network was determined with a focus on the walking network, with cycling and public transport (and access to these networks) as a sub-set of a wider accessibility. This approach aligns with the general focus of the policy framework of the NPS-UD on active and public transport modes and supporting a reduction in greenhouse gas emissions. Destinations within Rotorua were identified in accordance with the NPS-UD policy framework and guidance then workshopped with Council staff. Destinations include commercial centres, employment nodes, education opportunities, open space opportunities, food retail, cultural opportunities, healthcare and transport opportunities.

Once the transport network and destinations were identified walkable catchments from each destination can be identified. For identified destinations, up to two separate catchments are identified (e.g. 400m and 800m). This is to reflect that all those who live within the largest catchment benefit from general proximity to the destination, however living within a 400m catchment of a primary school vs an 800m catchment clearly provides a greater level of accessibility to that particular destination and should be afforded a greater weighting. The catchment was then altered to take into account any contextual factors that may impact on the distance one can walk including the quality of the street environment; appropriate provision of infrastructure (e.g. street lighting, footpath widths, safe crossing points); traffic volumes, general perceptions of safety and topography.

The outcome of this analysis is presented as both unweighted and unweighted scores. This reflects that there are some components of accessibility that are more critical than others for people in meeting their frequent and day to day needs. Those components that were given the most weight included the city centre, major employment nodes, schools, large supermarkets and open spaces, and medical centres.

*Figure 10* presents the summary findings of the accessibility analysis. The City Centre in the vicinity of the intersection of Arawa and Ranolf streets is identified as having the highest level of relative accessibility across the Rotorua urban area. Areas around Ōhwata and Ngongatahā also had high levels of accessibility.



**Figure 10: Showing the total accessibility scores - weighted (Barker & Associates, 2022).**

### Relative Demand

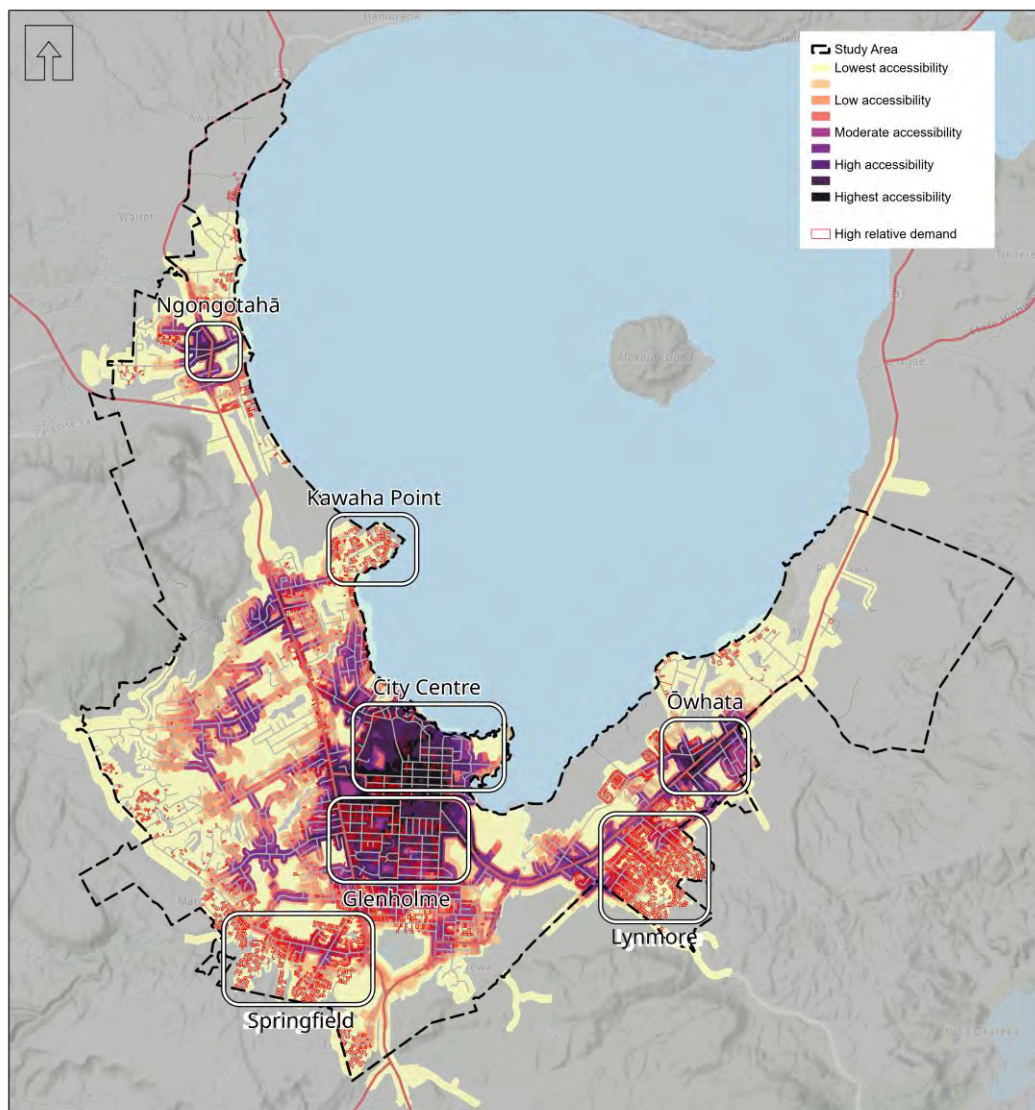
Policy 5(b) of the NPS-UD references the concept of ‘relative demand’ when seeking to establish heights and a density of urban form. The NPS-UD Guidance<sup>13</sup> sets out the locations where demand can often be considered high. This includes:

- (i) areas with high land prices relative to others;
- (ii) locations close to open space and recreation opportunities;
- (iii) areas within, or close to, centres;
- (iv) areas with good transport opportunities – including frequent public transport, multi-mode transport opportunities (eg, public transport, walking and cycling) and freight;
- (v) areas close to key services including, schools, hospitals and supermarkets;
- (vi) areas close to a range of business activities; and

<sup>13</sup> MfE (2020) *Understanding and implementing intensification provisions of the NPSUD*

(vii) locations with good views, outlook and amenity, including areas with water views or green space outlooks.

Matters (ii), (iii), (iv), (v) and (vi) have been captured as part of the accessibility analysis, and further analysis is included that maps land values, land value to capital value and other qualitative measures of relative demand, including aspect. The results of this analysis are shown in *Figure 11* below and highlight that the areas of higher demand tend to correlate with areas of high accessibility, and includes the City Centre, Glenholme, Owhata and Ngongotahā. Lynmore and Kawaha Point are less accessible but have higher demand given their land values and aspect. In these locations the MDRS will apply, which will provide significant opportunities for intensification to occur. This is discussed further below.



**Figure 11: Showing the accessibility and demand analysis combined.**

In addition to the analysis undertaken by B&A, M.E. has also commented on demand for housing at an area level, but has linked this to the housing demand estimates from the HBA by housing type and location. This is a different type of assessment to that set out above, but broadly confirms the findings above. *Table 3* below sets out the modelled dwelling demand disaggregated spatially across the four HBA catchments of Central, Western, Eastern and Ngongotahā. The findings of this analysis are that the demand for higher density attached dwellings are currently more



concentrated into Rotorua’s central urban areas, in particular, the Central reporting area. This concentration is projected to increase through time and suggests that demand for higher density forms of housing is likely to be concentrated in this area.

**Table 3: Modelled total demand by dwelling typology and HBA catchment: High Substitution Scenario (HBA, 2021).**

Demand Substitution Scenario: HIGH SUBSTITUTION SCENARIO								
Catchment	DWELLING TYPOLOGY							
	Detached	Duplex/Terrace	Apartments	TOTAL	Detached	Duplex/Terrace	Apartments	TOTAL
	Projected Demand				Share of Demand Type			
	2020				2020			
Central	4,700	2,400	100	7,200	22%	71%	71%	29%
Western	10,600	700	40	11,400	50%	22%	22%	46%
Eastern	4,000	100	10	4,200	19%	4%	4%	17%
Ngongotahā	1,800	100	10	2,000	9%	4%	4%	8%
<b>Total Urban Environment</b>	<b>21,200</b>	<b>3,400</b>	<b>200</b>	<b>24,700</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2023				2023			
Central	5,200	2,800	200	8,200	22%	66%	66%	29%
Western	11,900	1,000	80	13,000	50%	25%	25%	46%
Eastern	4,600	200	20	4,800	19%	5%	5%	17%
Ngongotahā	2,100	200	10	2,300	9%	4%	4%	8%
<b>Total Urban Environment</b>	<b>23,800</b>	<b>4,200</b>	<b>300</b>	<b>28,300</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2030				2030			
Central	5,600	3,100	300	9,100	22%	61%	61%	29%
Western	12,500	1,400	100	14,000	49%	27%	27%	45%
Eastern	4,900	400	40	5,300	19%	7%	7%	17%
Ngongotahā	2,200	300	30	2,500	9%	5%	5%	8%
<b>Total Urban Environment</b>	<b>25,300</b>	<b>5,100</b>	<b>500</b>	<b>30,900</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2050				2050			
Central	6,100	3,800	600	10,500	23%	56%	56%	30%
Western	12,700	1,900	300	14,900	48%	28%	28%	43%
Eastern	5,300	700	100	6,200	20%	10%	10%	18%
Ngongotahā	2,400	400	70	2,900	9%	6%	6%	8%
<b>Total Urban Environment</b>	<b>26,500</b>	<b>6,800</b>	<b>1,100</b>	<b>34,400</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: M.E Residential Intensification Analysis, 2022 and M.E Rotorua Residential Demand and Affordability Model, 2021.

The accessibility analysis and the M.E report on relative demand has been used primarily to inform the heights proposed by PC9 and the spatial location of the High Density Residential zone and is referenced in those parts of the section 32 analysis below.

### Determining Heights and Density that are Commensurate with Accessibility and Demand

Policy 5 requires the Council to apply heights and densities *commensurate with* the greater of accessibility or demand, as informed by the analysis summarised above. In the context of PC9, Policy 5 informs where it is appropriate to apply heights and densities greater than the MDRS, including the location and heights proposed in the High Density Residential zone and the heights proposed in the City Centre and other commercial centre zones.

However, Policy 5 does not stand in isolation and is framed by other directives in the NPSUD. Particularly relevant factors to consider include the projected demand set out in the HBA, and wider considerations about what contributes to a well-functioning urban environment. Feedback from the development community on commercial/viability considerations is also a key input.

In terms of the housing demand contained in the HBA, it is considered that the heights proposed and the extent of any high density zoning, should generally be greater when there is greater demand, particularly for attached forms of housing. Conversely, where demand is more modest, providing for expansive areas of greater height is unlikely to support a concentration of higher density forms of development in areas would they would be best served by infrastructure and support vibrancy and vitality of the centre network. The appropriate response for Rotorua

therefore is likely to be quite different to cities like Auckland and Tauranga where the demand for more intensive forms of housing is greater.

The M.E. table (refer *Table 3*) above shows that under a 'high substitution scenario', or a situation where people are likely to 'trade in' demand for detached forms of housing for attached forms of housing, the demand for apartments is about 1,000 units over 30 years in Rotorua, with most concentrated in the central and western areas. This is modest and reflects the overall market size of Rotorua.

The M.E. reporting also shows that the application of the MDRS will provide a significant uplift in plan-enabled capacity – being approximately 51,000 additional residential units above what the operative district plan residential zones enables. This responds to one of the key constraints identified in the HBA, which has been reinforced by more recent direct discussions with the development sector. Those recent discussions have also confirmed there is likely to be demand for more attached forms of housing in Rotorua, but a more limited market, at least in the short to medium term, for apartments, given perceptions about market demand, and the capacity and experience of the development sector to deliver this form of housing. When put in this context, applying the MDRS will in most cases enable heights and densities commensurate with the level of accessibility and relative demand assessed for Rotorua.

There are however, areas in Rotorua that have both high levels of demand and accessibility, as noted above. In these instances, it is considered that greater heights and densities should be contemplated, while taking into account overall demand for those typologies, and considering other aspects that are important to achieving a well-functioning urban environment, such as encouraging vibrant and attractive centres and promoting the efficient use of infrastructure. Together, these factors have informed the location of the High Density Residential zone, which are discussed in further detail below.

The heights and densities proposed in the City Centre, other centres and the High Density Residential zone are a more detailed consideration and have been informed by feedback from the development sector, knowledge of construction feasibility, and the desire to develop an efficient planning framework that provides for the form of development that is more likely to occur, while providing flexibility for greater heights and alternative design solutions. [Policy 6 – Planned Urban Built Form and Amenity Values](#)

Section 7(c) of the RMA requires particular regard to be had to the maintenance and enhancement of amenity values. Policy 6 of the NPS-UD now clarifies s7(c) of the RMA through focusing on the amenity values of the wider community and future generations and acknowledging that significant change within an area is not in itself an adverse effect.

PC9 will enable development of greater height and density throughout urban Rotorua than what has previously been provided for. This will result in significant change over time in the built character and may detract from the current amenity values currently enjoyed by some residents, related to the spacious and suburban qualities of Rotorua's neighbourhoods. PC9 will enable a different set of amenity values to be realised over time, when compared to those currently associated with suburban environments. In particular the amenity values offered within medium and higher density urban environments include more vibrant areas with residents able to access amenities easily and largely via active modes of transport. Policy 6 essentially recognises and gives weight to these changing amenity values.

## 5.4 Other Relevant Statutory Documents

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Other relevant statutory documents to PC9 include:

- Heritage New Zealand Pouhere Taonga Act 2014;
- Climate Change (Zero Carbon) Amendment Act 2020;
- National Environmental Standard: Freshwater 2020;
- National Environmental Standard for Electricity Transmission 2019;
- National Policy Statement on Electricity Transmission 2008;
- National Policy Statement on Freshwater Management 2020.

These statutory documents have informed the development of PC9 and are discussed in more detail throughout the relevant sections of the report.

## 5.5 National Planning Standards

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The National Planning Standards came into effect on 5 April 2019. These codify the structure, mapping, definitions and noise/vibration metrics of District, Regional and Unitary Plans. Rotorua Lakes Council has until April 2024 to implement the changes.

The Council is undertaking a staged approach to implementation of the National Planning Standards. Council has already completed a major reformatting of the District Plan to achieve consistency with the general layout required under the National Planning Standards (splitting content into District Wide and Area Specific parts) as well as aligning rule drafting and formatting requirements and some definitions. However, the Council has yet to align its set of zones with the zone framework in the standards.

PC9 seeks to further integrate the District Plan with the planning standards by aligning the Residential 1 and Residential 2 Zones with the Zone framework and descriptions for Medium Density Residential and High Density Residential Zones. PC9 also applies the relevant definitions from the Planning Standards where appropriate. Given the limited scope of PC9, alignment of other zones to the zone framework cannot occur as part of this process.

## 5.6 Regional Policy Statement

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The Regional Policy Statement (“RPS”) sets out the overall strategic statutory framework to achieve integrated management of the natural and physical resources of the Bay of Plenty Region, which applies to the urban and parts of the rural environment in Rotorua. The Waikato RPS applies to the southern rural areas of Rotorua, and is therefore relevant to the provisions of PC9 that relate to papakāinga in those locations.

Section 75(3)(c) of the RMA states that a District Plan must give effect to any Regional Policy Statement. Section 77G(8) of the RMA (inserted by the Amendment Act) however, clarifies that the requirement to incorporate the MDRS into a relevant residential zone applies irrespective of any inconsistent objective or policy in the RPS.

A comprehensive assessment of the proposed provisions against the relevant objectives and policies of the RPS’s are provided at *Appendix 5*. Irrespective of Section 77G(8), this analysis demonstrates that PC9 will give effect to the RPS.

### 5.6.1 Urban Growth

Of particular relevance to PC9 are the objectives and policies for Urban and Rural Growth Management in the Bay of Plenty RPS. The RPS seeks to deliver a compact, well designed and sustainable urban form that effectively and efficiently accommodates the region's urban growth (Objective 23). The RPS seeks to integrate land use and transportation (Policy UG 13B), coordinate development and infrastructure (Policy UG 9B) and implement high quality urban design and live-work-play principles (Policy UG 8B).

PC9 is consistent with the RPS directive for urban growth. PC9 will enable medium density development throughout urban Rotorua. This will lead to greater development capacity to cater for population growth within the existing urban footprint, delivering a compact and sustainable urban form. The Residential 2 High Density Zone has been applied to the most accessible areas within Rotorua, enabling more people to live in areas which can access amenities and employment by active and public transport modes.

While growth and development will be enabled by PC9, in reality it will occur slowly over time in response to actual market demand and preferences. At a strategic level the Council's Future Development Strategy, Infrastructure Strategy and LTP will outline how development will coordinate with infrastructure planning, funding and delivery. The District Plan coordinates infrastructure provision at growth area and at a site-specific level by requiring connections to infrastructure to be in place prior to subdivision or development. PC9 does not propose to change this approach and the District Plan will therefore continue to give effect to the relevant RPS policies on the coordination of infrastructure and development.

In relation to urban design, a range of design-based standards and matters of discretion are proposed in PC9. These will be supported by non-statutory urban design guidelines. PC9 also enables residential development within the City Centre 2 and Commercial 6 zones to further encourage live-work-play principles.

Refer to *Appendix 5* for an assessment of PC9 against the urban growth objectives and policies of the RPS.

### 5.6.2 Natural Hazards

- 1.1 The Bay of Plenty RPS takes a risk management approach to managing the development of land in relation to natural hazards. This requires risk assessments to be undertaken in relation to larger resource consent applications, when land is rezoned and when District Plans are reviewed. Developments are required to achieve a low level of risk within the development site without increasing risk outside of the development site. PC9 is consistent with the RPS direction for the management of natural hazards. Amendments are proposed to the District-wide provisions to include new qualifying matters in relation to flood and geothermal hazards. The proposed amendments seek to appropriately manage natural hazard risks associated with flooding and geothermal features as intensification is enabled and the development potential of land is increased as a result of PC9. Regional Plans

Section 75(4)(b) states that a District Plan must not be inconsistent with a Regional Plan for any matter specified in Section 30(1).

Refer to *Appendix 5* for an assessment of PC9 against the natural hazard objectives and policies of the RPS.



## 5.7 Iwi Management Plans

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Under section 74(2A) of the RMA a territorial authority, when changing a district plan, must take into account any relevant planning document recognised by an iwi authority and lodged with the territorial authority.

A number of iwi and hapū management plans have been lodged with the Council. Under the RMA, these plans must be “taken into account when making changes to the District Plan. The Council has received the following hapū and iwi management plans:

- He Mahere Pūtahitanga;
- Rising Above The Mist – Te Aranga Ake | Te Taimahangatanga Ngāti Tahu-Ngāti Whāoa;
- Te Mahere ā Rohe - mō Ngāti Rangitīhi Iwi Environmental Management Plan;
- Te Rautaki Taiao a Raukawa- Raukawa Environment Management Plan 2015;
- Tapuika Environmental Management Plan 2014;
- Ngāti Kea Ngāti Tūara Iwi Environmental Management Plan 2016;
- Nga Tikanga Whakahaere Taonga o Ngāti Pīkiao Whānui;
- Te Tūāpapa o ngā Wai o Te Arawa - Te Arawa Cultural Values Framework – Te Arawa Lakes Trust;
- Ngāti Rangiwēhē Iwi Environmental Management Plan 2012;
- Tuhourangi Tribal Authority - Enhanced Iwi Environmental Resource Management Plan;
- Te Taio o Te Whatauranganuku – The Environmental Resources of Whatauranganuku - Ngāti Tamateatutahi - Ngāti Kawiti Hapū Environmental Management Plan;
- Whakamarohitia ngā wai o Waikato (Te Arawa River Iwi Trust Environmental Plan 2021); and
- (Draft) Te Arawa Wellbeing Compass (Te Tatau o Te Arawa).

Plan Change 9 is consistent with these plans which as a general theme seek to increase opportunities for housing for iwi and hapū and the development of papakāinga. A comprehensive overview of the key issues and themes raised in the identified Iwi Management Plans is included within *Appendix 6*.

## 5.8 Other Relevant Plans and Strategies

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### 5.8.1 Emissions Reduction Plan

The Government has recently released the Emissions Reduction Plan, which sets out national level strategies and actions to achieve the carbon emissions reduction targets set out in the Climate Change Response (Zero Carbon) Amendment Act in 2019. Of particular relevance to PC9 is the target to reduce total vehicle kilometres travelled by 20 per cent by 2035. The Emissions Reduction Plan specifies that part of achieving this includes providing more housing choices close to urban centres and public and active transport routes. By enabling greater heights and densities throughout the urban area, PC9 is strongly aligned with the goals of the Emissions Reduction Plan.

## 5.8.2 Planning for the Future of Rotorua – 2018 Spatial Plan

The Spatial Plan 2018 was developed to outline how the district will grow, develop and change over thirty years to deliver Rotorua’s 2030 vision and goals. The aim of the Spatial Plan was to:

- Provide one picture of where the district is heading and highlight key areas for growth and change.
- Provide a guide for investment decisions at a local, regional and central government level.
- Identify the key issues facing the district and the priorities that need to be advanced to address these.

The spatial plan had seven core objectives including:

- Build homes that match needs
- Create thriving neighbourhoods
- Enhance the environment
- Support Iwi aspirations
- Create a vibrant city heart
- Grow jobs
- Build supporting infrastructure.

PC9 is consistent with the 2018 Spatial Plan as it will enable greater housing choice to support the community’s needs. The application of the High Density Residential Zone surrounding the City Centre and the proposed increase in heights within the City Centre itself will enable more people to live within and close to the city supporting greater vibrancy. The papakāinga provisions have been developed with Iwi to support their aspirations.

The Council is currently in the process of developing a Future Development Strategy (“FDS”). The FDS forms the basis for integrated, strategic and long-term planning. A FDS will help the Council set the high-level vision for accommodating urban growth over the long term, and will identify strategic priorities to inform other development-related decisions, such as:

- District Plan zoning and related plan changes (e.g., greenfield and intensification plan changes)
- Priority outcomes in long-term plans and infrastructure strategies, including decisions on funding and financing
- Priorities and decisions in regional land transport plans.

## 6.0 Plan Change Development Process

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### 6.1 Development of Plan Change Provisions

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In March 2022 Rotorua Lakes Council was included as a specified territorial authority requiring the Council to notify a Plan Change by August 2022 to incorporate the MDRS to relevant residential zones and give effect to Policy 5 of the NPSUD. While much of the content of PC9 is set by legislation, there were still many choices to be made in relation to how to apply the requirements within a Rotorua context. In particular, decisions needed to be made regarding:

- 1) The Residential 2 zone and whether to convert this to a High Density Residential zone;
- 2) The spatial extent of any High Density Residential zone and the height and density of development this zone would provide for;
- 3) Whether to include urban design related matters of discretion and assessment criteria for restricted discretionary development;
- 4) The height limits within the City Centre and Commercial zones;
- 5) Whether to enable residential development within those parts of the City Centre and Commercial zones where it is currently restricted;
- 6) Whether to retain or amend existing qualifying matters;
- 7) Whether to introduce new qualifying matters to manage the effects of increased heights and densities on values relating to s6 matters; and
- 8) Whether other amendments to related provisions of the District Plan are needed to support the implementation of the MDRS.

The approach to developing PC9 consisted of the following key steps:

- 1) Reviewing and commissioning technical analysis to inform the development of provisions;
- 2) A broad programme of engagement which involved:
  - Early consultation and engagement with Tauranga City Council and Bay of Plenty Regional Council to ensure a broad level of consistency across the region;
  - Ongoing engagement with Council's resource consent department and local practitioners, including consent testing of proposed provisions;
  - Ongoing engagement with a Technical Advisory Group made up of government departments, agencies and the Bay of Plenty Regional Council;
  - Ongoing engagement with Iwi Authorities;
  - A wider programme of community and stakeholder engagement over a series of meetings and workshops.

A detailed summary of the engagement undertaken to inform PC9 is included at *Appendix 19*.

An overview of the steps taken to develop PC9 is outlined below.

## 6.2 Supporting Evidence Base

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An overview of the technical analysis used to inform the development of PC9 is outlined below:

### 6.2.1 The Rotorua Housing and Business Development Capacity Assessment 2021

This analysis and conclusions of the HBA are set out in *Section 4* of the report above. It is a foundation document for PC9 and provides detailed information about housing demand and development capacity over the next 30 years.

### 6.2.2 Rotorua Intensification Economic Assessment 2022

This report provides additional economic analysis by M.E. which builds on the existing base of capacity and demand modelling undertaken by M.E for RLC's HBA in 2021 (refer *Appendix 8*). The HBA relied on operative District Plan zoning in the short-medium term.

The M.E. analysis finds that there is likely to be a gradual shift in demand for higher density dwellings across Rotorua's urban environment. Part of this shift is likely to occur in response to changes in planning provisions that allow for greater development of higher density and smaller dwellings.

It is anticipated that most of the shift in demand for higher density dwellings will be in the form of terraced and duplex typologies, which are comparable to Rotorua's well-established patterns of detached dwelling development when compared to other forms of higher density attached dwellings. Demand for higher density apartment dwellings is likely to be limited and unlikely to experience significant growth within the short-term.

The M.E analysis considers the plan enabled capacity under four different spatial scenarios (Options 1-4) for increased density provisions against projected demand. High levels of plan enabled capacity were estimated under all spatial scenarios, in particular the plan enabled capacity for higher density apartment dwellings.

This report also recognises that the spatial extent of any proposed provisions for higher density residential development can have potential effects on built urban form in Rotorua. Given that projected demand can be realised across a relatively small number of developments, it is recommended that residential intensification, particularly for apartment typologies, is enabled in appropriate locations that are likely to function together with and support the viability of commercial activity/amenity in accessible nodes, producing a more efficient and well-functioning urban form in the medium-long term.

### 6.2.3 Accessibility and Demand Analysis

This analysis was prepared by Barker & Associates to assist RLC in meeting its requirements as a Tier 2 local authority under Policy 5 of the NPS-UD. The analysis includes a methodology for determining the most accessible locations within Rotorua and a summary of the findings. It has been used as part of the evidence base to inform the spatial application of the High Density Residential Zone.

### 6.2.4 Urban Design Analysis

The proposed package of standards and assessment criteria within the Medium and High Density Residential zones and the proposed amendments to the City Centre and Commercial zones have been informed by technical urban design input from Barker & Associates. An overview of these urban design inputs and considerations is outlined in a memo (refer *Appendix 9*).

### 6.2.5 Analysis of Plan Provisions from the Resource Consent Department

The Council's resource consent department have provided analysis of the current plan provisions, which are creating unnecessary complexity when applying for resource consents for residential development. This analysis has directly informed the proposed amendments to related provisions in accordance with s 80E(2) of the RMA.

### 6.2.6 Urban Design Guidelines

In addition to PC9, a Residential Design Guide ("*the Guidelines*") has been produced to provide more guidance on delivering quality intensification. This guide is intended to build on the Ministry for the Environment's National Medium Density Design Guide which provides guidance on permitted levels of development under the MDRS. The focus of the Guidelines is on more intensive

development (i.e. more than 4 dwellings) which are proposed to be required to go through a resource consent process.

The Guidelines have been developed as an educational tool for the community, applicants (and their design team) and Council officers around design principles and techniques which can be implemented to address common issues which can arise in the design of more intensive residential developments (e.g. on-site privacy or building bulk). Matters covered within the Guidelines are aligned with matters of discretion and assessment criteria within the District Plan.

### 6.2.7 Other Analysis

A range of other analysis and reporting has been undertaken to inform PC9, including the introduction of new qualifying matters and amendments to related provisions in the District Plan. This analysis includes:

- Flood hazard report (see *Appendix 13*);
- Geothermal hazard report (see *Appendix 14*);
- Transport and access memo (see *Appendix 11*);
- Built heritage memo (see *Appendix 15*);
- Reverse sensitivity & air quality report (see *Appendix 16*); and
- Reverse sensitivity & noise report (see *Appendix 17*).

This above reporting forms the evidence base which is referred to in the section 32 analysis in the report below.

## 6.3 Testing of Provisions

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### 6.3.1 Urban Design Testing

Design testing was undertaken to understand the potential built form implications of the Medium Density Residential Standards for the Residential 1 zone and identify whether refinements were necessary. This also informed the development of the Residential 2 zone provisions and the height limits for the City Centre and Commercial zones. This testing included an analysis of site widths, depths and areas specific to the Rotorua context to determine a typical site to model the impact of various alternative bulk and location standards. This modelling was used to inform the development of quantitative development standards (e.g. maximum building length) as well as qualitative matters of discretion/ assessment criteria. The latter is important for more intensive developments which would seek to take advantage of the permitted building envelope created by the development standards. An overview of results of the design testing and examples of the height in relation to boundary testing is outlined within the Development Standards Memo (refer *Appendix 9*).

### 6.3.2 Engagement with Resource Consents and Consent Testing

To ensure that PC9 would result in a workable set of provisions and to iron out any unforeseen implementation issues to the greatest extent possible, a working group was set up with the resource consents team, to review and test the provisions.

## 6.4 Engagement Programme

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As detailed below, the outcomes of a broad programme of engagement across Central and Local Government, Iwi, the development industry and the community, has directly informed the development of PC9.

### 6.4.1 Consultation with Bay of Plenty Regional Council and Tauranga City Council

Early in the scoping process, meetings were held with the Bay of Plenty Regional Council and Tauranga City Council, to ensure that the approach taken in Rotorua is integrated with Change 6 to the RPS and the Tauranga City Council (TCC) Intensification Plan Change, where relevant.

### 6.4.2 Engagement with Central Government Technical Advisory Group

Advice on the draft PC9 provisions was also sought from a Technical Advisory Group (“TAG”) made up of representatives from the Bay of Plenty Regional Council, Ministry of Education, Waka Kotahi, Ministry of Housing and Urban Development, and Kāinga Ora.

## 6.5 Consultation with Iwi Authorities

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Rotorua Lakes Council have sought to engage with Iwi and hapū on the development of PC9 through a series of hui (refer to *Appendix 19*). In particular, the following iwi authorities and representatives of mana whenua were invited to participate in pre-drafting workshops:

- Maru o Ngāti Rangiwewehi and Te Tāhuhu o Tawakeheimoa Trust;
- Ngāti Rangiteaorere Koromatua Council;
- Ngāti Pūkiao Iwi Trust;
- Ngāti Tahu Ngāti Whāoa Rūnunga Trust;
- Ngāti Rongomai Iwi Trust;
- Ngāti Mākinu Iwi Authority;
- Te Mana o Ngāti Rangitihī;
- Ngāti Tararua Iwi Trust;
- Te Rūnunga o Ngāti Kea Ngāti Tūara Trust;
- Ngāti Tūāwhiri Ngāti Te Ngakau Hapū Trust;
- Te Komiti Nui a Ngāti Whakaue;
- Ngāti Ngararanui Iwi Trust;
- Ōwhata Marae at Hineomoa Point;
- Ngāti Whakaue Environmental Group;
- Te Tatau o Te Arawa;
- Te Runanga o Ngāti Kea Ngāti Tūara Trust;
- Tūhourangi Tribal Authority;
- Ngāti Roro o Te Rangi Hapū Trust;
- Ngāti Uenukukopako Iwi Trust;

- Pukeroa Oruawhata Trust;
- Tiki Te Kohu Ruamano Ahu Whenua Trust;
- The Proprietors of Part Ōwhatiura South 5 Incorporated;
- Ōwhata 2b Ahu Whenua Trust;
- Papaiouru Marae (Ōhinemutu);
- Tunohopu Marae (Ōhinemutu);
- Hinemihi Maare (Ngāpuna);
- Hurungaterangi Marae (Ngāpuna);
- Tumahaurangi Marae (Te Koutū);
- Te Tatau Pounamu;
- Te Arawa Lakes Trust;
- Te Pumautanga o Te Arawa; and
- Ngāti Whakaue Tribal Lands.

Key issues that have arisen through engagement with Iwi, which are directly relevant to the development of PC9 include:

- Residential 3 Zone: Unique to Rotorua are the traditional Māori cultural and historic villages identified in the District Plan as the Residential 3 zone. These traditional Māori villages are Ōhinemutu, Whakarewarewa and Ngāpuna. Dwellings within these areas are typically single storey wooden buildings interspersed with geothermal activity and geothermal features. Ōhinemutu and Whakarewarewa villages are accessed through narrow roads and have the sense of being close-knit communities. Marae and associated communal buildings are dominant focal points. Each village has an important contribution to the cultural historic heritage and identity of Rotorua.
- Papakāinga: With many Te Arawa people returning home to Rotorua the need for housing and in particular papakāinga and kōeke housing is increasing. Papakāinga is a form of housing development for a hapū or whānau community which occurs on multiply owned Māori or ancestral land. Papakāinga and Kōeke housing was identified as a key focus area as part of the Rotorua Homes and Thriving Communities Strategy, He Hapori Taurikua.

In response to these matters raised through engagement with Iwi the current papakāinga provisions, which are in the General District Wide Matters (“GDWM”) section of the operative District Plan have been reviewed. Additionally, it is proposed to retain the Residential 3 zoning of the Ōhinemutu, Whakarewarewa and Ngāpuna villages, on the basis that the cultural values are a new qualifying matter refer to *Section 8*.

### 6.5.1 Statutory Consultation

Under cl 95 of Schedule 1 of the RMA there are particular requirements that a Specified Territorial Authority must undertake when developing an IPI. These requirements are:

## Mana Whakahono a Rohe

Under s 95(2)(a), Clause 1A of schedule 1 is applicable to the development of an IPI. This Clause requires a proposed policy statement or plan to be prepared in accordance with any applicable Mana Whakahono a Rohe. There are currently no Mana Whakahono a Rohe within the Rotorua Lakes District.

## Iwi Participation Legislation

Under s 95(2)(b), Clause 1B of schedule 1 is applicable to the development of an IPI. This Clause relates to Iwi participation legislation. Within the Rotorua District the following Iwi participation legislation is relevant:

- Te Arawa Lakes Settlement Act 2006.
- Affiliate Te Arawa Iwi and Hapū Claims Settlement Act 2008.
- Central North Island Forests Lands Collective Settlement Act 2008.
- Ngāti Māhino Claims Settlement Act 2015
- Ngāti Tūwharetoa, Raukawa, Te Arawa River Iwi Waikato River Act 2010.
- Raukawa Claims Settlement Act 2014.
- Ngāti Rangiwewehi Claims Settlement Act 2014.
- Tapuika Claims Settlement Act 2014.
- Ngāti Rangiteaorere Claims Settlement Act 2014.
- Ngāti Rangitīhi Claims Settlement Act 2022.

Council's relationship with tangata whenua has been established through ongoing engagement and has been expressed through relationship agreements and recognition of tangata whenua (who hold mana over their rohe) as a result of Treaty settlement processes. In 2006, the Te Arawa Lakes Strategy Group ("TALSG") was established through the Te Arawa Lakes Settlement Act 2006. It comprises a joint committee of Bay of Plenty Regional Council, Rotorua Lakes Council and Te Arawa Lakes Trust, which is responsible for monitoring the work programme for protecting and restoring the Te Arawa lakes (including Rotorua).

In 2017, Rotorua Lakes Council entered into the Te Arawa Partnership Agreement with Te Tatau o Te Arawa (Te Tatau o Te Arawa is a charitable trust established by Te Arawa to represent their interests in the Partnership). Under the Partnership Agreement, Te Tatau appoints two members as full voting members on Council's Strategy, Policy and Finance committee and the Operations and Monitoring Committee. The Raukawa Settlement Trust and Te Arawa River Iwi Trusts both have a Joint Management Agreement with Rotorua Lakes Council for that part of the Waikato River catchment that falls within the Rotorua district. This is wholly within the rural area.

In addition to these formal relationships, Council undertook a broad approach to tangata whenua engagement on the proposed plan change, including iwi, hapu, marae, the three villages (Ōhinemutu, Whakarewarewa and Ngāpuna), and Whenua Māori trusts and incorporations.

A detailed record of the consultation and engagement undertaken for PC9 is attached at *Appendix 19* and this confirms how the requirements of clause 3 and 4 of Schedule 1 of the RMA have been met with respect to tangata whenua who are affected. The outcome of this consultation and engagement has also directly informed the development of PC9 as detailed in the sections below.



## 6.5.2 Broader Community and Stakeholder Engagement

The Council has also undertaken consultation and engagement with a variety of stakeholders throughout the development of PC9. In particular, consultation and engagement has been undertaken with:

- The Rotorua developers forum and one-on-one meetings;
- The Rotorua consultants forum;
- Schools; and
- Community groups.

A detailed record of the consultation and engagement undertaken for PC9 is attached at *Appendix 19* and this confirms how the requirements of clause 3 and 4 of Schedule 1 of the RMA have been met with regard to Government agencies. The outcome of this consultation and engagement has also directly informed the development of PC9 as detailed in the sections below.

## 6.6 Section 32 Analysis

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### 6.6.1 Overview

Under s32 of the RMA 'Requirements for preparing and publishing evaluation reports', the Rotorua Lakes Council is required to undertake an evaluation prior to the notification of PC9.

Under s32(1), this evaluation must:

- a) *examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and*
- b) *examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—*
  - i) *identifying other reasonably practicable options for achieving the objectives; and*
  - ii) *assessing the efficiency and effectiveness of the provisions in achieving the objectives; and*
  - iii) *summarising the reasons for deciding on the provisions; and*
- c) *contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.*

Under Section 32(2), the evaluation must also:

- a) *identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—*
  - i) *economic growth that are anticipated to be provided or reduced; and*
  - ii) *employment that are anticipated to be provided or reduced; and*
- b) *if practicable, quantify the benefits and costs referred to in paragraph (a); and (c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.*

Under Section 32(6), 'objectives' means:

- a) For a proposal that contains or states objectives, those objectives;
- b) For all other proposals, the purpose of the proposal.

This report assesses whether the objectives of this proposal are the most appropriate to achieve the purpose of the Act and whether the provisions are the most appropriate to achieve the objectives.

## 6.6.2 Evaluation Approach

Under s32(1)(c) of the RMA, this evaluation report needs to contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal. Overall, the amendments that are proposed as part of PC9 in relation to the issues above, will result in a high degree of shift from development enabled by the operative district plan provisions within urban Rotorua. Many of the provisions proposed as part of PC9 however, are set by legislation. Consequently, the evaluation has been tailored in accordance with Section 77J(6), which enable the evaluation report to be modified to achieve the objectives of the MDRS, to address the amendments that are proposed which are not mandatory changes. Given that it is difficult to quantify many of the costs and benefits associated with these proposed amendments an appropriate and fulsome evaluation can be undertaken on a qualitative basis, informed by the analysis outlined in *Section 6.6.1* above.

The objectives, policies and methods proposed as part of PC9 have been evaluated on a topic basis in *Sections 7 to 17* below. These include amendments made to incorporate the MDRS, amendments that relate to new qualifying matters in accordance with Section 77I, and amendments that are related provisions in accordance with s80E(1)(b).

A description of the topic and an overview of the amendments categorised to each topic is provided at the beginning of the relevant section. The following sections start with the identification of the high-level resource management issue and then move into an assessment of the appropriateness of objectives and an evaluation of options for achieving the objectives.

### 6.6.2.2 Existing Qualifying Matters

According to s77I of the RMA, the District Plan can only make standards for medium density development less enabling if one or more specified qualifying matters ((a) to (j)) are present.

Sections 77K and 77L, set out the evaluation process for these existing qualifying matters.

For those matters covered by matters (a) to (i), section 77K requires Council to:

- identify by location (for example, by mapping) where an existing qualifying matter applies;
- specify the alternative density standards proposed for the area or areas identified;
- identify in this report prepared under section 32 of the RMA why the territorial authority considers that 1 or more existing qualifying matters apply to the area identified; and
- describe in general terms for typical sites in those areas identified the level of development that would be prevented by accommodating the qualifying matter, in comparison with the level of development that would have been permitted by the MDRS.

An assessment of the existing qualifying matters covered by matters (a) to (i) against these evaluation requirements of section 77K is provided in *Appendix 2*.

For the 'other' type of qualifying matter (j), not covered by the specific matters (a) to (j), section 77L requires Council to:

- identify the specific characteristic that makes the level of development provided by the MDRS (as specified in Schedule 3A) inappropriate in the area; and
- justify why that characteristic makes that level of development inappropriate in light of the national significance of urban development and the objectives of the NPS-UD; and
- includes a site-specific analysis that—
- identifies the site to which the matter relates; and
- evaluates the specific characteristic on a site-specific basis to determine the geographic area where intensification needs to be compatible with the specific matter; and
- evaluates an appropriate range of options to achieve the greatest heights and densities permitted by the MDRS (as specified in Schedule 3A) while managing the specific characteristics.

An assessment of ‘other’ existing qualifying matters against these evaluation requirements of section 77L of the RMA is provided in *Appendix 3*.

### 6.6.2.3 New Qualifying Matters

The process for evaluating new qualifying matters is set out in section 77J of the RMA (inserted by the Enabling Housing Supply and Other Matters Amendment Act). Council is required, in this evaluation report, to:

- Demonstrate why it considers that the area is subject to a qualifying matter and that the qualifying matter is incompatible with the level of development permitted by the MDRS (as specified in Schedule 3A of the RMA) (Section 77J(3)(a));
- Assess the impact that limiting development capacity, building height, or density (as relevant) will have on the provision of development capacity (Section 77J(3)(b); and
- Assess the costs and broader impacts of imposing those limits (Section 77J((3)(c)).

As identified in *Table 5* below, the below sections of this report address new qualifying matters in relation to:

- Flood hazards (*Section 12*);
- Historic Heritage Structures (*Section 14*); and
- The Residential 3 Zone (*Section 8*).

An evaluation against the matters in section 77J is also provided in *Appendix 4*.

## 7.0 Residential Amendments

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### 7.1 Structure of this Section

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This section includes the required Section 32 evaluation of the proposed amendments to the Residential 1 and Residential 2 zones. Sections 8.1 and 8.2 relate specifically to the Residential 1 and 2 zones respectively, and Section 8.3 relates to both the Residential 1 and 2 zones.

The below assessment does not evaluate the density standards in the MDRS that have been incorporated into PC9 as these are required by the Amendment Act. The below assessment

therefore focusses on additional objectives and provisions that are proposed through PC9. This includes more lenient standards in the Residential 2 zone.

## 7.2 Overview and Scope of Amendments

The purpose of the amendments to the strategic directions, residential zones, subdivision chapter and other related provisions is to give effect to Policy 5 of the NPS-UD and the requirement to incorporate the MDRS in the Amendment Act.

In particular the amendments include:

- Amendments to the strategic direction objectives and policies, which guide urban development to align with the NPS-UD;
- Amendments to the residential zone section, to amend the Residential 1 (Medium Density) zone to incorporate the MDRS and related changes;
- Amendments to the subdivision section to incorporate the MDRS and related changes;
- Amendments to the residential zone section, to enable high density residential development within the Residential 2 (High Density) zone; and
- Amendments to the zoning maps to alter the spatial application of the Residential 2 High Density zone to give effect to Policy 5 of the NPSUD.
- Consequential amendments to definitions and subdivision provisions including changing the term household units to residential units for consistency with the Planning Standards, specifying that the subdivision performance standards do not apply to subdivisions in accordance with land use consents or existing development and amendments to the site design factor performance standards for the Residential 1 and 2 zones.

## 7.3 Summary of Rules Proposed

Table 4 below identifies how the MDRS have been applied to the Residential 1 and 2 zones and details the related provisions proposed through PC9.

**Table 4: Overview of the MDRS, and proposed related provisions in the Residential 1 and 2 zones.**

	Incorporation of Schedule 3A MDRS (Section 77G)	Modification of Schedule 3A MDRS to enable the same or greater development (Section 77G and Section 77H)	Related provisions excluded from the definition of 'density standard' (Section 80E)
Residential 1 zone	<ul style="list-style-type: none"> <li>• Building height</li> <li>• Height in relation to boundary</li> <li>• Setbacks</li> <li>• Building coverage</li> <li>• Outdoor living space (per unit)</li> <li>• Outlook space (per unit)</li> </ul>	N/A	<ul style="list-style-type: none"> <li>• Maximum Building length</li> <li>• Minimum size of residential units</li> <li>• Dwellings fronting the street</li> <li>• Fencing</li> </ul>

	<ul style="list-style-type: none"> <li>• Landscaped area</li> </ul>		
Residential 2 zone	<ul style="list-style-type: none"> <li>• Setbacks</li> <li>• Building coverage</li> <li>• Outlook space (per unit)</li> <li>• Window to street</li> <li>• Landscaped area</li> </ul>	<ul style="list-style-type: none"> <li>• Building height</li> <li>• Height in relation to boundary</li> <li>• Outdoor living space (per unit)</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum Building length</li> <li>• Minimum size of residential units</li> <li>• Dwellings fronting the street</li> <li>• Fencing</li> </ul>

## 7.4 Summary of Qualifying Matters

In accordance with s771, PC9 includes the application of existing and new qualifying matters to the MDRS requirements. The qualifying matters that apply in the relevant residential zones under PC9 are summarised in *Table 5* below.

**Table 5: Applicable Qualifying Matters in the relevant residential zones**

Existing qualifying matters operative in the Rotorua District Plan	
A matter of national importance under s6 of the RMA (Section 771(a))	<ul style="list-style-type: none"> <li>• Natural hazards – fault lines (NH-R1, NHR-3)</li> <li>• Natural hazards – geothermal (NH-R6, SUB-R42)</li> <li>• Natural hazards – flooding/stormwater and instability Pukehangi Development Area (PHDA-R5, PHDA-SS6 to SS8)</li> <li>• Historic heritage (HH-R2, HH-R3, SUB-R41)</li> <li>• Archaeological sites (HH-R5, HH-R6, SUB-R41 PHDA-R5, PHDA-R7, PHDA-SS)</li> <li>• Sites of significance to Māori (SASM-R3 to SASM-R6 and (RESZ-S2(4))</li> <li>• Significant indigenous vegetation (ECO-R1)</li> <li>• Outstanding natural features and landscapes (NFL-R1, NFL-R19, NFL-R20)</li> <li>• Public access (RA-R1)</li> </ul>
A matter required for the safe and efficient operation of nationally significant infrastructure (Section 771(e))	<ul style="list-style-type: none"> <li>• Airport Obstruction Limitation Surface (EIT-R17 where the height limit is less than the MDRS)</li> <li>• National Grid Corridor (EIT-R18, SUB-R38)</li> <li>• Airport Noise Contour Controls (NOISE-R7-R8, SUB-R39-R40)</li> <li>• State highway upgrades Wharenui (WHDA-R3 to R4, WHDA-S3)</li> </ul>
Other matters (Section 771(j))	<ul style="list-style-type: none"> <li>• Notable trees (TREE-R2, TREE-R3)</li> <li>• Wharenui Development Area (WHDA-R1, WHDA-R3 to R4, WHDA – S1, WHDA-S3)</li> <li>• Pukehangi Heights Development Area (PHDA-R5, - PHDA-SL1, PHDA-SL2, PHDA-SL7, PHDA-SS11)</li> </ul>
New qualifying matters identified in PC9	

A matter of national importance under s6(e) of the RMA (Section 77i(a))	<ul style="list-style-type: none"> <li>The Residential 3 zone – relationship of Maori with ancestral land</li> </ul>
A matter of national importance under s6(h) of the RMA (Section 77i(a))	<ul style="list-style-type: none"> <li>Natural hazards – flooding (NH-R4)</li> </ul>
A matter of national importance under s6(f) of the RMA (Section 77i(a))	<ul style="list-style-type: none"> <li>Historic heritage (HH-R2A)</li> </ul>

## 7.5 Background and Issues of Concern

As outlined in *Section 4*, Rotorua is experiencing significant housing supply issues. In particular, the HBA has found that there is a dwelling demand in the short term of 2,970 dwellings, increasing to 5,200 in the medium term and 8,250 in the long term based on Council’s medium growth projections<sup>14</sup>. While there is a sizeable amount of plan enabled capacity, the HBA concludes that much of the capacity is unlikely to be developed into dwellings by the commercial development sector due to a lack of feasibility.

The current residential zone provisions provide for limited opportunities for intensification and housing choice. With the exception of the small area of Residential 2 (Medium Density) Zone, there is limited provision for attached dwellings across most of the city’s general suburban area. The extensive Residential 1 (Low Density) Zone has a relatively large minimum site size of 450sqm. Ultimately this is resulting in a planning framework which is not capable of delivering the housing capacity or choice that is required to meet the needs of the growing population in Rotorua.

In addition to the need to provide for greater housing capacity and choice across Rotorua there have been legislative changes and national direction that the plan must now give effect to. In particular, the Residential 1 and Residential 2 zones are considered to be “relevant residential zones” in accordance with Section 77G and the definitions in the RMA. These zones are required to be amended to incorporate the MDRS or be more enabling. The strategic direction and residential objectives and policies also need to be amended to give effect to the NPS-UD directives.

With the introduction of medium density and high density residential development there is potential for adverse effects on the quality and amenity of the urban environment. This is particularly the case for more intensive forms of development that are not contemplated by the MDRS. Therefore, the need to achieve quality design is increasingly important as the scale of development increases to ensure that development:

- achieves the planned urban built character of the zone;
- achieves attractive and safe streets and public open spaces;
- manages the effects of development on adjoining sites, including visual amenity, privacy and access to daylight and sunlight; and
- achieves high quality on-site living environments.

<sup>14</sup> The demand for dwellings increases to short term - 3,569, medium term 6,240 and long term 9,740 including the NPSUD competitive margin.



A key issue that arose through consultation with the development community was the need to achieve a balance between enabling flexibility in the design approach while ensuring certainty in outcomes in terms of neighbourhood character and amenity. The proposal seeks to utilise the use of targeted design assessment criteria in combination with non-notification to increase certainty to applicants and enable design flexibility while ensuring objectives will still be effectively achieved.

## 7.6 Appropriateness of Proposed Objectives for Residential 1 and 2 Zones

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PC9 proposes to introduce amendments to the strategic direction and residential objectives, which will guide urban residential development. The amended and additional objectives can be grouped into the following themes:

- Theme 1: A well-functioning urban environment
- Theme 2: Increase housing supply and choice
- Theme 3: Increase height and density within accessible or market attractive areas
- Theme 4: Provide for residential amenity on a neighbourhood and site scale
- Theme 5: Ensure development can be serviced by infrastructure.

In accordance with Section 32(1)(a) *Table 6* below provides an evaluation of whether the objectives of PC9 are the most appropriate to achieve the purpose of the Act and the higher order planning documents(refer *Table 6*).

**Table 6: Evaluation of the Proposed Objectives - Strategic Directions and Residential zones**

Objectives	RMA S5 Purpose	RMA S6 Matters of national significance	RMA S7 Other matters	RMA S8 Treaty of Waitangi	National Policy Statements	Regional Policy statement/plans
<i>Well-functioning urban environment</i>						
SDUD-O1 A well-functioning urban environment that enables all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future:	Mandatory objectives (shown green) and are not evaluated further. A minor amendment to mandatory objective shown in SDUD-O2 is proposed to reflect the higher density planned urban built character proposed within the Residential 2 zone.					
SDUD-O2 A relevant residential zone provides for a variety of housing types and sizes that respond to— i. housing needs and demand; and ii. the neighbourhood’s planned urban built character, including three storey buildings within the Residential 1 Zone and up to six storeys in the Residential 2 Zone.						
<i>Increasing housing supply and choice</i>						
SDO3 There is at all times at least sufficient development capacity and land supply to	An increase of housing capacity and choice within Rotorua	This objective does not compromise the recognition of,	This objective does not compromise the recognition of, or	This objective will not offend	This objective is consistent with Policy 2 of the	This objective is consistent with RPS objective 23

Objectives	RMA S5 Purpose	RMA S6 Matters of national significance	RMA S7 Other matters	RMA S8 Treaty of Waitangi	National Policy Statements	Regional Policy statement/plans
meet expected demand for housing and business land over the short term, medium term and long term.	will ensure that the housing stock meets the needs of the community.	or the provision of these matters of national importance. The District Plan contains existing objectives that limit height and density in defined localities across the district in order to provide for matters of national importance. These are justified as “qualifying matters” in <i>Appendix 2 to 4.</i>	the provision of other matters. In particular, this objective will support the efficient use of natural and physical resources by enabling more efficient development of urban residential land.	against the principles of the Treaty of Waitangi.	NPSUD which requires that there is at least sufficient development capacity to meet expected demand. This objective is consistent with Objective 3 and Policy 5 of the NPSUD, which directs that district plans enable more people to live in, or more businesses and community services to be located in areas which are accessible to centres, existing or planned public transport or where there is there is high demand for	which seeks to efficiently accommodate the region’s growth.
RESZ-01 Land is used efficiently for medium density residential living that increases housing supply and choice.	Furthermore, enabling higher density housing to locate on land with good accessibility to public transport, open space and services ensures more people can access these amenities without relying on a private vehicle. Collectively these objectives enable the community to meet their own social well-being while mitigating effects on the environment from climate change through contributing					
RESZ-08 Land that has good accessibility by existing or planned active or public transport to a range of commercial activities, public open space and community services, is efficiently used for high density urban living that increases housing supply and choice.						

Objectives	RMA S5 Purpose	RMA S6 Matters of national significance	RMA S7 Other matters	RMA S8 Treaty of Waitangi	National Policy Statements	Regional Policy statement/plans
	to a reduction in carbon emissions.				housing or for business land.	
<i>Increase height and density within accessible or market attractive areas</i>						
SDO4 The primary focus for residential intensification and additional business or community services include areas: <ul style="list-style-type: none"> <li>a. within and adjacent to centres or employment opportunities;</li> <li>b. well-served by existing or planned public transport;</li> <li>c. where there is high demand for housing or for business land in the area, relative to other areas within the urban environment.</li> </ul>	This objective seeks to focus intensification in areas which are well serviced by infrastructure, public transport and in and around the city centre to support vibrancy and vitality. Providing for more housing close to public transport, employment and amenities will enable people and communities to provide for their own social, cultural and economic well-being while mitigating effects on the environment from	This objective does not compromise the recognition of, or the provision of these matters of national importance. The District Plan contains existing objectives that limit height and density in defined localities across the district, in order to provide for matters of national importance. These are justified as “qualifying matters” in <i>Appendix 2 to 4.</i>	This objective does not compromise the recognition of, or the provision of other matters. In particular, this objective will support the efficient use of natural and physical resources by enabling more efficient development of urban residential land within accessible locations. In focusing, intensification in areas which are well serviced by infrastructure, public transport and in and around the	This objective will not offend against the principles of the Treaty of Waitangi.	While Policy 2 of the NPSUD seek to provide at least sufficient development capacity to meet demand Objective 3 and Policy 5 seek to ensure that more people live or more businesses and community services are located in, areas which are accessible to centres, existing or planned public transport or where there is there is high demand for housing or for business land.	This objective is consistent with the RPS Policy UG 13B which seeks to integrate land use and transportation.
RESZ-09 Development contributes to the creation of neighbourhoods with a high density residential built						

Objectives	RMA S5 Purpose	RMA S6 Matters of national significance	RMA S7 Other matters	RMA S8 Treaty of Waitangi	National Policy Statements	Regional Policy statement/plans
<p>character, comprising residential buildings generally up to six storeys, integrated with on-site landscaped areas.</p>	<p>climate change through reducing carbon emissions.</p>		<p>city centre this enables the enhancement of amenity values appreciated by people, communities, and future generations through increased accessibility and increased and varied housing densities and types.</p>		<p>Therefore a balance needs to be struck between enabling as much additional housing as possible across the urban area and targeting intensification into areas where wider objectives in relation to efficient use of infrastructure and vibrancy of centres can be achieved. This objective gives effect to both of these directions through focusing intensification into areas which are well serviced by infrastructure, public transport and in and around the city centre to</p>	

Objectives	RMA S5 Purpose	RMA S6 Matters of national significance	RMA S7 Other matters	RMA S8 Treaty of Waitangi	National Policy Statements	Regional Policy statement/plans
					support vibrancy and vitality.	
<i>Provide for residential amenity on a neighbourhood and site scale</i>						
SD09 Urban development results in attractive, safe and healthy environments.	With the introduction of medium density and high density residential development there is potential for adverse effects on the quality and amenity of the urban environment. These objectives seek to ensure that development results in quality design that achieves: <ul style="list-style-type: none"> <li>the planned urban built character of the zone;</li> <li>attractive and safe streets and</li> </ul>	These objectives do not compromise the recognition of, or the provision of these matters of national importance. The District Plan contains existing objectives that limit height and density in defined localities across the district in order to provide for matters of national importance. These are justified as “qualifying matters” in <i>Appendix 2 to 4.</i>	The objectives have regard to the maintenance and enhancement of amenity values and the quality of the environment through ensuring: <ul style="list-style-type: none"> <li>The maintenance and enhancement of amenity values through seeking to deliver attractive, safe and healthy environments in respect of the streetscape and at a site scale.</li> <li>The maintenance and enhancement of</li> </ul>	These objectives will not offend against the principles of the Treaty of Waitangi.	Objective 4 and Policy 6 of the NPSUD which recognises that built character and associated amenity values will develop and change over time in response to the diverse and changing needs of people, communities, and future generations. The proposed objectives are consistent with objective and policy 6 as they are focused on future planned character	These objectives are consistent with RPS Policy UG 8B which seeks to implement high quality urban design.
RESZ-02 Development contributes to the creation of neighbourhoods with a medium density residential built character comprising residential buildings generally up to three storeys, surrounded by open space.						
RESZ-03 & RESZ -010 Development contributes to attractive and safe streets and open spaces.						
RESZ – 011 Development provides healthy, safe, high amenity and comfortable living environments for residents within the context of a high						



Objectives	RMA S5 Purpose	RMA S6 Matters of national significance	RMA S7 Other matters	RMA S8 Treaty of Waitangi	National Policy Statements	Regional Policy statement/plans
density residential environment.	public open spaces;		the quality of the environment		rather than maintaining the existing amenity values.	
RESZ-04 Development provides healthy, safe and quality living environments for residents, within the context of a medium density residential environment	<ul style="list-style-type: none"> <li>manages the effects of development on adjoining sites, including visual amenity, privacy and access to daylight and sunlight; and</li> <li>high quality on-site living environments.</li> </ul> <p>Ensuring quality design outcomes will within the urban environment will enable communities to provide for their social wellbeing and health and safety.</p>		through establishing neighbourhoods with a built character comprising residential buildings generally up to three storeys, surrounded by open space. The enhancement of amenity values is focused on the planned urban built form acknowledging that consistent with Policy 6 of the NPSUD there is likely to be significant change that may detract from amenity values appreciated by some people but improve amenity values appreciated			

Objectives	RMA S5 Purpose	RMA S6 Matters of national significance	RMA S7 Other matters	RMA S8 Treaty of Waitangi	National Policy Statements	Regional Policy statement/plans
			by other people, communities, and future generations, including by providing increased and varied housing densities and types.			
<i>Ensure development can be serviced by infrastructure.</i>						
RES-05 and RES-012 Development is supported by adequate infrastructure and services.	The alignment of infrastructure and land use planning will ensure development occurs in a sustainable manner through ensuring that there is adequate infrastructure to service staged growth and mitigate the adverse effects of development on the receiving environment and from climate change	These objectives do not compromise the recognition of, or the provision of, these matters of national importance. The District Plan contains existing objectives that limit height and density in defined localities across the district, in order to provide for matters of national importance. These are justified as	These objectives do not compromise the recognition of, or the provision of other matters. In particular, the alignment of infrastructure and land use planning will ensure development makes efficient use of land serviced by infrastructure. Additionally, the objectives have particular regard to	These objectives will not offend against the principles of the Treaty of Waitangi.	These objectives are consistent with Objective 6 of the NPSUD which seeks to ensure that decisions regarding development and the urban environment are integrated with infrastructure planning and funding decisions. These objectives are also consistent with policy 5 of the NPSUD which	These objectives are consistent with the RPS Policy UG 9B which seeks to coordinate development and infrastructure.

Objectives	RMA S5 Purpose	RMA S6 Matters of national significance	RMA S7 Other matters	RMA S8 Treaty of Waitangi	National Policy Statements	Regional Policy statement/plans
	through reducing carbon emissions.	“qualifying matters” in <i>Appendix 2 to 4.</i>	the effects of climate change through ensuring that development is public and active transport focused.		emphasises public and active transport.	

In summary, the objectives of PC9 are the most appropriate way to achieve the purpose of the RMA because:

- The proposed strategic direction to increase housing capacity and choice within Rotorua, will ensure that the housing stock meets the needs of the community enabling communities to meet their own social well-being;
- The proposed strategic direction to provide for more housing close to public transport, employment and amenities will enable people and communities to provide for their own social, cultural and economic well-being while mitigating effects on the environment from climate change, through reducing carbon emissions;
- The strategic direction and residential objectives do not compromise the recognition of, or the provision of matters of national importance as these are provided for through the district-wide objectives and justified as “qualifying matters” in *Appendix 2 to 4*;
- The strategic direction and residential objectives do not compromise the recognition of, or the provision of other matters and they will support the efficient use of natural and physical resources and the maintenance and enhancement of amenity values when considered in the context of the medium density development provided for in the Amendment Act; and
- The strategic direction and residential objectives will not offend against the principles of the Treaty of Waitangi.

## 7.7 Evaluation of Provisions for the Residential 1 Zone

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### 7.7.1 Issue 1: Achieving a Quality Built Environment

#### 7.7.1.4 Overview

The MDRS is intended to apply to the existing Residential 1 zone, which spans the majority of Rotorua’s existing urban area. The MDRS applies mandatory residential density standards, which set the framework for development and can only be modified where a qualifying matter applies. The urban design analysis (refer *Appendix 9*), which has informed the development of PC9, has highlighted some potential gaps with the MDRS package of residential density standards. The urban design analysis has suggested further refinement to the package of provisions to help deliver a quality, attractive urban environment. These additional provisions are allowed as they are not density standards as defined by Schedule 3A Section 1(1).

The proposed package of further refinements to the Residential 1 (Medium Density) zone provisions includes:

- Maximum building length control above ground level of 22m to manage visual dominance and off-site amenity effects.
- Minimum dwelling size of 35m<sup>2</sup> for a studio dwelling and 45m<sup>2</sup> for one or more-bedroom dwelling to manage on-site amenity;
- Amendments to the dwellings fronting the street standard, to ensure that garage doors do not contribute to the glazing requirement and to clarify that front doors may be solid, and portions of the façade associated with non-habitable roof space, are excluded from the overall calculation requirements.

- The following standards in relation to fences are proposed to manage the streetscape interface and enhance the attractiveness and safety of streets and public open spaces:
  - a) Maximum height within front yard or adjacent to a boundary with a public open space:
    - i) 1.2m; or
    - ii) 1.8m for no more than 50% of the site frontage and 1.2m for the remainder; or
    - iii) 1.8m if the fence is at least 50% visually open.

#### 7.7.1.5 Visual dominance and amenity effects on neighbouring sites

Rotorua’s predominant cadastral pattern is typically characterised by sites which are longer than they are wide. Longer sites in combination with narrower widths tends to generate buildings which extend a long way back from street frontages. The Urban Analysis undertaken to inform PC9 has identified that increased height enabled by the MDRS in combination with other standards (including engineering standards around access and parking) has the potential to encourage a “wall” of development running perpendicular to the street. With higher buildings and the removal of density controls, this can result in a visually dominant built form that can affect the outlook of neighbouring sites; directs outlook over adjoining sites impacting on privacy and the amenity of existing residents reducing a person’s enjoyment of that space; and can create a feeling of being closed in or contained. The minimum building length control is proposed to address this issue.

#### 7.7.1.6 Quality on-site living environments

One gap that has been identified is that the MDRS includes no standards relating to the size of dwellings. A minimum dwelling size standard is useful for ensuring that the smallest dwellings will provide reasonable conditions of function and amenity for its design occupancy. Minimums, if set at an appropriate level, will provide a degree of guidance to the development community over the potential yield on any given site which will also assist with long-term infrastructure planning. They can also provide assurance to the wider public around the likely form and typologies of dwellings which could be expected to occur across the district.

Minimum areas of 35m<sup>2</sup> for a studio dwelling and 45m<sup>2</sup> for one or more-bedroom dwelling have been proposed and these are broadly comparable with other towns and cities across New Zealand. For example:

- 1) Across residential and business zones, the Auckland Unitary Plan provides for minimum studio apartments sizes of between 30m<sup>2</sup> and 35m<sup>2</sup>, and 45m<sup>2</sup> for one or more bedrooms;
- 2) The Palmerston North District Plan enables dwellings with minimum sizes of 45m<sup>2</sup> without any qualifiers relating to bedrooms within identified multi-unit housing areas;
- 3) The Christchurch District Plan enables studio units of 35m<sup>2</sup>, and 45m<sup>2</sup> for 1-bedroom units; and
- 4) Proposed Plan Change 26 of the Tauranga District Plan seeks to enable studio units of 35m<sup>2</sup>, and 45m<sup>2</sup> for 1-bedroom units.

Alignment with proximate territorial authorities is also considered beneficial as it provides for a consistent standard. This will provide greater certainty for the wider development community and

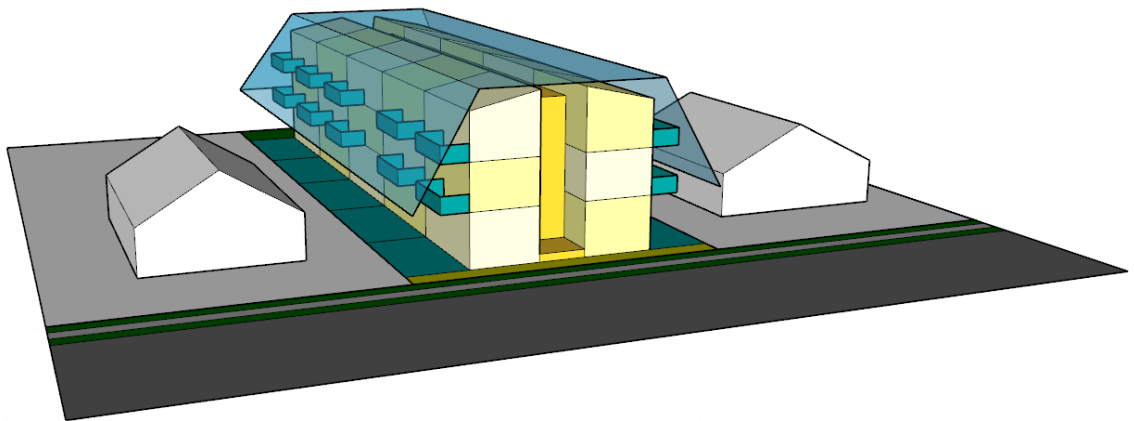
an ability to deliver modular or standardised terraced and apartment typologies over a wider area. This avoids the need for bespoke internal designs depending on where development is occurring.

#### 7.7.1.7 Attractive and safe streets

The Urban Design Analysis undertaken to inform PC9 has identified several potential issues and gaps with the MDRS requirement for a minimum of 20% of the street-facing façade in glazing which can be in the form of windows or doors including:

- The reference to doors to satisfy the standard may promote a situation where a ranch-slider is utilised as a “front door” to reduce the need to accommodate an additional opening for a more traditional opaque/ solid front door creating potential privacy and/ or security concerns with visibility into internal spaces;
- Modern plexi/ laminate glass garage door configurations may be utilised to fulfill a large portion of the required 20% glazing offering no passive surveillance of the street; and
- The MDRS wording may promote flat or hipped roofs fronting the street to reduce the area of façade fronting the street to reduce the extent of glazing required and associated costs, impacting overall attractiveness of more intensive developments and visual monotony in built form outcomes.

The glazing standard is proposed to be amended to improve the safety and attractiveness of the streetscape. In addition, the proposed fencing standard seeks to ensure that the design of fences provides for privacy within the front yard while enabling visual connections with the street to promote passive surveillance.



**Figure 12: Modelled walk-up apartment building compliant with bulk and location development standards**



**Table 7: Issue 1 - Achieving a Quality Built Environment within the Residential 1 Zone**

	Option 1: Apply the mandatory MDRS standards only within the Residential 1 zone	Option 2: Proposed Plan Change – Apply the mandatory MDRS standards with additional standards within the Residential 1 zone
<i>Description of option</i>	<p>This option will limit the development standards which apply within the Residential 1 zone to those mandated within the MDRS:</p> <ul style="list-style-type: none"> <li>• Height</li> <li>• Height in relation to boundary</li> <li>• Common walls</li> <li>• Maximum building coverage</li> <li>• Minimum landscaping</li> <li>• Yard setbacks</li> <li>• Dwellings fronting the street</li> <li>• Outdoor living space</li> <li>• Outlook space</li> </ul>	<p>This option will apply additional standards in addition to those mandated within the MDRS to address identified urban design issues as detailed above.</p>
<i>Efficiency and effectiveness in achieving objectives</i>		
<p>SD09 Urban development results in attractive, safe and healthy environments.</p>	<p>This option is not efficient or effective at achieving SD09:</p> <ul style="list-style-type: none"> <li>• As it does not include provisions to ensure that an internal area of a dwelling is sufficient in terms of design and space to achieve a functional unit with sufficient amenity for occupants. The inclusion of a minimum dwelling size will ensure that the development community does not prioritise yield at the expense of internal amenity.</li> </ul>	<p>This option will effectively and efficiently achieve SD09:</p> <ul style="list-style-type: none"> <li>• The inclusion of a minimum dwelling size standard will ensure that the smallest dwellings will provide reasonable conditions of function and amenity for its design occupancy.</li> <li>• The inclusion of a maximum building length will limit the potential ‘wall’ effect that long, uninterrupted building elevations perpendicular to the street can</li> </ul>

	<ul style="list-style-type: none"> <li>The absence of a maximum building length standard could result in visually dominant built form that affects the outlook and privacy of neighbouring sites and the amenity of existing residents.</li> </ul>	<p>have on adjoining sites in terms of visual dominance and opportunities for sunlight access.</p>
<p>RESZ-03 &amp; RESZ -010 Development contributes to attractive and safe streets and open spaces.</p>	<p>This option is not efficient or effective at achieving RESZ-03 &amp; RESZ -010 as there is no standard to ensure that fencing is at a height and of a design to provide visual connections and enable opportunities for passive surveillance,</p>	<p>This option is efficient or effective at achieving RESZ-03 &amp; RESZ -010, as it includes a fencing standard that will ensure an appropriate level of visual connection is maintained between the street and a residential unit, while giving flexibility and choice as to how high a front fence might be designed.</p>
<p>RESZ-03 &amp; RESZ – 011 Development provides healthy, safe, high amenity and comfortable living environments for residents</p> <p>RESZ-04 Development provides healthy, safe and quality living environments for residents, within the context of a medium density residential environment.</p>	<p>This option is not efficient or effective at achieving SD09:</p> <ul style="list-style-type: none"> <li>As the internal area of a dwelling decreases greater care is required in terms of design and space planning to achieve a functional unit with sufficient amenity for occupants</li> </ul>	<p>This option will effectively and efficiently achieve RESZ-03, 04 and 11:</p> <ul style="list-style-type: none"> <li>The inclusion of a minimum dwelling size standard will ensure that the smallest dwellings will provide reasonable conditions of function and amenity for its design occupancy.</li> </ul>
<p><i>Costs</i></p>		
<p><i>Environmental</i></p>	<p>No ability to ensure that dwellings with small internal areas can provide a functional unit with sufficient amenity for occupants.</p> <p>The introduction of the MDRS provisions in combination with the predominant cadastral pattern in Rotorua, which is characterised by sites which are longer than they are wide, will result in visually dominant built form with the potential to</p>	<p>The inclusion of a minimum dwelling size and maximum building length may result in less design flexibility and yield, however on balance, this is appropriate given the significant amenity benefits these standards will result in, while enabling medium density development to occur. These amenity benefits include:</p>

	<p>encourage a “wall” of development running perpendicular to the street. This adversely affects the outlook and privacy of neighbouring sites and the amenity of existing residents.</p> <p>The lack of front fence standard could potentially result in poor streetscape outcomes with monotonous solid high front fences installed on most or all frontages along a street. This outcome would also limit opportunities for passive surveillance of the street.</p>	<ul style="list-style-type: none"> <li>• Ensuring that the smallest dwellings will provide reasonable conditions of function and amenity for its design occupancy;</li> <li>• Limits the potential ‘wall’ effect that long, low and uninterrupted building elevations perpendicular to the street can have on adjoining sites;</li> <li>• Potentially encourages a greater proportion of dwellings to maximise their outlook over the street and internally towards the rear, rather than over neighbouring properties to the side;</li> <li>• Allows for daylight and/ or sunlight penetration into new buildings at each end enhancing internal amenity for future residents;</li> <li>• Allows for improved daylight and/ or sunlight penetration through to adjoining sites; and</li> <li>• Encourages more meaningful/ functional areas of open space (private or communal) that can cater for increased on-site amenity.</li> </ul> <p>The front fence standard may be difficult for Council to monitor, as fences generally do not require building consent.</p>
<i>Economic</i>	<p>The lack of minimum dwelling size standards will result in less certainty over the potential yield on any given site. This also results in less certainty for long-term infrastructure planning.</p>	<p>This option introduces a slightly more complex compliance approach which could increase costs and time to those developing within the Residential 1 Zone.</p>
<i>Social</i>	<p>The lack of front fence standard could result in reduced safety of streets and public open spaces through a lack of control on solid high front fences which reduce opportunities for passive surveillance.</p> <p>The impacts to onsite and adjoining amenity through the lack of a minimum dwelling size and maximum building length</p>	<p>Additional fencing controls may be considered by some members of the community to be not in keeping with the community’s expectations given front fences are currently not controlled in this way.</p>

	standards could potentially result in substandard living environments that affect social wellbeing.	
<i>Cultural</i>	Potential for poor design outcomes for lands near cultural sites.	No change to the cultural environment through this option.
<i>Benefits</i>		
<i>Environmental</i>	<p>While providing a simpler compliance approach and may result in more design flexibility, it is unlikely that this will result in environment benefits. The lack of a maximum building length could result long, and uninterrupted building elevations perpendicular to the street causing in visual dominance effects on adjoining sites and reduced sunlight/daylight access. Further the lack of a minimum dwelling size could result in developments that maximise yield at the expense of function and amenity for residents. Oversized front fences will result in a less attractive and safe streetscape.</p>	<p>The proposed minimum dwelling size will ensure that dwellings are of a size to provide a reasonable standard of amenity for residents.</p> <p>The proposed front fence standard will support attractive and safe streets and open spaces through ensuring that fencing is designed to provide visual connections to the public spaces providing for passive surveillance. Through allowing, and to an extent promoting variation in fence height, this standard may also discourage monotony and the visual dominance of street edges by solid high front fences, which is seen particularly when they are installed on most or all frontages along a street.</p> <p>The inclusion of a maximum building length standard will:</p> <ul style="list-style-type: none"> <li>• Limit the potential ‘wall’ effect that long, and uninterrupted building elevations perpendicular to the street can have on adjoining sites;</li> <li>• Encourage a greater proportion of dwellings to maximise their outlook over the street and internally towards the rear, rather than over neighbouring properties to the side;</li> <li>• Allow daylight and/ or sunlight penetration into new buildings at each end enhancing internal amenity for future residents; and</li> <li>• Allows opportunities daylight and/ or sunlight penetration through to adjoining sites.</li> </ul>

<i>Economic</i>	<p>Providing a simpler compliance approach will reduce costs and time to those developing within the Residential 1 Zone.</p> <p>Potential for slight increase in yield associated with no minimum dwelling size requirement however, this will be at the expense of onsite amenity for residents.</p>	<p>Minimum dwelling size standards will provide a degree of guidance to the development community over the potential yield on any given site which will also assist with long-term infrastructure planning.</p> <p>The proposed minimum dwelling size has been aligned with proximate territorial authorities to provide greater certainty for the wider development community and an ability to deliver modular or standardised terraced and apartment typologies over a wider area.</p>
<i>Social</i>	<p>Providing a simpler compliance approach may result in the faster delivery of additional housing, however the poor-quality outcomes may outweigh this potential benefit.</p>	<p>Minimum dwelling size standards will provide assurance to the wider public around the likely form and typologies of dwellings, which could be expected to occur across the district.</p> <p>The inclusion of a maximum building length standard will encourage more meaningful/ functional areas of open space (private or communal) that can cater for increased on-site amenity.</p>
<i>Cultural</i>	<p>Facilitate more housing opportunities on whenua Māori.</p>	<p>Facilitate more housing opportunities on whenua Māori.</p> <p>Better ability to manage design outcomes for lands near cultural sites.</p>
<i>Risks</i>	<p>There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.</p>	
<i>Summary</i>	<p>Option 2 is the preferred option. Including additional standards to regulate minimum dwelling size, maximum building length and fencing is the most appropriate mechanism for achieving the objective because:</p> <ul style="list-style-type: none"> <li>• This option efficiently and effectively achieves SD09, RESZ-03, 04 and 11 as the minimum dwelling size standard will ensure that the smallest dwellings will provide reasonable conditions of function and amenity for its design occupancy;</li> </ul>	

	<ul style="list-style-type: none"><li>• This option efficiently and effectively achieves SD09, RESZ-03, 04 and 11 as the maximum building length will limit the potential 'wall' effect that long, low and uninterrupted building elevations perpendicular to the street can have on adjoining sites; and</li><li>• This option efficiently and effectively achieves RESZ-03 &amp; RESZ -010 as the fencing standard that will ensure an appropriate level of visual connection is maintained between the street and a dwelling, while giving flexibility and choice as to how high a front fence might be designed.</li></ul>
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## 7.8 Evaluation of Provisions for the Residential 2 zone

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### 7.8.1 Issue 2: Whether to enable High Density Residential Development within the Residential 2 Zone

The current residential zone framework within the district plan incorporates the Residential 1 – Low density living zone and the Residential 2- Medium density living zone. The Residential 1 zone is the most widespread zone and is intended to provide for low density development (one dwelling per site surrounded by open space). The Residential 2 zone is intended to provide for medium residential development close to the city centre and has a limited spatial application, located to the south and south-west of the City Centre 1 zone.

Under the operative District Plan, the Residential 2 zone provides for significantly less development than is enabled by the MDRS. Therefore, a decision needs to be made whether to incorporate the MDRS and effectively merge this zone with the Residential 1 – Medium density Zone or, retain a zone that enables a higher level of development than what is provided for within the Residential 1 zone. It is proposed within PC9 to retain the Residential 2 zone to enable a higher density of residential development than the Residential 1 zone, where the MDRS will apply.



**Table 8: Issue 2 - Whether to incorporate a High Density Residential Zone – Evaluation of Options**

	Option 1: Merge the Residential 2 Zone with the Residential 1 Medium Density zone	Option 2: Proposed Plan Change: Enable high density residential development within the Residential 2 zone.
<i>Description</i>	This option involves deleting the Residential 2 zone and incorporating this zone within the Residential 1 Medium Density Zone.	This option involves retaining the Residential 2 zone and amending the provisions, so they are enabling of a higher density of development than what is provided for within the MDRS.
<i>Efficiency and effectiveness in achieving objectives</i>		
Objective: SDUD-O1 A well-functioning urban environment that enables all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.	This option will enable people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety through increasing the number of people who benefit from living in a highly accessible location but not to the same extent as option 2.	This option is the most efficient and effective option at achieving this objective, as it enables people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety through increasing the number of people who benefit from living in a highly accessible location and in turn supporting the vibrancy and vitality of the City Centre.
SDO3 There is at all times at least sufficient development capacity and land supply to meet expected demand for housing and business land over the short term, medium term and long term.	This option effectively and efficiently achieves this objective through enabling greater housing density to contribute to sufficient development capacity in Rotorua however, not to the same extent as option 2. The economic analysis undertaken in support of PC9 identifies the demand for 1000 apartments across Rotorua by 2050 (refer <i>Appendix 8</i> ). This is enabled in the centre zones but Option 2 provides further opportunities for apartments assisting with the competitive operation of the development market.	The HBA indicates that there are currently projected shortfalls in reasonably expected capacity with current planning provisions driving single detached houses on larger lots a contributing factor. This option effectively and efficiently achieves this objective through enabling high density housing to contribute to sufficient development capacity in Rotorua.
RESZ-08 Land that has good accessibility by existing or	This option is not efficient or effective at achieving this objective as it will put in place a zone with a package of	This option is effective at achieving SD04 as it will put in place a zone with a package of development standards that enable

	Option 1: Merge the Residential 2 Zone with the Residential 1 Medium Density zone	Option 2: Proposed Plan Change: Enable high density residential development within the Residential 2 zone.
<p>planned active or public transport to a range of commercial activities, public open space and community services, is efficiently used for high density urban living that increases housing supply and choice.</p>	<p>development standards that enables medium density residential development within areas, which this objective is seeking to encourage development at higher densities.</p>	<p>high density residential development to increase capacity and choice within areas on the periphery of the City Centre, which are well serviced by public transport.</p>
<p>SDO4 The primary focus for residential intensification and additional business or community services include areas:</p> <ul style="list-style-type: none"> <li>a. within and adjacent to centres or employment opportunities;</li> <li>b. well-serviced by existing or planned public transport;</li> </ul> <p>where there is high demand for housing or for business land in the area, relative to other areas within the urban environment.</p>	<p>This option will put in place a zone with a package of development standards that enables three story medium density residential development on the periphery of the City Centre. While this is a greater scale and density of development than what is currently enabled, this will be consistent with the scale of development enabled through most of the urban residential area under the MDRS. Therefore, this option is not effective and efficient at achieving this objective.</p>	<p>This option is effective at achieving SDO4 as it will put in place a zone with a package of development standards that enable six story residential development within areas on the periphery of the City Centre, which are well serviced by public transport.</p>
<p><i>Costs</i></p>		

	Option 1: Merge the Residential 2 Zone with the Residential 1 Medium Density zone	Option 2: Proposed Plan Change: Enable high density residential development within the Residential 2 zone.
<i>Environmental</i>	<p>This option will result in medium density residential development which is a less efficient use of land within walking distance to public transport and the city centre.</p> <p>Potential effects on adjoining properties and surrounding land uses as a result of intensification in existing low-density residential areas however, this will not be to the same extent as Option 2.</p>	<p>This option will provide for a greater height in areas where the Residential 2 zone applies and therefore this option will result in potential effects on adjoining properties and surrounding land uses as a result of intensification in existing low-density residential areas.</p>
<i>Economic</i>	<p>Costs to future applicants wanting to build higher and larger scale apartment buildings around the city centre as this type of development is not anticipated within the Residential 1 Medium Density Zone.</p> <p>Fails to support public transport provision, investment in amenities and infrastructure and the vibrancy of the Central City to the same extent as Option 2.</p>	<p>There will potentially be costs involved with undertaking the development and delivery of infrastructure provision to service a higher density zone. The residential areas on the outskirts of the CBD (where this zone is proposed to be applied) are however, already well serviced by public transport and infrastructure so these costs are not expected to be significant.</p>
<i>Social</i>	<p>Limits housing choice around the city centre, which is accessible to employment opportunities and other amenities via public or active transport modes.</p> <p>This option does not make the most efficient use of land and therefore may not result in the development yields to support increased vibrancy within the CBD and to support the growing population within Rotorua.</p>	<p>The scale of development delivered through this option may be considered by some members of the community to be not in keeping with the community's expectations given the current Residential 2 zoning.</p>
<i>Cultural</i>	<p>Further intensification and development of land around sites of cultural significance.</p>	<p>Further intensification and development of land around sites of cultural significance.</p>
<i>Benefits</i>		

	Option 1: Merge the Residential 2 Zone with the Residential 1 Medium Density zone	Option 2: Proposed Plan Change: Enable high density residential development within the Residential 2 zone.
<i>Environmental</i>	<p>This option will enable increased capacity and choice in an accessible walking catchment to the CBD and public transport, compared with the existing zoning.</p> <p>Intensification of existing urban areas promotes infrastructure efficiency and the use of alternative transport modes.</p>	<p>This option makes efficient use of residential land in an accessible walking catchment to the CBD and public transport, thereby giving effect to the NPS-UD Policy 5.</p> <p>Intensification of existing urban areas promotes infrastructure efficiency and the use of alternative transport modes.</p>
<i>Economic</i>	<p>This option provides a significant amount of (plan enabled) redevelopment capacity for attached dwellings, but only a small share of this can be feasibly developed in the short term based on current conditions. However, it is expected to increase over time.</p> <p>Economic growth and employment opportunities would arise from construction activity.</p>	<p>The HBA indicates that 88% of the dwellings in Rotorua are standalone. The introduction of a high-density zone surrounding the CBD will create more opportunities for apartment development, which are likely to be at more affordable price points.</p> <p>The shops and businesses in the CBD may benefit from having more people living in close proximity and using their services.</p>
<i>Social</i>	<p>This option will provide for low level terraces and walkup apartments within the Residential 1 Medium Density zone however, it will not provide the range of housing typologies and choice provided for through option 2.</p> <p>This option will result in development of a scale and density which is closer in character to the existing built form than option 2. This may be perceived as a benefit by some of the community who do not want change to the built character.</p>	<p>This option provides for a range of housing typologies and choice to meet the diverse needs of the Rotorua community. It will enable development yields that can support the development of additional community facilities.</p> <p>The scale of development will increase the long-term population close to the city centre and consequently there will be social benefits through increasing the vibrancy of this area.</p>
<i>Cultural</i>	<p>Enables more intensive housing opportunities on Maori owned or Treaty settlement land but not to the same extent as option 2.</p>	<p>Maximises more intensive housing opportunities on Maori owned or Treaty settlement land.</p>

	Option 1: Merge the Residential 2 Zone with the Residential 1 Medum Density zone	Option 2: Proposed Plan Change: Enable high density residential development within the Residential 2 zone.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.	
<i>Summary</i>	<p>Option 2 is the preferred option. Providing for high density residential development within the current Residential 2 zone is the most appropriate mechanism for achieving the objectives because:</p> <ul style="list-style-type: none"> <li>• In accordance with SD03 this option will enable the greatest housing supply and choice;</li> <li>• In accordance with SD04 and RESZ-04 this option will enable efficient use of land adjoining and adjacent to the CBD and accessible to existing or planned public transport.</li> </ul>	

### 7.8.2 Issue 3: Spatial Application of the Residential 2 – High Density Zone

The current Residential 2 zone applies to the south and south-west of the City Centre 1 zone. Policy 2 of the NPS-UD requires that Tier 2 authorities at all times provide at least sufficient development capacity to meet expected demand for housing and business land over the short, medium, and long terms. Policy 5 of the NPS-UD requires Tier 2 authorities to enable height and density commensurate with:

- a) *the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services; or*
- b) *relative demand for housing and business use in that location.*

A decision needs to be made whether the current spatial extent of the Residential 2 zone gives effect to Policies 2 and 5, and whether there is a need to change the extent of this zone.

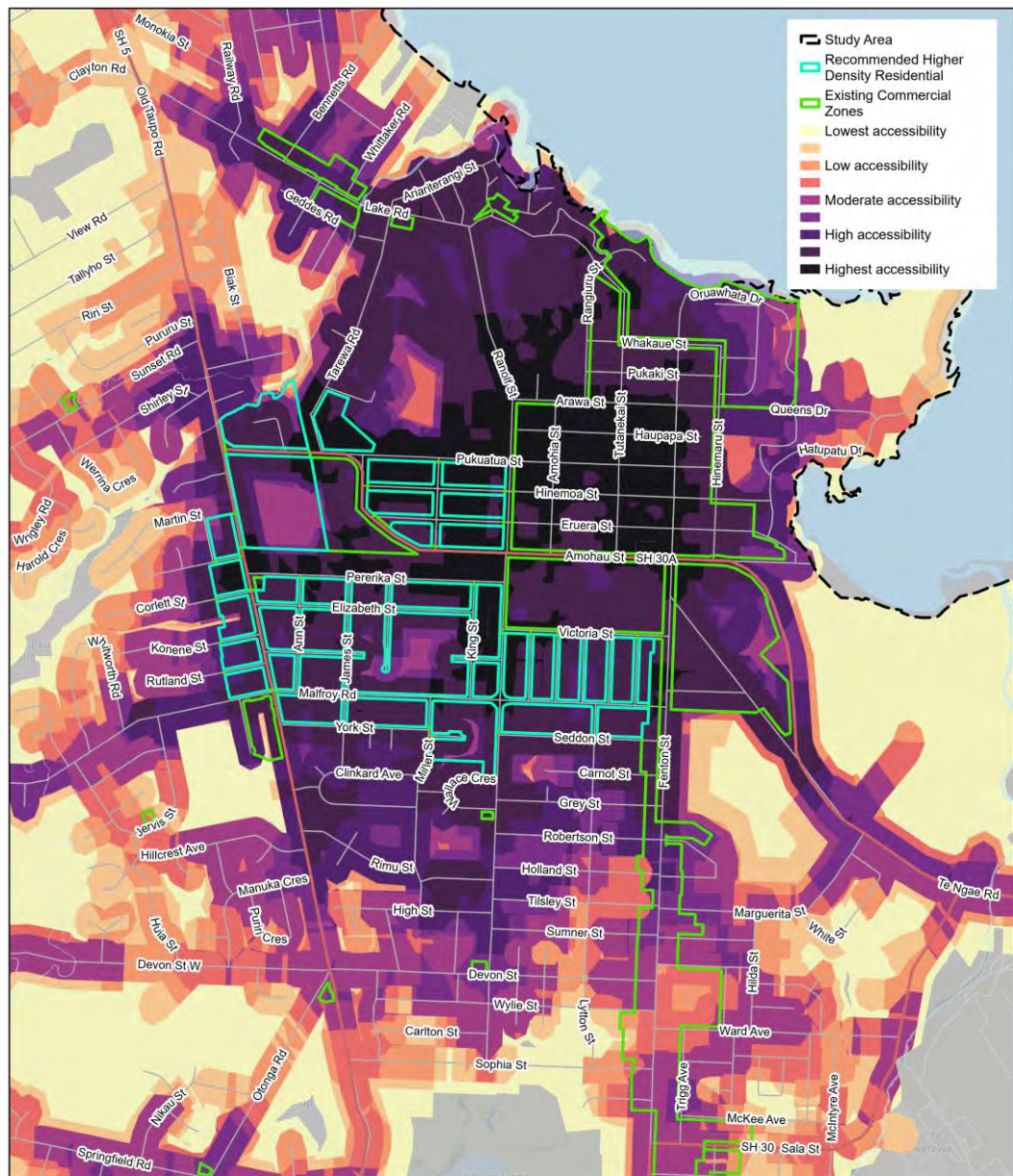
Section 4 above details the interpretation and application of Policies 2 and 5 within Rotorua, which has been informed by an Accessibility and Demand Analysis undertaken by Barker & Associates (refer *Appendix 7*) and Economic Assessment carried out by Market Economics (refer *Appendix 8*).

In summary, the Accessibility and Demand Analysis defines accessibility simply as your ability to go places so that you can do things. The assessment of accessibility is strongly driven by data (e.g. census, GIS) and is based on two key components:

- 1) the transport network serving any urban area (the how we travel); and
- 2) the spatial distribution and location of activities or destinations (the why we travel).

Based on this, determination of an area's 'level of accessibility' is informed by how many destinations can be accessed within a given time frame. The key drivers of accessibility in Rotorua were found to include proximity to the City Centre, the majority of employment opportunities, primary and secondary schools, large supermarkets, medical centres and major open spaces.

*Figure 13* shows the recommended spatial extent of a high density Residential zone, overlaid with findings of the accessibility analysis. It was also noted that areas which perform well under demand generally align with those which have performed best under the accessibility analysis.



**Figure 13: Recommended spatial extent of a High Density Residential Zone overlaid with accessibility (Barker & Associates, 2022).**

Overall, the Accessibility and Demand Analysis demonstrates that the spatial extent of more intensive residential activities in Rotorua should be increased to give effect to Policy 5 of the NPS-UD. In particular, while the current spatial extent of the Residential 2 zone is generally well aligned with the areas of high accessibility, a number of areas could accommodate increased heights and densities to reflect their level of accessibility, including key centres, and the northern portion of Glenholme.

The Economic Assessment considers the economic costs and benefits to four options of increased density provisions within Rotorua. These options include the application of a high density residential zone to various spatial extents, including around the City Centre at a similar, but slightly extended extent to the current Residential 2 zone (Option 2 of the Economic Assessment), and



around the City Centre at a larger extent to the current Residential 2 zone and around centres at Ngongotahā and Ōwhata (Option 3 of the Economic Assessment).


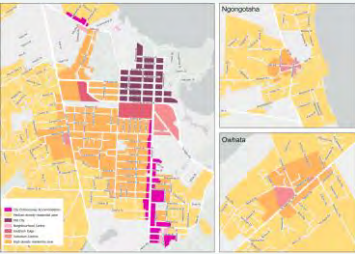
The Economic Assessment finds that there are high levels of plan enabled capacity relative to demand under all intensification options considered, and estimates a relatively small level of future demand for higher density apartment dwellings in Rotorua. This level of future demand has been confirmed through discussions with the local development sector. It was therefore considered that a smaller extent of high density residential zoning would be more appropriate from an economic perspective. In particular, it is noted that if the spatial application of the provision is too extensive, then it may not adequately encourage the concentration of higher density development into areas that function together with, and support the viability of, key nodes. Development may occur in locations that do not function together with these nodes and consequently reduce the level of remaining market size for intensification within the nodes.

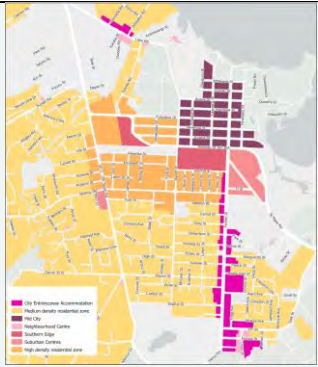
Having regard to the outcomes of the Accessibility and Demand Analysis and the estimated demand for high density apartment dwellings in Rotorua, the proposed extent of the Residential 2 zone is confined to the proximity of the City Centre and concentrated in the best performing areas in terms of accessibility, noting that Policy 2 of the NPS-UD requires that local authorities provide at least sufficient development capacity to meet demand for housing, rather than requiring capacity to be maximised to the greatest extent.

The best performing areas in terms of accessibility include the City Centre and immediately surrounding areas, including around the northern part of Glenholme (around Malfroy Road north to the City Centre). Notable drivers of this are the proximity to the City Centre, employment, supermarkets and educational facilities. This area is also served by the segregated cycling network and due to its central location gives residents the opportunity to access more destinations across Rotorua via the public transport network which currently operates in a radial pattern extending outwards from the City Centre. In addition, the northern part of Glenholme is better served by the existing open space network, with a notable gap in the network located in the southern portion of the neighbourhood.

The assessment in *Table 9* considers the spatial extent of the Residential 2 zone on the basis that it will enable high density residential development and a maximum building height of 19.5m as concluded in *Sections 7.8.1* and *7.8.3*.

**Table 9: Issue 3 - Spatial Application of the Residential 2 - High Density Zone – Evaluation of Options**

	Option 1: Status quo extent of Residential 2 zone.	Option 2: Exclude the Residential 2 zone from areas subject to risk from significant flood hazards.	Option 3: Proposed Plan Change: Extend the Residential 2 zone around areas with the highest levels of accessibility.	Option 4: Extend the Residential 2 zone around areas with good levels of accessibility and demand and commercial centres.
<p><i>Description of option</i></p>	<p>This option retains the current spatial extent of the Residential 2 zone (shown in darker yellow below), but applying the standards set out in <i>Appendix 1</i>.</p> 	<p>This option retains the current spatial extent of the Residential 2 zone but excludes areas that are subject to risk from significant flood hazards.</p>	<p>This option involves applying the Residential 2 zone (shown in orange below) to the best performing areas in terms of accessibility, having regard to proximity to the City Centre, employment, supermarkets and educational facilities.</p> <p>Compared to Option 1, Option 2 has a smaller southern extent and a greater northern and western extent of the Residential 2 zone.</p>	<p>This option involves extending the Residential 2 zone (shown in orange below) to areas that were assessed to have a good level of accessibility. This results in a greater spatial extent than Option 3, and includes areas around the Neognathae and Ōwhata Commercial areas.</p> 

				
<i>Efficiency and effectiveness in achieving objectives</i>				
<p><i>SDO3 There is at all times at least sufficient development capacity and land supply to meet expected demand for housing and business land over the short term, medium term and long term.</i></p>	<p>Option 1 is efficient and effective as it will facilitate greater housing density as concluded in Section 8.4.1 above, however, not to the same extent as Options 3 and 4.</p>	<p>Option 2 is less efficient and effective as it enables the least development capacity of housing and business land.</p>	<p>Option 3 is efficient and effective as it will facilitate at least sufficient development capacity and land supply to meet the expected demand for housing and business land in the short, medium, and long terms.</p>	<p>Option 4 is efficient and effective as it will facilitate the greatest extent of development capacity and land supply to meet expected demand for housing and business land over the short, medium, and long terms.</p>
<p><i>SDO4 The primary focus for residential intensification and additional business or community services include areas:</i></p> <p><i>a. within and adjacent to centres or employment opportunities;</i></p>	<p>Option 1 is less efficient or effective as the existing spatial application of the Residential 2 zone does not fully correspond to the areas outlined in SDO4, excluding some areas with high levels of accessibility and demand.</p>	<p>Option 2 is not efficient or effective as the reduced spatial extent of the Residential 2 zone will significantly exclude areas that correspond to those outlined in SDO4, including land that can practicably accommodate residential intensification with respect</p>	<p>Option 3 is effective and efficient as it applies the Residential 2 zone to a targeted area within Rotorua that has been assessed to best correspond with the areas outlined in SDO4.</p>	<p>Option 4 is less efficient and effective as although it will apply the Residential 2 zone to areas that correspond with those outlined in SDO4, the extent of the zone is not focused to the locations that best meet SDO4, particularly (a) and (b). Given the expected demand for high density apartment dwellings in Rotorua is expected to be low, this option is more likely to result in residential intensification being dispersed</p>

<p>b. well-serviced by existing or planned public transport;</p> <p>c. where there is high demand for housing or for business land in the area, relative to other areas within the urban environment.</p>		<p>to flood hazards with appropriate design.</p>		<p>across the wider Residential 2 zone. The best performing areas outlined in SDO4 are unlikely to be the focus for future residential intensification.</p>
<p><i>RESZ-08 Land that has good accessibility by existing or planned active or public transport to a range of commercial activities, public open space and community services, is efficiently used for high density urban living that increases housing supply and choice.</i></p>	<p>Option 1 is less effective as it does not include all areas with good accessibility by existing or planned active or public transport and will not enable the most efficient use of this land, for high density urban living.</p>	<p>Option 2 is not efficient or effective as it does not enable the efficient use of land with good accessibility by existing or planned active or public transport to be used efficiently for high density urban living where flood hazards may be appropriately managed through detailed site design.</p>	<p>Option 3 is efficient and effective as it facilitates the use of land that has the greatest levels of accessibility by existing or planned active or public transport for high density urban living.</p>	<p>Option 4 is efficient and effective as it facilitates the use of land that has good accessibility by existing or planned active or public transport for high density urban living.</p>
<p><i>CCZ-01 A vibrant city centre that is the primary commercial and retail centre for the establishment and operation of a diverse range of commercial and residential activities</i></p>	<p>Option 1 is efficient and effective as it facilitates high density residential development surrounding the city centre and potential to promote the matters in CCZ-01.</p>	<p>Option 3 is efficient and effective as it facilitates high density residential development surrounding the city centre and will promote the matters in</p>	<p>Option 3 is efficient and effective as it facilitates the greatest opportunity for high density residential development surrounding the city centre, and greatest potential to</p>	<p>Option 4 is less efficient or effective. While high density residential development will be enabled around the City Centre to promote the matters in CCZ-01, the spatial application of the Residential 2 zone is likely to exceed expected demand. This will create the potential for development to be</p>

<p><i>which promote and enhance the economic viability, employment opportunities, walkability and safety of the city centre.</i></p>		<p>CCZ-O1, however not to the extent of Options 1 and 3.</p>	<p>promote the matters in CCZ-O1</p>	<p>dispersed rather than concentrated in key areas and nodes around the City Centre.</p>
<p><i>Costs</i></p>				
<p><i>Environmental</i></p>	<p>Option 1 will result in the inefficient development of land with high levels of accessibility and demand and where the NPS-UD anticipates intensification to occur.</p>	<p>Option 2 will result in the inefficient development of land with high levels of accessibility and demand as it does not recognise that flood hazards may be appropriately managed through detailed site design.</p> <p>Option 2 also has the potential to create effects on adjoining properties and residential amenity as it is likely to result in an irregular zoning pattern and built form and character outcomes.</p>	<p>Option 3 has the potential to create effects on adjoining properties and surrounding land uses as a result of intensification in existing low-density residential areas and in relation to flood hazard risks. However, effects can be mitigated through the application of other performance standards, noting that PC9 seeks to amend the District Plan provisions to ensure flood risks are appropriately managed when intensified development occurs (refer Section 11).</p>	<p>Option 4 has the potential to create effects on adjoining properties and surrounding land uses as a result of intensification in existing low-density residential areas and in relation to flood hazard risks. However, effects can be mitigated through the application of other performance standards, noting that PC9 seeks to amend the District Plan provisions to ensure flood risks are appropriately managed when intensified development occurs (refer Section 11).</p> <p>Option 4 is also likely to inappropriately disperse higher density development, and result in insufficient differentiation of development intensities across the urban area of Rotorua.</p> <p>There is also the potential for high density development to occur opportunistically within discrete areas, where development is less likely to function together with key nodes of accessibility, community services, and social amenities.</p>

<i>Economic</i>	Option 1 precludes intensification on land where there may be future market demand for higher density urban living, and will incur additional consenting costs due to future land owners seeking to develop this land in response to market demand.	Option 2 precludes intensification on land where there may be future market demand for higher density urban living, and will incur additional consenting costs to future land owners seeking to develop this land in response to market demand.  Option 2 also has the potential to create additional consenting risk and costs as an irregular zoning pattern will result in high-density residential areas adjoining low-density residential areas.	Option 3 has the potential to incur additional costs associated with infrastructure provision to service a greater extent of high density residential development. However, the application of the Residential 2 zone is proposed within existing urban areas already well serviced by public transport and infrastructure. These costs are not expected to be significant.  As Option 3 creates potential opportunity costs where development is precluded occurring in areas where there might be market demand and/or developer willingness.	Option 4 has the potential to incur additional costs associated with infrastructure provision to service a greater extent of high density residential development that is widespread, where infrastructure efficiencies are less likely to be achieved.
<i>Social</i>	Option 1 does not make the most efficient use of land and therefore does not support the growing population within Rotorua or the delivery of housing	Option 2 does not make the most efficient use of land and therefore does not support the growing population within Rotorua or the delivery of housing	Option 3 expands the spatial extent of land that can accommodate intensification, which may be considered by some members of the community to not be in keeping with the anticipated character	Option 4 expands the spatial extent of land that can accommodate intensification, which may be considered by some members of the community to not be in keeping with the anticipated character and built form outcomes in existing low-density residential areas.

	choice and variety, to the greatest extent practicable.	choice and variety, to the greatest extent practicable.	and built form outcomes in existing low-density residential areas.	
<i>Cultural</i>	Option 1 does not facilitate the greatest housing opportunities on whenua Māori.	Option 2 does not facilitate the greatest housing opportunities on whenua Māori.	Option 3 has the potential to create effects on land around sites of cultural significance. However, effects can be mitigated through the application of other performance standards	Option 4 has the potential to create effects on land around sites of cultural significance. However, effects can be mitigated through the application of other performance standards.
<i>Benefits</i>				
<i>Environmental</i>	<p>As the Residential 2 zone will enable high density residential development and a maximum building height of 19.5m as concluded in Sections 7.4.1 and 7.4.3, Option 1 will</p> <p>Option 1 will facilitate high density residential development on land with good accessibility by existing or planned active or public transport and will support a reduction in greenhouse gas emissions in Rotorua, however, not to</p>	<p>Option 2 will facilitate some high density residential development on land with good accessibility by existing or planned active or public transport and will support a reduction in greenhouse gas emissions in Rotorua, however, not to the extent of Options 1, 3 and 4.</p> <p>Option 2 also provides the greatest certainty high density residential development will not exacerbate flood hazards</p>	<p>Option 3 enables a significant increase in development capacity and land supply. When applied in conjunction with the MDRS across relevant residential zones, Option 3 will provide a sufficient and high level of plan enabled capacity relative to expected demand. The Economic Assessment estimates this option would provide plan enabled capacity of 14,700 residential units.</p>	<p>Option 4 enables the greatest extent of development capacity and land suppl. When applied in conjunction with the MDRS across relevant residential zones, will provide a sufficient and high level of plan enabled capacity relative to expected demand. The Economic Assessment estimates this option would provide plan enabled capacity of 51,600 dwellings.</p> <p>Providing for intensification on land that has good accessibility by existing or planned active or public transport and will also support a reduction in greenhouse gas emissions in Rotorua.</p>



	the extent of Options 3 and 4.	on land subject to risk from significant flood hazards.	<p>Option 3 also facilitates the most appropriate extent of land for higher density residential development relative to expected demand, in locations within proximity to the City Centre. This option therefore maximises opportunities to facilitate residential intensification that supports the vibrancy of the city centre.</p> <p>Providing for intensification on all land that has good accessibility by existing or planned active or public transport will also support a reduction in greenhouse gas emissions in Rotorua.</p>	
<i>Economic</i>	As the Residential 2 zone will enable high density residential development and a maximum building height of 19.5m as concluded in Sections 7.4.1 and 7.4.3, Option 1 will facilitate high density residential development, contributing to housing	Option 2 will facilitate high density residential development, and will contribute to housing supply and affordability, however, not to the extent of Options 1, 3 and 4.	Option 3 will facilitate high density residential development, contributing to housing supply and affordability while ensuring there is market feasibility for the extent of high density residential development proposed.	<p>Option 4 will facilitate the greatest extent of high density residential development, contributing to housing supply and affordability.</p> <p>This option will provide opportunities to deliver housing surrounding the city centre, which in turn supports the ongoing vibrancy of this area.</p>

	supply and affordability, however the locations of intensification are less accessible than those of Options 3 and 4.		This option will maximise opportunities to deliver high density housing that is concentrated around the city centre and planned infrastructure investment, creating efficiencies for infrastructure provision and supporting the vibrancy of the city centre.	
<i>Social</i>	Option 1 will retain the existing spatial extent of zoning where the community expects a higher density of urban form and development to be provided, which may be perceived by some members of the community as a benefit.	Option 2 will facilitate high density residential development that will provide for some range of housing typologies and choice to support the growing the growing population within Rotorua, however, not to the extent of Options 3 and 4.	Option 3 facilitates high density residential development that will provide for a range of housing typologies and choice to support the growing population within Rotorua.  Option 3 will also ensure that housing is provided in locations that have the greatest level of access access to a range of community services and social amenities.	Option 4 facilitates the greatest extent of high density residential development that will provide for a range of housing typologies and choice to support the growing population within Rotorua.
<i>Cultural</i>	Option 1 facilitates some housing opportunities on whenua Māori.	Option 2 facilitates some housing opportunities on whenua Māori.	Option 3 facilitates the greatest practicable housing opportunities on whenua Māori.	Option 4 facilitates the greatest housing opportunities on whenua Māori.

<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.
<i>Summary</i>	<p>Option 3 is the preferred option. Expanding the spatial extent of the Residential 2 zones to the areas with the greatest level of accessibility is the most appropriate mechanism for achieving the objectives because:</p> <ul style="list-style-type: none"> <li>• In accordance with SDO3 this option will enable at least sufficient development capacity and land supply to meet expected demand for housing and business land over the short term, medium term and long term.</li> <li>• In accordance with SDO4 this option maximises opportunities to concentrate residential intensification within proximity to the City Centre, adjacent to employment opportunities and well-serviced by existing and planned public transport.</li> <li>• In accordance with RES-08 this option maximises opportunities to ensure that the areas with the greatest level of accessibility are efficiently used to accommodate high density urban living.</li> <li>• In accordance with SDUD-04 the location and extent of Residential 2 land under Option 3 responds most appropriately to the expected demand for high density residential dwellings, and therefore maximises opportunities to concentrate development around the city centre, creating efficiencies for infrastructure provision and facilitating residential intensification that supports the vibrancy of the city centre.</li> </ul>

### 7.8.3 Issue 4: Appropriate height limit within the Residential 2 – High Density Zone

#### Description

The Residential 2 zone is currently intended to provide for medium density residential development and currently has a height limit of 7.5m. As concluded in Section 8.4.1 above retaining the Residential 2 zone to provide for high density housing is the most appropriate method for giving effect to the objectives of the plan, PC9 and the NPSUD. Therefore, a decision needs to be made regarding the appropriate height limit to enable higher density residential development within the Rotorua context.

It is proposed to apply a 19.5m height limit within the Residential 2 High Density zone. As set out within the technical Urban design advice (refer *Appendix 9*) this will enable six storeys with a floor-to-floor height of 3.1m (this would enable an internal floor-to-ceiling height of approximately 2.7m) and totalling 18.6m. An additional allowance of 0.9m has also been included to accommodate sloping roof forms<sup>4</sup> and potential freeboard requirements in areas with some identified flooding issues.

**Table 10: Issue 4 - Appropriate height limit within the Residential 2 High Density Zone – Evaluation of Options**

	Option 1: Status quo	Option 2: Apply a 18m height limit to enable six storey development	Option 3: Proposed Plan Change: Apply a 19.5m height limit to enable six storey development
<i>Description of option</i>	This option involves retaining the existing 7.5m height limit that enables two story development.	This option will provide for six storey development through applying a 18m height limit.	This option will provide for six storey development through applying a 19.5m height limit.
<i>Efficiency and effectiveness in achieving objectives</i>			
SDO4 The primary focus for residential intensification and additional business or community services include areas: a. within and adjacent to centres or employment opportunities; b. well-served by existing or planned public transport; c. where there is high demand for housing or for business land in the area, relative to other areas within the urban environment.	The Residential 2 High Density Residential zone has been applied to a targeted area within Rotorua that corresponds to the areas outlined in SDO4. The current 8m height limit will not enable high density housing limiting the amount of intensification that can occur close to the City Centre and public transport. Therefore Option 1 will not efficiently or effectively achieve this objective.	The Residential 2 High Density Residential zone has been applied to a targeted area within Rotorua that corresponds to the areas outlined in SDO4. This option will enable intensification within these areas however, as outlined within the Urban Design memo refer <i>Appendix 9</i> a 18m height limit will not facilitate 6 story development. Therefore, this option will not facilitate intensification of these areas to the same extent as option 3.	The Residential 2 High Density Residential zone has been applied to a targeted area within Rotorua that corresponds to the areas outlined in SDO4. This option imposes the greatest height limit of all the options to enable buildings of a scale that a viable to facilitate intensification within these areas and avoid inefficient use of this land.
RESZ-08 Land that has good accessibility by existing or planned active or public transport to a range of commercial activities, public open space and community services, is efficiently used for high density urban living that increases housing supply and choice.	This option will result in an inefficient use of land surrounding the City Centre as it limits development to two stories, reducing the ability to achieve high density housing.	This option does enable more people to live close to the City Centre and public transport however, not to the extent of Option 3.	This option will facilitate more people to live close to the City Centre and public transport to the greatest extent practicable while achieving other built environment objectives.
RESZ-09 Development contributes to the creation of neighbourhoods with a high	Option 1 is not efficient or effective at achieving this objective as it only enables	As outlined within the Urban Design memo refer <i>Appendix 9</i> a 18m height	This option is most effective at achieving this objective as:

	Option 1: Status quo	Option 2: Apply a 18m height limit to enable six storey development	Option 3: Proposed Plan Change: Apply a 19.5m height limit to enable six storey development
density residential built character, comprising residential buildings generally up to six storeys, integrated with on-site landscaped areas.	two story development, which will not contribute to a high density residential built character.	limit will not facilitate 6 story development. Therefore, this option is not the most efficient or effective option at achieving this objective when compared with Option 3.	<ul style="list-style-type: none"> <li>Based on technical urban design input a 19.5m height limit is more likely to facilitate quality six story development as discussed in <i>Section 7.8.3</i> above; and</li> <li>The 19.5m height limit is proportionate to the scale of a typical street within the Residential 2 zone creating an appropriate balance between an enclosed urban feel and openness.</li> </ul>
<i>Costs</i>			
<i>Environmental</i>	This option will result in development which is an inefficient use of land that is close to the City Centre and serviced by public transport.	As outlined within the Urban Design memo refer <i>Appendix 9</i> a 18m height limit will not facilitate 6 story development. Therefore, this option will not facilitate as efficient use of land close to the City Centre and serviced by public transport as option 3.  Potential effects on adjoining properties and surrounding land uses as a result of intensification in existing low-density residential areas.	Potential effects on adjoining properties and surrounding land uses as a result of intensification in existing low-density residential areas.
<i>Economic</i>	Costs to future applicants wanting to build higher and larger scale apartment buildings around the city centre as this	As previously outlined this option is unlikely to result in development of less than six stories which will not support	High cost of construction of buildings greater than three storeys in New Zealand due to structural engineering,

	Option 1: Status quo	Option 2: Apply a 18m height limit to enable six storey development	Option 3: Proposed Plan Change: Apply a 19.5m height limit to enable six storey development
	<p>type of development is not anticipated with an 8m height limit.</p> <p>Fails to support public transport provision, investment in amenities and infrastructure and the vibrancy of the Central City.</p>	<p>viable high density residential development because as set out in the technical Urban Design advice the costs of construction over three stories and the challenges with securing funding (<i>refer Appendix 9</i>).</p>	<p>circulation and fire standards, however, greater building height allows these costs to be spread across a greater number of residential units.</p>
<i>Social</i>	<p>This option does not make the most efficient use of land and therefore may not result in the development yields to support increased vibrancy within the CBD and to support the growing population within Rotorua.</p>	<p>The scale of development delivered through this option may be considered by some members of the community to be not in keeping with the community's expectations given the current 8m height limit.</p>	<p>The scale of development delivered through this option may be considered by some members of the community to be not in keeping with the community's expectations given the current 8m height limit.</p>
<i>Cultural</i>	<p>Does not enable more intensive housing opportunities on Maori owned or Treaty settlement land.</p>	<p>Further intensification and development of land around sites of cultural significance.</p>	<p>Further intensification and development of land around sites of cultural significance.</p>
<i>Benefits</i>			
<i>Environmental</i>	<p>This option will not change the scale of development that is currently allowed within the Residential 2 zone therefore it is less likely to result in potential effects on neighbouring low density properties.</p>	<p>An 18m height limit will not enable enough flexibility to establish 6 storey buildings particularly if the building incorporates a sloped roof or there are flooding constraints with freeboard requirements. The technical urban design analysis used to inform this plan change specifies that 3m is generally regarded as the absolute minimum required to ensure sufficient internal</p>	<p>A six storey height limit will enable the efficient use of land that is close to the city centre and well serviced by public transport.</p> <p>Expert urban design advice to inform the development of PC9 19.5m is an appropriate height in metres equivalent to a six-storey residential building. This enables a floor-to-floor height of 3.1m</p>



	Option 1: Status quo	Option 2: Apply a 18m height limit to enable six storey development	Option 3: Proposed Plan Change: Apply a 19.5m height limit to enable six storey development
		<p>floor-to-ceiling heights. Apartment schemes typically feature floor-to-floor heights of 3.1-3.2m while higher end developments can include floor-to-floor heights of up to 3.4m.</p>	<p>(internal floor-to-ceiling height of approximately 2.7m). An additional allowance of 0.9m is included to accommodate sloping roof forms and potential freeboard requirements in areas with some identified flooding issues.</p> <p>The 19.5m height limit provides an effective transition between the 32m height limit within the City Centre zone and the 11m height limit within the surrounding Residential 1 – Medium Density zone.</p> <p>From an urban design perspective, the 19.5m height limit is proportionate to the scale of the street and the public realm that can be seen across the Residential 2 zone, which features a typical width of 20.1m (one imperial chain). This could provide for a street enclosure ratio of 1:1, which is regarded as a well-founded rule of thumb in urban design that balances spatial definition and a sense of openness.</p>
<i>Economic</i>	No direct economic benefit associated with this option.	Less consenting costs to applicants and developers seeking to develop higher	Less consenting costs to applicants and developers seeking to develop higher

	Option 1: Status quo	Option 2: Apply a 18m height limit to enable six storey development	Option 3: Proposed Plan Change: Apply a 19.5m height limit to enable six storey development
		and larger scale apartment buildings around the City Centre.  Supports public transport provision, investment in amenities and infrastructure and the vibrancy of the Central City, but not to the same extent as Option 4.	and larger scale apartment buildings around the City Centre.  Supports public transport provision, investment in amenities and infrastructure and the vibrancy of the Central City.
<i>Social</i>	The scale of development delivered through this option may be considered by some members of the community as in keeping with the community's expectations given the current 8m height limit.	This option provides a height strategy which results in a stepping down in height away from the City Centre, reinforcing the City Centre as a key focal point for the community.	The 19.5m height limit will offer a distinct and identifiable node of built form amongst the surrounding medium density residential zonings. This will reinforce the City Centre as a key focal point for the community.
<i>Cultural</i>	Does not enable further intensification and development of land around sites of cultural significance.	Enables more intensive housing opportunities on Maori owned or Treaty settlement land.	Enables more intensive housing opportunities on Maori owned or Treaty settlement land.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.		
<i>Summary</i>	<p>Option 4 is the preferred option. Providing for six story buildings through a 19.5m height limit is the most appropriate mechanism for achieving the objective because:</p> <ul style="list-style-type: none"> <li>• In accordance with RESZ-09 this option will facilitate neighbourhoods with a high density residential built character, comprising residential buildings generally up to six storeys, enabling a transition between the 32m height limit within the City Centre zone and the 11m height limit within the surrounding Residential 1 – Medium Density zone;</li> </ul>		

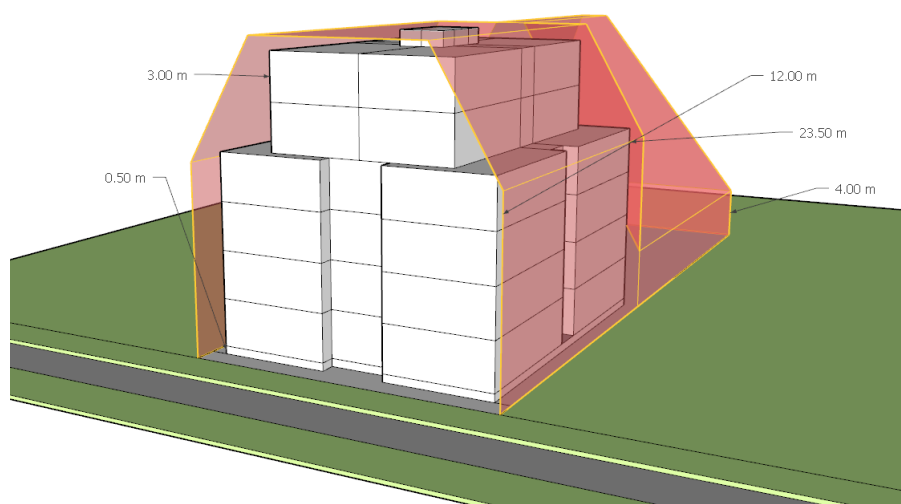
	Option 1: Status quo	Option 2: Apply a 18m height limit to enable six storey development	Option 3: Proposed Plan Change: Apply a 19.5m height limit to enable six storey development
	<ul style="list-style-type: none"> <li>• In accordance with SD04 and RESZ-08 this option adopts a 19.5m height limit which based on technical urban design input is more likely to facilitate six story development and therefore will result in an efficient use of land within areas adjacent to the City Centre and well serviced by public transport; and</li> <li>• The 19.5m height limit provides an effective transition between the 32m. The 19.5m height limit is proportionate to the scale of a typical street within the Residential 2 zone creating an appropriate balance between an enclosed urban feel and openness.</li> </ul>		

#### 7.8.4 Issue 5: Achieving High Density Housing Typologies within Residential 2 Zone

In addition to the application of the MDRS within the Residential 1 zone, accessibility and demand analysis undertaken has identified that further intensification is required in the Residential 2 zone in close walking distance to the City Centre.

The proposed standards within the Residential 1 zone are generally well aligned with development within the Residential 2 zone as they support multi-unit development, including those configured in apartment type arrangements. However, urban design analysis (refer *Appendix 9*), which has informed the development of this plan change, has highlighted the need to tailor some of the standard to further enable high density typologies. In particular, it is proposed to amend:

- Height in relation to boundary control of 12m + 60 degrees is proposed to apply for the first 23.5m (1.5m front yard + 22m maximum building length) of the site from the street boundary. Beyond this, the 4m + 60 degree recession plan would apply. This tailored Height in Relation to Boundary standard is intended to accommodate viable floorplates at upper levels consistent with a planned urban character of apartment living in the Residential 2 zone. The more restrictive control is proposed to apply at the rear of the site to facilitate the greatest level of development at the site frontage, enabling effects associated with the additional building bulk or larger apartment buildings to be directed towards/ absorbed by the street (and any neighbouring front yards or roofs of existing buildings), rather than private open spaces at the rear of existing dwellings (refer to *Figure 14*).
- A reduction of the minimum balcony dimensions to 1.5m and 6m<sup>2</sup> is proposed to reflect that the Residential 2 zone is located in close proximity to a range of amenities including hospitality and entertainment venues, open spaces and schools. Combined, these serve to reduce the requirement for on-site outdoor living spaces and are an important ‘trade-off’ that distinguishes low-density suburban housing from more intensive housing in and around centres.



**Figure 14: Built-form enabled by bulk and massing related development standards within the Residential 2 zone.**

**Table 11: Issue 5 - Achieving High Density Housing Typologies within the Residential 2 Zone**

	Option 1: Apply the Residential 1 zone standards within the Residential 2 zone	Option 2: Proposed Plan Change – Tailor the standards to enable High Density Housing Typologies
<i>Description of option</i>	This option will apply the same package of standards as the Residential 1 zone (aside from height) within the Residential 2 zone.	This option will tailor the following standards within the Residential 2 zone to enable high density housing typologies: <ul style="list-style-type: none"> <li>• Height in relation to boundary; and</li> <li>• Minimum balcony dimension.</li> </ul>
<i>Efficiency and effectiveness in achieving objectives</i>		
SD09 Urban development results in attractive, safe and healthy environments.	This option will effectively and efficiently achieve SD09 as the MDRS HIRB. It has been designed to provide access to light and outlook between more intensive building forms and avoid excessive overlooking and dominance at side boundaries.	This option will effectively and efficiently achieve SD09 as the proposed HIRB standard has been through urban design testing which has resolved that the proposed control will enable a functional six story building at the site frontage, provide better light and outlook between more intensive building forms and avoid excessive overlooking and dominance at side boundaries towards the rear of the site.
RESZ-03 & RESZ -010 Development contributes to attractive and safe streets and open spaces.	This option is not as efficient or effective at achieving RESZ-03 & RESZ -010 as Option 2 as it will not facilitate the same extent of development at the site frontage to promote passive surveillance of streets.	This option will effectively and efficiently achieve RESZ-03 & RESZ -010 as the proposed Height in Relation to Boundary standard has been designed to facilitate the greatest level of development at the site frontage. This will encourage a built-form which can better promote passive surveillance of streets and supporting a high quality built-form, which minimises effects on neighbouring properties.
RESZ-03 & RESZ – 011 Development provides healthy, safe, high amenity and comfortable living environments for residents.	This option will effectively and efficiently achieve RESZ-03 & RESZ – 011, as the MDRS HIRB has been designed to provide access to light and outlook between more intensive building forms and avoid excessive overlooking and dominance at side boundaries towards the rear of	This option will effectively and efficiently achieve RESZ-03 & RESZ – 011 as the proposed HIRB standard has been designed to facilitate the greatest level of development at the site frontage, provide better light and outlook between more intensive building forms and avoid excessive overlooking and

	the site. The larger balconies will provide high amenity and comfortable living environments for residents.	dominance at side boundaries. The reduction in minimum balcony dimensions is appropriate, given that the Residential 2 zone is located in close proximity to a range of amenities and open spaces, which reduces the requirement for on-site outdoor living spaces. This is an important 'trade-off' that distinguishes low-density suburban housing from more intensive housing in and around centres.
<i>Costs</i>		
<i>Environmental</i>	Urban design testing has concluded that sites within the proposed extent of the Residential 2 zone exhibit a historic subdivision pattern, where compliance with the HIRB standard included within the MDRS will likely prevent development over 4-storeys/ 12m in height – well below the proposed height limit of 19.5m. Therefore, the application of the MDRS HIRB standard will significantly reduce the housing capacity that can be achieved within the Residential 2 zone.	Potential effects on adjoining properties and surrounding land uses, as a result of intensification in existing low-density residential areas.
<i>Economic</i>	Urban design testing has concluded that the MDRS HIRB standard will not facilitate development over 4-storeys/ 12m in height and therefore this option will lead to added compliance costs for the development of apartment buildings within the Residential 2 zone.  The requirement to provide larger balconies within the Residential 2 zone will lead to greater construction costs.	High cost of construction of buildings greater than three storeys in New Zealand due to structural engineering, circulation and fire standards.
<i>Social</i>	The additional costs and time associated with the delivery of apartment buildings within the Residential 2 zone, resulting from a less flexible HIRB standard and	The smaller balcony requirement may result in less opportunity for private outdoor living space however, the Residential 2 zone is located in close proximity to a range of

	greater balcony requirement, will slow the delivery of much needed housing.	amenities including parks and the city centre, so there is not as great a need for private outdoor space, within this location.
<i>Cultural</i>	Potential for poor design outcomes for lands near cultural sites.	Potential for poor design outcomes for lands near cultural sites, but better ability to control.
<i>Benefits</i>		
<i>Environmental</i>	This option will enable lower building height at the boundary and therefore will have fewer potential effects on adjoining properties and surrounding land uses, however urban design testing has concluded that it will not facilitate development consistent with a planned urban character of apartment living in the Residential 2 zone.	Urban design testing has concluded that the proposed HIRB standard will accommodate viable floorplates at upper levels, consistent with a planned urban character of apartment living in the Residential 2 zone.  The proposed HIRB standard has been designed to facilitate the greatest level of development at the site frontage, provide better light and outlook between more intensive building forms and avoid excessive overlooking at side boundaries towards the rear of the site.
<i>Economic</i>	Reduced cost of construction of buildings less than four storeys in New Zealand due to structural engineering, circulation and fire standards.	Providing a more flexible HIRB standard will result in a simpler compliance approach, which will reduce costs and time for those developing within the Residential 2 Zone.  Potential for an increase in yield associated with the HIRB standard, which can facilitate six storey development on a typical site.
<i>Social</i>	Incorporating a lower HIRB control may be more in keeping with some members of the community's expectations as this will be less change from the operative HIRB standard.  The larger balcony requirement may provide increased opportunities for outdoor living however, the Residential 2 zone is located in close proximity to a range of	Providing a simpler compliance approach that supports high density residential development may result in the faster delivery of additional housing.

	amenities including parks and the city centre, so there is not as great a need for private outdoor space within this location.	
<i>Cultural</i>	Facilitate more housing opportunities on whenua Māori.	Facilitate more housing opportunities on whenua Māori.
<i>Risks</i>	The risk of not acting is high. There are requirements to introduce greater residential development density within Rotorua and the current approach does not address Issue.	
<i>Summary</i>	<p>Option 2 is the preferred option. Tailoring the HIRB and minimum balcony dimension within the Residential 2 zone to facilitate High Density residential development is the most appropriate mechanism for achieving the objective because:</p> <ul style="list-style-type: none"> <li>• The proposed HIRB standard has been designed to facilitate the greatest level of development at the site frontage, provide better light and outlook between more intensive building forms and avoid excessive overlooking and dominance at side boundaries towards the rear of the site in accordance with SD09;</li> <li>• The proposed HIRB standard has been designed to facilitate the greatest level of development at the site frontage, encouraging a built-form which can better promote passive surveillance of streets and support a high quality built-form, which minimises effects on neighbouring properties in accordance with RESZ-03 &amp; RESZ -010; and</li> <li>• The reduction in minimum balcony dimensions is appropriate as the Residential 2 zone is located in close proximity to the existing open space network, which reduces the requirement for on-site outdoor living spaces and are an important 'trade-off' that distinguishes low-density suburban housing from more intensive housing in and around centres.</li> </ul>	



## 7.9 Evaluation of Provisions for the Residential 1 and 2 Zones

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### 7.9.1 Issue 6: Activity Status for Four or More Residential Units in the Residential 1 & 2 Zones

Under the MDRS, development of 4 or more residential units is a restricted discretionary activity. There is flexibility however, for Councils to make this requirement more enabling. Therefore, a decision needs to be made in relation to whether a more enabling activity status is appropriate, within the Rotorua context.

As previously discussed, with the introduction of medium density and high density residential development there is potential for adverse effects on the quality and amenity of the urban environment. This is particularly the case for more intensive forms of development that are not contemplated by the MDRS. Therefore the need to achieve quality design is increasingly important as the scale of development increases to ensure that development:

- achieves the planned urban built character of the zone;
- achieves attractive and safe streets and public open spaces;
- manages the effects of development on adjoining sites, including visual amenity, privacy and access to daylight and sunlight; and
- achieves high quality on-site living environments.

To address this issue, it is proposed to apply a Restricted Discretionary Activity Status for 4 or more residential units in both the Residential 1 and 2 zones. Applications for consent are proposed to be non-notified where they comply with the performance standards in recognition that this is a technical design assessment and the Council is unlikely to obtain any additional information through notification. Processing these resource consents on a non-notified basis (unless special circumstances apply), reduces risks to applicants.

Amendments are proposed to the matters of discretion and assessment criteria to ensure the design assessment considers:

- How the design facilitates an attractive and safe streetscape and public open spaces, promoting opportunities for passive surveillance;
- Onsite residential amenity and how dwellings are functional to meet day to day needs;
- Effects on adjoining sites; and
- Infrastructure and stormwater management.

The proposed resource consent requirements enable the design and layout of the development to be assessed; recognising that the need to achieve a quality design is increasingly important as the scale of development increases.

**Table 12: Issue 6 - Activity Status for Four or More Residential Units in the Residential 1 & 2 Zones**

	Option 1: Permitted subject to compliance with standards	Option 2: Proposed Plan Change – Restricted Discretionary (non-notified) with matters of discretion to assess design quality to four or more residential units
<i>Description of option</i>	This option would enable developments of four or more residential units in the Residential 1 and 2 zones as a permitted activity where compliance is achieved with standards.	This option will require developments of four or more residential units in the Residential 1 and 2 zones to obtain a resource consent as a restricted discretionary activity with matters of discretion to assess design quality.
<i>Efficiency and effectiveness in achieving objectives</i>		
SD09 Urban development results in attractive, safe and healthy environments.	<p>This option is not efficient and effective at achieving this objective as the impact of medium and high density development on the attractiveness, safety and health of an urban development cannot be determined through a permitted activity status and would rely on a non-regulatory approach and the goodwill of applicants.</p> <p>Permitted standards are not efficient and effective at achieving good design outcomes within high density and large scale medium density developments. This is because there are a variety of design solutions to manage effects and the optimum solution will depend on the context of the site. For example to create a quality apartment development the site design and placement of the apartment building should be completed together to ensure the development positively contributes to its setting.</p>	Through enabling an urban design assessment this option will ensure that large scale development at medium and high densities achieves quality built outcomes through enabling the ability to assess the site design and placement of buildings and the site context.

	Option 1: Permitted subject to compliance with standards	Option 2: Proposed Plan Change – Restricted Discretionary (non-notified) with matters of discretion to assess design quality to four or more residential units
	This is achieved through a qualitative assessment rather than prescriptive standards.	
RESZ-03 & RESZ -010 Development contributes to attractive and safe streets and open spaces.	This option is not efficient and effective at achieving this objective as the impact of medium and high density development on the attractiveness and safety of streets and open spaces can be determined through a permitted activity status but not in a way that is flexible and responsive to context.	Through enabling an urban design assessment this option will ensure that large scale development at medium and high densities responds to the context of the development ensuring that the site design, placement of building and the design of the building itself contributes to the attractiveness and safety of streets and open spaces.
RESZ-03 & RESZ – 011 Development provides healthy, safe, high amenity and comfortable living environments for residents  RESZ-04 Development provides healthy, safe and quality living environments for residents, within the context of a medium density residential environment.	This option is not efficient and effective at achieving this objective, as the impact of medium and high density development on the amenity of residents can be determined through a permitted activity status but not in a way that is flexible and responsive to context.	Through enabling an urban design assessment this option will ensure that large scale development, at medium and high densities, contributes to quality living environments through ensuring the design of buildings responds to the site context.
<i>Costs</i>		
<i>Environmental</i>	This option does not enable the consideration of building placement and site design specific to the site context. This could lead to poor urban design outcomes, adverse effects on adjoining properties, the public realm and on-site amenity.	Potential effects on adjoining properties and surrounding land uses as a result of greater intensification in existing low-density residential areas however, these may be mitigated through the resource consent process which will consider how the design of the proposal facilitates onsite amenity.

	Option 1: Permitted subject to compliance with standards	Option 2: Proposed Plan Change – Restricted Discretionary (non-notified) with matters of discretion to assess design quality to four or more residential units
<i>Economic</i>	Economic costs associated with in poor living conditions and associated social issues as a result of medium and high-density residential developments that do not achieve quality urban design outcome.	Cost of applying for a restricted discretionary resource consent for meeting urban design requirements.
<i>Social</i>	This option may result in poor living conditions and associated social issues as a result of medium and high-density residential developments that do not achieve quality urban design outcome.	Potential effects on adjoining properties and surrounding land uses as a result of greater intensification in existing low-density residential areas, however these may be mitigated through the resource consent process.
<i>Cultural</i>	No ability to assess the urban design quality of large-scale development of surrounding sites of cultural significance, which could result in poor quality outcomes on adjoining sites.	Further intensification and development of land around sites of cultural significance.
<i>Benefits</i>		
<i>Environmental</i>	It is possible to achieve good environmental outcomes under this approach but not in a way that is flexible and responsive to the specific site context.	This option will lead to better urban design outcomes for the public realm and on-site amenity, as these matters can be considered through the resource consent process specific to the site context
<i>Economic</i>	Providing a simpler compliance approach will reduce costs and time to those developing within the Residential 1& 2 Zones.	While there will be associated costs in applying for resource consents, clear assessment criteria will increase certainty to developers.
<i>Social</i>	This option may result in the faster delivery of additional housing without having to go through a	This option will lead to better urban design outcomes for the public realm and on-site amenity

	Option 1: Permitted subject to compliance with standards	Option 2: Proposed Plan Change – Restricted Discretionary (non-notified) with matters of discretion to assess design quality to four or more residential units
	resource consent process, however the poor-quality outcomes may outweigh this potential benefit.	as these matters can be considered through the resource consent process.
<i>Cultural</i>	Facilitates more housing opportunities on whenua Māori, but potential for poor design outcomes for lands near cultural sites.	Facilitates more housing opportunities on whenua Māori, and better ability to manage design outcomes for lands near cultural sites.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.	
<i>Summary</i>	Option 2 is the preferred option. Requiring developments of four or more residential units in the Residential 1 & 2 Zones to obtain resource consent as a restricted discretionary activity with matters of discretion to assess design quality, will enable flexibility to ensure urban development respond to the specific site context resulting in attractive, safe and healthy environments.	

## 8.0 Residential 3 Zone

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### 8.1 Structure of this Section

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This section includes the required Section 32 and Section 77J evaluation of the provisions in the District Plan proposed to be retained and applied to the Residential 3 zone under PC9. The MDRS is not proposed to apply to the Residential 3 zone due to a new qualifying matter under Section 77I(a).

### 8.2 Overview and Scope of Amendments

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Urban Rotorua includes three Māori villages, Ōhinemutu, Whakarewarewa and Ngāpuna, which sit within a separate residential zone known as the 'Residential 3 Zone'. This zoning framework recognises the villages of Ōhinemutu, Whakarewarewa and Ngāpuna as exceptional and unique places within the district.

The analysis below concludes that the Ōhinemutu, Whakarewarewa and Ngāpuna should not be subject to the MDRS. The characteristics, cultural and historical significance of Ōhinemutu, Whakarewarewa and Ngāpuna are such that applying the MDRS would not be consistent with the purpose and principles of the RMA. The separation and retention of the current zoning framework is considered to manage the use, development and protection of the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga as a matter of national importance under s6 for the reasons set out below. Engagement with the community of the villages supported the retention of the current framework.

### 8.3 Operative District Plan Approach

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The urban environment of Rotorua includes three Māori villages, Ōhinemutu, Whakarewarewa and Ngāpuna, which are recognised through the unique "Residential 3 Zone". This zoning framework recognises the villages of Ōhinemutu, Whakarewarewa and Ngāpuna as exceptional and unique places within the district. The zoning framework is supported by specific provisions, which aim to reflect their cultural significance.

Objective 4 of the Residential zones seeks to maintain the following qualities that contribute to the cultural significance of the Te Arawa villages:

- Single storey housing grouped in clusters;
- Narrow lanes and limited space around buildings;
- Pedestrian focused;
- Geothermal features;
- Home based businesses; and
- Community established around Marae.

This objective is implemented by policies 9, 17, 18 and 19 of the residential zones and rules that provide for residential activities at medium densities. Each village is focussed around the marae that provides cultural significance.

The District Plan also recognises this by identifying the Marae and applying a Marae Protection Overlay to adjacent sites that limits building heights to 5m to ensure the Marae remain a visually prominent feature within the villages.

The purpose of the Residential 3 Zone in the District Plan is to recognise and protect the cultural significance of these villages. This recognition and protection is provided for through separate standards, which include a lowered maximum building height, increased density, decreased front yards and a lowered site coverage. Generally, the provisions for the Residential 3 Zone are more enabling than the current other Residential Zones.

### 8.3.1 Significance of the Villages

Through recent engagement, iwi and hapū have confirmed the cultural values and significance associated with the Te Arawa villages, and they have advised that the operative Residential 3 provisions appropriately reflect those values. The outcome of these discussions is detailed below. Iwi and hapū have also expressed a desire to continue discussions with the Council on the Residential 3 zone provisions, and this will occur following notification of PC9.

There are a number of iwi/hapu that have an interest in Ōhinemutu, Whakarewarewa and Ngāpuna as listed below:

- Tūhourangi, Ngāti Wāhiao, Ngāti Huarere, Ngāti Tūkiterangi, Ngāti Hinganoa
- Ngāti Hinemihi, Ngāti Tarāwhai, Hurungaterangi, Ngāti Taeotu, Ngāti Te Kahu
- Ngāti Tūmatawera, Ngāti Kahu-ūpoko
- Ngāti Whakaue, Ngāti Tūnohopū, Ngāti Te Roroaterangi, Ngāti Pūkākī, Hurungaterangi, Ngāti Taeotu, Ngāti Rangiiwaho

It is also important to acknowledge the Partnership Agreement between Te Arawa and Rotorua Lakes Council which was signed in 2015. The partnership was developed by Te Arawa at Council's request as a means to help Council meet commitments to effectively partner with Te Arawa, to improve Council's legal and statutory obligations to Māori, to strengthen Te Arawa's participation in Council decision-making, to identify strategic opportunities to work closely together for the betterment of Rotorua District, and to build Iwi capacity and capability to partner with local government. The approach of direct engagement with the residents of the three villages recognises a shift in Council approach, and awareness that direct engagement ensures the cultural significance of Ōhinemutu, Whakarewarewa, and Ngāpuna is recognised and provided for within the Rotorua District.

### 8.3.2 Ōhinemutu

Ōhinemutu was established generations ago and is a focus for the continued expression of Ngāti Whakaue belonging, identity, kawa and tikanga. The cultural significance of Ōhinemutu is strengthened through the three marae (Te Papaouru, Paratehoata me Te Kohea and Te Kuirau) which empower strong, vibrant hapū and iwi life both inside and outside of Ōhinemutu. There are many other important community spaces within the pā including the churches of St Michaels and St Faiths, Muruika urupā, Te Ao Mārama Hall and Tipu Ora medical centre. There are also numerous taonga tuku iho and tohu nui (landmarks) surrounding Ōhinemutu including Te Rotoruanui a Kahumatamomoe, ngāwhā, Tiki, te Ruapeka, te Utuhina, Te Kuirau and Pukeroa (extending out to the many other wāhi tupuna of the broader Ngāti Whakaue rohe). Ōhinemutu is

the original township and the birth-place of the wider Rotorua Lakes District and it remains at the heart of the modern city. Geothermal features throughout the village are used to enhance everyday activities contribute to the cultural importance of Ōhinemutu. Much of Ōhinemutu is Māori land and homes in the pā tend to be handed down within wide whānau. Narrow roads and one-storey and two storey homes, with a mix of building materials, built relatively closely together (compared to the rest of the district) enhance the feeling of a close-knit community.

### 8.3.3 Whakarewarewa

Whakarewarewa is an ancestral kāinga for Tūhourangi Ngāti Wahiao. The Puarenga river and an abundance of geothermal features throughout the village create a focus for its special historic and cultural nature, and shape the identity of the people. Te Pakira marae is a dominant feature and an expression of the belonging, identity, kawa and tikanga of Tūhourangi Ngāti Wahiao. It is the focus for a strong and vibrant hapū and iwi life. Whakarewarewa is also the setting for historic guiding activities that Tūhourangi Ngāti Wahiao began in the late 1880s and continue to practice today, epitomising manaakitanga and rangatiratanga. Today, Whakarewarewa is characterised as having narrow streets and one-storey buildings built relatively closely together (compared to the rest of the district). Most of the buildings are wooden, weatherboard, and buildings can be clustered together, reflecting a close-knit community. The Village is Māori land so homes in the Village are passed down through wider whānau, reflecting the continued whakapapa connections of the residents.

### 8.3.4 Ngāpuna

Ngāpuna is an historic kāinga and village of ngā hapu e toru a Ngāti Whakaue and of Tūhourangi. It is a focus for the continued expression of hapū belonging, identity, kawa and tikanga. The two marae Hinemihi and Hurunga o te Rangī (and the associated urupā) are a focus for hapū life and represent the strength and permanence of mana whenua presence on the whenua. Important taonga tuku iho surrounding Ngāpuna include the Puarenga river, numerous geothermal features, Te Papa a Ruamoā and Rotorua Lake itself. Dwellings in the area are typically single storey and many were built in the mid 1950s to 1970s. There is a mix of general land and Māori freehold land, and homes tend to be passed down through families, reflecting the continued whakapapa connections of the residents.

## 8.4 Qualifying Matter and Justification of Incompatibility of MDRS

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Section 771 of the Amendment Act stipulates that a territorial authority may make the MDRS and the relevant building height or density requirements within a relevant residential zone more less enabling of development only to the extent necessary to accommodate 1 or more of the outlined qualifying matters. This includes a matter of national importance that decision makers are required to recognise and provide for under section 6 (Section 771(a)).

The values and characteristics of Ōhinemutu, Whakarewarewa and Ngāpuna are considered to be a s6(e) matter of national importance and provides for the relationship of Maori and their culture and traditions with their ancestral, lands, water, sites, waahi tapu and other taonga, for the reasons outlined below.

Engagement was held with the community members of each of the villages. Engagement included a survey to identify the values of the village and whether the Medium Density Residential Standards would be appropriate in the zone (refer *Appendix 19*). Additionally, Hui were held to



further explain the outcomes of the Amendment Act and understand the aspirations of each community (refer *Appendix 19*). Both the surveys and hui identified that each village community considered that the application of the MDRS does not provide for an appropriate level of development, due to a variety of cultural reasons. For each of the villages, the reasons are summarised below. Both the survey responses and further information can be found in the appendices (refer *Appendix 19*).

#### 8.4.1 Ōhinemutu

Engagement with the community of Ōhinemutu was in the form of a survey to the ratepayers, owners and occupiers and a hui. The outcome of both expressed that the community has an intimate connection with their whenua and whakapapa. Ōhinemutu represents a traditional cultural village, which has been passed down the generations and is a place for whanau to connect. There are clear linkages between tupuna and the current generation. Strong feedback indicates the importance of the wairua of the whenua and geothermal features, which are throughout the village. Ōhinemutu is characteristically and culturally different from the remainder of the Rotorua District. The survey responses outlined that the current style of the built form, and character do contribute to the cultural heritage of Ōhinemutu. Clear feedback stated that the built form of Ōhinemutu should be built adjacent to the marae and geothermal features. Iwi and hapū that were consulted generally stated that the application of the MDRS would be inappropriate given the cultural significance of the village.

#### 8.4.2 Whakarewarewa

Engagement with the community of Whakarewarewa was in the form of a survey to the ratepayers, owners and occupiers of the community, and an updated provided to the Tuhourangi Tribal Authority at their regular protocol meeting. The survey responses outlined that Whakarewarewa represents a unique village in Rotorua with significant cultural values. Survey responses outlined that while there is variety in the style of buildings throughout the village, the current built form generally represents the cultural values and contributes to the cultural heritage of Whakarewarewa. Many of the survey responses outlined that there are also significant ground condition constraints, that both from a physical and cultural perspective, would not support the application of the MDRS to Whakarewarewa. The built form of Whakarewarewa is characterised by narrow roads and small single story houses, which do not overshadow the marae. Generally, the survey responses outlined that the cultural significance of the Whakarewarewa would deem the MDRS being applied as inappropriate.

#### 8.4.3 Ngāpuna

Engagement with the Ngāpuna community comprised of a survey to the ratepayers, owners and occupiers as well as a hui held at Hurungaterangi Marae. Both the survey responses and the outcome of the hui highlighted strongly that Ngāpuna is a place with a strong connection to whanau, whakapapa and whenua. Feedback indicated that past decisions have had a negative impact on both the community and the environment. It was clear that the industrial activities on adjacent land has in the past, and continues to, impact negatively on the cultural and historical values of Ngāpuna village. The Ngāpuna community is uniquely Māori and generally aspires to have a built form which reflects Maori cultural values. In this regard, survey feedback indicated that it should continue to be developed in a way that reflects its connections to its whakapapa. The village status of Ngāpuna, which sets the area apart from the remainder of the urban environment, is

seen as an important aspect, which should continue into the future. Generally, the response from the community of Ngāpuna is that the MDRS application would not be appropriate given the both the cultural aspirations and significance of the village.

#### 8.4.4 Summary of Feedback

Recent engagement with iwi and hapū has confirmed the position of the respective communities on the cultural significance and values of their villages. The prevailing view across all three communities is that the operative District Plan provisions for the Residential 3 zone, as they currently stand, appropriately supports the underlying cultural values. For this reason, the MDRS will not be applied to the villages and PC9 proposes to retain the Residential 3 Zone so that it continues to provide for the unique relationship between local Māori and their cultural traditions, ancestral lands, sites, waahi tapu, and other taonga.

Many community members have however expressed a willingness to continue discussions following notification of, PC9 and the Council will continue to work with the local iwi and hapū to ensure that the planning provisions that apply to the villages reflect their unique cultural values and significance.

### 8.5 Impact on Development Capacity

The existing Residential 3 Zoning framework contains provisions which are less enabling than those of the proposed MDRS. These provisions, however, are generally more enabling than those of the operative provisions for the Residential Zones. The current Residential 3 Zone provisions are summarised below in comparison to the MDRS.

**Table 13: Current Residential 3 Standards compared to the MDRS (Rotorua District Plan, 2016) (Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021).**

	Current District Plan Standards (Residential 3 Zone)	Medium Density Residential Standards
Maximum Building Height	5m	11m with an allowance for the peak of the roof to extend an additional 1m.
Density	1 house per 250m <sup>2</sup>	3 houses per site
Minimum distance from house to front yard	3m	1.5m
Minimum distance from house to side and Rear	2.5m	1m
Height envelope	3m +45 degrees	4m + 60 degrees
Maximum amount of site that can be covered by buildings	50%	50%

Glazing, landscaping, outlook space	No controls	Controls
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To assist in understanding the effects on development capacity, analysis has been undertaken by Market Economics. The Rotorua Intensification Economic Assessment as prepared by Market Economics (refer *Appendix 8*) assessed the impact on the development capacity of urban Rotorua if the Residential 3 Zone was excluded from the MDRS as a qualifying matter. The effect, on capacity, of excluding the MDRS provisions from the Residential 3 zones (as a qualifying matter), and retaining the current Operative District Plan Capacity was tested across four intensification scenarios. The report found that the exclusion of the MDRS provisions from the Residential 3 Zone areas decreases the total plan enabled capacity only marginally by between 0.6% and 0.8%, which amounts a difference of only 1,000 fewer net additional dwellings across the modelled scenarios.

It was further determined that when considering different intensification scenarios that the difference in capacity is greater with respect to horizontally attached redevelopment as opposed to horizontally attached infill. In this regard, it was found that there were 1,500 fewer additional dwellings, which is a slightly larger decrease in additional capacity of 1.4%. This is because the maximum yields on many of these parcels are likely to still be exceeded by higher density development options (i.e. vertically attached apartments).

It is also noted that the above assessment is based on plan-enabled capacity and not feasible capacity. While there is a reduction in plan-enabled capacity, the Council has had clear feedback from the communities living in the villages that the current planning rules are sufficient to cater for future development, while respecting cultural values. This suggest that even if the MDRS was applied, the development capacity enabled may not be taken up by residents.

The exclusion of the MDRS provisions from the Residential 3 Zone area is therefore unlikely to have any significant effect on plan-enabled capacity or the longer-term growth patterns of Rotorua's urban area at a city level. The full Economic Assessment can be found in *Appendix 8*.

## 8.6 Appropriateness of Proposed Objectives

Relevant to this assessment are the following objectives of the District Plan:

- *SDML-01 – Opportunities for development on Māori land that meet the needs of those landowners and respects the exercise of kaitiakitanga and the relationship of tangata whenua with land, water, significant sites and wāhi tapu.*
- *SDUD-01 – Sufficient land area suited for future urban and economic development that provides for the residents of Rotorua with a range of lifestyle and development choices.*
- *RESZ-04 – Maintain the following qualities and characteristics that contribute to the cultural significance of the Te Arawa villages of Ōhinemutu and Whakarewarewa:*
  - *Single storey housing grouped in clusters*
  - *Narrow lands and limited space around buildings*
  - *Pedestrian focused*
  - *Geothermal features*

- *Home based businesses*
- *Community established around Marae*
- *RESZ-O5 – Avoid adverse effects of non-residential activities within the Residential 3 zone on the amenity of Ngāpuna.*

These objectives are considered to be the most effective way to achieve the purpose of the RMA, including the relationship of Maori and the cultural traditions with their ancestral lands, sites, waahi tapu, and other taonga (s6(e)) for the reasons outlined in the sections above.

## 8.7 Evaluation of Provisions

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The table below provides a summarised evaluation of the options available to manage development in the Residential 3 zone, within the context of the NPSUD and Amendment Act requirements (refer *Table 14*) The options assessed included retaining the Residential 3 zone of the operative District Plan or applying the MDRS, and retaining the Marae Protection Overlay. Further options may be identified as part of on-going engagement with iwi and hapū.

An assessment of the provisions against the requirements of s77J are included in *Appendix 4* of this report.

**Table 14: Table evaluating the options for the Residential 3 Zone**

	Option 1: Retain the current Zone (Status Quo)	Option 2: Proposed Plan Change inclusion of the MDRS
<i>Description of option</i>	This involves retaining the current Residential 3 Zoning framework (Ōhinemutu, Whakarewarewa and Ngāpuna) and associated provisions.	This option includes changing the zoning of the Residential 3 Zone to the Medium Density Zone and applying all associated provisions.
<i>Efficiency and Effectiveness in achieving objectives</i>		
SDML-O1 Opportunities for development on Māori land that meet the needs of those landowners and respects the exercise of kaitiakitanga and the relationship of tāngata whenua with land, water, significant sites and wāhi tapu.	Less efficient and effective in achieving the SDML-O1 around enabling opportunities, as there will be a reduction in development opportunities in the Residential 3 Zone. However, may be more efficient and effective in achieving SDML-O1 with respect to exercising kaitiakitanga and the relationship of tāngata whenua with land, water, significant sites and wāhi tapu as it will require a resource application allowing the possible effects on the relationship to be assessed.	May be more efficient and effective in achieving SDML-O1 with regard to the opportunities for development on Māori land as it enables permitted development providing it meets the MDRS and an increased baseline for greater level of development. However, may be less efficient and effective in achieving SDML-O1 exercising kaitiakitanga and the relationship of tāngata whenua with land, water, significant sites and wāhi tapu as it will enable a greater level of development on culturally significant land.
SDUD-O1 Sufficient land area suited for future urban and economic development that provides for the residents of Rotorua with a range of lifestyle and development choices.	Less effective and efficient in achieving SDUD-O1 as retaining the current provisions would lessen the plan-enabled development capacity of the Rotorua urban environment, however noting that the impact on feasibility is likely to be limited given landowner preferences expressed at hui and in survey responses. Could also lessen the effectiveness and efficiency or provide a range of development choices, as it would not incorporate the MDRS.	More efficient and effective in achieving SDUD-O1 as it allows for greater plan-enabled development capacity within the Rotorua urban environment. Furthermore, it is also more effective and efficient in enabling a range of development choices for Rotorua residents as the MDRS allows for greater housing options.

	Option 1: Retain the current Zone (Status Quo)	Option 2: Proposed Plan Change inclusion of the MDRS
<p>RESZ-04 Maintain the following qualities and characteristics that contribute to the cultural significance of the Te Arawa villages of Ōhinemutu and Whakarewarewa:</p> <ol style="list-style-type: none"> <li>1. Single storey housing grouped in clusters;</li> <li>2. Narrow lands and limited space around buildings;</li> <li>3. Pedestrian focused;</li> <li>4. Geothermal features;</li> <li>5. Home based businesses; and</li> <li>6. Community established around Marae</li> </ol>	<p>More efficient and effective in achieving RESZ-04, as retaining the current provisions would maintain the current qualities and characteristics of Ōhinemutu and Whakarewarewa contributing to the cultural significance of the villages. This is particularly the case regarding the single storey housing grouped in clusters and communities established around marae, as the current framework provides for both characteristics.</p>	<p>Less efficient and effective in achieving RESZ-04 as the application of the MDRS to the Residential 3 Zone would not maintain single storey houses grouped in clusters and may not maintain the unique characteristics associated with the communities established around marae. Both of which contribute to the cultural significance of the Te Arawa villages.</p>
<p>RESZ-05 Avoid adverse effects of non-residential</p>	<p>Not relevant as PC9 does not provide for any non-residential activities.</p>	<p>Not relevant as PC9 does not provide for any non-residential activities.</p>

	Option 1: Retain the current Zone (Status Quo)	Option 2: Proposed Plan Change inclusion of the MDRS
activities within the Residential 3 zone on the amenity of Ngāpuna.		
<i>Costs</i>		
<i>Environmental</i>	Potential to enable less efficient use of land within the Residential 3 Zone, in close proximity to the CBD.	
<i>Economic</i>	Reduces the amount of plan-enabled capacity within the urban area and the flexibility for landowners to redevelop for more intensive residential activities in the future (refer <i>Section 8.5</i> and <i>Appendix 8</i> ).	
<i>Social</i>	Enables a more limited range of housing choice within the Residential 3 Zone.	<p>Potential effects of adjoining properties and surrounding land uses as a result of greater intensification.</p> <p>Intimate connection between the social wellbeing and cultural wellbeing in te ao Māori so below cultural costs may impact the social wellbeing of the Residential 3 communities.</p>
<i>Cultural</i>	Potential for lesser opportunity for future development on land, which may include Māori owned land.	<p>Further intensification and development of land with cultural significance, which may impact negatively on the relationship between Māori and their culture and traditions with respect to their ancestral lands, water, sites, waahi tapu and other taonga as a Section 6 (RMA) Matter of National Importance.</p> <p>Possible disconnection of relationship between whenua and whakapapa within the villages.</p>

	Option 1: Retain the current Zone (Status Quo)	Option 2: Proposed Plan Change inclusion of the MDRS
		<p>Possible degradation of the wairua of the whenua and supporting features.</p> <p>Potential loss of character and built form of the urban environment, which is connected to the cultural and historical values of the villages.</p> <p>Would enable buildings to overshadow the Marae, which are a focal point of the village resulting in impacts on the cultural significance.</p> <p>Could lessen the intimate connection between whanau, whakapapa and whenua.</p> <p>Would remove the separation of the Residential 3 Zone from the remainder of the Residential Zone disregarding the "village status," which is valued within the Residential 3 community.</p>
<i>Benefits</i>		
<i>Environmental</i>	Provide for lower height in the Residential 2 Zone, which may potentially result in less impact on amenity of the existing properties.	<p>Intensification of existing urban areas promotes infrastructure efficiency.</p> <p>Makes efficient use of residential land which is reasonably accessible.</p>
<i>Economic</i>		<p>Potential for greater plan enabled development capacity in Rotorua- although only marginal (refer <i>Section 8.5</i> and <i>Appendix 8</i>).</p> <p>Potential for greater development opportunities on Māori owned land.</p>



	Option 1: Retain the current Zone (Status Quo)	Option 2: Proposed Plan Change inclusion of the MDRS
<i>Social</i>	<p>Will protect the cultural significance of the Residential 3 Zone which will result in better social outcomes for the residents.</p> <p>Intimate connection between the social wellbeing and cultural wellbeing in te ao Māori so below cultural benefits may benefit the social wellbeing of the Residential 3 Communities.</p>	Potential to provide for greater social benefits as it will enable a greater increase in housing supply and choice.
<i>Cultural</i>	Enables greater protection to the historical and cultural values of the Residential 3 Zone.	Enables more intensive housing opportunities on Māori owned or Treaty settlement land.
<i>Risks</i>	<p>There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required. Noting that iwi and hapū have expressed a preference to continue discussions with the Council regarding the provisions applying in the Residential 3 zones. While these discussions continue, it is considered appropriate to retain the current zoning framework and address any amendments through the submission and hearings process for PC9, or through a future Plan Change as the case may be.</p>	
<i>Summary</i>	<p>Retaining the current Residential 3 Zone provisions as a new qualifying matter is the most efficient way to manage the use, development and protection of the relationship between Maori and their culture and traditions in relation to their ancestral lands, water, sites, waahi tapu and other taonga as a Section 6(e) Matter of National Importance.</p>	

## 9.0 Development Areas

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### 9.1 Structure of this Section

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This section includes the required Section 32 evaluation of the provisions proposed to apply to the Wharenui and Pukehangi Heights development areas under PC9. The proposed provisions include:

- The partial adoption of the MDRS;
- Retaining existing provisions in relation to flooding, land instability, infrastructure, and the activity status of subdivision as existing qualifying matters; and
- Amendments to the Pukehangi Heights Development Area to address outdoor service area requirements as a related provision in accordance with Section 80E(b)(iii). In this case the proposed amendment is consequential on the MDRS.

The below assessment does not consider the density standards in the MDRS that have been incorporated into PC9 as these are required by the Amendment Act. The below assessment therefore focuses on the provisions to be retained as existing qualifying matters and related provisions proposed through PC9.

### 9.2 Overview and Scope of Amendments

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Amendments are proposed to Wharenui and Pukehangi Heights development areas as part of PC9. These changes are primarily to give effect to the requirement to incorporate the MDRS in the Residential 1 Zone and seek to align and integrate the policies and rules with the MDRS.

Several aspects of the existing planning framework for Pukehangi Heights are proposed to be retained to address the special flood management constraints, cultural values, infrastructure requirements and landscape values of the site. Provisions relating to infrastructure are also retained for the Wharenui Development Area. While these existing provisions may limit the height and density that can be achieved under the MDRS this is appropriate given these provisions relate to existing qualifying matters in accordance with Section 77I(j).

### 9.3 Background Issues of Concern

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The Pukehangi Heights and Wharenui Development Areas include a package of additional place-based provisions to manage the future urbanisation of these greenfield areas in a way that responds to existing values and/or constraints. Given the Residential 1 applies within the Pukehangi Heights and Wharenui Development Areas there is now a requirement to incorporate the MDRS in the Residential 1 Zone parts of the development areas (Section 80E RMA).

In incorporating the MDRS within the Pukehangi Heights and Wharenui Development Areas consideration needs to be given to the following:

- Ensuring that the special flood management constraints, cultural values, infrastructure requirements and landscape values of the Pukehangi Heights Development Area; and the infrastructure and staging requirements of the Wharenui Development Area, can still be addressed notwithstanding the introduction of the MDRS.

- Integrating other aspects of the existing planning regime that do not conflict with the implementation of the MDRS.

## 9.4 Appropriateness of Proposed Objectives

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No changes are proposed to the objectives. Pukehangi Heights Development Area includes its own objectives, while Wharenui Road Development Area does not contain any specific objectives and instead relies on the objectives of other chapters.

In relation to the qualifying matters there are existing plan objectives to guide the management of these matters:

- Landscape and Amenity objective PHDA-O1 and the strategic direction objective SD-O7 are relevant to the landscape protection within the Pukehangi Heights Development Area:
  - *PHDA-O1 Maintain the valued landscape character and amenity values associated with the wider caldera rim while enabling development that is consistent with the principles of the Pukehāngi Heights Development Area Structure Plan and visually integrates with surrounding land uses*
  - *SD-O7 The amenity values associated with the Rotorua caldera landscape and adjacent zones is maintained when subdivision and development occurs.*
  - Objectives relating to stormwater and flood management, instability, protection of cultural heritage, integration of development and infrastructure, and the quality of the urban environment are also relevant to the qualifying matters identified for these development areas.

These objectives are considered to remain appropriate, notwithstanding the MDRS. Those objectives relating to stormwater and flood management, instability, cultural heritage address matters of national importance in section 6 of the RMA; those addressing integration of development and infrastructure address objective 6 of NPS-UD; and the objective relating to the caldera rim responds to the values associated with this feature, while recognising that Pukehangi Heights is primarily in the less sensitive part of the landscape and development should be enabled if it integrates with surrounding land uses<sup>15</sup>.

## 9.5 Evaluation of Provisions

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Amendments proposed to the provisions for the Pukehangi Heights and Wharenui Development Areas development areas to incorporate the MDRS into relevant residential zones (that is, those parts of the development areas zoned Residential 1 Zone) and remove aspects that conflict with the MDRS include:

### Pukehangi Heights

- Alignment of performance standards with the MDRS standards.

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<sup>15</sup> Refer to Boffa Miskell Ltd, Rotorua Caldera Rim Caldera Rim Rural Character Design Guideline, October 2012, which identifies the more and less sensitive areas of the Caldera Rim.

- Deletion of the restricted discretionary activity status rule for household units, so that household units can potentially be permitted activities under rule PHDA-R1 provided permitted activity standards are met.
- Deletion of the specific areas identified for Medium Density Residential Development in the structure plan and the corresponding policies (PHDA-P2, PHDA-P10), rules (PHDA-R6), standards (PHDA-SL8, PHDA-SS5) and matters of discretion (PHDA-MD1); so that medium density development can occur across the Residential 1 Zone part of the development area in accordance with the MDRS.
- Removing terminology that refers to lower density development in the Residential 1 Zone (PHDA-P1, PHDA-P7).
- Alignment of matters of control and discretion for residential units (except as outlined below), with the Residential 1 Zone.
- Inclusion/amendment of the non-notification statements in the rules for residential units and subdivision to comply with the notification requirements of Schedule 3A of the RMA.

#### Wharenui

- Alignment of the standards and rules for residential units with the MDRS, including deletion of the site intensity standards for the Residential 1 Zone (WHDA-S2).
- Alignment of the matters of discretion provided in the Residential 1 Zone (WHDA-R6), while retaining several matters specific to Wharenui Development Area (vegetation of gullies and stormwater management). It is noted that the existing matters of control for residential site and building design are retained only in relation to the Commercial 3 Zone.
- Removal of comprehensive residential development terminology.

As these amendments are to incorporate the MDRS and integrate the MDRS into the District Plan, these are mandatory amendments and therefore are not evaluated further.

An additional supporting change is also proposed for the Pukehangi Heights Development Area. With the removal of the specific 'medium density development' standard that applied only to the specific areas identified in the structure plan it is proposed to move the outdoor service area requirements from inside this standard to a standalone performance standard for all the Residential 1 Zone parts of the development area. This is considered appropriate given that medium density development could now occur across the parts of the development area zoned Residential 1 Zone.

#### 9.5.1 Issue 1: Addressing infrastructure requirements, natural hazard constraints, landscape values and cultural values of the development areas (qualifying matters)

The following provisions may limit the height and density that can be achieved under the MDRS. These provisions are to be retained to provide for the existing identified qualifying matters:

##### Pukehangi Heights – retain the following:

- Flooding and Land Instability

- Performance standards for subdivision to provide a stormwater management plan and comply with that plan and comply with the discharge consent (PHDA-SS6 and PHDA-SS7).
- Performance standard for subdivision to provide a land instability and liquefaction risk assessment as a performance standard for subdivision (PHDA-SS8).
- Historical and Cultural Values and Relationship of Tangata Whenua.
- Restricted discretionary activity status for subdivision in Residential 1 Zone where a site contains an archaeological or cultural site (PHDA-R7).
- Performance standard for subdivision to provide a report on consultation outcomes with tangata whenua and Heritage NZ and identify measures to recognise cultural landscape and how sites will be protected a (PHDA-SS10).
- Infrastructure
  - Performance standard for subdivision that limits yield of residential units from Area A of the Development Area until a roading connection is available into other parts of the development area (PHDA-SS11)
  - Landscape protection of Caldera Rim – Escarpment Transition Areas
  - Various landscape provisions for the escarpment transition areas identified in the development area to integrate the development into the sider landscape of the Rotorua Caldera Rim (PHDA-SL7(2), which link to rule PHDA-R1 and PHDA-SS4)
- Subdivision status
  - In addition, there is restricted discretionary activity status for subdivision in Residential 1 Zone (with no potential for controlled activity status) to enable consideration of protection of cultural values, stormwater and flooding management, protection of landscape values (on the escarpment transition areas) (PHDA-R5).

Wharenui – retain the following:

- Infrastructure
  - Requirement to comply with staging and minimum yields as a performance standard on subdivision to ensure the efficient provision and use of infrastructure (WHDA-S1) and associated rule WHDA-R1. Those subdivisions that do not comply are a discretionary activity (WHDA-R1)

The following standards and rules providing qualifying matters for Wharenui are proposed to be deleted or amended to reduce their impact:

- Standard WHDA-S2 and associated rule WHDA-R2, are proposed to be deleted. These require that subdivision and land use does not exceed 879 dwelling unit equivalents in the development area until the Eastern Arterial is complete. Activities that do not meet the standard are discretionary. The Eastern Arterial alternative to State Highway 30 is no longer planned, so the standard and rule are no longer appropriate and create uncertainty.

- Standards WHDA-S3 and WHDA-S4 (associated with rule WHDA-R3). These require the upgrading of intersections with SH30 and traffic calming works on roads into the development area before specified lot yields are achieved. Subdivision and land use that do not meet the standards are discretionary activities. The standard is proposed to be amended to remove projects that have already been completed (Brent Road Traffic Calming and Iles Road signals) as well to remove projects that are planned as part of stage 2 of the Corridor Stage 2, for which Waka Kotahi received \$35 million from the government's Crown Infrastructure Partners funding for construction to support growth and development in Eastside Rotorua<sup>16</sup>.

In addition, the following amendments are proposed to the existing qualifying matter for protection of the landscape values of Rotorua Caldera Rim in the Pukehangi Heights Development Area:

- A reduced height standard of 9m for the Upper Terrace (PHDA-SL1)
- Deletion of policy PHDA-P6 and amendments to policy PHDA-P7 and the principles for the upper Terrace.

These amendments have been informed by specialist landscape advice from Boffa Miskell on the impact of the MDRS on protection of the landscape values of the Rotorua Caldera Rim in the development area (refer *Appendix 10*). These amendments are intended to manage the transition from development on the Upper Terrace to the adjoining more sensitive Upper Escarpment in the upper slopes of the Caldera Rim by influencing the design of development through subdivision and consent notices. Avoidance of a uniform pattern of development and integration of the built form against the upper escarpment is sought, using taller planting and building separation. As a result, the proposed amendments will achieve objective SPUD-O7 and policies SPUD-P15 to P17 in the Strategic Direction chapter, as well as objective PHDA-O1, which seeks the protection of these values, while enabling development.

The inclusion of provisions to respond to flood management constraints, cultural values, infrastructure requirements and landscape values as qualifying matters is assessed in the appendices of this report in accordance with the requirements of section 77K or section 77L of the RMA.

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<sup>16</sup> [nzta.govt.nz/eastern-corridor-stage-2](https://nzta.govt.nz/eastern-corridor-stage-2)

## 10.0 City Centre and Commercial

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### 10.1 Structure of this Section

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This section includes the required Section 32 evaluation of the proposed amendments to the City Centre, Commercial 1, 2, 4, and 5 zones under PC9 to give effect to the NPS-UD.

### 10.2 Overview and Scope of Amendments

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The purpose of the amendments to the City Centre and Commercial zones and other related provisions<sup>3</sup> is to give effect to Policy 5 of the NPS-UD.

In particular, the amendments include:

- Amendments to the objectives and policies for the commercial zones which guide the design the appearance of buildings, and height and density within the commercial zones.
- Amendments to the policies which guide the design and onsite amenity within the Commercial 4 zone.
- Amendments to the City Centre 1-2 and Commercial 1-4 & 6 zones to introduce a resource consent requirement for external alterations over a certain threshold, and new buildings, to enable a qualitative assessment of development proposals and ensure that good design outcomes are achieved.
- Amendments to the City Centre 2 and Commercial 6 zones to permit residential units.
- Amend the height limits within the City Centre 1, Commercial 1,2,4 & 5 zones to respond to the NPS-UD.
- Introduce a 24m height limit within the City Centre 2 and 3 zones to respond to the NPS-UD
- Amendments to the package of onsite amenity controls for residential development within the City Centre and Commercial zones.

### 10.3 Background and Issues of Concern

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As outlined in *Section 4* Rotorua is experiencing significant housing supply issues. In particular, the HBA has found that there is a dwelling demand in the short term of 2,970 dwellings, increasing to 5,200 in the medium term and 8,250 in the long term, based on Council's medium growth projections<sup>17</sup>. While there is a sizeable amount of plan enabled capacity, the HBA concludes that much of the capacity is unlikely to be developed into dwellings by the commercial development sector due to a lack of feasibility. The HBA concluded that the further enablement of apartment living within the City Centre and Commercial zones (particularly Fenton Street) could contribute to housing capacity or choice that is required to meet the needs of the growing population in Rotorua<sup>18</sup>.

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<sup>17</sup> The demand for dwellings increases to short term - 3,569, medium term 6,240 and long term 9,740 including the NPSUD competitive margin.

<sup>18</sup> HBA page 259

In addition to the need to provide for greater housing capacity and choice across Rotorua there is national direction that the plan must now give effect to. In particular, the NPSUD seeks to create well-functioning urban environments and Policy 5 requires tier 2 Councils to enable heights and density of urban form, commensurate with the greater of:

- a) the level of accessibility by existing or planned active or public transport, to a range of commercial activities and community services; or
- b) relative demand for housing and business use in that location.

The proposed amendments to the City Centre and Commercial zones are intended to enable greater residential and commercial capacity and give effect to the NPSUD intensification policies.

With the introduction of greater height within the City Centre and Commercial zones there is potential for adverse effects on the quality and amenity of the urban environment. Therefore, the need to achieve quality design is increasingly important as the scale of development increases to ensure that development:

- contributes towards centres which are vibrant, safe and a focal point for communities;
- achieves active, vibrant, attractive and safe public realm;
- promotes Crime Prevention through Environmental design principles;
- manages cumulative adverse effects of development on adjoining sites through the placement of buildings and outdoor activities; and
- achieves high quality on-site living environments.

A key issue that arose through consultation with the development community was the need to achieve a balance between enabling flexibility in the design approach while ensuring certainty in outcomes in terms of amenity. The proposal seeks to utilise the use of targeted design assessment criteria in combination with non-notification to increase certainty to applicants and enable design flexibility while ensuring objectives will still be effectively achieved.

Another key issue that has arisen is the future character of Fenton Street as a key entranceway to the city centre. Fenton Street is lined with tourism accommodation consisting of motels with a distinct built character that is broadly residential in character. Many of the motels are now being converted to permanent accommodation, and PC9 is an opportunity to ensure that any redevelopment results in quality built form outcomes that enable greater housing supply. This needs to be done in a way that ensures Fenton Street remains as an attractive gateway to the Rotorua CBD.

## 10.4 Appropriateness of Proposed Objectives

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PC9 proposes to amend COMZ-02 and COMZ-03, which relates to the design and appearance of buildings and effects on adjoining residential properties. PC9 also proposes to introduce an objective in relation to onsite residential amenity. In accordance with Section 32(1)(a) *Table 15* below provides an evaluation of the objectives of PC9.

Aside from the proposed amendments to COMZ-02 no changes are proposed to the objectives in relation to the City Centre and Commercial zones. Existing City Centre and Commercial zone objectives in addition to the amended Strategic Direction objectives (evaluated above) are relevant to the proposed amendments to provisions discussed below. In particular:



- *SDUD-O1 A well-functioning urban environment that enables all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.*
- *SDO3 There is at all times at least sufficient development capacity and land supply to meet expected demand for housing and business land over the short term, medium term and long term.*
- *SDO4 The primary focus for residential intensification and additional business or community services, include areas:*
  - a) within and adjacent to centres or employment opportunities;*
  - b) well-serviced by existing or planned public transport;*
  - c) where there is high demand for housing or for business land in the area, relative to other areas within the urban environment.*

**Table 15: Evaluation of the Proposed Objectives for the Commercial Zones**

Objectives	RMA S5 Purpose	RMA S6 Matters of national significance	RMA S7 Other matters	RMA S8 Treaty of Waitangi	National Policy Statements	Regional Policy statement/plans
COM-02 Commercial activities-positively contribute to the mixed use character, safety and efficiency, and attractiveness of commercial areas and entranceways to Rotorua.	The proposed amendment is focused on stating the outcome to be achieved and on the future state of the environment rather than what is there now. This expressly promotes a transition over time to more intensive forms of living in quality environments enabling communities to provide for their social wellbeing and health and safety.	This objective does not compromise the recognition of, or the provision of, these matters of national importance.	This objective has regard to the maintenance and enhancement of amenity values and the quality of the environment by seeking to deliver attractive and safe commercial areas and entranceways to Rotorua.	This objective is consistent with the principles of the Treaty of Waitangi.	This objective is consistent with Objective 4 and Policy 6 of the NPSUD as there is recognition that built character and associated amenity values will develop and change over time in response to the diverse and changing needs of people, communities, and future generations.	This objective is consistent with RPS Policy UG 8B which seeks to implement high quality urban design.
COM-03 Commercial buildings and activities designed and operated in a manner that mitigates adverse	Increased residential uses within commercial zones, coupled with increased building	This objective does not compromise the recognition of, or the provision of, these matters of	The objectives have regard to the maintenance and enhancement of amenity values and	This objective is consistent with the principles of the Treaty of Waitangi.	This objective is consistent with Objective 4 and Policy 6 of the NPSUD as there is	This objective is consistent with RPS Policy UG 8B which seeks to implement high quality urban design.

<p>effects on the amenity of residential zones.</p>	<p>heights and limited setbacks creates a risk of adverse amenity outcomes in residential dwellings in these areas. This risk is primarily in the form of adjacent sites being built out to their maximum extent, reducing or removing access to sunlight, daylight or outlook of existing dwellings over side boundaries if this has previously been relied upon. The proposed objective promotes a transition over time to more intensive forms of living in quality environments while recognizing that while effects on existing development can't be avoided they can be managed,</p>	<p>national importance.</p>	<p>the quality of the environment through mitigating the effects of development on the amenity of residential zones acknowledging that consistent with Policy 6 of the NPSUD there is likely to be significant change that may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing density and types.</p>		<p>recognition that built character and associated amenity values will develop and change over time in response to the diverse and changing needs of people, communities, and future generations.</p>	
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	enabling communities to provide for their social wellbeing and health and safety.					
COM-03A Residential development provides healthy, safe, and quality living environments for residents.	Through seeking to ensure that residential development provides quality onsite amenity this objective will enable communities to provide for their social wellbeing and health and safety.	This objective does not compromise the recognition of, or the provision of, these matters of national importance.	The objectives have regard to the maintenance and enhancement of amenity values and the quality of the environment through ensuring that residential development provides quality onsite amenity.	This objective is consistent with the principles of the Treaty of Waitangi.	This objective is consistent with Objective 4 and Policy 6 of the NPSUD as there is recognition that built character and associated amenity values will develop and change over time in response to the diverse and changing needs of people, communities, and future generations.	This objective is consistent with RPS Policy UG 8B which seeks to implement high quality urban design.

## 10.5 Evaluation of Provisions

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### 10.5.1 Issue 1: Height Limits within the City Centre and Commercial Zones

As outlined above, the NPS-UD requires consideration of building heights within commercial zones, in terms of enabling greater residential and commercial densities. The Accessibility Analysis discussed above, identifies the City Centre 1 zone, along with parts of the City Centre 2 and City Centre 1 zones as having the highest levels of accessibility within Rotorua.

There are a range of existing permitted building heights across commercial zones from 20m in the City Centre 1 zone, City Centre 3 zone, Commercial 5 and Commercial 6 zones, 12m in the Commercial 1, Commercial 2, and Commercial 4 zones, and no height limit and in City Centre 2 zone. Building heights in the Commercial 3 zone must be aligned with the neighbouring zone.

The proposed height strategy has been informed by Urban Design Analysis refer *Appendix 9*. A building height of 32m (which can facilitate 8-10 storey development) is proposed for the City Centre (City Centre 1). This height is approximately equivalent to the Hinemoa Tower (9-storeys with an architectural height of 36m). Heights is proposed to transition down to 24m in the neighbouring City Centre 2, City Centre 3, Commercial 4 and Commercial 6 zones. This transition continues to the 19.5m proposed for the Residential 2 zone and 11m for the Residential 1 zone. Heights of 20m are proposed for the Commercial 1 and Commercial 2 zones. These zones relate to some of the larger secondary centres within Rotorua (e.g. Owhata, Ngongotaha and Westend). It is proposed that the existing height standards for the Commercial 3 zone is retained. In summary, the proposed amendments to height limits within the City Centre and Commercial zones include:

- Amending the City Centre 1 zone height limit from 20m to 32m.
- Amending the City Centre 3 zone height limit from 20m to 24m.
- Introducing a 24m height limit for the City Centre 2 zone.
- Amending the Commercial 1 and 2 zone height limits from 12m to 20m.
- Amending the Commercial 4 zone height limit from 12m to 24m.
- Amending the Commercial 6 zone height limit from 20m to 24m.

**Table 16: Issue 1 - Height Limits within the City Centre and Commercial Zones – Evaluation of Options**

	Option 1: Retain the operative height limits (Status quo)	Option 2: Increase height to 40m within the City Centre consistent with current consented development	Option 3: Unlimited height within the City Centre	Option 4: Proposed Plan Change – Refined Height Strategy
<i>Description of option</i>	This option involves retaining the operative height limits within the City Centre and Commercial Zones, which are generally lower than the proposed plan change, with the exception of the City Centre 2 zone, which has unlimited height.	This option involves refining the height limits as per the proposed plan change with exception of the City Centre 1 zone where a 40m height limit would apply.	This option involves refining the height limits as per the proposed plan change with exception of the City Centre 1 & 2 zones where height would remain unlimited.	This option involves refining the height limits as per the proposed plan change, as set out above.
<i>Efficiency and effectiveness in achieving objectives</i>				
<i>SDO4 The primary focus for residential intensification and additional business or community services include areas:</i> <i>a) within and adjacent to centres or employment opportunities;</i> <i>b) well-served by existing or planned public transport;</i> <i>c) where there is high demand for housing or for business</i>	This option is unlikely to be efficient or effective at achieving SDO4, given that continuing to maintain the operative height limits will generally result in lower development than that enabled by options 2-4. This will result in an inefficient use of land within the City Centre and commercial centres, which are identified as having	This option will efficiently and effectively achieve SDO4, as the proposed height limits will greater development capacity and enabling efficient use of land within the City Centre and commercial centres, which are identified as having the highest levels of accessibility within Rotorua.	This option will most efficiently and effectively achieve SDO4, as it enables the greatest height and development capacity making efficient use of land within the City Centre and commercial centres, which are identified as having the highest levels of accessibility within Rotorua.	This option will efficiently and effectively achieve SDO4, as the proposed height limits will greater development capacity and enabling efficient use of land within the City Centre and commercial centres, which are identified as having the highest levels of accessibility within Rotorua. The height limits have been informed by urban design analysis to promote

<p><i>land in the area, relative to other areas within the urban environment.</i></p>	<p>the highest levels of accessibility within Rotorua.</p>			<p>intensification within the city and commercial centres.</p>
<p><i>CCZ-01 A vibrant city centre that is the primary commercial and retail centre for the establishment and operation of a diverse range of commercial and residential activities which promote and enhance the economic viability, employment opportunities, walkability and safety of the city centre.</i></p> <p><i>CCZ-02 Lakefront development that accommodates a broad range of tourism, commercial services, hospitality, health, retail, accommodation and recreational activities and that has a connected built form promoting vibrant activity with pedestrian movement between the Lakefront and Tūtānekai Street.</i></p>	<p>This option is not as efficient or effective at achieving CCZ-01 and CCZ-02 as it does not enable intensification within areas which are highly accessible to the same extent as options 2-4.</p>	<p>This option is not as efficient or effective at achieving CCZ-01 as Option 4, buildings of 40m within the City Centre 1 zone may result in shading and dominance effects that reduce the quality of the public realm and the vibrancy and vitality of the city centre.</p> <p>While additional standards could be introduced to manage these effects, given the likely low demand for 10+ storey development in Rotorua over the short, medium and long term (based on developer feedback), it is considered more efficient to manage this on a case-by-case basis as part of a resource consent application. PC9 includes matters of discretion that enable this assessment to occur in a manner focused on the relevant effects.</p>	<p>This option is not efficient or effective at achieving CCZ-01, given that buildings with unlimited height within the City Centre 1 &amp;2 zones without supporting standards, would adversely affect the public realm, reducing the vibrancy and vitality of the city centre.</p> <p>While additional standards could be introduced to manage these effects, given the likely low demand for 10+ storey development in Rotorua over the short, medium and long term (based on developer feedback), it is considered more efficient to manage this on a case-by-case basis as part of a resource consent application. PC9 includes matters of discretion that enable this assessment to occur in a manner focused on the relevant effects.</p>	<p>This option is the most efficient and effective at achieving CCZ-01. It is proposed as part of a package of amendments, including HIRB and additional matters of discretion and/ or assessment criteria, relating to the design of new buildings to manage the interface with the public realm, to promote the vibrancy and vitality of the city centre.</p>

<p><i>COMZ-01 A hierarchy of vibrant compact commercial and tourism centres that efficiently service and support the needs of the surrounding community and nationally significant tourism sector.</i></p>	<p>This option will not efficiently or effectively achieve COMZ-01, given that there are more limited opportunities for intensification to occur in locations that is otherwise highly accessible.</p>	<p>This option will efficiently and effectively achieve COMZ-01, as the proposed increase in height limits within the commercial zones will support greater residential and commercial capacity, supporting vibrant and compact outcomes.</p>	<p>This option will efficiently and effectively achieve COMZ-01, as the proposed increase in height limits within the commercial zones and will support greater residential and commercial capacity, supporting vibrant and compact outcomes.</p>	<p>This option will efficiently and effectively achieve COMZ-01, as the proposed increase in height limits within the commercial zones will support greater residential and commercial capacity, supporting vibrant and compact outcomes.</p>
<p><i>Costs</i></p>				
<p><i>Environmental</i></p>	<p>While this option retains unlimited height within the City Centre 2 zone, the height limits proposed are generally lower than options 2-4. Overall, this will result in development which is an inefficient use of land within the City Centre and commercial centres, which are identified as having the highest levels of accessibility within Rotorua.</p> <p>Unlimited height within the City Centre 2 zone may result in larger buildings with potential effects on adjoining properties, the public realm</p>	<p>The proposed 40m height limit within the City Centre 1 zone may potentially result in shading and dominance effects that reduce the quality of the public realm and wider impressions of the urban area.</p>	<p>Unlimited height within the City Centre 1 &amp; 2 zones may result in larger buildings, with potential effects on adjoining properties, the public realm and wider impressions of the urban area.</p>	<p>Potential effects on adjoining properties and surrounding land uses, as a result of development of buildings of greater height than what is currently provided for.</p>



	and wider impressions of the urban area.			
<i>Economic</i>	<p>Costs to future applicants wanting to build higher and larger scale apartment buildings, which is not appropriately provided for within the current height limits.</p> <p>Fails to support public transport provision, investment in amenities and infrastructure and the vibrancy of the Central City, relatively.</p> <p>There are economic costs associated with the uncertainty created by a lack of planning rules regulating building height within the City Centre 2 zone.</p>	<p>Interim costs to developers wanting to develop who have to wait for the proposed height limits to become operative, these costs are reduced to a degree, however through the streamlined plan change process.</p>	<p>There are economic costs associated with the uncertainty created regarding no planning rules regulating building height within the City Centre 1 &amp; 2 zones.</p>	<p>Interim costs to developers wanting to develop who have to wait for the proposed height limits to become operative, these costs are reduced to a degree, however through the streamlined plan change process.</p>
<i>Social</i>	<p>This option does not make the most efficient use of land and therefore may not result in the development yields to support increased vibrancy within the CBD and to support the</p>	<p>The scale of development delivered through this option may be considered by some members of the community to be not in keeping with the community's expectations, given that it generally enables higher buildings throughout</p>	<p>This option will result in a lack of certainty for the community in respect of building height within the City Centre 1 &amp; 2 zones. This may result in greater use of restrictive covenants and easements on new</p>	<p>The scale of development delivered through this option may be considered by some members of the community to not be in keeping with the community's expectations, given that it generally enables higher buildings throughout</p>

	growing population within Rotorua.	the City Centre and Commercial zones than what is currently enabled. This is tempered to a degree by the presence of Hinemoa Tower (9-storeys with an architectural height of 36m).	development to control design elements, legal mechanisms and use of bylaws, to fill the regulatory gap. In the normal course of events these legal mechanisms are used to secure property rights in perpetuity or for a specific period of time.	the City Centre and Commercial zones than what is currently enabled. This is tempered to a degree by the presence of Hinemoa Tower (9-storeys with an architectural height of 36m).
<i>Cultural</i>	Does not enable more intensive housing opportunities on Maori owned or Treaty settlement land.	Further intensification and development of land around sites of cultural significance.	Further intensification and development of land around sites of cultural significance.	Further intensification and development of land around sites of cultural significance.
<i>Benefits</i>				
<i>Environmental</i>	This option will not change the scale of development that is currently allowed within the City Centre and Commercial zones and therefore it is less likely to result in potential effects on neighbouring properties.	This option makes efficient use of land within the City Centre and commercial centres which are identified as having the highest levels of accessibility within Rotorua.	This option makes efficient use of land within the City Centre and commercial centres which are identified as having the highest levels of accessibility within Rotorua.  While this option goes some way to implement a height strategy which reinforces the City Centre as a focal point and transitions height accordingly, the benefits of this proposal are reduced through the inclusion	This option will implement a height strategy which makes efficient use of land within the City Centre and Commercial zones. It will implement a height strategy which reinforces the City Centre as a focal point and transitions height accordingly within the context of the MDRS applying throughout urban residential areas.  The height limits are proposed as part of a package of

			of unlimited height within the City Centre 1 & 2 zones, which could result in adverse effects on the amenity of adjoining sites and the public realm.	amendments including HIRB and additional matters of discretion and/ or assessment criteria, relating to the design of new buildings to manage the interface with the public realm and effects on adjoining properties within different zones.
<i>Economic</i>		<p>Less consenting costs to applicants and developers seeking to higher and larger scale apartment buildings around the City Centre.</p> <p>Supports public transport provision, investment in amenities and infrastructure and the vibrancy of the Central City.</p>	<p>The benefits associated with no planning rules regulating building height within the City Centre 1 &amp; 2 zones are that the market would direct where growth would occur and at what rate. This could result in some windfalls for some landowners.</p>	<p>Less consenting costs to applicants and developers seeking to higher and larger scale apartment buildings around the City Centre.</p> <p>Supports public transport provision, investment in amenities and infrastructure and the vibrancy of the Central City.</p>
<i>Social</i>	The scale of development delivered through this option may be considered by some members of the community as in keeping with the community's expectations given there is no change to operative height limits.	This option provides a height strategy which results in a stepping down in height away from the City Centre, reinforcing the City Centre as a key focal point for the community.	This option removes compliance costs and issues which could speed up the delivery of additional residential capacity to alleviate housing pressure within Rotorua. These benefits may be diminished however if civil litigation arises for blocking	The 32m height limit within the City Centre 1 zone will offer a distinct and identifiable node of built form amongst the surrounding city centre and commercial zonings. This will reinforce the City Centre 1 zone as a key focal point for the community.

			light/overshadowing/excessive height.	
<i>Cultural</i>	Does not enable further intensification and development of land around sites of cultural significance.	Enables more intensive housing opportunities on Maori owned or Treaty settlement land.	Enables more intensive housing opportunities on Maori owned or Treaty settlement land.	Enables more intensive housing opportunities on Maori owned or Treaty settlement land.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.			
<i>Summary</i>	<p>Option 4 is the preferred option. Refining the height limits within the City Centre and Commercial zones as per PC9 is the most appropriate mechanism for achieving the objectives because:</p> <ul style="list-style-type: none"> <li>• In accordance with SD-04 the height limits promote intensification within the city and commercial centres which have been identified as the most accessible areas within Rotorua.</li> <li>• The 32m height limit within the City Centre 1 zone is proposed as part of a package of amendments including HIRB and additional matters of discretion and/ or assessment criteria relating to the design of new buildings to manage the interface with the public realm to promote the vibrancy and vitality of the city centre in accordance with CCZ-01.</li> <li>• The proposed increase in height limits within the commercial zones will support greater residential and commercial capacity supporting vibrant and compact outcomes in accordance with COMZ-01.</li> </ul>			

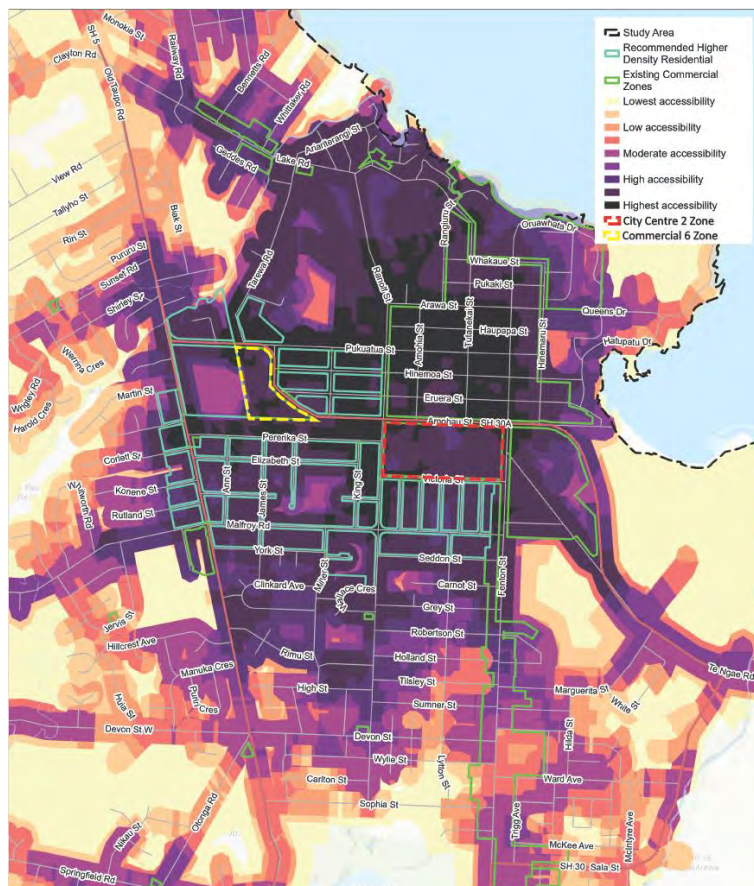
## 10.5.2 Issue 2: Residential Use within the City Centre 2 and Commercial 6 Zone

As outlined above, the NPS-UD requires greater opportunities for residential development within areas of high accessibility. Residential use is generally provided for across the City Centre and Commercial zones with the exception of the City Centre 2 zone and the Commercial 6 zone.

The Commercial 6 zone provides for a mix of light industrial and commercial activities located on the southern edge of the city centre.

The City Centre 2 zone provides for a range of retail and commercial outlets with a focus on large format and vehicle orientated retail, and smaller retail stores and food and beverage outlets within the main mall precinct.

The City Centre 2 and the Commercial 6 zones are centrally located and in areas that the Accessibility and Demand Assessment (refer *Appendix 7*) has concluded are subject to the highest accessibility within Rotorua see *Figure 15* below. Therefore, it is proposed to enable residential development within these zones to enable increased residential development in accordance with Policy 5 of the NPSUD. The additional economic analysis undertaken to inform this Plan Change has commented on the importance of retaining the viability of these areas as a location for Large Format Retail, and that by doing this it may reduce the pressure for Large Format Retail to locate in other areas within the urban environment which may be less efficient. Therefore, in accordance with this advice residential is excluded from ground floor to continue to promote opportunities for Large Format Retail. It is noted however, that the Future Development Strategy will be utilised to find long term alternatives for trade retail and related light industrial activities.



**Figure 15: Location of City Centre 2 and Commercial 6 zones overlaid over accessibility analysis.**

**Table 17: Issue 2 - Residential Use within the City Centre 2 and Commercial 6 Zone – Evaluation of Options**

	Option 1: (Status quo) Do not permit residential use within the City Centre 2 and Commercial 6 zones	Option 2: Proposed Plan Change Permit residential in City Centre 2 and Commercial 6 above ground level
<i>Description of option</i>	This option retains the operative non-complying activity status for residential units within the City Centre 2 and Commercial 6 zones.	This option permits residential units above ground level in both the City Centre 2 and Commercial 6 zones. The Future Development Strategy will be utilised to find long term alternatives for trade retail.
<i>Efficiency and effectiveness in achieving objectives</i>		
<i>SDO3 There is at all times at least sufficient development capacity and land supply to meet expected demand for housing and business land over the short term, medium term and long term.</i>	This option is not efficient or effective at achieving SD03 as it does not provide flexibility to provide additional capacity for housing within the City Centre 2 and Commercial 6 zones should this prove to be a more viable use over time, and will reduce opportunities for residential development capacity.	This option is the most efficient and effective option at achieving SD03 as it provides some increased flexibility to provide additional capacity for housing within the City Centre 2 and Commercial 6 zones should this prove to be a more viable use over time. This option has the potential to displace large format/trade retail within the Commercial 6 zone. To ensure that there are opportunities for Large Format/trade Retail to establish within this zone residential use is limited to above ground only. This option does not preclude commercial activities locating above ground should there be demand.
<i>SDO4 The primary focus for residential intensification and additional business or community services include areas:</i>  <i>a) within and adjacent to centres or employment opportunities;</i>  <i>b) well-serviced by existing or planned public transport;</i>	This option is not efficient or effective at achieving SD04 as it does not provide flexibility to provide additional capacity for housing within areas identified as having the highest levels of accessibility within Rotorua.	This option is efficient and effective at achieving SD04 as it provides flexibility to provide additional capacity for housing within areas identified as having the highest levels of accessibility within Rotorua.

	Option 1: (Status quo) Do not permit residential use within the City Centre 2 and Commercial 6 zones	Option 2: Proposed Plan Change Permit residential in City Centre 2 and Commercial 6 above ground level
<i>c) where there is high demand for housing or for business land in the area, relative to other areas within the urban environment.</i>		
<p><i>CCZ-01 A vibrant city centre that is the primary commercial and retail centre for the establishment and operation of a diverse range of commercial and residential activities which promote and enhance the economic viability, employment opportunities, walkability and safety of the city centre.</i></p> <p><i>COMZ-01 A hierarchy of vibrant compact commercial and tourism centres that efficiently service and support the needs of the surrounding community and nationally significant tourism sector.</i></p>	<p>From an urban form perspective this option will not efficiently and effectively achieve this objective given large format and trade retail are less likely to result in a vibrant and safe public realm. Large format and trade retail are vehicle orientated activities which are at odds with the walkable outcomes sought for the City Centre.</p>	<p>This option is efficient and effective at achieving CCZ-01 as it will enable residential use which from an urban form perspective is desirable as it will result in a more vibrant public realm within the City and Commercial Centres. While this option could potentially displace large format and trade retail over time the Future Development Strategy will be utilised to find long term alternatives for these activities.</p>
<i>Costs</i>		
<i>Environmental</i>	<p>This option will not support a vibrant and safe public realm within the City Centre and commercial zones to the same extent as Option 2.</p> <p>This option will not make efficient use of land through providing flexibility for residential development within areas identified as having the highest levels of accessibility within Rotorua.</p>	<p>Through enabling residential development within the City Centre 2 and Commercial 6 zone this option may impact the viability of large format and trade retail establishing within this location because these activities are land extensive and have yard/outdoor storage areas that do not typically integrate effectively with high density residential and mixed use. Due to this, if high density residential establishes, large format and trade retail may look to relocate to more suitable light industry areas. This has the potential to displace existing light industrial activities and create demand for more business land.</p>

	Option 1: (Status quo) Do not permit residential use within the City Centre 2 and Commercial 6 zones	Option 2: Proposed Plan Change Permit residential in City Centre 2 and Commercial 6 above ground level
		This cost can however be mitigated through the Future Development Strategy that will be utilised to find long-term alternatives for industrial land, which is due for completion in 2023 .
<i>Economic</i>	While this option may protect the viability of large format and trade retail within a central location this may have an adverse effect on urban form outcomes. The Future Development Strategy can be utilised to find long-term appropriate alternatives for these activities.	This option and the introduction of residential use may reduce the viability of large format and trade retail within the City Centre 2 and Commercial 6 zones. While these activities are provided for within the Industrial 1E zone, the centrality of the Commercial 6 zone means it is likely to be more sustainably configured to serve the surrounding catchment areas.
<i>Social</i>	This option does not make the most efficient use of land and therefore may not result in the development yields to support increased vibrancy within the CBD and to support the growing population within Rotorua.	This option could limit the ability for residents to access large format and trade retail within a central location.
<i>Cultural</i>	There is no change to the cultural environment through this option.	There is no change to the cultural environment through this option. The sites within the City Centre 2 and Commercial 6 zone is Treaty settlement land administered by the Pukeroa Oruawhata Trust, who has confirmed their support for this option.
<i>Benefits</i>		
<i>Environmental</i>	This option protects the viability of large format and trade retail within an accessible central location	From an urban form perspective large format and trade retail are less likely to result in a vibrant and safe public realm. Large format and trade retail are



	Option 1: (Status quo) Do not permit residential use within the City Centre 2 and Commercial 6 zones	Option 2: Proposed Plan Change Permit residential in City Centre 2 and Commercial 6 above ground level
	however, this may have adverse impacts on urban form and public realm outcomes.	vehicle orientated activities which are at odds with the walkable outcomes sought for the City Centre.
<i>Economic</i>	Through restricting residential use this option will not displace trade retail or large format retail from the City Centre 2 and Commercial 6 zones. This is consistent with economic analysis undertaken by M.E in support of this plan change <i>refer Appendix 8.</i>	Through permitting residential use within the City Centre 2 and Commercial 6 zones this option enables residential use in an area identified as having the greatest accessibility within Rotorua. This has the potential to displace existing light industrial activities and create demand for more business land. This cost can however be mitigated through the Future Development Strategy that will be utilised to find long-term alternatives for industrial land, which is due for completion in 2023.
<i>Social</i>	This option retains the ability for residents to access large format and trade retail within a central location.	This option makes the most efficient use of land and will result in the development yields to support increased vibrancy within the CBD and to support the growing population within Rotorua.
<i>Cultural</i>	There is no change to the cultural environment through this option.	There is no change to the cultural environment through this option. The sites within the City Centre 2 and Commercial 6 zone is Treaty settlement land administered by the Pukeroa Oruawhata Trust, who has confirmed their support for this option, noting that this provides a more enabling framework for Mana Whenua to express their values.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.	

	Option 1: (Status quo) Do not permit residential use within the City Centre 2 and Commercial 6 zones	Option 2: Proposed Plan Change Permit residential in City Centre 2 and Commercial 6 above ground level
<i>Summary</i>	<p>Option 2 is the preferred option. Enabling residential use within the City Centre 2 and Commercial 6 zones is the most appropriate mechanism for achieving the objective because:</p> <ul style="list-style-type: none"> <li>• It provides some increased flexibility to provide additional capacity for housing within the City Centre 2 and Commercial 6 zones, which are identified as having the highest levels of accessibility within Rotorua, should this prove to be a more viable use over time (SD03 &amp; SD04).</li> <li>• Residential use within the City Centre 2 and Commercial 6 zone from an urban form perspective, is desirable as it will result in a more vibrant public realm and support walkability (CCZ-01) within the City Centre and Commercial Centres.</li> <li>• While this option could potentially displace large format and trade retail over time, the Future Development Strategy will be utilised to find long-term alternatives for these activities where necessary.</li> </ul>	

### 10.5.3 Issue 3: Activity Status for new buildings and external alterations in City Centre and Commercial zones

New buildings within the City Centre 1 zone are a controlled activity and new buildings within the Commercial 1 zone are Restricted Discretionary. New buildings in the City Centre 2 zone and other commercial zones, and external alterations are permitted. As it is generally proposed to increase the height of buildings throughout the City Centre and Commercial zones, it is proposed to introduce a resource consent requirement for new buildings, or for external alterations to buildings, to enable a qualitative assessment of development proposals and ensure that good design outcomes are achieved. The resource consent requirements enable the design and layout of the development to be assessed, recognising that the need to achieve a quality design is increasingly important as the scale of development increases.

In particular, it is proposed to apply a Restricted Discretionary Activity Status for new buildings and external alterations greater than 25m<sup>2</sup>. This consent requirement also applies to public car parking buildings. Applications for consent are proposed to be non-notified in recognition that this is a technical design assessment and Rotorua Lakes Council is unlikely to obtain any additional information through notification. Processing these resource consents on a non-notified basis, unless special circumstances apply, reduces consenting risks and uncertainty to applicants.

Amendments are proposed to the matters of discretion and assessment criteria to ensure the design assessment considers:

- How the design facilitates an active, attractive, vibrant and safe public realm and streetscape, promoting opportunities for passive surveillance;
- How the design facilitates a safe and legible pedestrian access into the development;
- How the design facilitates articulation of the roof line and provides architectural details at ground and middle levels that promote overlooking of the street;
- Whether the design of buildings and location of outdoor activities mitigates adverse cumulative effects on adjoining sites;
- Whether the design incorporates Crime Prevention through Environmental Design principles;
- How vehicular access for servicing purposes is able to be gained from the rear of buildings that have street frontage;
- How the design minimises adverse wind conditions for pedestrians within public spaces (City Centre zones);
- Whether suitable provision is made for on-site rubbish storage and sorting of recyclable materials, that is sufficiently sized to cater for the rubbish generated by the activity;
- Whether mechanical plant/units for heating and ventilation will be screened from public view, and, in the case of residential units, separated from the outdoor living space for other residential units;
- Whether parking areas visible from the street are screened from public view; and
- Additional criteria for residential units to ensure:
  - Residential units proposed at ground floor enable passive surveillance of the adjoining street and provide privacy for residents; and
  - Residential units provide onsite amenity and are functional to meet day to day needs.

**Table 18: Issue 3 - Activity Status for new Buildings and External Alterations in City Centre and Commercial zones – Evaluation of Options**

	Option 1: Permitted subject to compliance with standards including requirements for ground floor glazing, verandahs, residential unit design, outdoor living space, outlook	Option 2: Proposed Plan Change – Restricted Discretionary (non-notified) with matters of discretion to assess design quality
<i>Description of option</i>	This option involves retaining the operative activity status for new buildings and external alterations.	This option will require new buildings, and applications for external alterations greater than 25m <sup>2</sup> to obtain resource consent as a restricted discretionary activity (non notified) with matters of discretion to assess design quality.
<i>Efficiency and effectiveness in achieving objectives</i>		
<i>CCZ-05 Building design that increases the amenity, safety, functionality and vibrancy of the city centre for people.</i>	<p>This option is not efficient and effective at achieving this objective as the impact of buildings on the amenity, safety, functionality and vibrancy of the city centre cannot be determined through a controlled or permitted activity status and would rely on a non-regulatory approach and the goodwill of applicants.</p> <p>Permitted standards are not efficient and effective at achieving good design outcomes within large scale developments. This is because there are a variety of design solutions to manage effects and the optimum solution will depend on the context of the site. For example to create a quality mixed use development the site design and placement of the buildings should be completed together to ensure the development positively contributes to its setting. This is achieved</p>	Through enabling an urban design assessment this option is efficient and effective at achieving CCZ-05 as it will ensure that development achieves quality built outcomes that increases the amenity, safety, functionality and vibrancy of the City Centre, through enabling the ability to assess the site design and placement of buildings and the site context.

	Option 1: Permitted subject to compliance with standards including requirements for ground floor glazing, verandahs, residential unit design, outdoor living space, outlook	Option 2: Proposed Plan Change – Restricted Discretionary (non-notified) with matters of discretion to assess design quality
	through a qualitative assessment rather than prescriptive standards.	
<i>COMZ-01 A hierarchy of vibrant compact commercial and tourism centres that efficiently service and support the needs of the surrounding community and nationally significant tourism sector.</i>	<p>This option is not efficient and effective at achieving this objective as the impact of buildings on the amenity, safety, functionality and vibrancy of commercial centres cannot be determined through a controlled or permitted activity status and would rely on a non-regulatory approach and the goodwill of applicants.</p> <p>Permitted standards are not efficient and effective at achieving good design outcomes within large scale developments. This is because there are a variety of design solutions to manage effects and the optimum solution will depend on the context of the site. For example, to create a quality mixed use development the site design and placement of the buildings should be completed together to ensure the development positively contributes to its setting. This is achieved through a qualitative assessment rather than prescriptive standards.</p>	Through enabling an urban design assessment this option is efficient and effective at achieving CCZ-01, as it will ensure that development achieves vibrant and compact built outcomes within commercial zones, through enabling the ability to assess the site design and placement of buildings and the site context.
<i>Costs</i>		
<i>Environmental</i>	This option does not enable the consideration of building placement and site design specific to the site context. This could lead to poor urban design outcomes, adverse	Potential effects on adjoining properties and surrounding land uses as a result of greater intensification in existing commercial areas however, these may be mitigated through the resource consent process which will consider

	Option 1: Permitted subject to compliance with standards including requirements for ground floor glazing, verandahs, residential unit design, outdoor living space, outlook	Option 2: Proposed Plan Change – Restricted Discretionary (non-notified) with matters of discretion to assess design quality
	effects on adjoining properties, the public realm and on-site amenity.	how the design of the proposal facilitates onsite amenity and urban realm outcomes.
<i>Economic</i>	Economic costs associated with developments that do not achieve quality urban design outcome for instance poor living conditions and associated social issues as a result of developments that do not achieve quality urban design outcome.	Cost of applying for a restricted discretionary resource consent for meeting urban design requirements.
<i>Social</i>	This option may result in a poor public realm and associated social issues as a result of developments that do not achieve quality urban design outcome.	The requirement to apply for a resource consent will add time delays, which could slow down the delivery of much needed residential capacity within the City Centre and Commercial zones.
<i>Cultural</i>	No ability to assess the urban design quality of large-scale development surrounding sites of cultural significance which could result in poor quality outcomes on adjoining sites.	Further intensification and development of land around sites of cultural significance. Much of the land in the City Centre is Treaty settlement land and this option would introduce a more restrictive planning method that will inform how developed should be design on a site.
<i>Benefits</i>		
<i>Environmental</i>	It is possible to achieve good environmental outcomes under this approach but not in a way that is flexible and responsive to the specific site context.	This option will lead to better urban design outcomes for the public realm and on-site amenity as these matters can be considered through the resource consent process specific to the site context.

	Option 1: Permitted subject to compliance with standards including requirements for ground floor glazing, verandahs, residential unit design, outdoor living space, outlook	Option 2: Proposed Plan Change – Restricted Discretionary (non-notified) with matters of discretion to assess design quality
<i>Economic</i>	Providing a simpler compliance approach will reduce costs and time to those developing within the City Centre and Commercial Zones.	While there will be associated costs in applying for resource consents, clear assessment criteria will increase certainty to developers.
<i>Social</i>	This option may result in the faster delivery of additional housing without having to go through a resource consent process, however the poor-quality outcomes may outweigh this potential benefit.	This option will lead to better urban design outcomes for the public realm and on-site amenity as these matters can be considered through the resource consent process.
<i>Cultural</i>	There is no change to the cultural environment through this option.	There is no change to the cultural environment through this option.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.	
<i>Summary</i>	Option 2 is the preferred option. Requiring new buildings and external alterations over 25m <sup>2</sup> within the City Centre and Commercial Zones to obtain resource consent as a restricted discretionary activity with matters of discretion to assess design quality will enable flexibility to ensure urban development respond to the specific site context resulting in urban development that facilitates high amenity, functional, safe and vibrant environments within the City Centre and Commercial zones.	

#### 10.5.4 Issue 4: Appropriate Built Form on Fenton Street

Fenton Street acts as a key entranceway into Rotorua's City Centre and is lined with tourism accommodation consisting of motels, largely two storeys in height with at grade carparking and signage. The motels are generally setback from the street and have a smaller building coverage. Fenton Street has two lanes of traffic running in both directions, separated by a planted median strip. Currently Fenton Street is zoned a Commercial 4 zone which applies a side and rear yard and a maximum site coverage of 40% of the site area. This package of provisions has resulted in a distinct built character that is broadly residential in character.

Many of the motels are now being converted to permanent accommodation, and PC9 is an opportunity to ensure that any redevelopment results in quality built form outcomes that enable greater housing supply. This needs to be done in a way that ensures Fenton Street remains as an attractive gateway to the Rotorua CBD. This should also recognise that the Commercial 4 zone provides an enabling framework for all forms of residential, including permanent residential activities (detached and attached residential units, including apartments), as well as short-stay/non-permanent accommodation that caters for tourists and other people needing accommodation on a short-term basis.

To ensure that redevelopment results in an efficient built form, the following amendments are proposed within the Commercial 4 zone:

- Delete side and rear yard setback unless development adjoins a residential 1,3,4 or 5 zone.
- Delete 40% maximum site coverage.

To ensure that development along Fenton Street contributes to a vibrant and attractive entranceway to the City Centre, the following policy is proposed.

##### ***COMZ-P5 City Entranceway Accommodation***

*Enable a mix of high density residential uses, accommodation activities, including visitor accommodation, and supporting commercial activities.*

This policy is implemented by detailed matters of discretion and assessment criteria that apply to new buildings and alterations to existing buildings, which are proposed to be a restricted discretionary activity in the Commercial 4 zone (currently controlled). The report above provides the section 32 analysis for this change in activity status however, specific to this issue the proposed matters of discretion and assessment criteria seek to ensure that:

1. The design facilitates an active, attractive, vibrant and safe public realm and streetscape, promoting opportunities for passive surveillance through evaluating:
2. How the building provides an active, quality and attractive frontage through minimising long expanses of blank walls and visually breaking the mass of buildings into distinct elements;
3. Whether the building has well-proportioned windows and opening that relate to the shape, form and size of the building;
4. How the building façade of each tenancy or lot is visually different through the use of different materials and architectural design features;
5. Whether buildings provide a variety of architectural detail at ground and middle levels including maximising doors, windows, and balconies overlooking the street;



6. Whether internal space at all levels within buildings are designed to maximise outlook over adjoining streets and public open space;
7. Whether safe and direct pedestrian access that is easily identifiable is provided from the street to activities on the site; and
8. Whether tenancies are visually expressed as separate entities within a building's form and façade, and are located to front and activate the street, including through the use of entrances, pedestrian shelter and glazing;
9. Whether mechanical plant/units for heating and ventilation will be screened from public view; and
10. Whether any parking areas visible from the street and screened from public view by buildings and landscaping.

**Table 19: Issue 4: Appropriate Built Form for Fenton Street – Evaluation of Options**

	Option 1: (Status quo)	Option 2: Provisions that respond to the existing character	Option 3: Proposed Plan Change:
<i>Description of option</i>	Retain the 40% building coverage and 2.5m side and rear yard setback.	Retain the 40% building coverage and 2.5m side and rear yard setback. In addition, introduce a front yard setback and a minimum landscaping requirement to contribute to the feeling of openness and buildings set within landscaping.	<p>Introduce the policy outlined above, to be assessed through a restricted discretionary (non-notified) application, to ensure that development along Fenton Street contributes to a vibrant an attractive entranceway to the City Centre.</p> <p>Delete side and rear yard setback unless development adjoins a residential 1,3,4 or 5 zone.</p> <p>Delete 40% maximum site coverage.</p> <p>Non regulatory methods to ensure that Fenton Street is an attractive gateway to the CBD including streetscape upgrades.</p>
<i>Efficiency and effectiveness in achieving objectives</i>			
<i>COMZ-O1 A hierarchy of vibrant compact commercial and tourism centres that efficiently service and support the needs of the surrounding community and nationally significant tourism sector.</i>	This option is not efficient or effective at achieving this objective as it is resulting in dispersed development with at grade carparking that does not create a defined street edge. This is not optimal for creating a vibrant streetscape. Furthermore, Fenton Street is heavily car orientated with four lanes of traffic and	This option is not efficient or effective at achieving this objective as it is resulting in even greater dispersed development than Option 1. While the landscaping requirement may result in more greenery, i is unlikely to contribute to a vibrant streetscape with a defined urban edge, where there are opportunities for passive surveillance. Similar	This option will efficiently and effectively achieve this objective as it will result in a denser built character and contiguous 'wall' of buildings along the street edge, with minimal front yard setbacks, which is optimal for creating a vibrant, active, interesting and engaging streetscape.

	<p>this option does not consider how non-regulatory methods can be used such as streetscape upgrades to ensure Fenton Street is an attractive gateway.</p>	<p>to Option 1, this option does not consider how non-regulatory methods can be used such as streetscape upgrades to ensure Fenton Street is an attractive gateway.</p>	<p>Additional assessment criteria provide greater direction on how a quality frontage can be achieved, in the context of the activities the Commercial 4 zone enables. Supporting public realm upgrades will ensure that Fenton Street becomes a vibrant place for pedestrians rather than a car orientated through-route.</p>
<p><i>COMZ-O2 Commercial buildings and activities positively contribute to the mixed use character, safety and efficiency, and attractiveness of commercial centres and entranceways to Rotorua.</i></p>	<p>While this option will retain the current built character of Fenton Street it is questionable whether the current character is adding amenity value as a gateway. Buildings do not address the street or create a defined building edge and therefore the built form is not contributing to an engaging streetscape or safe environment for pedestrians.</p>	<p>This option will further entrench the current built character of Fenton Street. As with Option 1, it is questionable whether the current character is adding any amenity value in what is a commercial environment. This option will result in less opportunities to create a defined building edge with buildings that overlook the street, creating opportunities for passive surveillance.</p>	<p>This option will not retain the existing built character but will enable redevelopment that positively addresses the street and increases opportunities for passive surveillance. Public realm upgrades can ensure that Fenton Street is an attractive gateway to the CBD through incorporating landscaping and public art.</p>
<p><i>COMZ-O3 Commercial buildings and activities designed and operated in a manner that mitigates adverse effects on the amenity of residential zones.</i></p>	<p>This option will efficiently and effectively achieve this objective as it ensures development is setback from residential zones.</p>	<p>This option will efficiently and effectively achieve this objective as it ensures development is setback from residential zones.</p>	<p>This option will efficiently and effectively achieve this objective as it ensures development is setback from lower density residential zones.</p>
<p>Costs</p>			

<p><i>Environmental</i></p>	<p>This option will enable less efficient use of land within a commercial zone, in close proximity to the CBD.</p> <p>This option will result in development that does not create a defined streetscape edge and vibrant urban environment.</p> <p>Fenton Street is heavily car orientated with four lanes of traffic and this option does not consider how non-regulatory methods can be used such as streetscape upgrades to ensure Fenton Street is an attractive gateway.</p>	<p>This option will enable the least efficient use of land within a commercial zone, in close proximity to the CBD.</p> <p>This option will further entrench the current built character of Fenton Street resulting in development that does not create a defined streetscape edge and vibrant urban environment.</p> <p>Fenton Street is heavily car orientated with four lanes of traffic and this option does not consider how non-regulatory methods can be used such as streetscape upgrades to ensure Fenton Street is an attractive gateway.</p>	<p>This option will not provide for onsite landscaping and any limited ecological benefit this may have within a commercial zone.</p>
<p><i>Economic</i></p>	<p>The 40% building coverage may negatively impact the feasibility of development and deter redevelopment of the current building stock.</p>	<p>The 40% building coverage may negatively impact the feasibility of development and deter redevelopment of the current building stock.</p>	<p>Greater costs for Council in undertaking public realm and streetscape upgrades along Fenton Street.</p>
<p><i>Social</i></p>	<p>Reduced amenity values as the provisions may not result in a quality-built environment that positively relates to and overlooks the street, creating an attractive and vibrant gateway to the City Centre.</p> <p>Option 1 does not enable greater development potential that would incentivise redevelopment of existing lower density development.</p>	<p>Similar to Option 1, this option will result in reduced amenity values, as development will not positively relate to and overlook the street.</p> <p>Option 2 does not enable greater development potential that would incentivise redevelopment of existing lower density development</p>	<p>This option will result in a different built character along Fenton Street which may not be in keeping with some of the community's expectations.</p>

<i>Cultural</i>	There is no change to the cultural environment through this option.	There is no change to the cultural environment through this option.	There is no change to the cultural environment through this option.
<i>Benefits</i>			
<i>Environmental</i>	The 40% building coverage may deter redevelopment of the current building stock and this may result in sustainability benefits encouraging reuse of existing buildings.	The 40% building coverage may deter redevelopment of the current building stock and this may result in sustainability benefits encouraging reuse of existing buildings.  The greater landscaping requirement may have some limited ecological benefit.	This option will enable the most efficient use of land within a commercial zone, in close proximity to the CBD.  This option will result in a denser built character and contiguous 'wall' of buildings along the street edge, with minimal front yard setbacks, which is optimal for creating a vibrant, active, interesting and engaging streetscape.  Public realm upgrades will ensure that Fenton Street becomes a vibrant place for pedestrians rather than a car orientated through-route.
<i>Economic</i>	No additional economic benefits as existing rules are retained.	This option may result in less need for Council to undertake public realm improvements with the associated costs involved, given landscaping will be provided privately on site.	This option will provide greater residential and commercial development capacity, which supports competitive land and development markets.
<i>Social</i>	Existing rules are retained and community expectations are maintained.	Existing built character is retained so community expectations are maintained.	Increases the amenity values of Fenton Street through creating a vibrant urban area and safer environment.

<i>Cultural</i>	This option does not facilitate improved cultural outcomes.	This option does not facilitate improved cultural outcomes.	This option better facilitates development of Whenua Māori and Maori owned land along Fenton St.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.		
<i>Summary</i>	<p>Option 3 is the preferred option. Amending the Commercial 4 zone to ensure that development creates a defined street edge with supporting non-regulatory methods to upgrade Fenton Street is the most appropriate mechanism for achieving the objectives because:</p> <ul style="list-style-type: none"> <li>• In accordance with COMZ-01 Option 4 will result in a vibrant gateway to Rotorua’s CBD through ensuring development creates a defined street edge optimal for creating a vibrant, active, interesting and engaging streetscape.</li> <li>• In accordance with COMZ-02 Option 4 will result in development that has an engaging urban character that positively addresses and overlooks the street creating a safe environment.</li> <li>• In accordance with COMZ-03 Option 4 will avoid adverse effects on the amenity of residential zones through ensuring development is setback from lower density residential zones.</li> </ul>		

## 10.5.5 Issue 5: Complementary Amendments to Support Residential Amenity

In addition to the proposed amendments to height and the amendments to the activity status for residential use within the City Centre and Commercial zones, further complementary changes are proposed to the standards to support residential amenity. These are detailed below:

### Residential Amenity of Adjoining Sites

In some instances, the City Centre and Commercial zones will directly adjoin sites within a residential zone. In order to ensure that development is setback from neighbouring residential properties the following amendments are proposed:

- Commercial zones that boarder residential zones should meet the adjacent HIRB standards that apply to the Residential 1 or Residential 2 zone on the applicable boundary; and
- Apply a 3m yard setback on a boundary with a residential zone.

Together these amendments will minimise adverse shading, privacy and dominance issues for neighbouring residential sites within the context of increased height across the City Centre and Commercial zones. The proposed yard setback will provide some physical separation of the higher commercial buildings proposed with an adjacent residential property whilst still supporting a functional dimension that could support alternative uses such as an accessway to on-site car-parking or alternatively increased landscaping depending on the specific needs of the building.

### On-site Residential Amenity

To support greater onsite residential amenity for proposed residential units within the City Centre and Commercial zones, the following amendments are proposed:

- Consistent with the Residential 1 and 2 zones a minimum dwelling size of 35m<sup>2</sup> for a studio dwelling and 45m<sup>2</sup> for one or more-bedroom dwelling to manage on-site amenity is proposed;
- Consistent with the Residential 2 zone a reduction of the minimum balcony dimensions to 1.5m and 6m<sup>2</sup> is proposed to reflect that the City Centre and Commercial zones offer a range of amenities that serve to reduce the requirement for on-site outdoor living spaces;
- Consistent with the Residential 2 zone an outlook standard supported by specific matters of discretion/ assessment criteria related to on-site amenity issues is proposed; and
- Deletion of the Storage Standard from the City Centre and Commercial zones and the inclusion of additional assessment criteria to manage onsite storage in a more flexible way.

The inclusion of a minimum dwelling size standard is evaluated within the context of the residential zones within section 7.5 above. This evaluation is also relevant to the City Centre and Commercial zones as it is also important to ensure that all dwellings within Rotorua will provide reasonable conditions of function and amenity for its design occupancy. This is critical in ensuring a reasonable standard of onsite amenity. Therefore, the inclusion of a minimum dwelling size within the City Centre 1-2 and Commercial 1-4 & 6 zones will efficiently and effectively achieves SD09 as the minimum dwelling size standard will ensure that the smallest dwellings will provide reasonable conditions of function and amenity for residents. In addition, the proposed storage standard has been reviewed as part of the Urban Design analysis to inform PC9. This analysis has determined that the operative rule is a blunt approach that does not take into consideration alternative storage options available as part of furniture (e.g. in-built draws under beds) or via

dedicated storage facilities. A more efficient and effective approach is to address storage as part of an overall design assessment of a development.

Increased residential uses within commercial zones, coupled with increased building heights and limited setbacks creates a risk of adverse amenity outcomes in residential dwellings in these areas. This risk is primarily in the form of adjacent sites being built out to their maximum extent, reducing or removing access to sunlight, daylight or outlook of existing dwellings over side boundaries if this has previously been relied upon. To address this, an outlook standard is proposed aligned with the outlook standards of the Residential 2 zone noting that the majority of the building heights proposed within these zones are comparable to that of the Residential 2 zone.

The proposed reduction in of the minimum balcony dimensions to 1.5m and 6m<sup>2</sup> has been evaluated within the context of the residential 2 zone within section 7.6.4 above. This evaluation concludes that the reduction in minimum balcony dimensions is appropriate as the Residential 2 zone is located in close proximity to the existing open space network, which reduces the requirement for on-site outdoor living spaces and are an important 'trade-off' that distinguishes low-density suburban housing from more intensive housing in and around centres. This evaluation and its conclusions are also relevant to the Centre 1-2 and Commercial 1-4 & 6 zones which are highly accessible and offer a range of amenities that reduce the need for private open space.

Together these amendments will manage potential overlooking and privacy issues, ensure that internal living areas are functional with sufficient storage to provide for day to day needs and provide outdoor living space to provide onsite amenity within the context of the City Centre and Commercial zones.

## 11.0 Review of Transport Provisions

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### 11.1 Structure of this Section

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This section includes the required Section 32 evaluation of the proposed provisions that relate to transport under PC9. The proposed amendments are related provisions in accordance with Section 80E(b)(iii), and in this case, support and are consequential on the MDRS and Policy 5 of the NPS-UD.

### 11.2 Overview and scope of Amendments

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The purpose of the amendments to the transport provisions is to ensure that they will enable the anticipated increase in residential development through PC9, and ensure that any resulting effects on the transport network can be appropriately managed.

The proposed amendments include:

- A new policy addressing access provided within a site.
- A new performance standard to manage the increased number of households accessed from one shared accessway driveway.
- Introduction of a Transport Assessment requirement.



- Additional assessment criteria for the development of four or more residential units and development that cannot comply with the relevant transport performance standards.

### 11.3 Background and Issues of Concern

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At present the relevant District Plan provisions for transport are located in the Residential zone and *Appendix 1 – Parking, Access, and Turning*. The provisions specify that a public road is required to service developments of more than 8 dwellings. As well as this threshold, there is also a requirement for an integrated traffic assessment, should the number of dwellings proposed exceed 100. The existing transport provisions have been reviewed by Commute (refer *Appendix 11*) to determine whether amendments are required to the provisions for trip generation and access within the residential zones to respond to the increase in development enabled by PC9.

The assessment by Commute finds that the existing trip generation threshold for the preparation of an Integrated Transport Assessment ('ITA') remains appropriate, and is recommended to be retained. The assessment also recommends a number of amendments to the Residential zone performance standards and *Appendix 1* provisions to ensure that off-site transport effects associated with increased development potential are appropriately managed. In particular, these relate to providing for larger developments (over 20 residential units) to utilise shared access driveways. Notwithstanding, it is recognised that as shared access driveways accommodate a higher number of residential dwellings, there are other transport effects that need to be considered, including:

- Pedestrian access (pedestrians could safely share the access with vehicles in the 2-8 dwelling range but beyond that, a dedicated pedestrian path is recommended; and
- Provision for service and emergency vehicles, which requires the need to assess larger vehicles turning to and from the site and accommodate the required turning areas on-site.

### 11.4 Relevant Objectives

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The relevant District Plan objective is SUB-O4: Sites and associated roads integrate safely and efficiently within the transport network.

No changes are proposed to this objective. PC9 also proposes to introduce the following amendments to the Residential zone that are relevant:

- RES-O3 and RESZ-010 Development contributes to attractive and safe streets and open spaces.

An evaluation of the appropriateness of this objective in accordance with section 32(1)(a) is included in Section 8.

### 11.5 Evaluation of Provisions

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#### 11.5.1 Issue 1: Access Provisions

The key issue for consideration is the current provision in the district plan that specifies that shared access driveways shall not serve more than eight household units and with this the associated/specified minimum widths. Commute finds that where shared access driveways are formed to enable two-way vehicle movements, shared access driveways can accommodate a

significantly higher number of residential units. With PC9 enabling greater development potential, it is appropriate to enable a greater number of dwellings to be accessed from a single shared access driveway, while ensuring that safe and efficient vehicle and pedestrian access is provided for.

To address this issue the following amendments are proposed as part of PC9:

- Inclusion of a new policy within the Residential 1 and 2 zones that details the importance access within a site being well connected to the existing transport network and designed to be safe and convenient to use for pedestrians, cyclists, and vehicles where parking is provided.
- Amend the standards which relate to shared access driveways to increase the number of dwellings which can be serviced by a shared access driveway household units.
- Introduce a new requirement for an overall access width of 8m when serving 9-20 residential units.

The proposed standards have been informed by technical transport engineering advice provided by Commute, which is included at *Appendix 11*.

A key issue raised through engagement with local consultants and the resource consent team is the ability for existing right of ways (typically around 6m wide) to cater for an increased level of permitted development. Equity issues were raised, including the fairness of the first developer being able to utilise the more enabling access standards, with later developers likely needing to infringe the permitted standards in the instance where five or more residential units are proposed off an existing 6m right-of-way. This issue is common throughout cities in New Zealand, and is typically managed through methods outside of the District Plan.

While analysed in further detail below, the access standards above have been developed to ensure that development can be supported by safe access to residential units that appropriately provides for all modes, where carparking is proposed. For development that does not comply with the proposed standards, a restricted discretionary resource consent would be required and an assessment from a transport engineer would be required to analyse whether the existing access, or a modified access, can safely cater for the development. In instances where safety issues cannot be addressed through design, the Applicant would need to explore other options, such as reducing the amount of carparking provided on site. The Property Law Act 2007 would continue to govern landowner rights and responsibilities over the existing right of way.

**Table 20: Issue 1: Access Provisions – Evaluation of Options**

	Option 1: Retain the provisions (Status Quo)	Option 2: Proposed Plan Change: Make the amendments set out above
<i>Description of option</i>	This option involves retaining the current performance standards as found in the Rotorua District Plan with regard to provisions for shared access driveways in the Residential zone.	<ul style="list-style-type: none"> <li>• Enable a shared access driveway in the Residential zone to accommodate up to 20 residential units with supporting legal and formed width and design requirements.</li> <li>• Include a policy for the transport and design outcomes for access within sites.</li> </ul>
<i>Efficiency and effectiveness in achieving the objectives</i>		
SUB-04 Sites and associated roads integrate safely and efficiently within the transport network.	This option is efficient and effective as the number of residential units obtaining access by a shared access driveway that provides direct access to a public road will be limited.	This option is efficient and effective as the number of residential units obtaining access by a shared access driveway that provides direct access to a public road will be limited. Although there is increased provision compared to Option 1, an increased width requirement is also proposed to apply to shared access driveways serving 9-20 residential units.
<i>RESZ-03 and RESZ-10 Development contributes to attractive and safe streets and open spaces.</i>	This option is efficient and effective as limiting the number of residential units and vehicles utilising a shared access driveway and requiring minimum formed widths of access will contribute to attractive and safe streets.	This option is efficient and effective as limiting the number of residential units and vehicles utilising a shared access driveway, requiring minimum formed widths of access, and the provision of pedestrian paths will contribute to attractive and safe streets.
<i>Costs</i>	Shared access driveways that are appropriately designed and formed, including to provide two way vehicle movements can safely and efficiently accommodate more than eight residential units.	Increasing the number of residential units and vehicles accessing a public road to and from a shared access driveway can create potential effects on the local road network, including associated with access and

	<p>This option has the potential to create greater costs to development associated with providing public roading, and does not allow for the most efficient use of land under the MDRS and PC9 provisions, therefore limiting the development potential of land</p> <p>There is no change to the cultural environment through this option.</p>	<p>maneuvering for service and emergency vehicles. However, effects can be managed through the application of the proposed minimum width requirements and other performance standards and the proposed policy.</p> <p>There is no change to the cultural environment through this option.</p>
<i>Benefits</i>	<p>This option will provide for some multi residential unit development while managing effects on the local road network at a time and cost efficiency, however will not provide the same extent of development potential as Option 2.</p> <p>There is no change to the cultural environment through this option.</p>	<p>This option will provide for greater development potential and design flexibility within residential sites. The proposed minimum width requirements will require shared access driveways to be appropriately designed and constructed to accommodate a greater number of residential units, and ensure access utilising a shared access driveway will not create effects on the local road network.</p> <p>This option also has a higher threshold for when a public road is required, creating cost efficiencies. The cost of developing a shared access driveway to the proposed performance standards are likely to be less than those associated with the construction of public roading.</p> <p>The proposed policy will provide additional direction on the access related outcomes to be achieved in larger scaled developments (up to 20 residential units).</p> <p>There is no change to the cultural environment through this option.</p>
<i>Risks</i>	<p>There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.</p>	

*Summary*

Option 2 is the preferred option. Enabling a greater number of residential units to be served by shared access driveways that are appropriately designed and formed is the most appropriate mechanism for achieving the objectives because:

- In accordance with SUB-O4 this option will enable sites to integrate safely and efficiently within the transport network while also accommodating the increase to residential development potential enabled by PC9.
- In accordance with RESZ-O3 and RESZ-O10 this option will ensure that shared access driveways accommodating an increased number of residential units will contribute to attractive and safe streets through the proposed performance standards for width and design.

### 11.5.2 Issue 2: Transport Assessment

With PC9 enabling greater density of built form within the Residential zone, there is the potential for development to adversely affect the safety and efficiency of the local transport network. In particular, the transport analysis undertaken by Commute has highlighted that increased development potential can create off-site effects on the transport network, such as parking overspill onto local streets (refer *Appendix 11*). It would therefore be appropriate to manage these effects at the resource consent stage to ensure that the local road network can operate in a safe and efficient manner.

To address this issue the following amendments are proposed as part of PC9:

- Introducing the requirement to prepare a simple Traffic Assessment where 20 or more residential units are proposed. The Traffic Assessment will address effects on the local road network in the immediate area of the development. The requirements of a Traffic Assessment will be set out in *Appendix 1 – Parking, Access and Turning*.
- Inclusion of new matters of discretion and assessment criteria for developments of four or more residential units to assess impacts on surrounding environment

**Table 21: Issue 2: Transport Assessment – Evaluation of Options**

	Option 1: Retain the provisions (Status Quo)	Option 2: Proposed Plan Change: Make the amendments set out above
<i>Description of option</i>	This option involves retaining the current provisions as found in the Rotorua District Plan with regard to transport assessment.	This option involves amending the provisions in Appendix 1 – Parking, Access, and Turning with regard to the transport provisions.  Key changes include: <ul style="list-style-type: none"> <li>• Require the preparation of a Transport Assessment for 20 or more residential units are proposed to address effects on the local road in the immediate area of the development.</li> <li>• Amend matters of discretion to assess impacts of four or more residential units on the transport network.</li> <li>• Amend matters of discretion to assess infringements to the access performance standards.</li> </ul>
<i>Efficiency and effectiveness in achieving the objectives</i>		
SUB-04 Sites and associated roads integrate safely and efficiently within the transport network.	This option is less efficient and effective as there is no ability to ensure that larger developments below the threshold that requires a full Integrated Transport Assessment (100 residential units) will not adversely affect the safe and efficient operation of the local road network.	This option is efficient and effective as it will ensure that the effects of development enabled under PC9 on the transport network can be appropriately assessed and managed through the preparation of Transport Assessments and matters of discretion for four or more residential units.
<i>RESZ-03 and RESZ-10 Development contributes to attractive and safe streets and open spaces.</i>	This option is less efficient and effective as there is no ability to ensure that larger developments below the threshold that requires a full Integrated Transport	This option is efficient and effective as it will ensure that the effects of development enabled under PC9 on the attractiveness and safety of streets can be appropriately assessed and managed through the

	Assessment (100 residential units) will ensure the attractiveness and safety of streets.	preparation of Transport Assessments and matters of discretion for four or more residential units.
<i>Costs</i>	<p>The lack of assessment of local transport effects arising from increased residential density could create effects on the transport network and limit the ability of key services such as rubbish trucks and emergency vehicles to use the road with potentially increased parking demands.</p> <p>There is no change to the cultural environment through this option.</p>	<p>This option introduces a slightly more complex compliance and consenting approach which could increase costs and time to those developing land.</p> <p>There is no change to the cultural environment through this option.</p>
<i>Benefits</i>	<p>This option retains the existing requirement for an ITA to be prepared for developments with 100 or more residential units, and is more cost efficient than Option 1 for those developing land.</p> <p>There is no change to the cultural environment through this option.</p>	<p>Increased development potential and higher density residential development may create effects on the potential displacement of parking to the public road network (given minimum parking requirements are not required). The introduction of a simpler Transport Assessment focusing on local effects will ensure that the road network can still operate safely and efficiently, while creating less cost than the preparation of an ITA.</p> <p>The introduction of a new matters and discretion and assessment criteria will also provide opportunity to utilise existing formed accessways that do not meet the proposed performance standards and ensure that transport effects of new development for four or more residential units can be assessed.</p> <p>There is no change to the cultural environment through this option.</p>
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.	



<i>Summary</i>	<p>Option 2 is the preferred option. Introducing additional provisions to enable transport related effects to be more comprehensively addressed for larger scaled residential developments is most appropriate mechanism for achieving the objectives because:</p> <ul style="list-style-type: none"><li>• In accordance with SUB-O4 this option will ensure that sites with larger scaled residential developments as provided for by PC9 integrate safely and efficiently within the transport network.</li><li>• In accordance with RESZ-O3 and RESZ-O10 this option will ensure that the District Plan enables larger scaled residential developments provided for by PC9 to be appropriately assessed to ensure that they contribute to attractive and safe streets.</li></ul>
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## 12.0 Flooding

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### 12.1 Structure of this Section

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This section includes the required Section 32 and Section 77J evaluation of the proposed changes to provisions which manage flood hazards. The proposed provisions include:

- Introduction of a restricted discretionary rule applying to building and additions in the areas where there are significant flood depths as a new qualifying matter; and
- Amendments to existing provisions and new provisions as related provisions in accordance with Section 80E(b)(iii). In this case, the proposed amendments support and are consequential on the MDRS and Policy 5 of the NPS-UD.

*Appendix 4* includes an assessment in accordance with Section 77J in relation to the proposed provisions that apply as a new qualifying matter. *Appendix 2 and Appendix 4* includes an assessment in relation to all amendments to provisions that manage flood hazards proposed under PC9, including the new qualifying matter (Issue 1) and related provisions (Issues 2-4).

### 12.2 Overview and Scope of Amendments

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Amendments are proposed to the provisions which manage flood risk to respond to potential risks associated with the increased development potential enabled by PC9, while also seeking to improve the efficiency of the provisions. The amendments include:

- Amendments to the building level standards:
  - Alignment of design flood used for minimum building level standards to that used in subdivisions and administration of the Building Act;
  - Extension of building level standards to new buildings.
- Introduction of a requirement for a broad assessment (as a restricted discretionary activity) for buildings and larger building additions in areas where the anticipated flood depths in a design event are more than 300mm. This constitutes an additional qualifying matter.
- Clarification and streamlining of subdivision rules.
- Reduction in the maximum impervious site coverage standards for Residential 1 and 2 Zones.

The proposed restricted discretionary rule for building and additions in the areas where flood depths are anticipated to be deeper constitutes a new qualifying matter, as it would potentially restrict development density within residential zones.

The other proposed amendments to the provisions which manage flood risk are related provisions in accordance with Section 80E(b)(iii). In this case, the proposed provisions are consequential on the MDRS and Policy 5 of the NPS-UD.

## 12.3 Background and Issues of Concern

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Section 77I of the Amendment Act stipulates that a territorial authority may make the MDRS and the relevant building height or density requirements under policy 3 less enabling of development in relation to an area within a relevant residential zone only to the extent necessary to accommodate 1 or more of the outlined qualifying matters. This includes (a) a matter of national importance that decision makers are required to recognise and provide for under section 6 (Section 77I(a)).

Qualifying matters include the management of significant risks from natural hazards as a matter of national importance (RMA S 6(h)). While the district plan already includes district-wide provisions (refer *Appendix 1*) to manage development on sites subject to flood risk, amendments to these provisions are now required to respond to the potential for flood risk to increase with the development facilitated by PC9, resulting from:

- The intensification of buildings in Rotorua city (for example, with the removal of residential unit density standards and yards), could increase risks to life or property if development occurs in areas susceptible to flooding.
- The intensification of building facilitated by PC9 will also facilitate additional imperviousness surface coverage in some areas, which could contribute to flooding.
- This intensification of building could potentially occur in areas that are important for conveying or storing water during flood events.

In addition, the emerging flood risk assessment commissioned by RLC using the methodology in the Bay of Plenty Regional Policy Statement, is likely to identify Rotorua city as having a high flood risk.<sup>19</sup>

Issues relating to the efficiency of the existing rules have also been identified, including a lack of consistency in design standards for minimum building levels between building process and the District Plan and ambiguities in subdivision standards.

## 12.4 Extent of Qualifying Matter

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The proposed amendments to the district-wide flood management provisions will apply across the district within areas subject to flooding and are only considered a new qualifying matter in accordance with Section 77I of the RMA where they are proposed to apply within the Residential 1 Zone and the Residential 2 Zone. This will be to properties where there is a maximum flood depths on a building site are greater than 300mm in the design flood of a 1% AEP event with an allowance for climate change. A series of maps that identify properties within the Residential 1 Zone and the Residential 2 Zone that may contain such building sites is attached within *Appendix 12*.

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<sup>19</sup> Work is currently being commissioned by Rotorua Lakes Council from Tonkin & Taylor Ltd to assess the flood risk across Rotorua city using the methodology in Appendix L of the Regional Policy Statement and the work to date indicates that Rotorua city, assessed as a whole, will be given a risk rating of high using this methodology. Assessments commissioned for individual catchments within the city have also resulted in a high risk rating: National Institute of Water & Atmospheric Research Ltd (NIWA), Flood Risk Assessment for Rotorua Lakes District Urban Catchments, Report prepared for Rotorua Lakes Council, Client Report No. 2021003WN, January 2021.

## 12.5 Qualifying Matter and Justification of Incompatibility with the MDRS

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There may potentially be significant risks from flooding to people and/or property associated with new buildings or additions to buildings permitted by the MDRS in these areas due to:

- Increased cumulative value of assets that could potentially be damaged in a flood event;
- Increased number of occupants in areas that may be hazardous to life due to deep and/or fast flows; and
- Compromise of overland flowpaths that could divert water onto other properties.

This is addressed to some extent through minimum floor levels and administration of the Building Act, but the proposal provides broader scope to consider the effects and potential options to minimise the risk through consent conditions.

## 12.6 Impact on Development Capacity

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The extent of sites affected by the proposed provisions that manage flood hazards is identified in the series of maps attached within *Appendix 12*.

Development to the density envisaged by the MDRS (and proposed impervious standards for the zone) may not be able to be achieved on some sites as expert assessments may identify the need to avoid areas of land subject to flood hazards, increased minimum floor levels, separation between buildings and other structures, and reduced coverage with buildings and other impervious surfaces.

Given the variability of the extent and risk associated with flood hazards, it is not possible to determine with any reliable accuracy the potential impact on development capacity. Notwithstanding, the impact of the proposed provisions on development capacity is likely to be low given that most flood hazards can be appropriately managed through site design, including the implementation of minimum floor levels.

While there is potential for development capacity to be reduced in the most constrained locations, it is likely that these areas would also be subject to restrictions under the Building Code that would reduce also reduce development capacity.

## 12.7 Appropriateness of Proposed Objectives

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The relevant District Plan objective is SDNH-O1: *Minimise or reduce the level of risk to life, property and the environment from the subdivision, use and development of land in areas subject to a natural hazard.*

No changes are proposed to this objective, which applies across multiple natural hazards.

## 12.8 Evaluation of Provisions

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Section 77J of the RMA sets out specific evaluation requirements in relation to new qualifying matters. These are addressed within *Appendix 4*. The evaluation below provides a broader assessment of the proposed provisions in relation to the new qualifying matter and the amendments proposed to address the efficiency of provisions in accordance with Section 32.

### 12.8.1 Issue 1: Broader issues associated with building in areas susceptible to flooding

The current District Plan rules only address building levels and there is no opportunity to consider broader issues and potential responses. While sections 71 to 74 of the Building Act promote the design of buildings to address natural hazards and avoid impacts on other properties; and section 106 of the RMA allows Council to refuse subdivision consent or impose conditions if it considers there is a significant risk of natural hazards, it can be difficult to assess the risks associated with the future land use and building work often occurs that has not been specifically considered at subdivision.

The following matters relating to the risks of building in areas susceptible to flooding are more readily addressed through District Plan land use rules:

- the potential life-safety risks from people living in areas that flood and seeking to evacuate during flood events through fast and/or deep flows.
- the potential that associated site work, which is not always within the scope of what can be considered under the Building Act, may divert overland flows, dam flows or otherwise increase the hazard on neighbouring properties.
- the cumulative impact of displacement of flood waters from building footprints onto other sites.

Conditions on land use consent are potentially more flexible to address a wider range of matters than can be addressed through building design to meet the Building Act. For example, conditions on maintenance of overland flowpaths and use of the wider site.

Given the risks associated with flooding in Rotorua; and that these risks may increase with development facilitated by PC9, it is proposed that a broader assessment of the risks associated with areas susceptible to flooding, be introduced into the District Plan (proposed rule NH-R4(4)).

To balance achievement of the objective of minimising risk with efficiency, this assessment is limited to areas where the potential risks are greater. In areas where risks are likely to be less, buildings and additions would just have to meet minimum floor levels. A corresponding policy (NH-PA) is also proposed to outline this approach.

A threshold of more than 300mm maximum flood depth in the design flood is proposed as the threshold for the broader assessment, consistent with the rule framework recently adopted in the Tauranga City Plan with Plan Change 27 and technical advice from Tonkin & Taylor (refer *Appendix 13*).

Proposed matter of discretion NH-MD1 set out the matters to be considered in the assessment, which are:

- The appropriateness of the proposed building location and the extent to which the proposal minimises the risks to people and property on site from flooding through measures such as building design and provision of safe evacuation routes or refuge;
- The extent to which the development will increase risks from flooding to people and property on other sites or infrastructure; and the extent to which the proposal minimises this effect; and
- Whether the proposal will affect the carrying capacity and storage capacity of any river corridor or major overland flowpath.

As with minimum floor levels, there would be an exemption for additions under 20m<sup>2</sup>. Small additions are less likely to require a broad assessment as they are less likely to significantly increase risks by, for example, increasing the occupants of a building. It is considered that consideration under the Building Act is sufficient. Buildings of low importance and those associated with the Electricity Generation Core Site would also be exempt.

During consultation on PC9 concern was expressed with these exemptions. It was pointed out that even buildings of low importance and small additions could impact overland flowpaths. This is agreed. However, because overland flow paths have yet to be mapped, provisions specifically addressing their protection are considered best left to the subsequent flooding plan change. Rules that target a wider range of activities including even small additions and buildings of low importance may be appropriate in these areas.

In the meantime, a policy relating to the maintenance of the function of overland flowpaths and river corridors is proposed as a supporting change (policy NH-PB). Inclusion of this policy will assist in achieving the objectives by ensuring overland flowpaths are considered in subdivision and in the broader assessment of buildings in areas where anticipated floodwaters are deeper (proposed rule NH-R4(4)). Corresponding matters of discretion for the broader assessment of building in areas susceptible to flooding (NH-MD1) include the following matters relating to overland flowpaths:

- the extent to which the development provides for the conveyance of water;
- whether the development will change the entry and/or exit points of the overland flowpaths on the site and the impact other sites and infrastructure;
- management of any potential erosion caused by any overland flowpaths; and
- provision for access and maintenance to the overland flowpaths.

A definition of overland flowpaths is also proposed to aid implementation:

The land overflowed by a concentrated flow of water in an intense rainfall event, as it flows towards the stormwater network, streams, rivers, or lakes. Overland flowpath includes a secondary flowpath which is activated when the primary (often piped) stormwater system gets blocked or when the capacity of the piped system is exceeded. For the purposes of this definition, an overland flowpath includes, but is not limited to, an artificially designed route using formed or hard surfaces.

An evaluation of these changes against the requirements of section 32 is provided in the table below (refer *Table 22*).

**Table 22: Issue 1: Broader Issues associated with Building in Areas Susceptible to Flooding – Evaluation of Options**

	Option 1: (Status quo)	Option 2: Proposed Plan Change: Make the amendments set out above	Other options considered: Do not include exemptions
<i>Description of option</i>	Retain the current provisions in the District Plan– No additional rule would be inserted to require consent for buildings constructed in areas with flood depths >300mm in the design flood event.	<ul style="list-style-type: none"> <li>Require resource consent for buildings constructed in areas where flood depths &gt;300mm in the design flood event, except for buildings of low importance and additions of 20m<sup>2</sup> as a restricted discretionary activity;</li> <li>Identify corresponding matters of discretion.</li> <li>Include a policy for the protection of the function of river corridors and overland flowpaths and corresponding matters of discretion.</li> </ul>	As for option 2, but do not include the exemptions from the broad assessment for buildings of low importance and additions of 20m <sup>2</sup> or less.
<i>Efficiency and effectiveness in achieving objectives</i>			
<i>SDNH-O1: Minimise or reduce the level of risk to life, property and the environment from the subdivision, use and development of land in areas</i>	This option is less efficient and effective in achieving the objective because building level requirements alone may not be sufficient to appropriately manage the risks associated with the subdivision, use, or development of land where a more significant flood hazard applies.	This option is efficient and effective as the proposed provisions for buildings in areas where flood depths are anticipated to be deeper (> 300mm) in a design event allows consideration of site-specific factors and more significant flood hazards. This ensures that the risks associated with the subdivision, use, or development of this land is appropriately managed, particularly under intensification scenarios facilitated by PC9.	<p>This option is effective as it will ensure that more significant flood hazards (including overland flowpaths) are managed to the greatest extent to minimise or reduce the level of risk to life, property and the environment.</p> <p>This option is less efficient as the flood management provisions applying to buildings of low importance of small additions is unlikely to be commensurate with the level of risk with respect to flood hazards across the flood plain. Rules that</p>

	Option 1: (Status quo)	Option 2: Proposed Plan Change: Make the amendments set out above	Other options considered: Do not include exemptions
<i>subject to a natural hazard.</i>			target building and structures specifically in overland flowpaths may be an appropriate method, but the flowpaths have yet to be mapped.
<i>Costs</i>	This option creates the risk that more significant flood hazards are not appropriately managed.	<p>This option will create increased consenting costs and reduced certainty for development, however the proposed policy and matters of discretion will provide a level of certainty on the anticipated outcomes to be achieved with regard to the management of flood hazards.</p> <p>This option reduces costs by excluding low value buildings and small additions - these are less likely to increase risks to any significant extent because of the low value of the asset and improbability that additional people will be exposed.</p>	<p>This option will create increased consenting costs and reduced certainty for development, however the proposed policy and matters of discretion will provide a level of certainty on the anticipated outcomes to be achieved with regard to the management of flood hazards.</p> <p>This option also creates the additional consenting costs for buildings of low importance and small additions.</p>
<i>Benefits</i>	<p>This option will manage some of the risks associated with the subdivision, use, and development of land subject to a flood hazard at a time and cost efficiency, however, not to the same extent of risk management as Options 2 and 3.</p> <p>This option also provides more certainty for development only minimum floor levels are required by the District Plan, and retains</p>	<p>Areas outside the 300mm depth threshold will generally be of low risk to human safety according to depth x velocity guidelines.</p> <p>More significant overland flowpaths, while not yet mapped, will generally fall inside the area 300mm depth threshold.</p> <p>This option appropriately manages the risks associated with more significant flood</p>	<p>This option manages more significant flood hazards to the greatest extent.</p> <p>This option appropriately manages the risks associated with more significant flood hazards on people, communities, property, and the environment.</p> <p>The proposed policy and use of a restricted discretionary activity status and matters of discretion will provide certainty on the</p>



	Option 1: (Status quo)	Option 2: Proposed Plan Change: Make the amendments set out above	Other options considered: Do not include exemptions
	existing District Plan provisions that the plan users are familiar with.	<p>hazards on people, communities, property, and the environment.</p> <p>The proposed policy and use of a restricted discretionary activity status and matters of discretion will provide certainty on the anticipated outcomes to be achieved with regard to the management of flood hazards.</p>	anticipated outcomes to be achieved with regard to the management of flood hazards.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.		
<i>Summary</i>	<p>The proposed changes outlined above (option 2) is considered the most appropriate option. There may be some costs in terms of uncertainty created by the requirement for the broad assessment and potentially reduced potential to use sites as a result of conditions imposed on resource consents. Nonetheless, this approach provides opportunity to consider key matters relevant to building in areas susceptible to flooding, which is important for achieving the objective of minimising risk.</p> <p>The flooding plan change should consider rules targeting activities in overland flowpaths. In these areas, an exemption for small additions and buildings of low importance will be less valid.</p>		

## 12.8.2 Issue 2: Minimum Building Levels

Currently the District Plan requires building levels to be above design flood levels, as permitted standards, to address lake flooding (NH-R4) as well as flooding from surface water inundation (NH-R5). Buildings that do not meet these standards are restricted discretionary activities. This is an important method to assist with achieving objective SDNH-O1 by reducing the probability that flood waters enter buildings and cause damage.

However, there are several issues with the current rules:

1) Design floods are variable and do not reflect practice

The current design flood for building levels in the District Plan adds to uncertainty and inefficiency. The design flood stated for the Waikato River Catchment is the 1% Annual Exceedance Probability (“AEP”) event, whereas for flooding outside this catchment the design flood is the 2% AEP event. Moreover, consent conditions imposed through subdivision and advice on building applications are inconsistent with the 2% AEP event standard and routinely use to the 1% AEP event with an allowance for climate change and freeboard as the design flood.

2) Minimum building levels do not apply to new buildings

The rule for surface water inundation (NH-R5) only addresses additions and replacement of buildings and not new buildings.

3) Focus on filling platform rather than floor level

The performance standard for surface water inundation (NH-R5) requires building platforms be filled to above the design flood level. Filling of building platforms is not necessary (as buildings can be raised without necessarily filling the site). Indeed, filling the platform can contribute to flooding of other sites due to the displacement of flood water, which is contrary to minimising risk and Objective SDNH-O1 risk.

4) Building is too widely defined

There is a need to clarify the meaning of building for the purpose of the natural hazard rules. The current definition of building in the District Plan is broad and captures a wide range of structures, which is inefficient because not all types of structures are damaged by water entering.

5) Duplication of processes

It is considered that the District Plan has a key role in setting minimum floor level standards to minimise risk and achieve the plan’s objective, even though floor levels are also considered through subdivision and Building Act processes. This is because not all buildings are first considered through subdivision and subject to consent notices. Building Act processes, in turn, provide less certainty of design expectations across the combination of E1 of the Building Code and avoidance of hazard notices, as discussed above. However, consideration should be given to this overlap in processes, efficiency and effectiveness.

To address the issues identified above in the provisions for minimum building levels, the following changes are proposed:

1) Align design flood with practice and clarify matter of discretion

It is proposed that existing rules NH-R4 and NH-R5, addressing building levels with respect to lakes and surface water respectively, are replaced with rules that provide a consistent design flood level for flooding from these various sources.

For the design flood level, it is proposed to use the 1% AEP event with an allowance for climate change based on the RCP 8.5 median scenario (or most recent national or regional guidance) to the year 2 and freeboard.

It is also proposed to remove the 2% AEP lake flood maps from the District Plan, as these no longer represent the design flood. Implementation of the rule will rely on mapping produced outside the District Plan, potentially augmented by site-specific assessments (as is the current approach for surface water flooding under Rule NH-R5).

The restricted discretionary status for buildings that do not meet the minimum floor level standards would be retained and proposed matter of discretion NH-MD1 would clarify that the relevant consideration is 'the extent to which the proposal minimises the risks to people and property on site from flooding'.

2) Extend the minimum floor level standards rules to new buildings

It is proposed that the rules are extended to address new buildings, and not just replacement buildings and additions to buildings. While minimum floor levels will be required, in any case, to meet the Building Code and avoid hazard notices this will improve certainty about design expectations and efficiency in achieving the objective of minimising risk.

3) Change focus from building platform level to floor level

The standards are also proposed to be reworded to focus on floor levels, not the level of building platforms. This will leave open potential to meet the standards using raised floors instead of earthworks to fill building platforms.

A definition of minimum floor level is also proposed to provide clarity about how to measure the level (to the underside of the slab or underside of the floor joist, whichever is applicable)

4) Focus definition of building for purpose of rules

It is proposed that the national planning standards definition be used for buildings. This would limit the rules to an everyday meaning of a roofed structure and exclude other structures, which are considered less of a risk for flood damage by water entering the structure.

5) Introduce exemptions

It is proposed that an exemption from meeting the building floor levels (by way of a permitted activity NH-R1(1)) be provided for additions of less than 20m<sup>2</sup> and buildings of low importance. This is intended to balance the efficiency issues of multiple processes under the Building Act and RMA with effectiveness in achieving the objectives. Smaller additions and buildings of low importance add less value exposed to the hazard and consideration under the Building Act is considered sufficient. An advice note to alert to Building Act requirements is also included in the proposed rule.

The current exemption for meeting building levels for buildings in the Electricity Generation Core Site is retained in the proposed rule.

These changes are evaluated in the table below against the requirements of Section 32 of the Act (refer *Table 23*).

**Table 23: Issue 2: Minimum Building Levels – Evaluation of Options**

	Option 1: (Status quo)	Option 2: Proposed Plan Change: Make the amendments set out above
<i>Description of option</i>	Retain the current provisions in the District Plan – no change to the minimum building level rules and related provisions.	<ul style="list-style-type: none"> <li>• Amend design flood for minimum building level rules to align with the design flood used in practice (1% AEP with an allowance for climate change and freeboard)</li> <li>• Remove requirement to fill building platforms and instead focus on floor levels;</li> <li>• Extend floor level standards to new buildings</li> <li>• Amend definition of building for natural hazard rules to exclude non-roofed structures;</li> <li>• Exclude and buildings of low importance and additions less than 20m<sup>2</sup>;</li> <li>• Specify matters of discretion for those that do not meet the standard</li> </ul>
<i>Efficiency and effectiveness in achieving objectives</i>		
<i>SDNH-O1: Minimise or reduce the level of risk to life, property and the environment from the subdivision, use and development of land in areas subject to a natural hazard.</i>	<p>This option is less effective and efficient because:</p> <ul style="list-style-type: none"> <li>• PC9 will facilitate intensification and the construction of new buildings. The rule for surface water inundation (NH-R5) only addresses additions and replacement of buildings and not new buildings on land that is subject to risk associated with a flood hazard.</li> <li>• The existing performance standard for surface water inundation encourages raising of whole building platforms rather than just buildings, this can cause displacement of floodwater, increasing the level of risk to other properties.</li> </ul>	<p>This option is effective and efficient because:</p> <ul style="list-style-type: none"> <li>• Using the 1% AEP event with climate change as the design event will provide greater protection from flooding to minimise the risks.</li> <li>• Using the 1% AEP event with climate change for the design event is consistent with best practice in subdivision and administration of s71-74 of the Building Act and promotes certainty and efficiency.</li> <li>• The level of risk to life, property and the environment from the intensification of new buildings facilitated by</li> </ul>

		PC9 on land subject to a flood hazard will be appropriately minimised or reduced.
<i>Costs</i>	<p>This option creates the risk that significant flooding risks on people, property, and the environment associated with intensification of new buildings facilitated by PC9 are not appropriately managed as the floor level performance standard does not apply to new buildings.</p> <p>This option also has the potential to create additional consenting costs because:</p> <ul style="list-style-type: none"> <li>• The design flood outside of the Waikato River Catchment is not consistent with other practices in subdivision and building, which creates the risk of confusion and redesign.</li> <li>• As the current definition of building in the District Plan is broad, buildings of low importance, for example garden sheds, are subject to the same floor level standards targeted to higher value buildings, creating non-compliance and a requirement for resource consent where the floor level standard is not met.</li> <li>• The performance standard for surface water inundation requires building platforms be filled to above the design flood level, creating non-compliance and a requirement for resource consent where an appropriate floor level is achieved without raising the building platform.</li> </ul>	<p>The change in design flood means building floor levels are designed for a more severe flood – floor levels must be higher. The additional costs are often not expected to be significant and, in any case, this design is likely to be required to avoid hazard notices under the Building Act or to meet consent notices imposed at subdivision.</p>
<i>Benefits</i>	<p>This option will manage some of the risks associated with the subdivision, use, and development of land subject to a flood hazard at a time and cost efficiency, however, not to the same extent of risk management as Option 2.</p>	<p>This option ensures that the risks on people, property, and the environment associated with the intensification of new buildings facilitated by PC9 on land subject to a flood hazard will be appropriately minimised or reduced.</p>

		<p>This option will also create a number of cost efficiencies for the resource consent process associated with:</p> <ul style="list-style-type: none"> <li>• The identification of matters of discretion increases certainty to resource consent applicants.</li> <li>• Performance standards associated with design flood standards, floor levels for buildings of low importance, and the level of building platforms. The proposed amendments also reduce confusion and the need to redesign.</li> </ul>
<i>Risks</i>	<p>A relevant consideration in terms of ‘the risks of acting or not acting if there is insufficient information about the subject matter’ is how climate change is considered in the proposed provisions. The design flood proposed for the standards and rules is the 1%AEP event taking into account the effects of climate change based on the RCP 8.5 median scenario (or most recent national or regional guidance) to the year 2130. It is acknowledged that this is a more conservative scenario but aligns with modelling practice and provides a precautionary approach.</p>	
<i>Summary</i>	<p>The proposed changes outlined above are considered the most appropriate option because:</p> <ul style="list-style-type: none"> <li>• This is more consistent with the objectives as raising whole building platforms can divert floodwaters on to other properties.</li> <li>• It is consistent with the Council’s engineering standards (Regional Infrastructure Technical Standards) and conditions imposed on subdivision consents; and will remove uncertainty about different standards applied in different processes and the potential for redesign of buildings because the design expectations were unclear.</li> <li>• The incorporation of climate change for at least a 100-year timeframe in the consideration of natural hazards is consistent with Policy NH 11B of the Bay of Plenty Regional Policy Statement.</li> <li>• The design flood is also consistent with District/City Plans in other parts of the Region: Tauranga and Whakatane, which may assist to improve efficiency for designers and other consultants using the District Plan.</li> </ul>	

### 12.8.3 Issue 3: Improving the efficiency of Subdivision rules

Currently subdivision in areas susceptible to flooding is addressed by performance standard SUB-S8. Development in urban zones must meet this standard to be assessed as a controlled activity. It requires:

- Vacant lots - no vacant lots are created on land susceptible to inundation if it cannot be filled above the inundation flood level
- Subdivision around existing buildings - additions and replacement buildings will be required to provide filled building platforms

In the Waikato Catchment land ‘susceptible to inundation’ to which the standard applies is defined by the 1%AEP event as well as a minimum factor of depth x velocity. Elsewhere in the district the standard applies to the area inundated by a 2%AEP storm event.

There is also a separate rule (SUB-R43) for subdivision of land or buildings on areas subject to inundation (discretionary activity in reserve zones and rural zones and non-complying activity in commercial, industrial and business and innovation zones).

These rules are not considered efficient for achieving the objective. The combination of standard SUB-S8 and specific activity rule in SUB-R43 creates confusion and the discretionary and non-complying activity status in SUB-R43 may unnecessarily discourage development of sites that can be developed without significant risk.

Furthermore, the requirement in the standard to fill whole lots or building platforms is impractical and costly and contrary to hazard objectives as it may divert water onto other properties.

To address the efficiency issues identified above, the changes set out in the following table are proposed to subdivision rules:

**Table 24: Improving the Efficiency of Subdivision Rules**

Issues	Proposed changes to address
<p>The combination of standard SUB-S8 (requiring filling of sites) and specific activity rule in SUB-R43 (requiring consent as a discretion or non-complying activity for sites subject to inundation in some zones) creates confusion as to what is required and the activity status.</p> <p>The discretionary and non-complying activity status in SUB-R43 may unnecessarily discourage development of sites in some zones that can be developed without significant risk.</p>	<p>Remove the permitted activity standard (SUB-S8(1)) requiring lots to be filled above the flood level</p> <p>Amend rule SUB-R43 so that subdivision is assessed as a restricted discretionary in all zones if the building platforms identified include land subject to inundation in the design event (1%AEP event with climate change).</p> <p>Insert corresponding matters of discretion to clarify the extent of the assessment (SUB-MD2).</p>



The requirement in the standard to fill whole lots or building platforms is impractical and costly and contrary to hazard objectives as it may divert water onto other properties	Remove the permitted activity standard (SUB-S8(1)) requiring lots to be filled above the flood level.
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The benefit of these changes is that subdivision rules will be targeted to sites where building platforms are potentially affected by flooding, rather than to all sites affected by flooding. This reduces uncertainty for development.

#### 12.8.4 Issue 4: Management of impervious surfaces

During consultation on PC9 BOPRC also indicated that they were concerned about the potential for increased impervious surfaces facilitated by the MDRS and PC9 and whether this was being sufficiently managed through the existing District Plan provisions

Implementation of the MDRS, while not directly addressing impervious surfaces, will allow for the facilitation of increased impervious surfaces from buildings and hard stand areas, because of the less restrictive standards on matters such as number of buildings per site and yards. Other changes being considered as part of PC9 also have potential to facilitate increased impervious surfaces, such as the removal of residential unit density standards in other zones and building site coverage standards in the Commercial 4 Zone.

A memo from Tonkin and Taylor (*Appendix 13*) shows that, increasing the level of impervious surfaces in a catchment reduces soakage of rainfall into the ground and reduces areas for water to pond on the surface (puddles). This can generally be expected to result in increased peak runoff rates and larger total runoff, contributing to surface flooding.

Three general options have been considered to address increased impervious surfaces:

- 1) Retain the current impervious site coverage standards.

Currently standards of 80% for Residential 1 Zone, 65% for Business and Innovation Zones and 40% for the Industrial Transition Zone would remain. There would be no limit for Residential 2 Zone, City Centre Zones, Commercial Zones and other Industrial Zones

- 2) Reduce the impervious site coverage standards in residential zones affected by the MDRS.

Impervious standards in Residential 1 Zone and Residential 2 Zone would be reduced from 80% and 100% to 70% and 80% respectively. This would likely allow some increases in imperviousness on many Residential 1 Zone sites, which have been estimated to generally have an imperviousness in the order of 50% to 60%,<sup>20</sup> but not to the extent allowed by the current standards. Some Residential 2 Zone sites would also be able to increase imperviousness consistent with the standards, while others already have levels of imperviousness at around 80%.<sup>21</sup>

- 3) Consider a more restrictive approach to impervious surfaces

<sup>20</sup> Tonkin & Taylor, 'Flood Hazard Provisions', Memo to Kim Smith, 24 May 2022

<sup>21</sup> For example, imperviousness was estimated on ten properties in Perekia Street in the Residential 2 Zone using aerial photography and was found to range from 38% to 79%, with an average of 54%; whereas the average for ten properties in Victoria Street in the Residential 2 Zone was estimated at 75%.

Under this option, further reductions in impervious standards could be considered. For example, maximum imperviousness standards could potentially be introduced for City Centre, Commercial Zones and Industrial Zones. Or imperviousness could be limited to current levels on a site.

The table below evaluates these options against the requirements of section 32. It is considered that the most appropriate option to achieve the objective of minimising risk as well as other objectives for the Residential 1 and 2 Zones of increasing housing supply and choice; and recognising the potential limited effectiveness of impervious standards in other zones due to existing use rights, is Option 2.

Other methods to manage flooding are also expected to be used alongside impervious surface restrictions, including rules for buildings in flood prone areas, infrastructure improvements and inclusion of infrastructure capacity and encouraging low impact urban design as matters of discretion for four or more residential units on a site.

An additional policy is also proposed in the hazards chapter (NH-PC) to make explicit that impervious surfaces will be restricted to assist manage the cumulative impact of development on flood levels. This policy is necessary because, although discretion is generally retained over natural hazards when standards are breached, there is currently nothing to alert those implementing the plan to the specific connection between the impervious surfaces standard and flooding.

To increase certainty and efficiency, the following definition of impervious surfaces is also proposed, which is consistent with that recently adopted in the Tauranga City Plan:

*An area with a surface which prevents the infiltration of rainfall into the ground. For the purposes of this definition impervious surfaces include:*

- *roofs;*
- *paved areas including driveways and sealed/compacted unsealed parking areas;*
- *swimming pools;*
- *sealed and compacted unsealed roads; and*
- *soil layers engineered to be impervious such as compacted clay.*

*For the purposes of this definition impervious surfaces excludes:*

- *any natural surface;*
- *grass and bush areas;*
- *gardens and other vegetated areas;*
- *porous or permeable paving and living roofs;*
- *permeable artificial surfaces, fields or lawns;*
- *slatted decks; and*
- *stormwater management devices not located beneath sealed or compacted surfaces*

**Table 25: Issue 4: Management of Impervious Surfaces – Evaluation of Options**

	Option 1: (Status quo)	Option 2: Proposed Plan Change: Make the amendments set out above	Option 3: Greater impervious surfaces restrictions
<i>Description of option</i>	Retain the current provisions in the District Plan– no change to the maximum impervious site coverage standards in the Residential 1 and 2 Zones.	Reduce maximum impervious site coverage standards for Residential 1 and 2 Zones from 80% and 100% to 70% and 80% respectively; and insert a policy to acknowledge the use of impervious surface restrictions as a method to assist manage the impact of intensification on flooding.	Introduce maximum impervious site coverage standards in other zones – City Centre and Commercial Zones; or introduce a standard that impervious site coverage cannot increase in some or all zones.
<i>Efficiency and effectiveness in achieving objective -</i>			
<i>SDNH-O1: Minimise or reduce the level of risk to life, property and the environment from the subdivision, use and development of land in areas subject to a natural hazard.</i>	This option is not efficient or effective because PC9 will facilitate intensification as of right on most sites in Rotorua. Development under the current impervious standards is likely to create a net increase to impervious surfaces, increasing the risk of flood hazards and the risk that these hazards are not appropriately managed.	This option is efficient and effective as reducing the maximum percentage of impervious site coverage that is permitted on residential 1 and 2 zones, is likely to reduce the impact of flood hazards of life, property and the environment as a result of PC9 facilitating intensification and increased impervious surfaces from buildings and hard stand areas.	This option is less efficient and effective as while reducing the maximum percentage of impervious site coverage that is permitted in other urban zones is likely to reduce the impact of flood hazards as a result of PC9 facilitating intensification, a significant number of sites within the City Centre and Commercial zones have high levels of existing impervious surfaces.

	Option 1: (Status quo)	Option 2: Proposed Plan Change: Make the amendments set out above	Option 3: Greater impervious surfaces restrictions
<p><i>Objectives relating to efficient use of land:</i></p> <p><i>RESZ-01 (proposed for RESZ 1 Zone)</i></p> <p><i>RESZ-08 (proposed for RESZ 2 Zone)</i></p> <p><i>CCZ-01 – vibrant city centre</i></p> <p><i>COMZ-01 – vibrant and compact commercial and tourism centres</i></p>	<p>This option is efficient and effective as it does not introduce any additional restrictions on building or hard surface coverage which limits use of the sites.</p>	<p>This option is efficient and effective as the proposed impervious surfaces standards are considered to be consistent with the level of development envisaged by the MDRS on most residential sites</p>	<p>This option is less efficient and effective as it has the greatest restriction on development capacity where a greater area of sites must be retained without buildings or hard stand surfaces.</p>
<p><i>Costs</i></p>	<p>This option creates risk that hazards associated increased flooding are not appropriately managed, as the introduction of the MDRS alongside the current impervious standards has the potential to increase impervious surface and flow rates and volumes for stormwater runoff.</p>	<p>This option limits development potential in the Residential 1 and 2 zones as more restrictive impervious area standards restrict the extent that sites can be developed to accommodate buildings and other hard stand surfaces such as parking areas.</p>	<p>This option limits development potential in other urban zones as more restrictive impervious area standards restrict the extent that sites can be developed to accommodate buildings and other hard stand surfaces such as parking areas. There is also the potential to incur additional consenting costs in other urban zones when the greatest extent of</p>

	Option 1: (Status quo)	Option 2: Proposed Plan Change: Make the amendments set out above	Option 3: Greater impervious surfaces restrictions
		There is also the potential to incur additional consenting and development costs.	intensification is likely to occur in Residential zones.  The City Centre and Commercial Zones have high levels of existing impervious surfaces, which can create additional costs and complexities for land owners associated with demonstrating of existing use rights.
<i>Benefits</i>	This option is the least restrictive and provides the greatest opportunities for site development and redevelopment, and retains existing District Plan provisions that the plan users are familiar with.	Reduced maximum impervious standards will assist to reduce the impact of intensification on flooding in Residential zones where the greatest extent of intensification is most likely to occur. The proposed policy will also provide clarity that impervious surfaces will be restricted to assist manage the cumulative impact of development on flooding.  Limiting amendments to the impervious surfaces standards in the Residential zones will reduce additional costs and complexities associated with demonstrating existing use rights in the City Centre and Commercial zones, where sites have been developed to high levels of existing impervious surfaces.	Reduced maximum impervious standards will assist to reduce the impact of intensification on flooding risk.

	Option 1: (Status quo)	Option 2: Proposed Plan Change: Make the amendments set out above	Option 3: Greater impervious surfaces restrictions
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.		
<i>Summary</i>	The reduction in impervious standards outlined above is considered the most appropriate option. While it will have additional costs in terms of reduced development potential, it assists to achieve the objective of minimising risk to people and property for flooding.		

## 13.0 Geothermal Hazards

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### 13.1 Structure of this Section

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This section includes the required Section 32 evaluation of the proposed changes to provisions which manage geothermal hazards. The proposed provisions include:

- A new permitted activity standard which ensures that any venting structures necessary for gas ingress mitigation shall be directed to vehicle accessways or the street.

### 13.2 Overview and Scope of Amendments

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Amendments are proposed to the provisions which manage the risks from geothermal hazards as part of PC9. These are intended to respond to potential risks from elevated gas emissions in geothermal areas, which are expected to increase in the context of the increased development potential enabled by PC9. The proposed amendments include:

- A new permitted activity standard which ensures that any venting structures necessary for gas ingress mitigation shall be directed to vehicle accessways or the street.

Other methods to manage the risk would also remain inside and outside the District Plan, including setbacks from geothermal surface feature or bores in the Rotorua District Council Geothermal Bylaw and District Plan and Building Code requirements to assess and respond in the design of buildings to hazardous gases on site.

### 13.3 Background and Issues of Concern

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Rotorua city has unique geothermal hazards and risks due to its location over the Rotorua Geothermal System. The District Plan provides an approximate indication of the extent of this system based on reflexivity, which is a measure of the ground's ability to conduct electricity (generally, geothermal water has lower resistance (conducts electricity better) than normal ground water). Within the extent of the Rotorua Geothermal System are the more densely developed areas of the city centre and existing Residential 2 Zone, other central residential suburbs, industrial areas near Puarenga Stream and the traditional villages of Ōhinemutu and Whakarewarewa.

Hazards within the geothermal system are the surface features (such as fumaroles and mudpools) themselves, heated ground, gas emissions from the features and diffusely from the ground, land instability and hydrothermal eruptions. Not all areas within the geothermal system are equally affected – the hazards vary by area. Infrastructure associated with the use of the system for energy and bathing, presents further risks<sup>22</sup>.

Technical advice by Tonkin & Taylor Ltd (refer *Appendix 14*) provides analysis of existing methods to manage geothermal these risks in the context of the development facilitated by PC9. Consideration was given to the Rotorua Geothermal Bylaw 2016, Building Act and Building Code tools as well as the District Plan; and potential gaps in the District Plan were identified. From this

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<sup>22</sup> Refer to summary of hazards in Tonkin & Taylor Ltd, 'Geothermal hazard risk review for residential dwellings and their occupants in Rotorua City, prepared for Rotorua Lakes Council, July 2022 and B. J. Scott, Rotorua District Council Hazard Studies, Part 1 Volcano and Geothermal Hazards, GNS Science Consultancy Report 2010/67, October 2010.

analysis, the key hazards of concern were heated ground and the diffuse emission of gas through the ground.

These hazards are generally managed under the Building Act/Building Code:

- Clause F1 of the Building Code provides the basis to require site specific assessment for geothermal gas hazards and the building design responses (such as the use of membranes to prevent the ingress of gas).
- In addition, buildings must also address the specific challenges geothermal areas present for building durability to satisfy the durability requirements of the Building Code (Clause B2).

However, the Building Act/Building Code are focused on the durability and safety of the building work and not the broader site layout. The technical analysis undertaken by Tonkin & Taylor Ltd identifies the design of the site layout as critical to the level of risk from gas because, gas flux can be inhibited by the sealing or covering of ground. This can focus the gas emissions and increase the risk of gas being forced through gaps into buildings or even confined outdoor spaces, where it could be hazardous.

Implementation of the MDRS and PC9 are anticipated to facilitate, not only more buildings and occupants in areas with gas emissions, but also an increase in the percentage of area covered by buildings and hard surfaces. While it is acknowledged that PC9 is proposing to reduce the standard for maximum impervious site coverage, increases in site coverage are nonetheless expected from their existing levels due to changes such as reduced yards, removal of the minimum site size for residential units and removal of building coverage standards in the Commercial 4 Zone. PC9 is also expected to increase the potential for confined outdoor spaces because it will be easier to develop multiple residential units on a site, and buildings can be taller and closer to boundaries.

Currently the District Plan addresses the management of site layouts with respect to geothermal hazards to some extent through Rule NH-R7. This requires, as a permitted standard, an assessment by a suitably qualified and experienced person as part of any required building consent application if the site coverage of buildings and other hard surfaces exceeds 90%. The technical analysis undertaken by Tonkin & Taylor Ltd identifies however, that management of the risks may be needed even where there is less than 90% site coverage (refer *Appendix 14*). Therefore, based on technical advice from Tonkin & Taylor Ltd it is proposed to include a permitted activity standard to ensure gas ingress mitigation is directed to vehicle accessways or the street. This will ensure that geothermal gases are directed away from confined spaces where gases can easily accumulate and ensure gases are directed to areas where they can be broken up and dissipate.

Tonkin & Taylor Ltd have advised that effects from heated ground can also be exacerbated by the sealing or covering of ground, which inhibits natural cooling processes of emission of heat into the air and the ingress of rainwater into the ground. Strictly speaking heated ground is not addressed by clause F1 of the Building Code, however it is largely an internal amenity issue managed through building foundation design. The Council intends to comprehensively address this issue through an upcoming Natural Hazards Plan Change. In the interim, the Council will prepare a practice note on this matter to set clear and consistent guidelines for the building consent applicants.

It is noted that Tonkin & Taylor also recommended consideration of rules requiring consent for interference with a geothermal surface feature to align the District Plan with the regional plan. Rules to require maintenance of an access corridor to bores were also recommended. However, it



is considered that these matters are already addressed by rule 13.5.3(b)(i) of the Rotorua Geothermal Regional Plan and the Rotorua District Council Geothermal Bylaw.

#### 13.4 Appropriateness of Proposed Objectives

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The relevant District Plan objective is SDNH-O1: Minimise or reduce the level of risk to life, property and the environment from the subdivision, use and development of land in areas subject to a natural hazard.

No changes are proposed to this objective, which applies across multiple natural hazards.

#### 13.5 Evaluation of Provisions

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##### 13.5.1 Issue 1: Management of geothermal gas hazard

The proposed amendments to the Geothermal Hazard provisions which seek to manage the potential for risk to increase with the development facilitated by PC9 have been informed by technical advice from Tonkin & Taylor (refer *Appendix 14*). As outlined above, the proposed amendments include an additional permitted activity standard:

*Within the Geothermal Systems Overlay, any venting structures necessary for gas ingress mitigation shall be directed to vehicle accessways or the street.*

A corresponding policy would also be inserted (NH-P4):

*Minimise the risks to people and property from geothermal hazards, including by locating the discharge of any geothermal gas away from confined spaces on a site.*

**Table 26: Issue 1: Management of geothermal gas hazard and heated ground – Evaluation of Provisions**

	Option 1: (Status quo)	Option 2: Proposed Plan Change: Make the amendments set out above
<i>Description of option</i>	<ul style="list-style-type: none"> <li>• Retain the current rule NH-R7 to require expert assessment, as a performance standard, when impervious site coverage exceeds 90%.</li> <li>• Retain current subdivision rules without amendment.</li> </ul>	<ul style="list-style-type: none"> <li>• Include the proposed permitted activity standard and policy outlined above.</li> <li>• Comprehensively address elevated ground temperatures through an upcoming Natural Hazards Plan Change, and in the interim update practice notes to address this issue.</li> </ul>
<i>Efficiency and effectiveness in achieving objectives</i>		
<i>SDNH-O1: Minimise or reduce the level of risk to life, property and the environment from the subdivision, use and development of land in areas subject to a natural hazard.</i>	<p>This option is less effective, as the current provisions only consider risks associated with heated ground, elevated gas and other associated hazards when impervious surfaces are extremely high (90%).</p> <p>These provisions are unlikely to appropriately address the level of risks associated with increased building and development potential facilitated by PC9.</p> <p>This option is less efficient at managing the level of risks associated with elevated gas being directed into confined spaces when there is under 90% impervious surface.</p>	<p>This option is efficient and effective as it ensures that geothermal gases are directed away from confined spaces where gases can easily accumulate and ensures they are directed to areas where they can be broken up and dissipate to minimise risk. Based on technical advice from Tonkin &amp; Taylor this will reduce the level of risk from geothermal hazards.</p> <p>The issue of elevated ground temperatures is largely an internal amenity issue that impacts the comfort of living environments. In this regard, it is a matter that would be more addressed through the Building Code, as is currently the practice. Improvements in Council processes, including a clear and consistent practice note will ensure that the effects from heated ground can be efficiently managed outside of regulations in the District Plan.</p>

<i>Costs</i>	This option creates risk that geothermal hazards are not appropriately managed with respect to the increased building and development potential facilitated by PC9. There is also an increased risk that development will be subject to issues gas in the future, which may have potential costs for remediation or future use and development of the site.	This option will create increased compliance costs through ensuring that gases are adequately vented to appropriate areas and away from confined spaces however, the potential benefits from the reduction of risks to people and property substantially outweigh these costs.
<i>Benefits</i>	This option will manage some of the risks associated with the subdivision, use, and development of land subject to a geothermal hazard at a time and cost efficiency, however, not to the same extent of risk management as Option 2.	This option appropriately manages the risks associated with geothermal hazards and elevated gases on people, communities, property, and the environment with respect to increased building and development potential facilitated by PC9.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.	
<i>Summary</i>	Option 2 is considered the most appropriate option. While there will be increased compliance costs associated with ventilation of gases, the changes are considered more effective in achieving the objective of minimising risk from geothermal hazards.	

## 14.0 Historic Heritage

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### 14.1 Structure of this Section

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This section includes the required Section 32 and Section 77J evaluation of the provisions in the District Plan proposed to apply to sites containing historic heritage structures, and adjacent sites in identified locations. The proposed provisions include:

- Introduction of a restricted discretionary rule applying to new buildings on the same site as a heritage structure listed in the Historic Structure Schedule, or on a specified adjacent site (in the case of the Landmark Restaurant building).
- Introduction of matters of discretion for the above activity setting out the range of matters that would be assessed, including effects on the heritage values of the structure, including its setting.

The assessment below includes an assessment in accordance with Section 77J in relation to the proposed provisions that apply as a new qualifying matter in the relevant residential zones. This is also addressed in the relevant tables in *Appendix 4*. The proposed rule is considered to be a 'related provision' where it is proposed to apply in the Commercial 4 zone (Landmark Restaurant and Guide Rangī's House).

### 14.2 Overview and Scope of Amendments

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PC9 proposes amendments to the District Plan to more effectively manage adverse effects on historic heritage structures to respond to the greater building height and bulk enabled by PC9. In particular the amendments include a new rule framework for new buildings or additions on the same site as the feature as follows:

- (a) Require resource consent as a restricted discretionary activity for new buildings that are on the same site as a heritage structure within the Residential 1, Residential 2 and Commercial 4 zones;
- (b) Apply matters of discretion to (a) that enable consideration of how any new buildings integrate with, and are sympathetic to, the heritage values of the structure.

### 14.3 Background and Issues of Concern

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Section 77I of the Amendment Act stipulates that a territorial authority may make the MDRS and the relevant building height or density requirements within a relevant residential zone more restrictive only to the extent necessary to accommodate 1 or more of the outlined qualifying matters. This includes a matter of national importance that decision makers are required to recognise and provide for under section 6 (Section 77I(a)).

Qualifying matters include the management of historic heritage as a of national importance (RMA S 6(f)). Historic heritage is protected by provisions in the Rotorua District Plan. Historic heritage covers a broad range of features of both Māori and European origin that contribute to an understanding and appreciation of New Zealand's history and culture. The operative provisions include objectives, policies, rules, performance standards, matters of discretion and assessment criteria related to the Historic Structures Schedule. The operative rules relate to the following:

- 1) Maintenance and repair of historic heritage structures;
- 2) Alterations and additions to historic heritage structures; and
- 3) Re-siting, destruction, or demolition of a historic heritage structure.

The application of the MDRS across the Residential 1, Residential 2, and the additional proposed amendments to the Commercial 4 Zone, which go over and above the MDRS, could give rise to effects on the values of listed heritage structures in these zones. The current Operative District Plan approach restricts protection of listed historic heritage structures to the building itself.

The removal of the density standards in the residential zones and the increase in heights enabled by plan change, will enable a greater level of development to occur on sites containing historic structures. Expert heritage advice from Salmond Reed outlines that such development, particularly if it is poorly designed, and close proximity to a heritage building, has the potential to significantly compromise the heritage building’s values (refer *Appendix 15*).

#### 14.4 Extent of Qualifying Matter

PC9 seeks to make amendments to the Residential 1 Zone, the Residential 2 Zone and the Commercial 4 Zone to align with the NPSUD and requirements of the Amendment Act. Therefore, it is considered that any listed historic heritage structures listed within these zones would be subject to the “new building rule”. These sites are listed below (refer *Table 27*):

**Table 27: Heritage Structures potentially impacted by PC9.**

Zone	Unique ID	Map #	Item	Location	Legal Description	NZHPT
RESZ1	H1.8	335	“Glenholme” Dwelling Edwardian Villa (whole building)	63 Miller Street	Pt Lot 5 DPS4366	2
RESZ1	H1.30	367	St Peter's Anglican (whole building)	Hinemoa Point	Owhata 1Q5	2
RESZ2	H1.22	335	Robertson House (whole building)	70 Pererika Street	Lot 16 DP 3016	2
COMZ4	H1.9	345	Guide Rangī’s House (whole building)	Corner of Froude and Fenton Streets	Section 4 Blk LII TN of Rotorua	Not listed
COMZ4	H1.25	345	Landmark Restaurant (exterior)	1 Meade Street	Section 1 Blk XLIX TN of Rotorua	2

## 14.5 Qualifying Matter and Justification of Incompatibility of MDRS

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The Council has engaged Salmond Reed Architects to assess the level of effects that the proposed more enabling provisions would have on the historic heritage values and characteristics of the structures. The report from Salmond Reed Architects can be found in *Appendix 15*.

The evaluation found that the potential adverse effects of new development on the heritage values of structures would be exacerbated with the application of PC9, as new buildings are not controlled by way of consent. This has the potential to significantly reduce the heritage values of a heritage building under the increased development potential enabled by PC9. By not controlling or managing new development design, large-scale development of buildings may be permitted too close to a heritage building and may be of an unsympathetic design. Salmond Reed Architects also concluded that such development in relatively close proximity to, and around, a heritage building has the potential to significantly compromise the heritage structure, in its setting.

The protection of historic heritage from inappropriate subdivision, use and development is a matter of national importance under the RMA (s6(f)), and this is reflected in Objective 18 of the Bay of Plenty Regional Policy Statement. As outlined in the Salmond Reed memo, the heritage values of a historic structure are derived from the building itself as well as its immediate setting, which provides 'breathing room' and an enhanced visual connection with the heritage structure.

## 14.6 Impact on Development Capacity

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As shown above in the table of potentially impacted structures by PC9 (refer *Table 27*) the number of Heritage Structures that could be potentially impacted by PC9 apply to six structures.

Therefore Option 2 below would apply to six sites throughout the urban environment. The rule itself also does not prohibit development on the site, but instead requires resource consent so that the effects on the values and characteristics of the heritage structure can be considered through a consenting process.

### 14.6.1 Site by site analysis of lost development capacity

The following analysis outlines the potential lost development capacity by incorporating Option 2 as shown below, with the introduction of a new rule requiring a resource consent to assess the effects of a new building on the values of a historic heritage structure.

#### 14.6.1.8 "Glenholme" Dwelling Edwardian Villa (whole building)

The Glenholme dwelling is situated on a large section within the Residential 1 Zone. The site is fairly unrestricted from any additional overlays aside from Landslide Susceptibility and Soft Ground. The location of the listed heritage structure and the size of the parcel of land means there is potential for considerable new building development on the site around the scheduled building. As previously outlined, the proposed provisions will not prohibit additional development on the site but it will introduce a new resource consent requirement to assess the effects of a development on the values of a historic heritage structure, focussed on the design and form of any new building. There will therefore be limited impact (if any) on the development potential of the site as a result of the proposed provisions.

#### 14.6.1.9 St Peter's Anglican (whole building)

The St Peter's Anglican Church is situated on a relatively large section within the Residential 1 Zone. The church is located on a site which contains a cemetery, the land is classified as a marae in the planning maps and is therefore subject to an additional number of rules. As previously outlined the proposal will not prohibit additional development on the site but it will introduce a new resource consent requirement to assess the effects of a development on the values of a historic heritage structure. There will therefore be limited impact (if any) on the development potential of the site as a result of the proposed provisions.

#### 14.6.1.10 Robertson House (whole building)

The Robertson House sits on a relatively large site, which is zoned Residential 2, and it is proposed to remain under this zoning through PC9. The site is unconstrained from any further overlays. The location of the listed historic heritage structure and the size of the section, means that there is potential for considerable new building development on site at the north and south of the structure. As previously outlined the proposal will not prohibit additional development on the site but it will introduce a new resource consent requirement to assess the effects of a development on the values of a historic heritage structure. There will therefore be limited impact (if any) on the development potential of the site as a result of the proposed provisions.

#### 14.6.1.11 Guide Rangī's House (whole building)

Guide Rangī's House is located in the Commercial 4 zone and is therefore a related provision and not a qualifying matter. However, the comments are provided on the impact of the proposed rule on development capacity for completeness and to support the section 32 analysis.

Guide Rangī's house is situated on an average sized section within the Commercial 4 Zone. The land is unconstrained through any further overlays. The location of the listed heritage structure is at one end of the section, resulting in potential for a future new building development to the east of the structure. The listed historic heritage structure currently sits adjacent to an additional dwelling on site, that seems to run between two lots. The development potential of the secondary lot is greater. As previously outlined the proposal will not prohibit additional development on the site but it will introduce a new resource consent requirement to assess the effects of a development on the values of a historic heritage structure. There will therefore be limited impact (if any) on the development potential of the site as a result of the proposed provisions.

#### 14.6.1.12 Landmark Restaurant (exterior)

The Landmark Restaurant is located in the Commercial 4 zone and is therefore a related provision and not a qualifying matter. However, the comments are provided on the impact of the proposed rule on development capacity for completeness and to support the section 32 analysis.

The Landmark Restaurant building is situated on an averaged size section within the Commercial 4 Zone. The land is unconstrained from any further overlays. The location of the listed heritage structures sits in the middle of the site and takes up a large portion of the site. Therefore, development potential is not considered to be considerable on site. The neighbouring sites at 2 and 3 Mead Street do have development potential, however, as previously outlined the proposal will not prohibit additional development on the sites but it will introduce a new resource consent requirement to assess the effects of a development on the values of a historic heritage structure. There will therefore be limited impact (if any) on the development potential of the site as a result of the proposed provisions.

## 14.7 Appropriateness of Proposed Objectives

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The relevant District Plan objective is HH-O1: *Protect cultural heritage features (Māori and European) from different eras and themes that contribute to, and that are representative of Rotorua's evolving history.*

No changes are proposed to this objective.

## 14.8 Evaluation of Provisions

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### 14.8.1 Issue 1: Unsympathetic Development on Sites with Historic Heritage Structures

Section 77J of the RMA sets out specific evaluation requirements in relation to new qualifying matters - these are addressed within *Appendix 4*. The evaluation below provides a broader assessment of the proposed provisions and alternatives in accordance with Section 32.

The proposed amendments to the Historic Heritage provisions have been informed by technical advice from Salmond Reed. The proposal involves the inclusion of an additional rule relating to new buildings on sites containing a historic heritage structure, listed in the schedule. This rule would serve to provide protection to the values and characteristics of the listed structures. The rule would require a resource consent and allow Council to consider the effects a new building may have on the existing historic heritage structure. The proposed matters discretion that would apply to the new restricted discretionary activity are as follows:

- a. Zone Specific HH-MD1;
- b. Whether the new building complements the form and fabric which contributes to, or is associated with, the heritage values of the structure.
- c. Whether the new building uses materials and/or design details that respect rather than replicate any features of the heritage structure. New and contemporary interpretations in form and detail are encouraged.
- d. Whether the new building will not compromise the ability to interpret the heritage structure and its setting.
- e. Whether new buildings maintain visual linkages between the building or structure, and the street where relevant.
- f. Whether the location of the building and associated siteworks allows for an adequate setting for the heritage item.
- g. Whether other structures or features associated with the heritage item are retained and are complemented.



**Table 28: Issue 1: Table evaluating the options for Historic Heritage Structures**

	Option 1: Retain the provisions (Status Quo)	Option 2: Proposed additional rule and matters of discretion
<i>Description of option</i>	This option involves retaining the current provisions as found in the Rotorua District Plan with regards to the historic heritage structure.	This option includes the addition of “new buildings on sites with heritage structure” rule, and supporting assessment criteria
HH-O1 - Protect cultural heritage features (Māori and European) from different eras and themes that contribute to, and that are representative of Rotorua’s evolving history.	Less effective and efficient in achieving HH-O1, as development will be permitted without the need for obtaining a resource consent on sites that contain listed historic heritage structures degrading the values.	More effective and efficient in achieving HH-O1, as the “new building rule” will enable the protection of heritage features listed, by requiring consent for development on sites that contain structures. The consent process would enable Council to consider the effects on the historic heritage structures.
<i>Costs</i>		
<i>Environmental</i>	Would allow for development on land without the need for a resource consent, which could result in poorer environmental outcomes.	Could result in lesser development in the urban environment, resulting in less efficient land use.
<i>Economic</i>	Possible future cost in restoring the extent of place to a heritage structure.	Cost to Council of progressing PC9.  Cost to future applicants wanting to build on sites containing heritage structures and having to submit a resource consent application.
<i>Social</i>	Potential effects of adjoining properties and surrounding land uses as a result of greater intensification.  The scale of development delivered through this option may be considered by some members of the community to be not in keeping with the community’s expectations of the protection of historic heritage structures.	Potential effects on adjoining properties and surrounding land uses as a result of greater intensification and development may occur, however these may be mitigated through the resource consent process.  May limit housing choice on sites that contain heritage structures.

<i>Cultural</i>	<p>Potential impact on the heritage values and characteristics of the heritage structures.</p> <p>No ability to assess the urban design quality of development of surrounding sites of historic significance, which could result in poor quality outcomes on adjoining sites.</p>	Potential for further intensification and development of land on sites of historic heritage, however these may be mitigated through the resource consent process.
<i>Benefits</i>		
<i>Environmental</i>	<p>Intensification of existing urban areas promotes infrastructure efficiency.</p> <p>This option will enable increased capacity and choice on sites that contain heritage structures.</p>	Requiring development to obtain a resource consent may lead to better environmental and built outcomes.
<i>Economic</i>	<p>Would enable development on sites containing heritage structures without the need for a resource consent application.</p> <p>Would enable a greater level of development on sites.</p>	Possibility for heritage values to be better protected, which may result in better economic outcomes in the long term.
<i>Social</i>	This option will enable increased density and residential development that will provide for a range of housing typologies and choice to support the growing population within Rotorua.	Would protect the historical values and characteristics of the structures which could result in better social outcomes for the residents.
<i>Cultural</i>	May enable more intensive housing opportunities on Māori owned or Treaty settlement land.	Enables greater protection to the historical values of the historic heritage items.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.	
<i>Summary</i>	Including the proposed “new building rule” to sites which contain historic heritage structures, as listed in the schedule, as a new qualifying matter, is the most efficient method to manage protection of historic heritage from inappropriate subdivision, use and development, as a Section 6 Matter of National Importance (RMA,1991).	

### 14.8.2 Issue 2: Landmark Restaurant

The Salmond Reed Report outlined that the setting of the historic structures can generally be maintained within the existing site boundaries of the sites assessed, with the exception of Landmark Restaurant, where they considered that development should be managed on adjacent sites as well. Based on the analysis contained in the Salmond Reed report, it is considered appropriate to extent the restricted discretionary consent requirement to the neighbouring sites at 2 and 3 Meade Street for the following reasons:

1. The height limit proposed in the Commercial 4 zone is 24m, which is significantly greater than the height of the Landmark Restaurant building, which if inappropriately designed, has to potential to detract from the heritage values of the building in a manner inconsistent with Objective HH-O1, which seek to protect cultural heritage features that contribute to Rotorua's history;
2. Extending the restricted discretionary consent requirement to the immediately adjacent sites would ensure that the design of development on those sites can be evaluated to ensure design techniques are sympathetic to the form of Landmark House and enable visual appreciation. The design techniques used can be applied in a way that does not limit the development potential achievable on the sites.

### 14.8.3 Pukehangi Cottage

Salmond Reed states that Pukehangi Cottage is at high risk of being dwarfed by medium density development, and that the desired outcome is to maintain visibility of the Cottage from several vantage points along Pukehangi Road. Plan Change 2 to rezone the Pukehangi Development Area for residential development was recently approved in March 2021. A comprehensive structure planning exercise was undertaken to inform this, which addressed a range of matters and took into account heritage and cultural values. This development area is highly constrained and there would be practical, and potentially significant development capacity implications of achieving multiple sightlines to the Cottage from Pukehangi Road. For this reason, no additional provisions are proposed to manage development around the Cottage.

## 15.0 Residential and Industrial Interface

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### 15.1 Overview of Issues

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The introduction of the MDRS has the potential to increase adverse reverse sensitivity and residential amenity effects at the boundary of residential and industrial zones. This section considers issues in relation to the interface at the Residential and Industrial zones. No changes are proposed to existing provisions.

Currently there are two industrial zones that adjoin a residential zone within the urban area, these are the Industrial 1 zone and the Industrial 1E zone. The district plan distinguishes these zones as follows:

- The industrial 1 zone provides for range of activities including food processing, mechanical servicing, selling of farm machinery, car sale yards, building depots and lunch bars. The features that distinguish this zone from others include larger bulky buildings, high levels of noise, odour, signage and heavy vehicle and car movements. High levels of lighting and use and storage of hazardous substances are also common features of this environment
- The industrial 1E zone follows the city entranceways and provides for a range of commercial activities that are not suited for the commercial or city centre zones such as light industrial and commercial activities that are dependent on high traffic flows and larger sections. There is an expectation that the buildings and industrial activities will have a higher level of amenity than traditional industrial operations.

The locations of these interfaces are shown in the map below (refer *Figure 16*):



**Figure 16: Showing the locations of the industrial zones relative to the Residential zones in the operative District Plan.**

## 15.2 Potential for Air Quality Issues

The Council has commissioned a report from Tonkin & Taylor that has assessed the potential reverse sensitivity effects related to air quality that may arise from the increased development potential enabled by PC9 (refer *Appendix 16*). This assessment has focused on the residential/industrial interfaces at Fairy Springs, Ngāpuna and Ngongotahā.



**Figure 17: Showing the areas assessed by Tonkin & Taylor.**

The assessment concluded that the potential for reverse sensitivity effects to occur, due to an increase in housing density, could be affected by several factors including:

- An increase in population in existing residential zones, giving rise to an increased 'cumulative' community expectation on industry to control air discharges;
- Changes to the airshed due to new pellet fired domestic burners;
- Changes to dispersion of properties due to increased height and density of housing.

In general, the residential zones are more sensitive to amenity effects because the residents spend a significant portion of their day at home and because of the high amenity expectations of residents while at home.

On balance, the increased development potential enabled by PC9 is likely to have reverse sensitivity effects within 100 metres of the industrial zoned boundary, however these effects are adequately managed through existing district and regional plan provisions including of the provisions which manage new industrial activities and discharges to air on the zone boundary. For permitted activities within the industrial zones, there is the potential for reverse sensitivity effects however, these will be minor and further mitigated by the development standards for industrial activities. It is acknowledged that PC9 and the increase in residential intensification enabled, may increase operational costs for existing industrial activities by potentially requiring additional mitigation measures to be put in place. These costs are acknowledged and are considered to be appropriate in the context of the broader strategic objectives of the NPSUD, Regional Policy Statement and District Plan, which seek to encourage and enable residential intensification within the urban area.

With respect to the existing industrial areas at Ngāpuna and parts of Ngongotahā, the 2018 Spatial Plan indicates the potential to convert these industrial areas to residential in the future. Through the development of the FDS the Council is exploring more appropriate locations for heavy and general industrial activities that would allow them to relocate over time.

In respect of the Residential 3 zone the Council acknowledges the current interface issues between the residential zone and the industrial zone however, it is proposed to retain the operative residential 3 zone provisions and not enable further intensification within Ngāpuna, Whakarewarewa and Ōhinemutu - this is detailed further above in *Section 8*.

With that said, PC9 will not contribute to the shortfall in land to accommodate industrial activities. Currently there is a maximum of 39 hectares of vacant developable land available for industrial development in the short and medium term. Most of this development potential occurs in zones that also enable some form of retail and commercial development, so industrial activities are likely to compete with other uses for the vacant land that is available.

### 15.3 Potential for Noise Effects at the Residential and Industrial Interface

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The Council has commissioned a report from Styles Group Acoustics & Vibration Consultants to assess the potential reverse sensitivity effects related to noise arising from greater development potential enabled by PC9 within proximity to industrial land (refer *Appendix 17*). The same locations that were identified for the reverse sensitivity assessment have been assessed.

The current provisions of the operative district plan stipulate that noise levels from any activity shall not exceed the noise limits specified for the adjoining zone when measured at any point within the receiving site (NOISE-S2 Noise received within a different zone).

The noise assessment has concluded that the current residential noise limits and provisions that manage the residential/industrial interface will still achieve the objective of managing the noise generating potential of the industrial activities that operate near to the residential interface.

The assessment concludes change in noise effects arising from moving the existing environment in the currently operative district plan the MDRS-three storey development will only increase the new non-compliances by a modest amount. On this basis, PC9 does not propose to amend the noise standards or introduce any new qualifying matters to manage effects at the residential and industrial zone interface.

## 16.0 Financial Contributions for Reserves

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### 16.1 Structure of this Section

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This section includes the required Section 32 evaluation of the proposed provisions that relate to the financial contributions. The proposed amendments are in accordance with Section 77T and Section 80E(b)(i) which enables Council to amend its financial contribution provisions as part of an IPI.

### 16.2 Overview and Scope of Amendments

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PC9 includes proposed amendments to the objectives, policies and rules for financial contributions in Part 2 of the District Plan. The proposed amendments ensure the purpose of the contributions for reserves aligns with the future reserve requirements for Rotorua and that the provisions are equitable and practicable.

It is noted that Council intends to consider funding reserves from development contributions in the future. Therefore, a development contribution may eventually replace these financial contributions for reserves.

### 16.3 Background and Issues of Concern

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In summary, the issues of concern addressed by the proposed changes to the financial contributions provisions are:

- the level of contribution is appropriate in the context of:
  - an increased focus on intensification and, therefore, the development of existing reserve areas over acquisition and development of new reserves; and
  - Council's desire to encourage housing and remove barriers.
- the purpose of contributions aligns with the increased focus on intensification and the accompanying increased focus on the development of existing reserves;
- the charging of reserve contributions is equitable across both residential units that are permitted and those that require resource consent, and not targeted only on those that require resource consent;
- the charging of reserve contributions is consistent for residential units in non-rural and residential zones; and
- the provisions are provided in a logical format and administratively efficient.

It is noted that changes to the numbering and order of the rules and headings are proposed to create a more logical structure. As these changes are not intended to change the intent of the provisions, they are not further discussed. These format changes to numbering are marked and explained with footnotes in the appendix of proposed changes to the District Plan (refer *Appendix 1*).

### 16.4 Appropriateness of Proposed Objectives

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PC9 proposes to amend FC-01 to clarify that, with housing development, there is a need to enhance the quality of existing reserves and open spaces in the city. The intensification of housing is expected to place additional demands on existing reserves because of increased population; and because more intense housing typologies are associated with a shift in focus from private outdoor space to public outdoor space. The focus is shifted from just 'neighbourhood reserves' to a wider range of reserves. The existing introduction and issues also talk more broadly about the types of relevant reserves, including esplanade reserves.

Other objectives are also relevant to the assessment of the appropriateness of financial contribution provisions below, for example, the compulsory objective inserted with the intensification plan change for a well-functioning urban environment (SDUD-O1); objectives relating to the use of land efficiently and providing more housing choice (RESZ-O1 and RESZ-O8); and those relating to the quality of the urban environment.

**Table 29: Evaluation of the Proposed Objectives for Financial Contributions**

Objectives	RMA S5 Purpose	RMA S6 Matters of national significance	RMA S7 Other matters	RMA S8 Treaty of Waitangi	National Policy Statements	Regional Policy statement/plans
<p>Development and the demand on recreation and open space</p> <p>FC-O1: A network of quality reserves that serve the additional demand for recreation and amenity purposes.</p>	<p>The broader objective enables consideration of new and reconfigured reserves to meet community needs. This will continue to enable the community to provide for their own social well-being and health by supporting access to open space.</p>	<p>The proposed amendment will not affect the way in which the District Plan manages the matters of national importance in s6.</p>	<p>Recognising the wider function of the open space network in catering for future growth will enable the enhancement of community amenity values, and the quality of the environment, given that well designed and located open space is critical in higher density residential areas. The amended objective also supports the efficient use of open space land.</p>	<p>The objective will not offend against the principles of the Treaty of Waitangi.</p>	<p>The objective achieves the objectives and policies of the NPSUD, by supporting a well-functioning urban environment that ensures the open space network is coordinated with development and meets demand, which will increase over time in the existing urban area.</p>	<p>The objective achieves the relevant objectives of the Bay of Plenty RPS, particularly those in the urban growth chapter that seek to embed live, work, play principles within development.</p>



## 16.5 Evaluation of Provisions

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### 16.5.1 Issue 1: Lack of Clarity of Purpose Statement

The rules are proposed to be amended to clarify that the purpose can be found in the objectives of the Financial Contributions chapter:

#### Rules

##### **Purpose of Financial Contributions**

*Council will require a financial contribution for the objectives set out in the plan.*

In addition, it is proposed to delete an additional statement that is provided only in the section for reserve contributions for additional residential units in Commercial, Industrial, Business and Innovation Zones. This clause states that the contributions will be used in the vicinity of these zones. It is considered that the purpose should be as stated in the objectives and need not be limited to always use the contributions on the reserves in vicinity of these zones, as the wider reserve network may provide amenity for the developments.

### 16.5.2 Issue 2: Permitted Activities are Currently Exempt from Paying Reserve Contributions

The recent changes to the RMA have made explicit that permitted activities can be charged financial contributions (section 77E). However, in various places in the current provisions the contributions are described only in relation to conditions imposed on resource consents. In the context of the MDRS this is critical: prior to the MDRS resource consents were associated with all residential units – either through subdivision of the associated lot, or through the requirement for resource consent for second and subsequent units on a lot. But with the introduction of the MDRS, there will be greater potential for residential units to be constructed without a subdivision or land use consent. Therefore, the provisions are proposed to be amended to extend the situations for charging reserve contributions to permitted residential units. It is proposed to use the building consent process as the trigger for assessment. These changes would have the benefit of improving equity in the requirements for financial contributions for reserves to achieve the objectives.

### 16.5.3 Issue 3: Assessment of Financial Contributions

It is considered appropriate to reduce the level of reserve contributions required from residential development. This responds to the expectation (as expressed in the amended objective FC-O1) that Council's focus will shift from acquiring and developing new reserves to developing existing reserves. Council also wishes to encourage housing and reducing the level of contribution will help to reduce the costs for housing developments to achieve the objective of using land efficiently to increase housing choice (RESZ-O1 and RESZ-O8), albeit in a small way. It is proposed that the contribution for reserves be reduced from 5% of the land value to 3.5% for most zones.

Financial contributions in rural zones should be further reduced to acknowledge that residents in these areas have less demand for the amenity provided by the reserve network. A contribution of 2.5% of the land value is proposed.

It is also considered that there is a need to reduce further the contribution required from smaller residential units to acknowledge their likely smaller number of occupants and therefore demand on reserves. Council wishes to encourage smaller residential units to meet the gap identified in this household typology and reducing the reserve contributions may assist, again in a small way,

to the feasibility of this typology to achieve the objectives of increasing housing choice (RESZ-O1 and RESZ-O8). It is proposed that the contribution for minor residential units be reduced to 1%.

Contributions for residential units in Commercial, Industrial and Business and Innovation Zones are currently calculated based on the value of the residential unit, whereas the calculations for most residential units (under the Rural, Residential and City Centre Zones) use land value. It is proposed that these zones be included in the 'other zones' category, so that the approach be aligned across all the zones, with land valuation being the basis of the calculation. This has the benefit of equity in a consistent approach.

The assessment of contributions for additional residential units for 'other zones' refers to the 'land area that the unit has exclusive rights to', and 'shall include a pro-rata proportion of any common areas on the site that the household residential unit also has use of'. Calculation based on exclusive rights to land does not make sense in the context of vertically separated units. Therefore, it is proposed that the wording be changed to the land area or gross floor area that the unit has exclusive rights to (whichever is larger).

Currently the provisions envisage exceedance of the general contribution rates if stated in the zone chapter. With the recent reformatting of the plan and inclusion of development areas that sit independent of the zone chapters, it is considered that this exception to the maximum contribution should also extend where an alternative requirement is stated in a development plan.

The rules should also allow the level of contributions in land to exceed the level stated with the agreement of the applicant

The requirement that the land be a minimum of 1,000m<sup>2</sup> is removed as functional reserves can sometimes be provided with a smaller area to achieve the objective, for example, to provide linkages.

#### 16.5.4 Issue 4: Acceptance of land as a contribution

To ensure that only suitable land is acquired it is also proposed to clarify that land can only be provided with the agreement of Council. The policies for considering the suitability of land are proposed to be consolidated as set out below. Those considerations relating to the state of the land at vesting are separated from the assessment of the quality of the land.

- 1) Is located, sized and designed to provide a quality contribution to the open space network and to be consistent with Council's Open Space Level of Service Policy 2021
- 2) Integrates valued natural and built features, including trees and watercourses, while having topography and drainage suitable for its intended role in the open space network.

FC-P4 The Council will ensure that on vesting, land provided as a financial contribution of land for reserves shall meet the following criteria, unless otherwise agreed with the Council:

- 1) Is provided debris and weed free;
- 2) Provides for all weather access to the land for maintenance purposes; and
- 3) Is secure and has suitable boundary fencing to prevent unauthorised vehicular access
- 4) Has been prepared for use, including having a suitable topsoil depth and an acceptable gradient and has been grassed and/or vegetated.

### 16.5.5 Issue 5: Other Ambiguities, Inconsistencies, and Inequities

The following other issues are also addressed:

- The assessments for residential units refer to ‘additional’ residential units. This terminology is confusing and should be clarified to refer to second and subsequent residential units on a site (the first residential unit is effectively charged through the subdivision provisions).
- The percentage rate for calculating the contribution for residential units in rural zones is unclear due to the confusing layout of the provisions. This should be clarified and made consistent with other zones.
- There are also inconsistencies in the basis of the land valuation for calculating reserve contributions for additional residential units. For some zones, the provisions refer assessments by an independent valuer. However, for other zones, the provisions are silent as to the basis for land valuation and leave open the potential to use the rating database. It is proposed to amend the provisions to state that the rating database will be used for all land valuations relating to contributions for residential units. Using the rating database is more efficient and costs applicants less. No changes are proposed to the basis of land valuation at subdivision – it would remain assessed by an independent valuer. The rating database cannot provide a sufficient valuation of land for subdivided sites.

**Table 30: Issue 1-5: Financial Contributions for Reserves – Evaluation of Options**

	Option 1: Status Quo	Option 2: Proposed Plan Change: Make the amendments set out above.
<i>Description of option</i>	Retain the current financial contribution provisions for reserves. (These apply to subdivisions, residential units and tourist accommodation subject to resource consent).	<p>Key changes:</p> <p>Extend charging of financial contributions for reserves to permitted residential units and tourist accommodation</p> <p>Align calculation approach for residential units in Commercial, Industrial and Business and Innovation Zones to other zones, so that it is based on land value and not construction value.</p> <p>Reduce the contribution rate from 5% of land value to 2.5% in rural zones and 3.5% in other zones.</p> <p>Further reduce the contribution rate for minor residential units to 1% of land value.</p> <p>Clarify basis for determining size of land area for calculating contribution for vertically separated residential units</p> <p>Consolidate policies for assessing suitability of land as a financial contribution</p> <p>Clarify that the rating database can be used for land valuations for contributions charged for new residential units</p>
<i>Efficiency and effectiveness in achieving objectives</i>		
<i>FC-01: New reserves and development of existing reserves that serve the additional demand for</i>	Higher contribution rates would result in increased collection of contributions to achieve the objective. However, this option does not allow permitted residential units to be charged and more residential units are expected to become permitted activities with implementation of PC9.	Reduced contribution rates reduce the funding collected to achieve the objectives but the reduced contribution may assist to encourage development and therefore have some effectiveness in achieving objectives relating to efficient use of land and increased housing choice (RESZ-O1 and RESZ-O2), albeit in a small way.

<i>recreation and amenity purposes</i>	Ambiguities in the current provisions and the confusing layout of provision reduce efficiency.	<p>Extending the contributions to permitted activities will maintain collection of contributions as residential units are built without resource consent with implementation of PC9.</p> <p>Using the rating database to value land is more efficient to achieve the objectives – it reduces costs and time.</p> <p>Provides a clearer layout to improve efficiency for those using the plan.</p>
<i>Costs</i>		
<i>Environmental</i>		<p>Lower contribution rates will decrease funding for reserve projects with potential amenity or other environmental benefits.</p> <p>Removing the exemption for permitted activities will maintain collection of funding from residential units.</p>
<i>Economic</i>	Contribution rates are higher for developments that are charged financial contributions.	Permitted activities will not be exempt from contributions.
<i>Social</i>	Retaining current provisions with no potential to charge permitted activities for financial contributions is inequitable.	
<i>Cultural</i>	No costs identified over other option.	No costs identified over other option.
<i>Benefits</i>		
<i>Environmental</i>	<p>Retaining a higher contribution rate means increased funding for reserve projects with potential amenity or other environmental benefits.</p> <p>However, the exemption for permitted activities will reduce collection of funding.</p>	
<i>Economic</i>		Contribution rates are lower.

		Clarifying that rating database can be used for land valuation instead of independent valuation saves administration costs/fees.
<i>Social</i>		Improves equity: contributions will not be directed just at those residential units and tourist accommodation that require resource consent; and contribution approaches are more consistent across different zones.  Reduced contribution rates for minor dwellings provide an incentive (although small) for smaller housing typologies, which are needed in the city.
<i>Cultural</i>	No benefits identified over other option.	No benefits identified over other option.
<i>Risks</i>	No risks of acting identified in relation to insufficient information.	
<i>Summary</i>	Amending the provisions as outlined above is the most appropriate way to achieve the objectives.	

## 17.0 Papakāinga Housing in the District

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### 17.1 Structure of this Section

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This section includes the required Section 32 evaluation of the proposed provisions that relate to the development of papakāinga under PC9. The proposed amendments are in accordance with Section 80E(b)(ii) of the RMA, which enables an intensification planning instrument to amend provisions to enable papakāinga housing in the district in both urban and rural areas.

### 17.2 Overview and Scope of Amendments

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During the engagement hui undertaken as part of the Housing Supply Plan Change and the Future Development Strategy (FDS), there was clear feedback from iwi and hapū that the current district plan framework for papakāinga development has not delivered the level of housing that is required for the Rotorua district. The current provisions are also seen to present barriers and deterrents when iwi and hapū seek to establish papakāinga and kōeke housing on their whenua.

PC9 includes proposed amendments to the rules for papakāinga in the General District Wide Matters (“**GDWM**”) Chapter of The District Plan, including:

- Deleting the performance standard that requires papakāinga to locate on land that adjoins or is adjacent to a Marae;
- Amending the provisions to ensure that the framework for papakāinga in residential zones is in keeping with the MDRS and policy intent of the NPS-UD;
- Introducing additional provisions to enable a greater density of papakāinga development in rural zones; and
- Introducing additional performance standards to clarify the activity status, and appropriate scale and intensity of non-residential activities that form part of a papakāinga development in rural zones.

### 17.3 Background and Issues of Concern

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The meaning of papakāinga can vary from a cultural and historical view. Traditionally, the literal meaning of papakāinga is, ‘a nurturing place to return to’. However, in the context of district planning provisions, papakāinga is generally considered as 'development of a communal nature on ancestral land owned by Māori.'

The Rotorua Lakes District has a significant quantity of whenua Māori, equating to approximately 20 percent of the land area within the District, including 13 per cent of urban zoned land and 20 per cent of rural zoned land. Papakāinga is a key method for delivering housing and communal solutions for iwi and hapū. The Council’s Resource Consents team have also seen a recent increase in interest from iwi and hapū pursuing the development of their ancestral whenua. However, as previously discussed, the GDWM provisions for papakāinga present challenges to the development of papakāinga.

The District Plan provides two resource consenting pathways for papakāinga development:

- 1) As a permitted activity subject to performance standards; or

- 2) As a restricted discretionary activity where a 'development plan' is prepared, establishing the high-level principles of the developments. Subsequent development is permitted where it is in accordance with the approved development plan.

The proposed changes seek to give effect to Section 80E and enable papakāinga housing in the Rotorua Lakes District by addressing the following issues of concern, which include challenges that have previously been identified by iwi and hapū:

- Difficulty complying with the performance standard that requires papakāinga to be established on land that adjoins or is adjacent to a Marae;
- Recognising and providing plan clarity on the management of non-residential papakāinga activities that are ancillary to papakāinga housing;
- The need to apply the MDRS to the development of papakāinga within relevant residential zones; and
- Recognising that different opportunities and resource management issues that apply to the development of papakāinga within urban and rural zones.

## 17.4 Appropriateness of Proposed Objectives

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The relevant District Plan objective is SDML-O1: Opportunities for development on Māori land that meets the needs of those landowners and respects the exercise of katiakitanga and the relationship of tāngata whenua with land, water, significant sites and Wāhi tapu.

No changes are proposed to this objective, which applies to the development of papakāinga across the Rotorua Lakes District. This objective is considered to remain appropriate in achieving the purpose of the Act in terms of enabling papakāinga housing in the district to provide for the social, economic, and cultural wellbeing of people and communities.

PC9 also proposes to introduce the following amendments to the Residential zone that are relevant to the development of papakāinga:

- *RESZ-01 Housing supply and choice in the zone is increased*

An evaluation of the appropriateness of this objective in accordance with section 32(1)(a) is included in Section 8.

## 17.5 Evaluation of Provisions

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### 17.5.1 Issue 1: Strategic Approach to Papakāinga

The table below evaluates the options that have been considered in order to determine the strategic approach to papakāinga under the District Plan, in response to the issues and concerns raised (refer *Table 31*). For the purpose of PC9, it is considered that the most appropriate option to achieve the District Plan objective is Option 2.

The Council has signalled that it is likely that there will be a separate plan change initiated following PC 9 and the completion of the FDS that will provide the opportunity for a comprehensive review of the papakāinga provision framework at a district wide level.



**Table 31: Issue 1: Strategic Approach to Papakāinga – Evaluation of Options**

	Option 1: Status quo	Option 2: Minor amendments to the GDWM section	Option 3: District wide approach	Option 4: Introduction of a new Māori Purpose zone
<i>Description of option</i>	Retain the GDWM provisions for papakāinga. Papakāinga development (excluding kōeke flats) will be greater enabled to a limited extent in relevant residential zones where there is a requirement to apply the MDRS.	Retain the existing planning framework for papakāinga in the District Plan and make minor amendments to the GDWM provisions.	A district wide review of the papakāinga provisions in a new plan change.	Introduce a Māori Purpose zone across all whenua Māori in the Rotorua Lakes District or to specific areas where there is a need to enable the development of whenua Māori.
<i>Efficiency and effectiveness in achieving objectives</i>				
SDML-O1: Opportunities for development on Māori land that meets the needs of those landowners and respects the exercise of katiakitanga and the relationship of tangata whenua with land, water, significant sites and Wāhi tapu.	<p>This option is less efficient and effective as it will only be slightly more enabling of papakāinga (excluding kōeke flats) in relevant residential zones.</p> <p>This option does not address existing performance standards that act as barriers to iwi and hapū developing whenua for papakāinga, or enable papakāinga in rural areas, where there is a significant extent of whenua Māori.</p>	<p>This option is efficient and effective as it will amend the existing framework, which the community are familiar with, to address issues of concern to enable papakāinga. Minor changes to the existing provisions have been identified and discussed with iwi and hapū that would make a significant difference to removing barriers to papakāinga developments in the District Plan. This option can be implemented within the scope of PC9.</p>	<p>This option is effective as a comprehensive review of all relevant provisions will be carried out and holistic changes can be made to enable papakāinga across the Rotorua Lakes District.</p> <p>This option is less efficient as a separate plan change process would need to be initiated, adding significant time and costs to complete.</p>	<p>This option is effective as it provides the greatest scope to enable papakāinga development and other activities on whenua Māori.</p> <p>This option is less efficient as a separate plan change process would need to be initiated, adding significant time and costs to complete.</p>

RESZ-01: Housing supply and choice in the zone is increased	For the reasons outlined above, this option is less efficient and effective as it does not address the existing regulatory barriers to the development of papakāinga to provide increased housing supply and choice.	For the reasons outlined above, this option is efficient and effective as it will enable maximum flexibility for the development of papakāinga to provide increased housing supply and choice.	For the reasons outlined above, this option is effective in enabling the development of papakāinga to provide increased housing supply and choice, but is less efficient.	For the reasons outlined above, this option is effective in enabling the development of papakāinga to provide increased housing supply and choice, but is less efficient.
<i>Costs</i>	This option does not address existing challenges to the development of papakāinga identified by iwi and hapū, and will continue to incur consenting and compliance costs to iwi and hapū.	The scope of this option is limited and creates the risk that the issues of concern are not considered holistically.	This option is not within scope of PC 9 and will add significant time and costs to complete.  This option will also introduce a new planning framework that the community would not be familiar with.	This option is not within scope of PC 9 and will add significant time and costs to complete.  Further assessment would be required to determine the spatial application of a Māori Purpose zone having regard to the extent and location of whenua Māori.  This option will also introduce a new planning framework that the community would not be familiar with.
<i>Benefits</i>	This option will be slightly more enabling of papakāinga development in relevant residential zones at the greatest time and cost efficiency.	This option enables effective amendments to be made to the GDWM provisions at a time and cost efficiency through PC9.	This option provides scope to comprehensively review the existing District Plan framework to ensure that the development of papakāinga on whenua Māori is appropriately enabled.	This option provides the greatest scope to enable the development of whenua Māori to support the economic, social, and cultural wellbeing of people and communities. The application of the Māori Purpose zone will

				also provide increased plan clarity to all plan users on the whenua that can be developed.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.			
<i>Summary</i>	The preferred option is Option 2, as making minor amendments to the existing provisions for papakāinga is the most effective and efficient option to address the issues of concern, which include challenges to development identified by iwi and hapū. Options 3 and 4 would require a comprehensive review to be undertaken within the scope of a distinct papakāinga plan change, separate to PC9.			

## 17.5.2 Issue 2: Proximity to Marae

The current permitted activity performance standard PK-R1.1(c) requires that papakāinga be located on land that adjoins or is adjacent to a Marae. As previously discussed, iwi and hapū have expressed that this performance standard is difficult to comply with due to the majority of whenua Māori not being adjacent to or adjoining existing Marae. The performance standard is a barrier to carrying out papakāinga as a permitted activity and creates requirements for resource consent.

The table below evaluates the options that have been considered to address standard PK-R1.1(c) against the requirements of section 32(1)(b)(refer *Table 32*). It is considered that the most appropriation option to achieve the District Plan objective is Option 2.

**Table 32: Issue 2: Proximity to Marae – Evaluation of Options**

	Option 1: Status quo	Option 2: Amend the District Wide performance standards applying to papakāinga
<i>Description of option</i>	Retain the current performance standard in the district plan and require papakāinga to be located on land that adjoins or is adjacent to a Marae.	Remove the performance standard that requires papakāinga to be located on land that adjoins or is adjacent to a Marae.
<i>Efficiency and effectiveness in achieving objectives</i>		
SDML-O1: Opportunities for development on Māori land that meets the needs of those landowners and respects the exercise of katiakitanga and the relationship of tangata whenua with land, water, significant sites and Wāhi tapu.	This option is not efficient or effective as iwi and hapū within the Rotorua Lakes districts have expressed the difficulties in complying with the relevant performance standard.	This option is efficient and effective as it removes an existing barrier to papakāinga development identified by iwi and hapū while retaining the existing rule framework that the community are familiar with.
RESZ-01: Housing supply and choice in the zone is increased	For the reasons outlined above, this option is less efficient and effective as it does not address the existing regulatory barriers to the development of papakāinga to provide increased housing supply and choice.	For the reasons outlined above, this option is efficient and effective as it will enable the development of papakāinga to provide increased housing supply and choice.
<i>Costs</i>	This option will retain an existing barrier to the development of papakāinga as identified by iwi and hapū.  Non-compliance with the existing performance standard will incur costs of applying for a restricted discretionary resource consent and	This option will enable the development of papakāinga development and can have potential effects on the amenity and character of existing areas. However, effects can be mitigated through the application of other performance standards, including those within the underlying zone.

	potentially constrain the development of papakāinga.	
<i>Benefits</i>	This option will retain the existing level of development enabled for papakāinga and will not introduce the potential for new environmental effects.	This option will enable iwi and hapū to develop papakāinga through a permitted activity pathway under the District Plan. The removal of planning barriers and the requirement to obtain resource consent will provide economic benefits while enabling the development of papakāinga will provide economic, social, and cultural benefits to people and communities.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.	
<i>Summary</i>	Option 2 is the preferred option. Removing the existing performance standard which requires papakāinga to adjoin or be adjacent to an existing Marae removes an existing barrier to development that has been identified by iwi and hapū, and will not create adverse environmental effects that cannot be appropriately managed through other performance standards.	

### 17.5.3 Issue 3: Provision for Papakāinga and Kōeke Housing in Residential Zones

The MDRS will apply in relevant urban residential zones, including to papakāinga for residential purposes. It is considered that considerations in relation to residential character and amenity, will largely be directed by the MDRS, which will introduce provisions for density and building bulk and location that are more permissive than the existing District Plan standards. The existing performance standards for papakāinga refer to the performance standards of the underlying zone (including for density), except for the provision of kōeke flats at a density of one per 150m<sup>2</sup> of land area. There is a need to ensure that the existing District Wide provisions for papakāinga development do not create additional barriers to development following the implementation of the more permissive MDRS.

The table below evaluates the options that have been considered to ensure the District Wide provisions for papakāinga in urban residential areas are consistent with the MDRS and policy direction of the NPS-UD (refer *Table 33*). It is considered that the most appropriate option to achieve the District Plan objective is Option 2.

**Table 33: Issue 3: Provisions for Papakāinga and Kōeke Housing in Residential Zones – Evaluation of Options**

	Option 1: Status quo	Option 2: Amend the District Wide provisions to complement the introduction of the MDRS to relevant residential zones	Option 3: Apply a density performance standard to papakāinga in the Residential 1-5 zones
<i>Description of option</i>	Retain the existing District Wide provisions for papakāinga, which exclude kaumātua flats from the density performance standard of the underlying zone.	Amend the District Wide provisions to ensure: <ul style="list-style-type: none"> <li>• That the development of papakāinga, including kōeke flats are subject to the more permissive MDRS; and</li> <li>• That the assessment of restricted discretionary papakāinga development has regard to the “planned” character and amenity of the underlying zone.</li> </ul>	Introduce a new performance standard in all residential zones to manage the density of papakāinga.
<i>Efficiency and effectiveness in achieving objectives</i>			
SDML-O1: Opportunities for development on Māori land that meets the needs of those landowners and respects the exercise of katiakitanga and the relationship of tāngata whenua with land, water, significant sites and Wāhi tapu.	This option is less efficient as it retains the existing District Wide framework but will only be slightly more enabling of papakāinga in relevant residential zones where the more permissive MDRS will apply.  This option is also less effective as the existing performance standards would restrict the application of the MDRS to the development of kōeke flats, and the matters of discretion	This option is efficient and effective as it will ensure that the existing District Wide provisions for papakāinga respond appropriately to the more permissive MDRS and policy direction of the NPS-UD.	This option is effective as it will ensure appropriate density requirements for papakāinga can be applied in all residential zones.  This option is less efficient as it would require the introduction of a density performance standards to all residential zones in addition to existing performance standards and the MDRS.



	are inconsistent with the intent of the NPS-UD.		
RESZ-01: Housing supply and choice in the zone is increased	For the reasons outlined above, this option is less efficient and effective as it does not enable the development of papakāinga to the greatest extent allowable.	For the reasons outlined above, this option is efficient and effective as it will enable the development of papakāinga to provide increased housing supply and choice.	For the reasons outlined above, this option is effective in enabling the development of papakāinga to provide increased housing supply and choice, but is less efficient.
<i>Costs</i>	<p>This option will create unnecessary barriers to the development of kōeke flats.</p> <p>Papakāinga that are a restricted discretionary activity would also be assessed against matters of discretion that are inconsistent with policy 6 of the NPS-UD, which has regard to the planned urban built form. This has the potential to introduce additional costs and complexities to the resource consent process.</p>	This option will enable the development of papakāinga development and can have potential effects on the amenity and character of existing areas. However, effects can be mitigated through the application of other performance standards, including those within the underlying zone.	This option will require further assessment of the appropriate density of papakāinga in all residential zones, and will create added complexities and time and cost inefficiencies to PC9.
<i>Benefits</i>	This option will apply the more enabling MDRS to papakāinga development (excluding kōeke flats) in relevant residential zones at a time and cost efficiency.	This option will apply the more enabling MDRS to all papakāinga development in relevant residential zones and ensure that all District Wide provisions are consistent with the policy directions of the NPS-UD.	This option will ensure that the appropriate density for papakāinga can be considered and applied to all residential zones.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.		

<i>Summary</i>	<p>Option 2 is the preferred option. Only minor amendments are required to the existing District Wide provisions to ensure that the provisions that apply to all papakāinga are consistent with the MDRS and policy direction of NPS-UD.</p> <p>Relying on the performance standards of the underlying zone remains appropriate to manage potential effects of development on residential amenity and character, as the MDRS will only be applied to relevant residential zones, where it is appropriate to do so. This will also avoid the need to reassess existing performance standards for density in zones where the MDRS will not be applied.</p>
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#### 17.5.4 Issue 4: Provisions for Papakāinga and Kaumātua Housing in Rural Zones

A significant quantity of whenua Māori in the Rotorua Lakes District is located within rural areas, accounting for approximately 20 per cent of rural zoned land. Through engagement, iwi and hapū have expressed that the density performance standard within the rural zones is a barrier to the development of papakāinga as a permitted activity.

The District Wide provisions for papakāinga apply in all zones. As discussed above, these performance standards refer to the performance standards of the underlying zone, including for density. In the rural zones, density is restricted to one residential unit per site in the Rural 1 zone, with some exceptions for larger sites or where appropriate infrastructure servicing arrangements can be made.

There is opportunity through PC9 to enable papakāinga housing in the Rotorua Lakes District by recognising and providing for the communal nature of papakāinga development in rural zones, where a significant extent of whenua Māori is held. The table below evaluates the options that have been considered to enable the development of papakāinga in rural areas (refer *Table 34*). It is considered that the most appropriate option to achieve the District Plan objective is Option 3.

The additional density performance standards proposed as part of Option 3 include:

- Density requirements of one residential unit per 2,000m<sup>2</sup> (excluding kōeke flats). A site area of 2,000m<sup>2</sup> is in accordance with the land needed to accommodate the onsite treatment and disposal of stormwater and wastewater in rural areas that are not connected or serviced to public reticulation.
- A maximum of 10 residential units per site.

Option 3 will retain the existing performance standards that require:

- Compliance with the performance standards of the underlying rural zone (except for density).
- That the activity be located on Māori multiple-owned land, or land which is otherwise under the jurisdiction of the Māori Land Court. This performance standard ensures that the intensity of papakāinga development enabled in rural zones is specific to recognising the need and benefits of papakāinga development for iwi and hapū of whenua Māori.

**Table 34: Issue 4: Provisions for Papakāinga and Kaumātua Housing in Rural Zones – Evaluation of Options**

	Option 1: Status quo	Option 2: Delete density restrictions for papakāinga in rural zones	Option 3: Introduce new density performance standards for papakāinga in rural zones
<i>Description of option</i>	Retain the existing District Wide provisions for papakāinga, which require papakāinga (excluding kaumātua flats) to comply with the density performance standards in rural zones.	Amend the District Wide performance standards to delete density restrictions for papakāinga in rural zones.	Introduce new District Wide provisions to enable an appropriate density of papakāinga in rural zones.
<i>Efficiency and effectiveness in achieving objectives</i>			
SDML-O1: Opportunities for development on Māori land that meets the needs of those landowners and respects the exercise of katiakitanga and the relationship of tangata whenua with land, water, significant sites and Wāhi tapu.	This option is not efficient or effective as iwi and hapū within the Rotorua Lakes districts have expressed the difficulties in complying with the relevant performance standard.	This option is not efficient or effective as while it will enable the development of papakāinga, development of whenua without density restrictions in rural areas has the potential to create adverse environmental effects on land, water, significant sites and Wāhi tapu.	This option is efficient and effective as it will enable papakāinga in rural zones while ensuring appropriate density requirements are applied, while recognising that there are different resource management considerations for development of papakāinga in urban and rural areas.
<i>Costs</i>	This option will retain an existing barrier to the development of papakāinga as identified by iwi and hapū.  Non-compliance with the existing performance standard will incur	This option will enable the development of papakāinga development but can have potential effects on adjoining properties and create environmental effects associated with rural character and	This option will enable the development of papakāinga development which can have potential effects on the amenity and character of existing areas. However, effects can be mitigated through the application of

	costs of applying for a restricted discretionary resource consent.	amenity, and infrastructure servicing.	other performance standards, including those within the underlying zone.
<i>Benefits</i>	This option will retain the existing level of development enabled for papakāinga and will not introduce the potential for new environmental effects.	This option will enable the greatest extent of papakāinga development on whenua Māori in rural zones.	This option will ensure that the appropriate density for enabling papakāinga can be considered and applied to all rural zones while also ensuring potential environment effects associated with rural character and amenity and infrastructure servicing can be appropriately managed.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.		
<i>Summary</i>	<p>Option 3 is the preferred option. The existing District Wide provisions do not enable the development of papakāinga in rural zones as there is no recognition of the communal nature of papakāinga.</p> <p>The introduction of new District Wide provisions and performance standards for papakāinga in rural zones will enable development on whenua Māori, recognise the cultural significance of papakāinga, while also ensuring that any potential effects on adjoining properties, rural character and amenity, and infrastructure servicing are appropriately managed.</p>		

### 17.5.5 Issue 5: Providing for Non-Residential Activities in Papakāinga Developments

The District Plan defines papakāinga to be “a settlement developed by and for tangata whenua on land in their traditional rohe including but not limited to residential activities”. Feedback from iwi and hapū at engagement hui has also clearly demonstrated that papakāinga are not limited to housing and include non-residential community activities.

As previously discussed, the development of papakāinga is managed under the GDWM section and provided for as a permitted activity subject to compliance with the relevant performance standard. However, in terms of non-residential papakāinga activities, the relationship between the DGWM section and rules for activities in the underlying zone is unclear.

There is opportunity through PC9 to provide plan clarity and set clear parameters on how papakāinga development is managed, particularly in rural zones where there are greater land opportunities to establish non-residential activities and the potential to create amenity and character effects. The proposed changes are considered to be within scope of section 80E(b)(ii) of the RMA to consider papakāinga in the wider communal context, including non-residential activities that are ancillary to the use of papakāinga for housing.

The table below evaluates the options that have been considered to recognise and enable an appropriate level of non-residential papakāinga development within rural zones (refer *Table 35*). It is considered that the most appropriate option to achieve the District Plan objective is Option 3.

**Table 35: Issue 5: Providing for Non-Residential Activities in Papakāinga Developments – Evaluation of Options**

	Option 1: Status quo	Option 2: Provide for non-residential papakāinga development with no restrictions	Option 3: Include parameters for non-residential papakāinga development
<i>Description of option</i>	Retain the existing District Wide provisions for papakāinga, which require papakāinga (excluding kaumātua flats)	Amend the district plan and provide for non-residential papakāinga developmen with no restrictions.	Amend the district plan include control measures for non residential papakāinga development.
<i>Efficiency and effectiveness in achieving objectives</i>			
SDML-O1: Opportunities for development on Māori land that meets the needs of those landowners and respects the exercise of katiakitanga and the relationship of tāngata whenua with land, water, significant sites and Wāhi tapu.	This option is less efficient and effective as there is uncertainty for plan users on how non-residential papakāinga development is managed under the District Plan.	This option is not efficient or effective as development of non-residential papakāinga without restrictions has the potential to create adverse environmental effects on land, water, significant sites and Wāhi tapu.	This option is efficient and effective as it will enable an appropriate scale and intensity of non-residential papakāinga development in rural zones while providing clarity to plan users.
<i>Costs</i>	This option results in uncertainty for plan users looking to develop non-residential papakāinga under the District Plan, which also has the potential to create time and cost inefficiencies during resource consent processing.	This option will enable the development of papakāinga development and can have potential effects on adjoining properties and rural character and amenity.	This option will enable the development of papakāinga development and can have potential effects on adjoining properties and rural character and amenity values. However, effects can be mitigated through the application of other performance standards.
<i>Benefits</i>	This option will retain the existing level of development enabled for non-residential papakāinga activities and will not introduce	This option will enable the greatest extent of non-residential	This option will enable an appropriate scale and intensity of non-residential activities papakāinga development, while also ensuring potential

	the potential for new environmental effects.	papakāinga development on whenua Māori in rural zones.	environment effects associated with rural character and amenity can be appropriately managed.
<i>Risks</i>	There is sufficient information to determine the range and nature of environmental effects of the options set out above. An assessment of the risk of acting or not acting is not required.		
<i>Summary</i>	<p>Option 3 is the preferred option. The District Plan creates uncertainties for plan users, including iwi and hapū looking to develop non-residential papakāinga activities.</p> <p>Providing for non-residential papakāinga development with parameters recognises that papakāinga is not limited to housing, ensures that the scale and intensity of non-residential development can be appropriately managed, and gives plan users clear direction on what the anticipated outcomes are.</p>		



## 18.0 Conclusion

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PC9 is a focussed suite of changes to enable additional housing capacity and choice through specific zoning, rule and policy changes. The proposed amendments seek to give effect to the NPS-UD and the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 through applying the MDRS to relevant residential zones and enabling greater intensification in areas close to the city centre and public transport. Related amendments are proposed to support quality-built outcomes. Further amendments are also proposed to introduce new qualifying matters relating to heritage and natural hazards (flooding and geothermal hazards) and improve the efficiency of the existing flooding provisions. The main conclusions of the evaluation under Part 2 and Section 32 of the RMA are summarised below:

- PC 9 is consistent with the purpose of sustainable management in Section 5 and with the principles in Sections 6, 7 and 8 and Part 2 of the RMA.
- PC 9 assists the Council in carrying out its functions set out in Section 31 of the RMA.
- Pursuant to Section 75(3)(c) of the RMA, PC9 is consistent with the objectives and policies of the RPS.
- The evaluation undertaken in accordance with Section 32 concluded the proposed objectives are the most appropriate way to achieve the purpose of the RMA and the proposed amendments as outlined within *Appendix 1* are the most appropriate means of achieving the objectives of PC9.

## Appendix 1 –

Please refer to “Attachment 4  
– District Plan Chapters with  
proposed changes”

## Appendix 2 – Evaluation of Existing Qualifying Matters (under sections 77I(a) to (i))

The analysis that follows provides an evaluation of the existing qualifying matters in accordance with the requirements of section 77K RMA for matters identified in Section 77I(a)-(i). This section requires the Council to do the following for each existing qualifying matter:

- identify by location (for example, by mapping) where an existing qualifying matter applies.
- specify the alternative density standards proposed for those areas identified under paragraph (a).
- identify in the report prepared under section 32 why the territorial authority considers that 1 or more existing qualifying matters apply to those areas identified under paragraph (a).
- describe in general terms for a typical site in those areas identified under paragraph (a) the level of development that would be prevented by accommodating the qualifying matter, in comparison with the level of development that would have been permitted by the MDRS.
- notify the existing qualifying matters in the IPI.

A consolidated series of maps is included at Appendix 18 that shows the locations of existing and new qualifying matters, which is also summarised in Table 1 below.

In most cases below, the underlying Residential 1 and 2 zone provisions will apply, and alternative density standards are not proposed through the use of a lower density zone. The rules relating to the qualifying matter itself will potentially limit the heights and densities achievable, but not in all cases, and this will depend on the nature and extent of the qualifying matter, including whether it applies to only part of a site. This is the approach taken in the operative District Plan and is considered to be the most efficient and effective method for achieving the objectives relating to the qualifying matter, providing at least sufficient development capacity in the urban environment and achieving an integrated built form. The exception to this is the approach to the Residential 3 zone, and the reasons for this are discussed in detail in the section 32 report above, and in the analysis in *Appendix 4*.

**Table 1: Evaluation of Existing Qualifying Matters (under Section 77I(a) to (i)) in Accordance with Section 77K**

Chapter	Rule	Location where applies (s77K(a))	Alternative density standard (s77K(b))	Applicable existing Qualifying Matter (s77K(c))	Level of development prevented compared to the MDRS (s77K(d))
Energy, Infrastructure and Transport					

Rotorua Regional Airport obstacle Limitation Surface	EIT-R17 - Buildings and Structures - where the height limit is less than the MDRS	Shown in Planning Map 207 Rotorua Airport Clearance to Obstacle Limitation Surface LF and as defined by the Rotorua Regional Airport Limited designation RDC-501.	Alternative height rules based on the Obstacle Limitation Surface as defined by the Rotorua Regional Airport Limited designation RDC-591. Infringement of the Obstacle Limitation Surface requires resource consent as a Restricted Discretionary Activity.	Qualifying matter for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure (RMA Amendment Act s771(e)).	Building heights in some sites may be limited by the height and location of the Obstacle Limitation Surface.
Rotorua Regional Airport Noise Control Area Overlay	SUB-R39 - The subdivision of sites or buildings within or dissected by the Airport Inner Control Area Overlay	Shown in Planning Map 207 Rotorua Airport Noise Control Contours RF and is only applicable in the Residential 1 Zone.	Discretionary Activity Status for Residential 1 Zone dissected by the Airport Inner Noise Control Area Overlay where the subdivision will create a vacant site that will require a land use consent for future development by any rule in the plan.  Subdivision and land use consent shall be lodged concurrently.	Qualifying matter for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure (RMA Amendment Act s771(e)).	Density may be limited where a site is dissected by the Airport Inner Control Area Overlay. Considered in Policies and Assessment Criteria.
	SUB-R40 - Subdivision of sites or buildings within or dissected by the Air Noise Area Overlay	Shown in Planning Map 207 Rotorua Airport Noise Control Contours RF and is only applicable in the Residential 1 Zone.	Non-Complying Activity Status for sites dissected by the Air Noise Overlay where subdivision is proposed around existing household units, for the purpose of a boundary adjustment, or the conversion of a cross lease.  Any activity not stated above results in a Prohibited Activity Standard.	Qualifying matter for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure (RMA Amendment Act s771(e)).	Density may be limited where a site is dissected by the Airport Inner Control Area overlay. Is supported in Policies and Assessment Criteria.
National Grid Yard and Corridor	EIT-R18 - Buildings and structures within the National Grid Yard	Sites within the National Grid Yard as shown in the Planning Maps and is applicable	Alternative performance standards for setbacks from structures within the National Grid yard. Obstruction of	Qualifying matter for the purpose of ensuring the safe or efficient operation of nationally significant	Density and building height may be limited where the site is within the National

		in the Residential and Commercial Zones.	<p>these performance standards results in a Non-Complying Activity.</p> <p>Activities must be within an existing developed site; and for an uninhabitable accessory building; or a building that is not associated with a sensitive activity.</p> <p>Only small accessory buildings (under 2.5m high and 10m<sup>2</sup> in area) associated with sensitive activities are provided for where the activity is more than 12m from the outer visible edge of a National Grid support structure foundation or stay wire.</p> <p>Activities, buildings, and structures within the National Grid Yard, shall achieve a minimum clearance of 10m from the conductor or demonstrate safe electrical clearance.</p> <p>Non-compliance results in a Non-Complying Activity Status.</p>	<p>infrastructure (RMA Amendment Act s771(e)).</p> <p>Current rules will protect efficient operation of the national grid within MDRS framework.</p>	<p>Grid Yard, is within 12m of the outer visible edge of a support structure or stay wire or is within a 10m clearance from the conductor.</p> <p>Note correspondence received from Transpower dated 9 June 2022 supports the inclusion of the National Grid provisions as a qualifying matter.</p>
National Grid Yard and Corridor - Subdivision	SUB-R38 – The subdivision of sites or buildings within a national grid yard or corridors	Sites within the National Grid Yard as shown in the Planning Maps.	<p>Restricted Discretionary Activity Status where the building platform for the principal dwelling or building is identified wholly outside of the National Grid Yard.</p> <p>Non-compliance results in a Non-Complying Activity Status.</p>	Qualifying matter for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure (RMA Amendment Act s771(e)).	Subdivision potential and building setbacks may be limited which may restrict the density that is able to be provided for on sites within the National Grid Yard.

Natural Hazards					
Fault Lines	NH-R1 - Additions to existing buildings or replacement buildings in the Fault Avoidance Area Overlay	Shown in Planning Map 210 Areas of Potential Fault Line Impact. A Residential 1 Zone area in Tihiotonga is affected by the Fault Avoidance Area overlay.	Requires that any replacement building is in the existing building footprint to be a Permitted Activity Status within the Fault Avoidance Area Overlay.  Any replacement building which exceeds the building platform has a Restricted Discretionary Activity Status.	Qualifying matter as the management of significant risks from natural hazards is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(h)).  Current rules will protect against natural hazards within MDRS framework.	Density may be limited sites within the Fault Avoidance Area Overlay.
	NH-R3 - New buildings in the Fault Avoidance Area Overlay	Shown in Planning Map 210 Areas of Potential Fault Line Impact. A Residential 1 Zone area in Tihiotonga is affected by the Fault Avoidance Area overlay.	Alternative density standards for sites where the activity is a new building within the Fault Avoidance Area Overlay. Any new building within the Fault Avoidance Area Overlay is a Restricted Discretionary Activity.	Qualifying matter as the management of significant risks from natural hazards is a matter of national importance (RMA Amendment Act s771(a))(RMA s6(h)).  Current rules will protect against natural hazards within MDRS framework	Density may be limited on sites within the Fault Avoidance Area Overlay.
Geothermal	NH-R6 - Buildings erected within 5m of the edge of the Geothermal Surface Feature or Bore	Sites within 5m of the edge of a Geothermal Surface Feature or Bore as shown in the Planning Maps.	Alternative rule relating to density based on proximity to a Geothermal Feature or Bore. Restricted Discretionary Activity Status for buildings that are erected within 5m	Qualifying matter as the management of significant risks from natural hazards is a matter of national importance (RMA	Density may be limited on sites which have buildings erected within 5m of the Geothermal

			of the edge of the Geothermal Surface Feature or Bore.	Amendment Act s771(a)) (RMA s6(h)).	Surface Feature or Bore.
Geothermal – Subdivision	SUB-R42 - The subdivision of sites or buildings on land affected by a geothermal feature, geothermal activity or bore	Sites which are affected by a geothermal feature, geothermal activity or bore as shown in the Planning Maps.	Alternative rule relating to the subdivision of sites which are affected by a geothermal feature, activity or bore. Discretionary activity status with no specific standards to be complied with.	Qualifying matter as the management of significant risks from natural hazards is a matter of national importance (RMA Amendment Act Section 771(a)) (RMA s6(h)).	Subdivision potential may be limited which may restrict the density that is able to be provided for on sites which are affected by a geothermal feature, geothermal activity or bore.
Historic and Cultural Values					
Built Historic Heritage	HH-R2 - Alterations and additions to Historic heritage structures listed in the Historic Structures Schedule.	As shown in the Planning Maps sites which are in the Historic Structures Overlay as listed in the Historic Structures Schedule.	Permitted Activity Status for internal alterations and additions to historic heritage structures where only the exterior of the structure is identified for protection in the Historic Structures Schedule.  Where the activity is not provided for above a Restricted Discretionary Activity Status applies.	Qualifying matter as the protection of historic heritage from inappropriate subdivision use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(f)).	Density, building height, height in relation to boundary, building setbacks, building coverage, outdoor living space, outlook space, windows to street, or landscape area may be limited by the form and location of the existing historic structure.
	HH-R3 - Re-siting, destruction or demolition of a historic heritage	As shown in the Planning Maps sites which are located in the Historic Structures	Discretionary Activity Status for the re-siting, destruction or demolition of a historic heritage structure if required for new infrastructure.	Qualifying matter as the protection of historic heritage from inappropriate subdivision	Density, building height, height in relation to boundary, building setbacks,

	structure listed in the Historic Structures Schedule	Overlay as listed in the Historic Structures Schedule.	Where the activity is not provided for above a Non-Complying Activity Status applies.	use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(f)).	building coverage, outdoor living space, outlook space, windows to street, or landscape area may be limited by the form and location of the existing historic structure.
Built Historic Heritage - Subdivision	SUB-R41 – Subdivision activity where the site includes or adjoins a site of cultural importance listed in the schedules for Historical and Cultural Values	Sites or adjoining sites which are listed in the Archaeological Sites Schedule, Historic Structures Schedule, Notable Trees Schedule, Structures and Sites of Cultural Significance Schedule, and the Marae Schedule applicable in the Residential Zone.	Additional rule relating to the subdivision of sites and adjoining sites listed in the schedules for Historical and Cultural Values. Subdivision is a discretionary activity with no specific standards to be complied with.	Qualifying matter as the protection of historic heritage from inappropriate subdivision use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(f)).  Current rules will protect historic heritage within MDRS framework.	Subdivision potential may be limited which may restrict the density that is able to be provided for on sites and adjoining sites which are listed in the Schedules for Historical and Cultural Values.
Archaeological Sites and Historic Sites	HH-R5 - Disturbance, modification and alteration of cultural historic heritage listed in the Archaeological Sites Schedule or Historic Sites Schedule.	As shown in the Planning Maps sites which are located in the Archaeological Sites Overlay or Historic Sites Overlay as listed in the Archaeological Sites Schedule or Historic Sites Schedule.	Discretionary Activity Status for disturbance, modification, and alteration of historic heritage listed in the Archaeological Sites Schedule or Historic Sites Schedule.	Qualifying matter as the protection of historic heritage from inappropriate subdivision use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(f)).	Density, building height, height in relation to boundary, building setbacks, building coverage, outdoor living space, outlook space, windows to street, or landscape area may



				Current rules will protect archaeological sites within MDRS framework.	be limited on sites listed in the Archaeological Sites Schedule or Historic Sites Schedule.
	HH-R6 - Destruction of cultural historic heritage listed in the archaeological sites schedule or historic sites schedule	As shown in the Planning Maps sites which are located in the Archaeological Sites Overlay or Historic Sites Overlay as listed in the Archaeological Sites Schedule or Historic Sites Schedule.	Non-Complying Activity Status for the destruction of cultural historic heritage listed in the Archaeological Sites Schedule or Historic Sites Schedule.	Qualifying matter as the protection of historic heritage from inappropriate subdivision use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(f)).  Current rules will protect archaeological sites within MDRS framework.	Density, building height, height in relation to boundary, building setbacks, building coverage, outdoor living space, outlook space, windows to street, or landscape area may be limited on sites with historic heritage structures.
	SUB-R41 Subdivision activity, including that which otherwise be a controlled activity where the site includes or adjoins a site of cultural importance listed in the schedules for Historical and Cultural Values	As shown in the Planning Maps sites which are located in the Archaeological Sites Overlay or Historic Sites Overlay as listed in the Archaeological Sites Schedule or Historic Sites Schedule.	Discretionary activity status for subdivision where a site includes or adjoins a site of cultural importance listed in the schedules for Historical and Cultural Values.	Qualifying matter as the protection of historic heritage from inappropriate subdivision use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(f)).  Current rules will protect archaeological sites within MDRS framework.	Subdivision potential may be limited which may restrict the density that is able to be provided for on sites and adjoining sites which are listed in the Schedules for Historical and Cultural Values.

Sites and Areas of Significance to Maori	SASM-R3 - Disturbance, modification and alteration of cultural historic heritage listed in the structures and sites of cultural historic significance schedule	As shown in the Planning Maps sites which are located in the Structures and Sites of Cultural Significance Overlay as listed in the Structures and Sites of Cultural Significance Schedule.	Disturbance, modification and alteration of cultural historic heritage is a discretionary activity and destruction or demolition is non-complying activity.	Qualifying matter as the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(e)).  Current rules will protect sites of significance within MDRS framework.	Density, building height, height in relation to boundary, building setbacks, building coverage, outdoor living space, outlook space, windows to street, or landscape area may be limited by the form and location of structures and sites of cultural historic significance.
	SASM-R4 - Destruction of cultural historic heritage listed in the structures and sites of cultural significance schedule	As shown in the Planning Maps sites which are located in the Structures and Sites of Cultural Significance Overlay as listed in the Structures and Sites of Cultural Significance Schedule.	Non-Complying Activity Status for the destruction of structures and sites of cultural significance.	Qualifying matter as the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(e)).	Density, building height, height in relation to boundary, building setbacks, building coverage, outdoor living space, outlook space, windows to street, or landscape area may be limited on sites with structures and sites of cultural significance.
Sites and Areas of Significance to Maori	SASM-R5 - Alterations to existing buildings located within the	As shown in the Planning Maps sites which are located in the	Alterations to existing buildings is a restricted discretionary activity.  Alternative height rule standard of 5m based on the height of the marae for	Qualifying matter as the relationship of Māori and their culture and traditions with their	Building height, height in relation to boundary and outlook space may be

Marae Protection Overlay	Marae Protection Area Overlay  Also relevant is the alternative height standard in RESZ-S1.	Marae Protection Overlay.	sites as shown in the Marae Protection Overlay.	ancestral lands, water, sites, waahi tapu, and other taonga is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(e)).	limited by the height and form of the marae adjacent for sites within the Marae Protection Overlay.
	SASM-R6 - New buildings within the Marae Protection Area Overlay  Also relevant is the alternative height standard in RESZ-S1.	As shown in the Planning Maps sites which are located in the Marae Protection Overlay.	New buildings within the Marae Protection overlay is a discretionary activity  Alternative height standard of 5m based on the height of the marae for sites as shown in the Marae Protection Overlay.	Qualifying matter as the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(e)).	Building height, height in relation to boundary and outlook space may be limited by the height and form of the marae adjacent for sites within the Marae Protection Overlay.
Natural Environment Values					
Ecosystems and Biodiversity	ECO-R1 Buildings or structures in an SNA	As shown in the Planning Maps sites which are located in the Significant Natural Areas Overlay.	Alterations and new buildings are permitted where the existing building footprint is not exceeded and compliance with performance standards achieved. Otherwise new buildings are a non-complying activity.  Vegetation clearance for development a non-complying activity.	Qualifying matter as the protection of significant indigenous vegetation and significant habitats of indigenous fauna is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(c)).  Current rules will protect SNA within MDRS framework.	Density, building setbacks and site coverage may be limited by the location of Significant Natural Areas on a site.

Natural Character					
Natural Features and Landscapes	NFL-R1 - Buildings and structures (including lake structures) in an Outstanding Natural Feature or Landscape	Sites which are located in the Outstanding Natural Landscape Overlay except the Mamakū Tors Outstanding Natural Landscape as shown in Planning Map 214.	Alterations and new buildings are permitted where the existing building footprint is not exceeded and compliance with performance standards achieved. Otherwise, new buildings are a discretionary activity.	Qualifying matter as the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(b)).  Current rules will protect outstanding natural features and landscapes within MDRS framework.	Density, building height, height in relation to boundary, building setbacks, building coverage and windows to street may be limited due to the location of an Outstanding Natural Feature or Landscape.
	NFL-R19 - Development and earthworks adjacent to a Significant Geothermal Feature	Sites adjacent to Significant Geothermal Features as identified by the Bay of Plenty Regional Council.	An alternative setback for buildings, structures, activities or earthworks based on the location of a Significant Geothermal Feature. Buildings, structures, activities and earthworks must be setback 5m from a Significant Geothermal Feature.	Qualifying matter as the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(b)).	Density, building setbacks and building coverage may be limited due to the proximity of a building or structure to a Significant Geothermal Feature or its location.
	NFL-R20 - Development and earthworks that will affect a Significant Geothermal Feature	Sites adjacent to Significant Geothermal Features as identified by the Bay of Plenty Regional Council.	Discretionary activity status for development and earthworks that will affect a significant geothermal feature unless it has Regional Council consent, is permitted by a Regional	Qualifying matter as the protection of outstanding natural features and landscapes from inappropriate subdivision,	Density, building height, height in relation to boundary, building setbacks, building coverage,

			Rule, is geothermal electricity generation or is associated with existing infrastructure.	use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(b)).	outdoor living space, outlook space, windows to street, or landscape area may be limited by the location of a Significant Geothermal Feature.
Public Access	PA-R1 - Buildings and structures located within 25m of the edge of a lake, 25m of a river or stream identified in the Esplanade Priority Acquisition Waterbody Overlay, or 5m of an esplanade reserve or strip.	Sites which are located within 25 m of the edge of a lake, 25m of a river or stream identified in the Esplanade Priority Acquisition Waterbody Overlay or 5m of an esplanade reserve or strips as shown in Planning Map 203.	An alternative setback for buildings and structures which requires a 25m setback of the edge of a lake, river or stream identified as an Esplanade Priority Acquisition Waterbody Overlay or 5m of an esplanade reserve or strip.  Infringement of the setback results in a discretionary activity status.	Qualifying matter as the maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(d)).  Current rules will protect public access within MDRS framework.	Building setbacks may be limited if it infringes on the setbacks of a lake, stream or esplanade reserve.
General District Wide Matters					
NOISE	NOISE-R7 – Noise sensitive activity within the Inner Noise Control Area (60dBA Control Boundary)	Shown in Planning Map 207 Rotorua Airport Noise Control Contours RF areas inside the Airport Inner Noise Control Area Overlay 60dBA.	Additional rule relating to the expansion of existing noise sensitive activities or the establishment of new noise sensitive activities within the area as determined by the Airport Inner Noise Control Area Overlay 60dBA.  The activity is permitted where it is an addition to an existing activity and	Qualifying matter for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure (RMA Amendment Act s771(e)).	Building height, height in relation to boundary and building setbacks may be limited by the location of the Airport Inner Noise Control Area Overlay 60dBA. However,

			<p>does not expand the gross floor area more than 25%.</p> <p>Where the performance standards are not met the activity status is restricted discretionary.</p> <p>When the activity is a new noise sensitive activity the activity status is discretionary.</p>		<p>construction practices are in most instances able to overcome these limitations.</p>
	<p>NOISE-R8 - Noise sensitive activities within the airport air noise overlay (65dBa Control Boundary)</p>	<p>Shown in Planning Map 207 Rotorua Airport Noise Control Contours RF areas inside the Airport Noise Control Area Overlay 65dBA.</p>	<p>Additional rule relating to the extension of existing noise sensitive activities and the establishment of a new noise sensitive activity within the Airport Noise Area Overlay 65dBA Control Boundary.</p> <p>The extension, upgrade, or replacement of a building for a noise sensitive activity is a non-complying activity.</p> <p>When the activity is a new noise sensitive activity the activity status is Prohibited.</p>	<p>Qualifying matter for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure (RMA Amendment Act s771(e)).</p>	<p>If the activity is the extension, upgrade or replacement of an existing noise sensitive activity building height, height in relation to boundary and building setbacks may be limited by the location of the Airport Noise Control Area Overlay 65dBA. However, construction practices are in most instances able to overcome these limitations.</p> <p>If the activity is the establishment of a new activity,</p>

					residential development is not allowed.
Development Areas					
Pukehāngi Heights Development Area	<p>PHDA-R5 - Subdivision and PHDA-R7 - Subdivision where the site includes an archaeological or cultural site</p> <p>And associated performance standards for these subdivision rules relating to s6 matters:</p> <p>PHDA-SS6, PHDA-SS7, PHDA-SS8, PHDA-SS10</p>	Sites which are located within the Pukehāngi Heights Development Area and Zoned Residential 1, as shown in the Planning Maps.	<p>These two rules require consent as a restricted discretionary activity for subdivision of sites within the Pukehāngi Development Area. The matters of discretion and performance standards are the same. Discretion is retained over achievement of the policies and objectives for the development area. The performance standards include several that address matters of national importance (requirements to: undertake stormwater management plan and be consistent with that plan (PHDA-SS6); comply with stormwater management discharge consent (PHDA-SS7); undertake a land instability and liquefaction risk assessment (PHDA-SS8); and undertake consultation with iwi and identify measures to protect cultural values (PHDA-SS10)).</p>	<p>Qualifying matter as the management of significant risks from natural hazards is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(h)) and as the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(e)).</p>	<p>Discretion and standards over cultural sites and values could potentially impact yield but this is likely to only be in a minor way.</p> <p>In terms of flood management standards - difficult to quantify extent to which development will be prevented as compliance with stormwater discharge consent required in any case under regional plan. Standard is rather to ensure integration of subdivision and subsequent land use and discharge consent requirements.</p>

<p>Wharenui Development Area</p>	<p>WHDA-S3 Traffic Mitigation and associated rules WHDA-R3 and WHDA-R4 SH30 intersection components (refer to table 2 for traffic calming components).</p> <p><b>(Proposed to be amended</b> to remove projects that have been completed or are planned to be constructed in the next phase of works to SH30 Eastern Corridor)</p>	<p>Wharenui Development Area, as shown on the planning maps</p>	<p>Performance standards requiring that development in the development area not exceed lot yields until specific traffic calming and intersection upgrades are completed.</p>	<p>Qualifying matter as a matter required for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure (s771(e)) (with respect to the SH30 intersection upgrades – the traffic calming projects are addressed under ‘other’ qualifying matters)</p>	<p>Potentially prevents development from occurring past a set lot yield until the intersection upgrades are completed.</p> <p>*This standard is proposed to amended to remove projects that have been completed or are planned as part of the Waka Kotahi SH30 Eastern Corridor, for which received \$35m crown infrastructure funding to support growth and development in Eastside.</p>
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## Appendix 3 – Evaluation of ‘Other’ Existing Qualifying Matters

The analysis that follows provides an evaluation of ‘other’ existing qualifying matters under section 77I(j), (that is, those not covered by the specific matters (a) to (j)) in accordance with section 77L. This requires Council to:

- identify the specific characteristic that makes the level of development provided by the MDRS (as specified in Schedule 3A) inappropriate in the area; and
- justify why that characteristic makes that level of development inappropriate in light of the national significance of urban development and the objectives of the NPS-UD; and
- includes a site-specific analysis that—
  - identifies the site to which the matter relates; and
  - evaluates the specific characteristic on a site-specific basis to determine the geographic area where intensification needs to be compatible with the specific matter; and
  - evaluates an appropriate range of options to achieve the greatest heights and densities permitted by the MDRS (as specified in Schedule 3A) while managing the specific characteristics.

**Table 1: Evaluation of ‘Other’ Qualifying Matters in the District Plan (under s77I(j)) in Accordance with Section 77L**

Chapter	Rule and alternative density for which it provides	Characteristics that makes level of development provided by MDRS inappropriate. (s77L(a)) evaluated on a site-specific basis (s77L(c)(ii)) to identify site to which matter relates	Justification – why that characteristic makes the level of development inappropriate in light of national significance of urban development and the NPS-UD objectives (s77L(b))	Evaluation of options to achieve the greatest heights and densities permitted by the MDRS while managing the specific characteristics (s77L(c)(iii))
Notable Trees	Rules that restrict development for the protection of notable trees: <ul style="list-style-type: none"> <li>• TREE-R2 - Removal of a tree listed in the</li> </ul>	Notable trees have been identified in a schedule individually or in groups and mapped in the District Plan (there are 31 listings in the schedule).	These rules are to protect the values, as identified in the schedule, associated with the notable trees.	The principal alternative is to remove the rules from the plan for those trees in residential zones. This is not considered appropriate as it would not protect the values associated with these trees.

	<p>Notable Trees Schedule (Discretionary activity where required for new infrastructure or otherwise considered a non-complying activity)</p> <ul style="list-style-type: none"><li>• TREE-R3 – Discretionary activity for buildings, structures (including infrastructure) or earthworks within the dripline of a notable tree identified in the Notable Trees Schedule.</li></ul> <p>As a result of these rules density, building height, height in relation to boundary, building setbacks, building coverage, outdoor living space, outlook space, windows to street, or landscape area may be limited on sites with notable trees depending on the size of the tree</p>	<p>These trees have historic, rarity and/or amenity values, as identified in Schedule TREE-SCHED1.</p>		
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	canopy cover and tree location.			
Pukehāngi Heights Development Area	<p>Landscape protection provisions in the for the parts of the Residential 1 Zone inside the Development Area identified as escarpment transition area or upper terrace:</p> <ul style="list-style-type: none"> <li>PHDA-R5 - Subdivision and associated standards for protection of landscape values in PHDA-SS4 require a landscape assessment for subdivision over the escarpment transition areas to address planting, building locations, etc. This has the potential to result in reduced density than</li> </ul>	<p>Most of the development area is located on the mid to lower slopes of the caldera rim, which is identified as an important landscape feature providing a backdrop for the city. The landscape values of the Caldera Rim were assessed by Boffa Miskell in a 2012 report.<sup>1</sup> This identified that the mid to lower slopes of the Development Area are less sensitive to land use change but still contain important character and amenity values. Above the RL385m contour the landscape is more sensitiv to change.</p> <p>PC9 to facilitate development of this area sought to integrate urban development into the landscape by confining residential zoning to the less visible terraces below the RL385m contour.</p>	<p>The components of the qualifying matter identified (the delineation of the escarpment transition areas, associated requirement for a landscape assessment, the reduced height and increased yards on the upper escarpment transition area, and the reduced height and principles that are matters of discretion for subdivision in the Upper Terrace) are part of a broader approach (encompassing also the location of residential and rural zones across the landscape) that allows for development at the edge of the urban area to integrate with the natural landform patterns, caldera rim and the adjacent vegetation on the Parklands site.</p> <p>The approach in PC9 was developed in consultation with landscape experts and is supported with a landscape and visual assessment.<sup>2</sup>The amendments to the height, policies and principles for the</p>	<p>The principal alternatives are to:</p> <ol style="list-style-type: none"> <li>1. Remove the components of the provisions for the development area that constitute a qualifying matter and not amend the height rules, policies and principles for the Upper Terrace.</li> <li>2. Retain the components of the provision for the development area that protect the landscape values of the caldera rim</li> <li>3. As for option 2, but also amend the height rule for the Upper Terrace (currently 7.5m and an increase to 9m is proposed, which is less than the MDRS) and strengthen the policies and principles for the Upper Terrace to manage the transition from the Upper Terrace to the Upper Escarpment.</li> </ol> <p>Option 3 is considered the most appropriate. Best promotes the objective to maintain the valued</p>

<sup>1</sup> Boffa Miskell. Rotorua Caldera Rim –Caldera Rim Rural Character Design Guideline. October 2012

<sup>2</sup> Boffa Miskell. Pukehangī Heights Development Area Structure Plan Landscape & Visual Assessment. Report for Rotorua Lakes Council. 6 March 2019.

	<p>what is provided in the MDRS.</p> <ul style="list-style-type: none"> <li>PHDA-SL7(2), requires a reduced height from what is provided for in the MDRS (6m) and increased yards in those parts of the Residential 1 Zone in the development area that are identified as 'Escarpment Transition Area 2'</li> </ul> <p>Upper Terrace:</p> <ul style="list-style-type: none"> <li>Matters of discretion for subdivision in PHDA-R5 refer to the principles and policies for the Upper Terrace – which <b>are proposed to be amended</b> as a response to the MDRS to seek a coherent transition from the Residential 1 Zone to the more sensitive adjoining</li> </ul>	<p>Revegetation of the more visible escarpments was sought to respond to the increased sensitivity of these areas, as well as integrate development with the adjoining Parklands development.</p> <p>Two escarpment transition areas are identified in the planning maps that mark the transition between the more and less sensitive parts of the development area.</p> <p>With the introduction of the MDRS, further consideration has been given to the transition between the residential development on the upper terrace and the rural character of the more sensitive upper parts of the Caldera Rim. As a result, the principles for the upper terrace are proposed to be clarified to and strengthened to acknowledge that while development is to be enabled, a coherent transition between the residential zone and the upper parts of the caldera is sought</p>	<p>Upper Terrace are supported by further landscape advice.<sup>3</sup></p>	<p>landscape character and amenity values associated with the wider caldera rim while enabling development (PHDA-O1). This area is not as accessible to services as many other parts of the city. Therefore, reductions in density standards are not considered as important as other locations. In any case, there is not expected to be a significant impact on development capacity - building typologies provided by the market in this location are likely to favour larger single units or larger sites, so the reduced height and separation between buildings is unlikely to have a significant effect on yield.</p>
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<sup>3</sup> Rebecca Ryder (Boffa Miskell), 'Pukehangi Development Area Structure Plan - Housing Amendment Bill', Memorandum to Kim Smith 23 June 2022

<p>upper part of the Rotorua Caldera. This may result in conditions for separation of buildings, planting etc.</p> <ul style="list-style-type: none"> <li>• Height rules in PHDA-SL1 (<b>Proposed to be amended</b>) to provide a reduced height of 9m for activities in the Upper Terrace of the Residential.</li> </ul>	<p>through the use of building separation and taller planting.</p>		
<p>PHDA-SL2, which specifies a larger yard (30m) along a boundary with a neighbouring site containing forestry.</p>	<p>The development area is at the border of the urban area and adjoins rural residential and rural activities. During the development of the plan change that introduced the development area it was recognised that an existing planting of large trees at 37/275 Pukehangi Road presented issues for the proposed Residential Zone 1 in terms of risks to buildings from falling trees/branches, nuisance from leaf drop etc; and reverse sensitivity for the forestry.</p> <p>The trees were planted for various reasons, including soil conservation and to meet</p>	<p>Requiring a separation distance between the plantings and new buildings on the neighbouring land assists to protect the plantings from reverse sensitivity, consistent with policies 1.3.10.1 and 13.3.1.1 of the District Plan. A separation distance would also assist to protect future buildings and residents from the nuisance and risks. As the trees have been considered in nitrogen allocations for the larger property, the protection of the forestry against reverse sensitivity from neighbouring residential development has relevance to the protection of the productive activities (grazing) on this</p>	<p>Retaining the current standard is considered the most appropriate option.</p> <p>An alternative is to remove the yard and allow buildings to be built closer to the adjacent forest block. This would allow a greater level of development but presents a risk of damage to buildings and reverse sensitivity for the forestry use on that site, which is important for soil conservation and nutrient management.</p> <p>A smaller yard could also be considered but is not considered appropriate. Indeed the 30m yard may not be sufficient to mitigate all</p>

	landscaping conditions for subdivision. They were also considered in nitrogen calculations for the property in the context of regional consents.	property, in terms of policy UG 20B of the Regional Policy Statement	reverse sensitivity effects and risks to development but is consistent with the buffer provided for plantation forestry.
PHDA-R5 - Subdivision and associated performance standards for traffic - PHDA-SS11.  These standards limit:	The plan change for this development area sought to achieve a road layout that connects across the blocks under different ownership, and connects to Pukehangī Road at several identified locations. This connectivity is important for walkability and resilience; and for dispersing traffic to reduce amenity impacts on existing Matipo Avenue.  The potential increase in traffic at intersections with SH5 because of development in the development area was modelled. This indicated that capacity issues would likely be experienced at the Malfroy Road intersection with SH5. <sup>4</sup>	Allowing the development envisaged by the MDRS in the Residential 1 Zone without further provisions to address the road layout may not achieve a connected road layout and may result in significant increases in traffic on the existing Matipo Avenue.  Allowing development of the Pukehangī Heights area without consideration of the impacts on the SH	The most appropriate option is to retain the existing provisions.  The other option is to remove the standards, that is  a. require no limits on the yield from roads connection to Matipo Avenue before a road connection is available.  b. Require no specific assessment (and subsequent potential yield limitation) with respect to the capacity at the SH5 intersection.  However, this would not provide incentive to construct the interconnected layout of roads which has been identified to best option to manage traffic in this greenfield development area nor assist to address the capacity issue at the SH5 intersection.

<sup>4</sup> Stantec, 08 March 2019. Pukehāngi Heights Development Area Traffic Assessment. Report prepared for Rotorua Lakes Council. RDC-899757.

	Malfroy Road and SH5.			
Wharenui Development Area	<p>Standards and rules relating to the upgrade or provision of infrastructure and staging of development:</p> <ul style="list-style-type: none"> <li>Performance standard WHDA – S1 Staging and Minimum Yield and associated rule WHDA-R1. Require that development shall proceed in a staged manner with sub-areas developed in a certain order and that that 60% of the identified lot yield for each sub-areas is sold before the next consent process. Subdivision and land use that does not comply with this standard is a discretionary activity.</li> <li>WHDA-S3 Traffic Mitigation – traffic</li> </ul>	<p>This is a greenfield development area and new network infrastructure (water, wastewater, stormwater and land transport infrastructure) must be provided, there is concern that this is undertaken in an efficient way.</p> <p>There is also concern that traffic as a result of development of the area may have an adverse effect on the roading network.</p>	<p>The standards ensure infrastructure is provided efficiently and effectively in a by requiring that development proceeds in a staged manner and that yield is achieved before the next stage is commenced. The impact is on the timing of development, rather than the density achieved.</p> <p>The standard and associated rules provide a method to consider the traffic impacts and an incentive for the upgrade works to be funded so that development can occur.</p>	<p>The principal alternative is to provide no standards or associated rules to control the staging of development and the provision of traffic calming. There would only be matters of control at subdivision relating to staging and provision of infrastructure. This is not considered sufficient to ensure the efficient provision of infrastructure; nor will it provide certainty around the need for traffic calming.</p>

	<p>calming projects (Refer above for state highway intersection upgrade component) and associated rules WHDA-R3 and WHDA-R4. Require that development in Wharenui Development Area not exceed lot yields until specific traffic calming upgrades are completed.</p> <p><b>(Proposed to be amended</b> to remove traffic calming projects that have been completed).</p>			
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## Appendix 4 – Evaluation of New Qualifying Matters

The analysis that follows provides an evaluation of the new qualifying matters in accordance with the requirements of s77J RMA. Under this section, Council is required to:

- Demonstrate why it considers that the area is subject to a qualifying matter and that the qualifying matter is incompatible with the level of development permitted by the MDRS (as specified in Schedule 3A of the RMA) (s77J(3)(a)).
- Assess the impact that limiting development capacity, building height, or density (as relevant) will have on the provision of development capacity (s77J(3)(b)).
- Assess the costs and broader impacts of imposing those limits (s77J(3)(c)).

**Table 2: Evaluation of New Qualifying Matters in the District Plan in Accordance with Section 77L**

Explanation of qualifying matter and where it applies	Why the qualifying matter is incompatible with the level of development permitted by the MDRS	Alternative provisions	Impact on development capacity	Costs and broader impacts of alternative provisions
<b>Flooding</b>				
<p>A new qualifying matter is proposed where maximum flood depths on a building site are greater than 300mm in the design flood of a 1% AEP event with an allowance for climate change.</p> <p>Proposed for the management of significant risks of</p>	<p>There may potentially be significant risks from flooding to people and/or property associated with new buildings or additions to buildings permitted by the MDRS in these areas due to:</p> <ul style="list-style-type: none"> <li>• Increased cumulative value of assets that could</li> </ul>	<p>Restricted discretionary activity for new buildings or building additions in these areas with discretion reserved over:</p> <ul style="list-style-type: none"> <li>• The appropriateness of the proposed building location and the extent to which the proposal minimises the risks to people and property on site from flooding through measures such as building</li> </ul>	<p>Conditions imposed may limit development capacity for example, restricting buildings in parts of the site to protect the function of overland flowpaths.</p> <p>In the worst affected areas, it may be difficult to obtain resource consent for residential units, but in such locations it would likely to also</p>	<p>While the introduction of this rule will have increased consenting costs, it will mean development is more responsive to flooding and the site-specific risks to ultimately create greater resilience. This should reduce losses during a flood event.</p>

<p>natural hazards, which is a matter of national importance under section 6(h) of the RMA.</p>	<p>potentially be damaged in a flood event</p> <ul style="list-style-type: none"> <li>Increased number of occupants in areas that may be hazardous to life due to deep and/or fast flows</li> <li>Compromise of overland flowpaths that could divert water onto other properties</li> </ul> <p>This is addressed to some extent through minimum floor levels and administration of the Building Act, but the proposal provides broader scope to consider the effects and potential options to minimise the risk through consent conditions.</p>	<p>design and provision of safe evacuation routes or refuge;</p> <ul style="list-style-type: none"> <li>The extent to which the development will increase risks from flooding to people and property on other sites or infrastructure; and the extent to which the proposal minimises this effect; and</li> <li>Whether the proposal will affect the carrying capacity and storage capacity of any river corridor or major overland flowpath.</li> </ul>	<p>be difficult to obtain Building Consent.</p>	
<p><b>Heritage Structures</b></p>				
<p>An additional “New building” rule is proposed to apply to sites that contain</p>	<p>Applying the MDRS creates the potential for adverse effects arising from ‘out of scale’ and</p>	<p>A proposed rule requiring “New buildings that are on the same site as a heritage structure listed in the Historic Structures</p>	<p>The number of Heritage Structures that could be potentially impacted by PC9 is detailed in the report above.</p>	<p>The section 32 report above provides a detailed analysis of the overall costs and benefits of the proposed rule, including</p>

<p>historic structures as listed in the schedule in the Residential 1 and Residential 2 zones.</p> <p>The purpose is to the protection of historic heritage from inappropriate subdivision, use and development, which is as a matter of national importance under section 6(f) of the RMA.</p>	<p>sympathetic buildings in close proximity to historic structures, which potentially undermines heritage values.</p>	<p>Schedule” as a Restricted Discretionary Activity. The new rule requires a consent application which allows an assessment of the building’s design and consideration of effects on the values and characteristics of the heritage structure.</p>	<p>The additional rule and supporting assessment criteria proposed, will only be applicable to a small number of sites throughout the urban environment. The rule itself also does not prohibit development on the site, but instead requires resource consent so that the effects on the values and characteristics of the heritage structure can be considered through a consenting process. It is therefore considered that the impacts on development capacity are negligible.</p>	<p>commentary on the impacts on development capacity.</p>
<p><b>Residential 3 Zone</b></p>				
<p>The current Residential 3 Zone provisions are proposed to be retained as a new qualifying matter for the purposes of managing the use, development and protection of the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga, which is a</p>	<p>Rotorua Lakes Council considers that the Residential 3 Zone, Ōhinemutu, Whakarewarewa and Ngāpuna, should not be subject to the level of development permitted by the MDRS. The Residential 3 Zone is incompatible with the MDRS as the purpose of the zone is to recognise and provide for the</p>	<p>The current provisions in the Residential 3 Zone adequacy protect the special character, cultural and historic heritage of the villages. The standards outlined in the current Residential 3 Zone approach are generally less enabling than the MDRS to protect those values.</p>	<p>The M.E. report found that the exclusion of the MDRS provisions from the Residential 3 Zone areas decreases the total plan enabled capacity only marginally by between 0.6% and 0.8%, which amounts a difference of only a 1,000 fewer net additional dwellings across the modelled scenarios.</p> <p>It was further determined that when considering different intensification scenarios that the difference in capacity is</p>	<p>It is considered that the special character, culture, historic heritage and significance of Ōhinemutu, Whakarewarewa, and Ngāpuna should the MDRS be applied has the potential to result in an adverse effect. Retaining the current zoning provisions and framework would result in the character and values of the villages being retained and protected from inappropriate use and development. Although the retention of the current zoning has</p>

<p>matter of national importance under section 6(e) of the RMA. The new qualifying matter would apply over the full extent of the Residential 3 Zone.</p>	<p>exceptional and unique places the villages hold in the Rotorua District.</p> <p>New development or activities within the villages that are out of keeping with the existing environment, has the potential to have an adverse effect on their special character, cultural and historic heritage of the villages.</p>		<p>greater with respect to horizontally attached redevelopment as opposed to horizontally attached infill. In this regard, it was found that there were 1,500 fewer additional dwellings, which is a slightly larger decrease in additional capacity of 1.4%. This is because the maximum yields on many of these parcels are likely to still be exceeded by higher density development options (i.e. vertically attached apartments).</p> <p>The exclusion of the MDRS provisions from the Residential 3 Zone area is therefore unlikely to have any significant effect on plan enabled capacity the longer-term growth patterns of Rotorua's urban area at a city level. The reduction in capacity. The full Economic Assessment can be found in Appendix 8 and a greater detailed analysis can be found above in the Section 14.</p>	<p>the potential to limit development capacity in the district, it is considered that the benefits outweigh the costs. In conclusion, Rotorua Lakes Council considers that the Residential 3 Zone should not be subject to the MDRS, and instead should retain the current standards and provisions as a new qualifying matter as the protection of historic heritage from inappropriate subdivision use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(f)). A greater detailed cost/benefit analysis can be found above in Section 14 of this report.</p>
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## Appendix 5 – Regional Policy Statement – Objectives and Policies Assessment

### Bay of Plenty Regional Policy Statement – Objectives and Policies Assessment

Section 77G(8) of the RMA states that the requirement to introduce the MDRS into a relevant residential zone applies irrespective of any inconsistent objective or policy in a Regional Policy Statement. While that is the case, and for completeness, the following table provides an assessment of PC9 against the relevant objectives and policies of the Bay of Plenty Regional Policy Statement (BOPRPS). Overall, it is considered that PC9 will give effect to the objectives and policies of the RPS, consistent with s75(3)(c) of the RMA.

RPS Objectives and Policies	Assessment of PC9
Air Quality	

**Objective 1**

The adverse effects of odours, chemical emissions and particulates are avoided, remedied or mitigated so as to protect people and the environment.

**Policy AQ 1A: Discouraging reverse sensitivity associated with odours, chemicals and particulates.**

Activity discourages:

- (a) Locating new sensitive activities near activities that discharge offensive and objectionable odours, chemical emissions or particulates; and
- (b) Locating new activities that discharge offensive and objectionable odours, chemical emissions or particulates near sensitive activities.

**Policy AQ 2A: Managing adverse effects from the discharge of odours, chemicals, and particulates.**

Protect people’s health and the amenity values of neighbouring areas from discharges of offensive and objectionable odours, chemical emissions and particulates.

**Policy AQ 3A: Managing adverse effects of fine particulate contamination**

Manage activities that generate fine particulate contamination with airsheds.

Rotorua Lakes Council has recognised the potential for reverse sensitivity effects to increase with the introduction of PC9, specifically in areas where the existing industrial zones adjoin existing residential zone.

The potential reverse sensitivity effects associated with air quality have been comprehensively assessed by T&T. Within the urban area of Rotorua, the relevant areas identified in this analysis are Ngongotaha, Ngāpuna and Fairy Springs. Ngāpuna is the only area identified as potentially giving rise to reverse sensitivity effects. In this location, the Residential 3 zone adjoins the zone, which PC9 proposes to retain as a new qualifying matter. The current interface issues between the residential zone and the industrial zone are acknowledged, noting that the adverse effects will not increase from the existing environment given that the surrounding Residential 3 zone is not proposing to change.

The Council has commissioned a report from Styles Group Acoustics & Vibration Consultants to assess the potential reverse sensitivity effects related to noise arising from greater development potential enabled by PC9 within proximity to industrial land. The same locations that were identified for the reverse sensitivity assessment have been assessed for sufficiency of noise provision.

The current provisions of the operative district plan stipulate that noise levels from any activity shall not exceed the noise limits specified for the adjoining zone when measured at any point within the receiving site (NOISE-S2 Noise received within a different zone).

The noise assessment has concluded that the current residential noise limits and provisions that manage the residential/industrial interface will still achieve the objective of managing the noise generating potential of the industrial activities that operate near to the residential interface.

The change in noise effects arising from moving the existing legal environment in the currently operative district plan the MDRS-three storey development will “only increase the new non-compliances by a modest amount”.

**Conclusion**

	It is considered that PC9 gives effect to the Bay of Plenty Regional Policy Statement Objectives and Policies relating to Air Quality.
Energy and Infrastructure	
<p><b>Objective 6</b> Provide for the social, economic, cultural and environmental benefits of, and the use and development of nationally and regionally significant infrastructure and renewable energy.</p> <p><b>Policy EI 3B: Protecting nationally and regionally significant infrastructure</b> Protect the ability to develop, maintain, operate and upgrade existing, consented and designated nationally and regionally significant infrastructure from incompatible subdivision, use or development. Ensure that where potentially incompatible subdivision, use or development is proposed near regionally significant infrastructure, it should be designed and located to avoid potential reverse sensitivity effects.</p> <p><b>Objective 7</b> Provide for the appropriate management of: (a) any adverse environmental effects (including effects on existing lawfully established land uses) created by the development and use of infrastructure and associated resources; (b) any reverse sensitivity effects on established, consented or designated infrastructure.</p> <p><b>Policy EI 7B: Managing the effects of infrastructure development and use</b> Manage the development and use of infrastructure and associated resources so as to address actual or potential effects on existing lawfully established activities in the vicinity</p>	<p><b>Existing Qualifying Matters</b></p> <p>PC9 proposes to retain the operative district plan provisions relating to energy and infrastructure as existing qualifying matters (under s771(a) to (i)) in accordance with Section 77K. The existing qualifying matters in PC9 relating to energy and infrastructure include the following:</p> <p><u>Rotorua Regional Airport Limitation Surface</u></p> <ul style="list-style-type: none"> <li>• EIT-R17 - Buildings and Structures;</li> <li>• SUB-R39 - The subdivision of sites or buildings within or dissected by the Airport Inner Control Area Overlay; and</li> <li>• SUB-R40 - Subdivision of sites or buildings within or dissected by the Air Noise Area Overlay.</li> </ul> <p><i>Qualifying matter for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure (RMA Amendment Act s771(e)).</i></p> <p><u>National Grid Yard and Corridor</u></p> <ul style="list-style-type: none"> <li>• EIT-R18 - Buildings and structures within the National Grid Yard; and</li> <li>• SUB-R38 – The subdivision of sites or buildings within a national grid yard or corridors.</li> </ul> <p><i>Qualifying matter for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure (RMA Amendment Act s771(e)).</i></p> <p><b>Conclusion</b></p> <p>It is considered that PC9 gives effect to the Bay of Plenty Regional Policy Statement Objectives and Policy relating to Energy and Infrastructure.</p>
Geothermal Resources	
<b>Objective 8</b>	<b>Gap Analysis</b>



Holistic and sustainable management of the regional geothermal resource by providing for:

- (a) protection of some systems with Significant Geothermal Features;
- (b) enabling use and development of other geothermal systems.

**Policy GR 2A: Requiring integrated management of geothermal systems**  
**Integrated management of geothermal systems by requiring that:**

- (a) Development and use of land within geothermal systems is compatible with the management purpose for each system as specified in Table 12;
- (b) System management plans are used for any geothermal system classified for development; and
- (c) Geothermal water injection and reinjection is actively encouraged and provided for.

**Objective 9**

Development and use of land and non-geothermal water is compatible with protection, development and use of geothermal systems in accordance with each system's classification management purpose.

**Policy GR 4A: Protecting and managing significant geothermal features**

For significant geothermal features:

- (a) Ensure any new land uses and land use practices are compatible with the management purpose of the geothermal system classification;
- (b) Protect the natural and biodiversity values of SGFs in geothermal management groups 1 and 2 (see Table 12) from incompatible land uses; and
- (c) Recognise and provide for cultural, historical, and economic values associated with geothermal activity in Whakarewarewa and Ohinemutu areas where hazardous areas are subject to some land use.

**Policy GR 11B: Requiring information for activities over or adjacent to geothermal resources**

Require information on geothermal hazard risk and conditions that assess and address that risk for activities over or adjacent to geothermal resources.

Part of PC9 included a Gap Assessment undertaken by Tonkin & Taylor to provide an understanding of whether the District Plan and Building Code adequately managed geothermal risk in the context of intensification. The report identified shortfalls in the risk management approach.

Amendments are proposed to the provisions which manage the risks from geothermal hazards as part of PC9. These are intended to respond to potential risks from heated ground and elevated gas emissions in geothermal areas, which are expected to increase in the context of the increased development potential enabled by PC9.

The new provisions are considered as a new qualifying matter in accordance with Section 771 of the RMA. The new provisions include the following:

- Inserting a new 'Geothermal Hazard Assessment Overlay' to the planning maps to identify areas with potentially elevated ground temperatures or emission of geothermal gases. The identified area covers a smaller extent than the Rotorua Geothermal System, but still incorporates significant parts of the central area of the city near to the city centre and lake in the north, and near Whakarewarewa in the south.
- Inserting a corresponding rule to require resource consent, as a restricted discretionary activity, for building work inside this overlay. This will provide opportunity to assess the geothermal hazards present on site and consider potential methods to reduce the associated risks, focusing particularly on the layout of the site and building coverage/impervious area, which are not considered sufficiently addressed by the bylaw or Building Act. This new rule would replace an existing rule requiring assessment when impervious surfaces exceed 90%, which is considered to be ineffective in managing the identified risk. The reasons for this are detailed in the s32 report.

**Existing Qualifying Matters**

PC9 also proposes to retain some of the operative district plan provisions relating to geothermal natural hazards as existing qualifying matters (under

	<p>s77l(a) to (i)) in accordance with Section 77K. The existing qualifying matters in PC9 relating to energy and infrastructure include the following:</p> <ul style="list-style-type: none"> <li>• NH-R6 - Buildings erected within 5m of the edge of the Geothermal Surface Feature or Bore;</li> <li>• SUB-R42 - The subdivision of sites or buildings on land affected by a geothermal feature, geothermal activity or bore; and</li> <li>• SUB-S8(3) - Subdivision of land or buildings in areas within geothermal activity.</li> </ul> <p><i>Qualifying matter as the management of significant risks from natural hazards is a matter of national importance (RMA Amendment Act s77l(a)) (RMA s6(h)).</i></p> <p><b>Conclusion</b></p> <p>It is considered that PC9 gives effect to the Bay of Plenty Regional Policy Statement Objectives and Policy relating to Geothermal Resources.</p>
Integrated Resource Management	
<p><b>Objective 10</b> Cumulative effects of existing and new activities are appropriately managed.</p> <p><b>Policy IR 3B: Adopting an integrated approach</b> Adopt an integrated approach to resource management that:</p> <p>(a) Recognises the interconnected nature of natural and physical resources, including as they adjust to changes;</p> <p>(b) Recognises the multiple values of natural and physical resources;</p> <p>(c) Responds to the nature and values of the resource and the diversity of effects (including cumulative and reverse sensitivity effects) that can occur;</p> <p>(d) Seeks to maximise benefits by considering opportunities to align interventions (including regulatory and non-regulatory) and/or to achieve multiple objectives;</p> <p>(e) Encourages developments, activities or land-use changes to: 1 Provide for the relationship between land use and water quality and quantity 2 Recognise the advantages and constraints of land use capability; 3 Provide for infrastructure and; 4 Benefit the economic wellbeing of communities.</p>	<p>PC9 implements the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act and seeks to enable greater housing choice to address known shortages in the Rotorua District. While the key purpose of PC9 is to enable a great variety of housing, there are a number of supporting changes to achieve an integrated resource management approach and well-functioning urban environment. PC9 introduces amendments to the district plan in respect of the following:</p> <ul style="list-style-type: none"> <li>• Amendments to the residential zone section to enable high density residential development within the Residential 2 zone and related amendments;</li> <li>• Amendments to the zoning maps to alter the spatial application of the Residential 2 High Density zone to give effect to Policy 5 of the NPSUD;</li> <li>• Amendments to Part 2 Subdivision to incorporate the MDRS;</li> </ul>

- (f) Takes a long term strategic approach which recognises the changing environment and changing resource use pressures and trends;
- (g) Applies consistent and best practice standards and processes to decision making; and
- (h) Recognises different community values and social needs; and regards these as positive effects.

**Objective 11**

An integrated approach to resource management issues is adopted by resource users and decision makers.

**Policy IR:2B: Having regard to the likely effects of climate change**

Recognise and provide for the predicted effects of climate change having particular regard to:

- (a) Predicted increase in rainfall intensity, taking account of the most recent national guidance and assuming a minimum increase in the annual mean temperature of 2°C by 2090 (relative to 1990 levels); and
- (b) Predicted increase in sea level, taking into account the most recent national guidance and the minimum sea-level rise projections in Policy NH 11B.

**Policy IR 3B: Adopting an integrated approach**

Adopt an integrated approach to resource management that:

- (a) Recognises the interconnected nature of natural and physical resources, including as they adjust to changes;
- (b) Recognises the multiple values of natural and physical resources;
- (c) Responds to the nature and values of the resource and the diversity of effects (including cumulative and reverse sensitivity effects) that can occur;
- (d) Seeks to maximise benefits by considering opportunities to align interventions (including regulatory and non-regulatory) and/or to achieve multiple objectives;
- (e) Encourages developments, activities or land-use changes to: 1 Provide for the relationship between land use and water quality and quantity 2 Recognise the advantages and constraints of land use capability; 3 Provide for infrastructure and; 4 Benefit the economic wellbeing of communities.

- Amendments to Part 3 Commercial Zones and City Centre Zones to amend building height limits and the design-based rules and assessment matters that guide development;
- Amendments to the City Centre 2 and Commercial 6 zones to enable residential activities;
- Amendments to the Pukehangi and Wharenui development areas to align with the MDRS;
- Amendments to the District-wide provisions for papakāinga to be more enabling of this form of development;
- Amendments to the District-wide provisions for flooding to manage development in areas of flood risk (new qualifying matter);
- Amendments to the District-wide provisions for geothermal hazards to introduce new Geothermal Hazard Assessment Overlay, within which resource consent will be required (new qualifying matter);
- Retain the Residential 3 zone as a new qualifying matter on the grounds that it provides for the relationship of Māori and their culture and traditions with their ancestral lands;
- Retain existing qualifying matters in the Rotorua District Plan, which contain rules that potentially limit the heights and densities of development. The rules applying to the qualifying matter are intended to limit development rather than the zoning that applies;
- Consequential amendments to the Definitions to support the changes outlined above and the MDRS; and
- Consequential amendments to the district plan zoning maps and further amendments to zone extents to give effect to Policy 5 of the NPS-UD.
- Financial contributions amendments.

- (f) Takes a long term strategic approach which recognises the changing environment and changing resource use pressures and trends;
- (g) Applies consistent and best practice standards and processes to decision making; and
- (h) Recognises different community values and social needs; and regards these as positive effects.

These amendments support an integrated resource management approach, and it is therefore considered that PC9 gives effect to the Bay of Plenty Regional Policy Statement Objectives and Policy relating to integrated resource management.

#### **Flooding provisions**

With regards to Policy IR:2B, PC9 includes amendments to the flooding provisions of the district plan. Amendments are proposed to the provisions which manage flood risk to respond to potential risks associated with the increased development potential enabled by PC9, while also seeking to improve the efficiency of the provisions. The amendments include:

Amendments to the building level standards:

- Alignment of design flood used for minimum building level standards to that used in subdivisions and administration of the Building Act;
- Extension of building level standards to new buildings.
- Introduction of a requirement for a broad assessment (as a restricted discretionary activity) for buildings and larger building additions in areas where the anticipated flood levels in a design event are more than 300mm. This constitutes an additional qualifying matter.
- Clarification and streamlining of subdivision rules.
- Reduction in the maximum impervious site coverage standards for Residential 1 and 2 Zones.

The proposed restricted discretionary rule for building and additions in the areas where flood depths are anticipated to be deeper constitutes a new qualifying matter, as it would potentially restrict development density within residential zones. The other proposed amendments seek to improve the efficiency of the provisions.

While the proposed amendments are a response to the proposed increased density, it is also considered that they will assist to manage the likely effects of climate change into the future.

	<p><b>Conclusion</b></p> <p>It is therefore considered that PC9 give effect to the Bay of Plenty Regional Policy Statement Objectives and Policy relating to having regard to the likely effects of climate change.</p>
<p>Iwi Resource Management</p>	
<p><b>Objective 13</b> Kaitiakitanga is recognised and the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) are systematically taken into account in the practice of resource management.</p> <p><b>Policy 3B: Recognising the Treaty in the exercise of functions and powers under the Act</b> Exercise the functions and powers of local authorities in a manner that: (a) Takes into account the principles of the Treaty of Waitangi; (b) Recognises that the principles of the Treaty will continue to evolve and be defined; (c) Promotes awareness and understanding of councils’ obligations under the Act regarding the principles of the Treaty, tikanga Māori and kaupapa Māori, among council decision makers, staff and the community; (d) Recognises that tangata whenua, as indigenous peoples, have rights protected by the Treaty and that consequently the Act accords iwi a status distinct from that of interest groups and members of the public; and (e) Recognises the right of each iwi to define their own preferences for the sustainable management of natural and physical resources, where this is not inconsistent with the Act.</p> <p><b>Policy IW 1B: Enabling development of multiple-owned Māori land</b> Provide for the development of multiple-owned Māori land in a manner which: (a) Enables sustainable development consistent with Part 2 of the Act; (b) Enables Māori to develop papakāinga, marae and associated community facilities or housing and, where necessary, shall actively protect these and associated customary activities from the adverse effects of subdivision, use and development, in the vicinity of a marae;</p>	<p><b>Mana Whenua in the Rotorua District</b></p> <p>Tangata whenua have a rich tapestry of cultural traditions, histories and relationships to places, lands, water bodies and coastal areas throughout the Rotorua Lakes District. Rotorua Lakes Council recognise the unique relationship tangata whenua hold with their ancestral whenua, and the administrative barriers that can impede papakāinga development. These barriers where a key message through engagement with mana whenua.</p> <p><b>Papakāinga Amendments</b></p> <p>During the engagement hui undertaken as part of the Plan Change and the Future Development Strategy (“FDS”), there was clear feedback from iwi and hapū that the current district plan framework for papakāinga development has not delivered the level of housing that is required for the Rotorua district. The current provisions are also seen to present barriers and deterrents when iwi and hapū seek to establish papakāinga and kōeke housing on their whenua.</p> <p>PC9 includes proposed amendments to the rules for papakāinga in the General District Wide matters chapter of the district plan. The proposed amendments are in accordance with section 80E of the RMA, which enables an intensification planning instrument to amend provisions to enable papakāinga housing in the district in both urban and rural areas.</p> <p>The proposed amendments include:</p> <ul style="list-style-type: none"> <li>• Deleting the performance standard that requires papakāinga to locate on land that adjoins or is adjacent to a Marae;</li> <li>• Amending the provisions to ensure that the framework for papakāinga in residential zones is in keeping with the MDRS and policy intent of the NPS-UD;</li> </ul>

- (c) Enables Māori to develop multiply owned Māori land and resources to provide social and economic benefits;
- (d) Enables Māori to develop geothermal resources for economic and social benefits in a manner consistent with the classification and management purpose of the geothermal resource; and
- (e) ... [relates to Western Bay of Plenty]

**Objective 15**

Water, land, coastal and geothermal resource management decisions have regard to iwi and hapu resource management planning documents.

**Policy IW 4B: Taking into account iwi and hapu resource management plans**

Ensure iwi and hapū resource management plans are taken into account in resource management decision making processes.

**Objective 16**

Multiple-owned Māori land is developed and used in a manner that enables Māori to provide for their social, economic and cultural wellbeing and their health and safety, while maintaining and safeguarding its mauri.

**Policy IW 1B: Enabling development of multiple-owned Māori land**

Provide for the development of multiple-owned Māori land<sup>3</sup> in a manner which:

- (a) Enables sustainable development<sup>4</sup> consistent with Part 2 of the Act;
- (b) Enables Māori to develop papakāinga, marae and associated community facilities or housing and, where necessary, shall actively protect these and associated customary activities from the adverse effects of subdivision, use and development, in the vicinity of a marae;
- (c) Enables Maori to develop multiply owned Maori land and resources to provide social and economic benefits;
- (d) Enables Māori to develop geothermal resources for economic and social benefits in a manner consistent with the classification and management purpose of the geothermal resource.

**Policy IW 2B: Recognising matters of significance to Māori**

- Introducing additional provisions to enable a greater density of papakāinga development in rural zones; and
- Introducing additional performance standards to clarify the activity status, and appropriate scale and intensity of non-residential activities that form part of a papakāinga development in rural zones.

**Residential 3 Zone**

PC9 proposes that the Ōhinemutu, Whakarewarewa and Ngāpuna should not be subject to the MDRS as a new qualifying matter (s77J). The characteristics, cultural and historical significance of Ōhinemutu, Whakarewarewa and Ngāpuna are such that applying the MDRS would not be consistent with the purpose and principles of the RMA. The separation and retention of the current zoning framework is considered to manage the use, development and protection of the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga as a Section 6 Matter for the reasons set out below. Engagement with the community of the villages supported the retention of the current framework.

**Existing Qualifying Matters**

PC9 also proposes to retain some of the current provisions relating to historic and cultural values as existing qualifying matters (under s77I(a) to (i)) in accordance with Section 77K. The existing qualifying matters in PC9 relating to iwi resource management include the following:

- HH-R5 - Disturbance, modification and alteration of cultural historic heritage listed in the Archaeological Sites Schedule or Historic Sites Schedule;
- HH-R6 - Destruction of cultural historic heritage listed in the archaeological sites schedule or historic sites schedule;
- SASM-R3 - Disturbance, modification and alteration of cultural historic heritage listed in the structures and sites of cultural historic significance schedule;

Proposals which may affect the relationship of Māori and their culture and traditions must:

(a) Recognise and provide for:

(i) Traditional Māori uses and practices relating to natural and physical resources such as mahinga mātaītai, waahi tapu, papakāinga and taonga raranga;

(ii) The role of tangata whenua as kaitiaki of the mauri of their resources;

(iii) The mana whenua relationship of tangata whenua with, and their role as kaitiaki of, the mauri of natural resources;

(iv) Sites of cultural significance identified in iwi and hapū resource management plans; and

(b) Recognise that only tangata whenua can identify and evidentially substantiate their relationship and that of their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.

**Policy IW 5B: Adverse effects on matters of significance to Māori**

When considering proposals that may adversely affect any matter of significance to Māori recognise and provide for avoiding, remedying or mitigating adverse effects on:

(a) The exercise of kaitiakitanga;

(b) Mauri, particularly in relation to fresh, geothermal and coastal waters, land and air;

(c) Mahinga kai and areas of natural resources used for customary purposes;

(d) Places sites and areas with significant spiritual or cultural historic heritage value to tangata whenua; and

(e) Existing and zoned marae or papakāinga land.

**Policy UG 22B: Providing for papakāinga**

Outside existing urban areas and the urban limits shown on Maps 5 to 15 (Appendix E), papakāinga including marae-based housing shall be provided for.

- SASM-R4 - Destruction of cultural historic heritage listed in the structures and sites of cultural significance schedule;
- SASM-R5 - Alterations to existing buildings located within the Marae Protection Area Overlay; and
- SASM-R6 - New buildings within the Marae Protection Area Overlay.

*Qualifying matter as the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga and the protection of historic heritage from inappropriate subdivision use and development is a matter of national importance (RMA Amendment Act s771(a)) (RMA s6(f)).*

**Conclusion**

For the reasons given above it is considered that PC9 will give effect to the Bay of Plenty Regional Policy Statement Objectives and Policy relating to Iwi Resource Management.

Matters of National Importance

**Objective 18**

The protection of historic heritage and outstanding natural features and landscapes from inappropriate subdivision, use and development.

**Policy IW 2B: Recognising matters of significance to Māori**

Proposals which may affect the relationship of Māori and their culture and traditions must:

(a) Recognise and provide for:

- (i) Traditional Māori uses and practices relating to natural and physical resources such as mahinga mātaītai, waahi tapu, papakāinga and taonga raranga;
- (ii) The role of tangata whenua as kaitiaki of the mauri of their resources;
- (iii) The mana whenua relationship of tangata whenua with, and their role as kaitiaki of, the mauri of natural resources;
- (iv) Sites of cultural significance identified in iwi and hapū resource management plans; and

(b) Recognise that only tangata whenua can identify and evidentially substantiate their relationship and that of their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.

**Objective IW 5B: Adverse effects on matters of significance to Māori**

When considering proposals that may adversely affect any matter of significance to Māori recognise and provide for avoiding, remedying or mitigating adverse effects on:

- (a) The exercise of kaitiakitanga;
- (b) Mauri, particularly in relation to fresh, geothermal and coastal waters, land and air;
- (c) Mahinga kai and areas of natural resources used for customary purposes;
- (d) Places sites and areas with significant spiritual or cultural historic heritage value to tangata whenua; and
- (e) Existing and zoned marae or papakāinga land.

**Policy MN 1B: Recognise and provide for matters of national importance**

PC9 proposes to retain the current provisions relating to Matters of National Importance as existing or new qualifying matters (under s771(a) to (i)) in accordance with Section 77K in the relevant residential zones, and as related provisions elsewhere.

The qualifying matters in PC9 relating to Matters of National Importance are detailed in Appendix 1 of the Section 32 report, and relate to the management of significant risks from natural hazards, the protection of historic heritage from inappropriate use and development, the relationship of Māori and their culture and traditions with their ancestral lands, water sites, waahi tapu and other taonga, the protection of significant indigenous vegetation and habitat, and the protection of outstanding natural features and landscapes.

The retention of these provisions in the District Plan, and introduction of new provisions will ensure that PC9 gives effect to the Bay of Plenty Regional Policy Statement Objectives and Policy relating to Matters of National Importance.



- (a) Identify which natural and physical resources warrant recognition and provision for as matters of national importance under section 6 of the Act using criteria consistent with those contained in Appendix F of this Statement;
- (b) Recognise and provide for the protection from inappropriate subdivision, use and development of those areas, places, features or values identified in accordance with (a) in terms of natural character, outstanding natural features and landscapes, and historic heritage;
- (c) Recognise and provide for the protection of areas of significant indigenous vegetation and habitats of indigenous fauna identified in accordance with (a);
- (d) Recognise and provide for enhancing and maintaining public access to and along those areas identified in accordance with (a);
- (e) Recognise and provide for the relationship of Māori and their culture and traditions identified in accordance with (a) and Policy IW 2B; and
- (f) Recognise and provide for protection to recognised customary activities.

**Objective 19**

The preservation of the natural character of the region's coastal environment (including coastal marine areas) wetlands, lakes and rivers and their margins.

**Policy MN 8B: Managing effects of subdivision, use and development**

Avoid and, where avoidance is not practicable, remedy or mitigate any adverse effects of subdivision, use and development on matters of national importance assessed in accordance with Policy MN 1B as warranting protection under section 6 of the Act.

**Objective 20**

The protection of significant indigenous habitats and ecosystems, having particular regard to their maintenance, restoration and intrinsic values.

**Policy MN 1B: Recognise and provide for matters of national importance**

(a) Identify which natural and physical resources warrant recognition and provision for as matters of national importance under section 6 of the Act

using criteria consistent with those contained in Appendix F of this Statement;

(b) Recognise and provide for the protection from inappropriate subdivision, use and development of those areas, places, features or values identified in accordance with (a) in terms of natural character, outstanding natural features and landscapes, and historic heritage;

(c) Recognise and provide for the protection of areas of significant indigenous vegetation and habitats of indigenous fauna identified in accordance with (a);

(d) Recognise and provide for enhancing and maintaining public access to and along those areas identified in accordance with (a);

(e) Recognise and provide for the relationship of Māori and their culture and traditions identified in accordance with (a) and Policy IW 2B; and

(f) Recognise and provide for protection to recognised customary activities.

**Policy MN 2B: Giving particular consideration to protecting significant indigenous habitats and ecosystems**

Based on the identification of significant indigenous habitats and ecosystems in accordance with Policy MN 1B:

(a) Recognise and promote awareness of the life-supporting capacity and the intrinsic values of ecosystems and the importance of protecting significant indigenous biodiversity;

(b) Ensure that intrinsic values of ecosystems are given particular regards to in resource management decisions and operations;

(c) Protect the diversity of the region's significant indigenous ecosystems, habitats and species including both representative and unique elements;

(d) Manage resources in a manner that will ensure recognition of, and provision for, significant indigenous habitats and ecosystems; and

(e) Recognise indigenous marine, lowland forest, freshwater, wetland and geothermal habitats and ecosystems, in particular, as being underrepresented in the reserves network of the Bay of Plenty.

**Objective 21**

Recognition of and provision for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.

**Policy IW 1B: Enabling development of multiple-owned Māori land**

Provide for the development of multiple-owned Māori land in a manner which:

- (a) Enables sustainable development consistent with Part 2 of the Act;
- (b) Enables Māori to develop papakāinga, marae and associated community facilities or housing and, where necessary, shall actively protect these and associated customary activities from the adverse effects of subdivision, use and development, in the vicinity of a marae;
- (c) Enables Maori to develop multiply owned Maori land and resources to provide social and economic benefits;
- (d) Enables Māori to develop geothermal resources for economic and social benefits in a manner consistent with the classification and management purpose of the geothermal resource; and
- (e) In the western Bay of Plenty sub-region only, protects, to the extent practicable, views from:
  - (i) Marae to landscape features of significance to the hapū and iwi associated with that marae; and
  - (ii) Culturally significant features where part of the significance is the view.

**Policy IW 2B: Recognising matters of significance to Māori**

Proposals which may affect the relationship of Māori and their culture and traditions must:

- (a) Recognise and provide for:
  - (i) Traditional Māori uses and practices relating to natural and physical resources such as mahinga mātaimai, waahi tapu, papakāinga and taonga raranga;
  - (ii) The role of tangata whenua as kaitiaki of the mauri of their resources;
  - (iii) The mana whenua relationship of tangata whenua with, and their role as kaitiaki of, the mauri of natural resources;

- (iv) Sites of cultural significance identified in iwi and hapū resource management plans; and
- (b) Recognise that only tangata whenua can identify and evidentially substantiate their relationship and that of their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.

**Policy MN 1B: Recognise and provide for matters of national importance**

- (a) Identify which natural and physical resources warrant recognition and provision for as matters of national importance under section 6 of the Act using criteria consistent with those contained in Appendix F of this Statement;
- (b) Recognise and provide for the protection from inappropriate subdivision, use and development of those areas, places, features or values identified in accordance with (a) in terms of natural character, outstanding natural features and landscapes, and historic heritage;
- (c) Recognise and provide for the protection of areas of significant indigenous vegetation and habitats of indigenous fauna identified in accordance with (a);
- (d) Recognise and provide for enhancing and maintaining public access to and along those areas identified in accordance with (a);
- (e) Recognise and provide for the relationship of Māori and their culture and traditions identified in accordance with (a) and Policy IW 2B; and
- (f) Recognise and provide for protection to recognised customary activities.

**Policy MN 8B: Managing effects of subdivision, use and development**

Avoid and, where avoidance is not practicable, remedy or mitigate any adverse effects of subdivision, use and development on matters of national importance assessed in accordance with Policy MN 1B as warranting protection under section 6 of the Act.

**Policy UG 22B: Providing for papakāinga**

Outside existing urban areas and the urban limits shown on Maps 5 to 15 (Appendix E), papakāinga including marae-based housing shall be provided for.

**Objective 23**

A compact, well designed and sustainable urban form that effectively and efficiently accommodates the region's urban growth.

**Policy UG 3A: Promoting travel demand management across the region**

Actively promote travel demand management across the region to:

- (a) Create effective integrated land and travel networks;
- (b) Increase public transport use;
- (c) Address congested transport corridors;
- (d) Reduce use of the private motor vehicle where practicable;
- (e) Encourage the use of alternative renewable transport fuels;
- (f) Reduce emissions from transport; and
- (g) Ensure adequate provision for and increased use of future public transport, walking, cycling networks and corridors, while providing for connectivity.

**Policy UG 8B: Implementing high quality urban design and live-work-play principles**

Demonstrate adherence to the New Zealand Urban Design Protocol (March 2005) key urban design qualities.

In achieving this, territorial authorities shall implement the region's "high quality urban design" and "live-work-play" principles as outlined in Appendix B, and additionally appropriate social infrastructure necessary to cater for an aging population, and include appropriate policies, methods and other techniques in their district plans and strategies. This policy shall not apply to land use change (such as rural-residential or lifestyle development) within the rural catchments of the Rotorua lakes where such change will result in a significant reduction in nutrient losses from existing rural land uses.

**Policy UG9B: Co-ordinating new urban development with infrastructure**

Ensure there is co-ordination between:

- (a) The urban form and layout, location, timing and sequencing of new urban development; and
- (b) The development, funding, implementation and operation of transport and other infrastructure serving the area in question;

The NPS-UD came into effect on 20 August 2020. The NPS-UD promotes the concept of "well-functioning urban environments", which are those urban environments that have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport and support a reduction in greenhouse gas emissions, amongst other matters.

The NPS-UD classifies urban areas into different tiers relating to population size and projected growth rates, with Rotorua being classified as a Tier 2 urban environment.

As a Tier 2 Urban Environment under the NPS- UD the objectives and policies of the NPS-UD which have particular relevance to PC9 include:

- Objective 1 and Policy 1 seeks to create well-functioning urban environments;
- Objective 4 acknowledges that New Zealand's urban environments, including their amenity values, develop and change over time in response to the diverse and changing needs of people, communities, and future generations;
- Policy 2 requires that there is at least sufficient development capacity to meet expected demand;
- Policy 5 requires district plans applying to tier 2 Councils to enable heights and density of urban form commensurate with the greater of:
  - (a) the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services; or
  - (b) relative demand for housing and business use in that location.
- Policy 6 requires particular regard to be had to planned urban built form and acknowledges that the planned urban form may involve significant changes to an area and those changes:
  - (a) may detract from amenity values appreciated by some people but improve amenity values appreciated by other people,

so that all infrastructure required to serve new development is available, or is consented, designated or programmed to be available prior to development occurring.

**Policy UG 10B: Rezoning and development of urban land – investment and infrastructure considerations**

Require the rezoning or other provisions for the urban development of land to take into account:

- (a) Sustainable rates of land uptake;
- (b) Existing or committed public and private sector investments in urban land development and infrastructure;
- (c) Sustainable provision and funding of existing and future infrastructure; and
- (d) Efficient use of local authority and central government financial resources, including prudent local authority debt management.

**Policy UG11B: Managing the effects of subdivision, use and development on infrastructure**

Manage the design and location of subdivision, use, and development to address potential adverse effects on the operation and upgrading of existing, consented, designated or programmed infrastructure.

**Policy UG 13B: Promoting the integration of land use and transportation**

In promoting the integration of land-use and transport activities, regard should be given to:

- (a) Land use and transport planning being closely linked;
- (b) The land transport system providing opportunities and integrated links for both public and private transportation modes;
- (c) Demand management is considered in planning, design and transport investment decisions;
- (d) Existing and future transport corridors defined and protected; and (e) Integrated transport packages for funding are developed.

**Policy UG 22B: Providing for papakāinga**

communities, and future generations, including by providing increased and varied housing densities and types; and

(b) are not, of themselves, an adverse effect

- Objective 5 and Policy 9 require the principles of the treaty to be taken into account in relation to urban environments; and
- Objective 8 seeks to ensure that New Zealand’s urban environments support reductions in greenhouse gas emissions.

The key driver of PC9 is to amend the District Plan to give effect to the intensification directive of the NPS-UD.

It is considered that PC9 is consistent with the NPS-UD 2020. More detail about the consistencies of PC9 with the NPS-UD can be found in the Section 32 Report (refer to *Section 5.3* of the Section 32 Report).

The policy directives of the NPS-UD are well aligned with the Urban Growth and Form objectives and policies of the BOPRPS, including providing for a compact urban form, managing travel demand through land use and transport integration, integrating land use and infrastructure decisions, and providing for papakāinga as a way of enabling Māori to express their cultural traditions and norms.

It is considered that PC9 gives effect to the Bay of Plenty Regional Policy Statement Objectives and Policy relating to Urban and Rural Growth Management.

Outside existing urban areas and the urban limits shown on Maps 5 to 15 (Appendix E), papakāinga including marae-based housing shall be provided for.

**Policy UG 25B: Housing Bottom Lines – Rotorua and western Bay of Plenty sub-region**

Provide housing bottom lines for the short-medium term and long term in Rotorua and the western Bay of Plenty sub-region as set out in the table below:

Geographical Area	Housing bottom line		
	Short-medium term 2020-2030	Long-term 2030-2050	30 Year Total 2020-2050 additional
Rotorua	6,240	3,500	9,740

**Natural Hazards**

**Objective 31**

Avoidance or mitigation of natural hazards by managing risk for people’s safety and the protection of property and lifeline utilities.

**Policy NH 4B: Managing natural hazard risk on land subject to urban development**

Require a Low natural hazard risk to be achieved on development sites after completion of the development (without increasing risk outside of the development site) by controlling the form, density and design of:

- (a) Greenfield development;
- (b) Any urban activity within the existing urban area that involves the construction of new and/or additional buildings or reconstruction of or addition to existing buildings (including any subdivision associated with such activities); and
- (c) Rural lifestyle activities; except that a Low level of risk is not required to be achieved on the development site after completion of the development where the development site is located within a natural hazard zone of Low natural hazard risk and that natural hazard zone will maintain a Low level of natural hazard risk after completion of the development.

The Section 32 report details the proposed amendments to the flooding and geothermal rules in the district plan, some of which are assessed as new qualifying matters. As set out in the Section 32 report, the amendments are considered necessary as part of an integrated suite of provisions, to appropriately manage natural hazard risks, in locations that flood or where there is heated ground and elevated gas emissions in geothermal areas.

In these areas the standards apply the MDRS applies, and resource consent is required as a restricted discretionary activity (at most) to ensure that natural hazard risks can be properly assessed. This signals that increased heights and densities are appropriate in these locations, subject to identifying and managing risk, using a variety of standard design techniques. This approach is considered to give effect to the objectives and policies of the RPS relating to natural hazards. See the Section 32 report for further analysis.

**Policy NH 8A: Assessment of natural hazard risk at the time of plan development**

Assess natural hazard risk by:

- (a) Defining natural hazard zones within hazard susceptibility areas; and
- (b) Determining the level of natural hazard risk within each natural hazard zone by undertaking a risk analysis using the methodology set out in Appendix L; and
- (c) Classifying natural hazard risk within each natural hazard zone as either High, Medium or Low natural hazard risk using the methodology set out in Appendix L.

**Policy NH 9B: Assessment of natural hazard risk at the time of subdivision, or change or intensification of land use before Policies NH 7A and NH 8A have been given effect to**

Before a district or, where applicable, regional plan gives effect to Policies NH 7A and NH 8A, assess natural hazard risk associated with a development proposal to subdivide land or change or intensify land use using the methodology set out in Appendix L where:

- (a) The subdivision of land or the change or intensification of land use is proposed to occur on an urban site of 5 ha or more; or
- (b) The relevant consent authority considers risk assessment appropriate having regard to:
  - (i) the nature, scale and/or intensity of the activity,
  - (ii) the location of the development site relative to known hazards, (iii) the cumulative effect on risk of developments on sites less than 5 ha,
  - (iv) the nature and extent of any risk assessment that may be required under, or incorporated within, the operative district or regional plan,

except that the obligation to assess the risk of the natural hazard under this policy shall not arise where the risk derives from a geothermal hazard which is managed under this Statement's section 2.4 and the Geothermal Resources Policies and Methods.



**Policy NH 10B: Assessment of natural hazard risk at the time of subdivision, or change or intensification of land use after Policies NH 7A and NH 8A have been given effect to**

After the relevant district or, where applicable, regional plan gives effect to Policies NH 7A and NH 8A assess natural hazard risk associated with a development proposal to subdivide land or change or intensify land use using the methodology set out in Appendix L where the relevant district or regional plan specifically requires that natural hazard risk assessment be undertaken except that the obligation to assess the risk of the natural hazard under this policy shall not arise where:

- (a) An assessment of the susceptibility of the land subject to the development proposal has demonstrated that the land is not susceptible to the hazard; or
- (b) The risk derives from a geothermal hazard which is managed under this Statement's section 2.4 and the Geothermal Resources Policies and Methods.

**Policy NH 12A: Managing natural hazard risk through regional, city and district plans**

- Promote the natural hazard risk outcomes set out in Policy NH 3B by:
- (a) Providing for plans to take into account natural hazard risk reduction measures including, where practicable, to existing land use activities, and, where necessary,
  - (b) Controlling the location, scale and density of the subdivision, use, development and protection of land and land use change in city, district and regional plans.
  - (c) Ensuring that regional, city and district plan provisions provide a high degree of certainty for the establishing and maintaining of essential risk reduction works and other measures.

**Policy NH 14C: Allocation of responsibility for land use control for natural hazards**

City and district councils shall be responsible for specifying objectives, policies and methods, including any rules, for the purpose of the control of the use of land (except land in the coastal marine area) for the avoidance or mitigation of natural hazards.

## Waikato Regional Policy Statement – Objectives and Policies Assessment

Section 77G(8) of the RMA states that the requirement to introduce the MDRS into a relevant residential zone applies irrespective of any inconsistent objective or policy in a Regional Policy Statement. While that is the case, and for completeness, the following table provides an assessment of PC9 against the Waikato Regional Policy Statement. This RPS does not apply to the Rotorua urban environment and therefore the below objectives and policies assessed are only those which are relevant to the rural changes which are limited to papakāinga amendments.

RPS Objectives and Policies	Comments
Relationship of tāngata whenua with the environment	
<p><b>Objective 3.9</b> The relationship of tāngata whenua with the environment is recognised and provided for, including:</p> <p>a) the use and enjoyment of natural and physical resources in accordance with tikanga Māori, including mātauranga Māori; and</p> <p>b) the role of tāngata whenua as kaitiaki.</p> <p><b>Policy 4.2 Collaborative approach</b> Waikato Regional Council will: a) recognise and provide for the unique role that territorial authorities have in the implementation of the provisions of the Waikato Regional Policy Statement; and b) encourage collaboration, participation and information sharing between resource management agencies, tāngata whenua and relevant stakeholders, particularly where there are shared or overlapping responsibilities or functions for issues or resources, and including when resources or issues cross boundaries.</p> <p><b>Policy 4.3 Tāngata whenau</b> Tāngata whenua are provided appropriate opportunities to express, maintain and enhance the relationship with their rohe through resource management and other local authority processes.</p> <p><b>Policy 6.1 Planned and co-ordinated subdivision, use and development</b> Subdivision, use and development of the built environment, including transport, occurs in a planned and co-ordinated manner which:</p> <p>a) has regard to the principles in section 6A;</p> <p>b) recognises and addresses potential cumulative effects of subdivision, use and development;</p>	<p>During the engagement hui undertaken as part of the Housing Supply Plan Change and the Future Development Strategy (FDS), there was clear feedback from iwi and hapū that the current district plan framework for papakāinga development has not delivered the level of housing that is required for the Rotorua district. The current provisions are also seen to present barriers and deterrents when iwi and hapū seek to establish papakāinga and kōeke housing on their whenua.</p> <p>PC9 includes proposed amendments to the rules for papakāinga in the General District Wide Matters (“GDWM”) Chapter of The District Plan. The proposed amendments are in accordance with section 80E of the RMA, which enables an intensification planning instrument to amend provisions to enable papakāinga housing in the district in both urban and rural areas.</p> <p>The proposed amendments include:</p> <ul style="list-style-type: none"> <li>• Deleting the performance standard that requires papakāinga to locate on land that adjoins or is adjacent to a Marae;</li> <li>• Amending the provisions to ensure that the framework for papakāinga in residential zones is in keeping with the MDRS and policy intent of the NPS-UD;</li> <li>• Introducing additional provisions to enable a greater density of papakāinga development in rural zones; and</li> <li>• Introducing additional performance standards to clarify the activity status, and appropriate scale and intensity of non-</li> </ul>

c) is based on sufficient information to allow assessment of the potential long-term effects of subdivision, use and development; and d) has regard to the existing built environment.

**Policy 6.4 Marae and Papākāinga**

To recognise the historical, cultural and social importance of marae and papakāinga and to provide for their ongoing use and development.

**Policy 10.1 Managing historic and cultural heritage**

Provide for the collaborative, consistent and integrated management of historic and cultural heritage resources. Improve understanding, information sharing and cooperative planning to manage or protect heritage resources across the region.

**Policy 10.2 Relationship of Māori to taonga**

Recognise and provide for the relationship of tāngata whenua and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga.

residential activities that form part of a papakāinga development in rural zones.

It is considered that PC9 gives effect to the Waikato Regional Policy Statement Objectives and Policy relating to the Relationship of Tāngata Whenua with the Environment.

## Appendix 6 – Iwi Management Plans

Under section 74(2A) of the RMA a territorial authority, when changing a district plan, must take into account any relevant planning document recognised by an iwi authority and lodged with the territorial authority.

A number of iwi and hapū management plans have been lodged with the Council. Under the RMA, these plans must be “taken into account when making changes to the District Plan. The Iwi Management Plans that Council has received are found below in *Table 1*.

Plan Change 9 is consistent with these plans which as a general theme seek to increase opportunities for housing for iwi and hapū and the development of papakāinga.

**Table 1: Iwi Management Plans to take into account for PC9.**

Iwi Management Plan Purpose and Aspirations
<p>He Mahere Pūtahitanga</p> <p><b>Plan Purpose</b></p> <p>The plan seeks to reconnect, restore balance and find better ways to live with the land - for ourselves and our tamariki and mokopuna for the Central North Island Iwi Collective (“CNI”). CNI is made up of Ngāi Tūhoe, Ngāti Tuwharetoa, Ngāti Whakauae, Ngāti Whare, Ngāti Manawa, Ngāti Rangitihi, Raukawa, and the Affiliate Te Arawa Iwi and Hapū. Together these groups have more than 100,000 members.</p> <p>The plan seeks for:</p> <ul style="list-style-type: none"> <li>• We (CNI) are visible; we are heard; and we are influential;</li> <li>• our relationship with our Treaty settlement lands is recognised.</li> <li>• We (CNI) collectively have fair access to development opportunities for our land in a way that promotes sustainable management (e.g. land use that reflects land use capability).</li> </ul> <p>This Plan relates specifically to land identified in Schedule 1 of the Central North Island Forests Land Collective Settlement Act 2008: 176,000 hectares of land located within the Central North Island. This is land that was historically confiscated or acquired by the Crown, in a manner inconsistent with the Treaty of Waitangi.</p> <p><b>Aspirations</b></p> <p><u>Development opportunities and equity</u></p> <ul style="list-style-type: none"> <li>• Pursue opportunities for better use of our Treaty Settlement Lands which: <ul style="list-style-type: none"> <li>○ Aligns with our Principles for Treaty Settlement Lands (p7).</li> <li>○ Creates opportunities for our people, including training and employment.</li> <li>○ Reduces risk (e.g. economic risk; biological risk; risk associated with natural events).</li> <li>○ Promotes the use of Mātauranga Māori, innovation and/or technology.</li> </ul> </li> <li>• Support and advocate for nutrient management using a natural capital approach, based on the productive capacity of the land, rather than using methods that favour those who have already developed.</li> </ul>

- Oppose nutrient discharge allocations based on grandparenting of historical nutrient discharges to land.
- Pursue opportunities for environmental offsetting.
- Regional Councils to include provisions within Regional Policy Statements to confirm how Treaty legislation should be addressed within resource management documents and processes. This includes enabling the outcomes that Treaty settlement redress is intended to achieve.

#### Recognition

- Councils to ensure that we are included in their Iwi contacts database, in accordance with s35A of the Resource Management Act, given that we are an Iwi Authority that was established via Treaty Settlement.
- Councils to ensure that the engagement principals and protocols outlined in Part Four of this Plan is followed.
- When preparing or changing a regional policy statement, regional plan or district plan, Council is to:
  - articulate in writing how this Iwi Planning Document has been taken into account.
  - provide a feedback loop with regard to our advice (e.g. feedback, submission) including changes made (or not), as a result of our advice.
- Councils to work with CNI to develop a shared understanding and pathway forward to strong working relationships. This may include, but not be limited to:
  - Memorandum of Understanding
  - Formal relationship agreement e.g. Mana Whakahono-ā-Rohe.

#### Rising Above The Mist- Te Aranga Ake I Te Taimahangatanga Ngāti Tahu-Ngāti Whāoa

##### **Plan Purpose**

The purpose of this plan is to identify environmental resources and issues within the Ngāti Tahu- Ngāti Whāoa rohe, and to guide the management of those resources from an iwi perspective. It is important because:

- It provides a 'road map' for identifying our environmental issues and how we will make positive change
- It informs and transfers knowledge from an iwi perspective
- External parties will consider this plan when reviewing their own plans, planning developments and carrying out work in the rohe.

##### **Environmental Management Aspirations**

- To begin the process of restoration: to see no further harm done to the environment in our lifetime, and to leave our taonga in better condition than when we received them
- To see resources managed in accordance with the tikanga of our iwi, to protect the mana and the tapu of the natural world
- To generate opportunities for the Ngāti Tahu-Ngāti Whāoa iwi, without development causing detriment to the environment • To see the iwi fully involved in caring for, learning about, and managing our taonga in an intergenerational way
- To see people enjoying places under our management, gaining insights into the relationship that Ngāti Tahu-Ngāti Whāoa have with the land and a better understanding of our history
- To establish good working relationships with others, where the mana of each party is respected, and the role of Ngāti Tahu-Ngāti Whāoa in terms of kaitiakitanga, rangatiratanga and mana whakahaere, is upheld and enacted.

*Mātauranga mō te katoa: Education for all*

Education and knowledge are key to managing our resources well. We believe it is important for members of the iwi of all ages to share in this learning. By identifying job and training opportunities and building the capability of our tamariki/ rangatahi they will be well prepared for mahi in the future. This value also applies to sharing knowledge across agencies to identify how best to care for our environment together.

*Kotahitanga: Unity*

Kotahitanga is about all working together – men and women, young and old - for the benefit of the whole iwi, now and in the future. Through this tautoko and manaakitanga we strengthen our bonds of whanaungatanga and whakapapa, and can stand strong as tangata whenua of the rohe. Kotahitanga refers to the rūnanga working alongside the land Trusts to share and support best practices. It is also the way we want to work collectively with others beyond our iwi –building robust relationships to advance the protection of the environment and its many values. This could involve collaborative approaches and projects to minimise pollution and restore the environment, for example working with councils, landowners, schools and the whole community

*Tino rangatiratanga: Self-governance*

Tino rangatiratanga refers to the iwi having and exercising authority over natural resources. Models and practices for managing resources will reflect who we are, and incorporate our tikanga. Our mana whenua will be upheld and respected. Our history and culture will be reflected with integrity.

*Whakapūmautanga: Sustainability*

A value we hold for our taonga is to see resources cared for, used and restored in a way that not only maintains them, but enhances them for future generations. We want to see expanding areas of native forest and wetlands, abundant kai and rongoā species, and flora and fauna in increasingly good health. For this to occur we need to have a holistic and long-term perspective, avoiding effects that will be irreversible and preserving opportunities for our mokopuna. We want to avoid the use of toxic substances where possible. We need to think and work in a way that recognises and reflects interconnections in the natural world, and respects the tapu and mauri of all beings and natural elements of the rohe.

*Te matauria ki te whai whiwhi ki ngā rawa taiao: Knowing and accessing resources*

We value having easy access to the resources of our rohe, so that we can make everyday use of our taonga tuku iho. We need to know what we have and what condition it is in. We want to be able to freely access and use our traditional ngāwhā, kai, rongoā and other resources. Development should not place any further constraints on iwi access to resources. We need flourishing and healthy mahinga kai so we can provide for our whānau, host manuwhiri and serve traditional kai at hākari. We need mobility so that we can reach our resources on land and on water. By direct involvement in using our resources and by taking part in projects and workshops, the iwi becomes reconnected to the whenua, with more awareness of our natural world and what it offers us as a people.

*Me whai pānga te iwi ki ngā huarahi māhorahora: Open processes that involve the iwi*

Transparent and open processes will create greater trust and understanding. We would like to model these processes and also see others do the same. This includes early consultation with us, in good faith, when changes or developments are first being considered. We ourselves want to make sure our rangatahi understand and become involved in managing resources, and we need to plan for succession in key roles in the iwi. We want to see cyclic processes where review feeds into further planning, and open communication and management processes create sustainable outcomes.

*Mā te tauira te tauhoutanga me te manukuratanga: Innovation and leadership by example*

This value reflects our desire to be leaders in environmental management. We want to innovate, and not be afraid to try new pathways. We value the leadership of our kaumātua. And we believe our young people, our rangatahi, are great innovators and we want to support their leadership also.

### **Plan Purpose**

The Ngāti Rangitihi iwi environmental management plan is a document with supporting maps and schedules to assist the iwi with managing natural and cultural resources of importance to Ngāti Rangitihi.

It is a written statement that consolidates Iwi knowledge on environmental matters at the present time and sets the policy framework and a range of aspirations and methods for achieving them. Whilst the environmental management plan is concerned with environmental and cultural resources, it is influenced by economic and social themes. This is a holistic approach to the wellbeing of the Ngāti Rangitihi community and its environment.

The purpose of this iwi management plan is to establish the identity of Ngāti Rangitihi and give weight to the special relationships that the Iwi has with the ancestral landscape, waters, sites and taonga. The ancestral, traditional, customary and contemporary interests of Ngāti Rangitihi cover a large area of water and land.

### **Aspirations**

Te Mana o Ngāti Rangitihi Trust has developed a set of overarching objectives relevant to this iwi environmental management plan. These are:

- The mana of Ngāti Rangitihi is upheld, developed and recognized
- The resources of Ngāti Rangitihi are identified and optimised
- The survival and growth of Ngāti Rangitihi is enabled, including its cultural, economic, social, spiritual, environmental and political survival and growth
- The whanau support networks of Ngāti Rangitihi are developed and maintained
- The self-reliance of Ngāti Rangitihi is enhanced

Te Rautaki Taiao a Raukawa- Raukawa Environmental Management Plan 2015

### **Plan Purpose**

The overall purpose of the Plan is two-fold. Firstly, the Plan provides a statement of Raukawa values, experiences, and aspirations pertaining to the use and management of our environment. Secondly, the Plan is a living and practical document that will assist Raukawa to proactively and effectively engage in and shape: current and future policy, planning processes, and resource management decisions.

### **Plan Aspirations**

- Water - We protect water bodies and their intrinsic right to exist.
- Land - The mana of our whenua as taonga tuku iho is recognised and evident within the contemporary takiwā, and is celebrated through our ongoing connection to our whenua, our stories and our mātauranga.
- Air - As skyfather, the role and importance of Ranginui is well understood by Raukawa uri, and is recorded in our kōrero and mātauranga.
- Wetlands - The historic loss of wetlands is being progressively reversed through ongoing re-establishment, and wetlands are again able to resume their role within our land and water systems, restoring their mana and place within our landscape.
- Cultural Landscapes - The Raukawa landscape and our taonga are valued and important contributors to district and regional heritage, identity, and sense of place, and provide a range of business and employment opportunities.

- Indigenous Plants and Animals - Raukawa uri are connected with their indigenous plant and animal species, and understand the cultural importance of these species. Raukawa relationship and knowledge frameworks capture our knowledge and make this information coherent, accessible, and relevant.
- Marae and Papakāinga - The mana and mauri of our marae are actively fed and maintained through our actions. Our papakāinga provide for hapū/whānau living, and nurture and support all life stages.
- Sustainable Living - Living as informed, responsible, and empowered kaitiaki, our reo, tikanga, kawa, taonga tuku iho, and mātauranga are valued, enhanced, and celebrated.
- Climate Change - Raukawa understand and proactively plan for the anticipated effects of climate change.
- Natural Hazards - Raukawa see that our kaitiaki and manaaki roles and responsibilities are key in the event of natural disasters and events occurring within our takiwā.
- Infrastructure - Within the Raukawa rohe, infrastructure developments and systems are well managed and supported to ensure the needs of our communities are met, whilst maintaining and enhancing the mana and mauri of the landscape/environment.
- Mining, Quarrying, Oil and Gas - Within the Raukawa takiwā, extractive industries are well managed and supported to ensure the cultural and environmental integrity of both the resource and the landscape are maintained and enhanced in all operations.
- Geothermal - The mauri and mana of these taonga are valued and enhanced. Raukawa mātauranga pertaining to geothermal resources is actively utilised in geothermal area protection, management, and utilisation, alongside western contemporary knowledge frameworks.
- Future Issues - Raukawa acknowledge and understand the concept of Te Ao Hurihuri, all in existence is in a constant state of motion. We believe the past provides firm and clear guidance for our tamariki/mokopuna in the future, however the future remains at all times unseen and unseeable.

#### Tapuika Environmental Management Plan 2014

##### **Plan purpose**

The Tapuika Environmental Management Plan (EMP) is an expression of:

- What we value
- What concerns us
- What outcomes we would like to see

The purpose of the Tapuika Environmental Management Plan is to:

- articulate our environmental issues, aspirations and priority actions
- guide Tapuika-led environmental projects
- enable more effective participation in Local and Central Government processes
- ensure that we are proactive, instead of reactive to environmental issues
- clarify our expectations with regards to consultation
- ensure that we work together to achieve positive outcomes



## **Priority issues of significance to Tapuika**

### *Tapuika land use and development*

There are opportunities to enhance Tapuika wellbeing associated with Māori Land, Commercial Redress Areas and Cultural Redress Sites.

### *Land use impacts on waterways*

Certain land uses and activities have an adverse effects on the health of our land, groundwater aquifers, rivers and streams. This affects our own health, wellbeing and way of life.

### *Cultural heritage/Wahi Tapu*

Sites of signficance to Tapuika are at risk of damage or destruction, particularly on private land.

### *Capacity building*

Currently, there is insufficient capacity and capability within:

- Tapuika to participate effectively in resource management processes.
- Councils to incorporate the interests and values of Tapuika into resource management processes and decisions.

### *Active involvement and participation*

There have barriers to the active involvement and participation of Tapuika in resource management processes and decision making.

### *Recognition of Tapuika values and interests*

There has been inadequate recognition and incorporation of Tapuika values and interests in freshwater management, particularly decision-making.

### *Sustainability of fish and shellfish stocks*

At times too much fish and shell fish are taken.

### *Air discharges*

Discharges from industrial processes, agricultural and horticultural operations can have an adverse impact on air quality and health, particularly near marae, kohanga reo, kura Kaupapa facilities and homes.

### *Opportunities for strategic relationships*

There are opportunities for collaboration to achieve positive outcomes for all.

### *Land use impacts on the coast*

Upstream land uses and activities have an adverse effect on the health of our coastal environment. Poor coastal water quality affects our health, wellbeing and way of life. At times, we are unable to gather food along the coast.

## **Aspirations**

### *Expected outcomes for water – Ngā Whāinga*

- Relationship of Tapuika with water is acknowledged
- Mauri of waterways is protected and enhanced
- Tapuika interests and values are reflected in freshwater management

- Tapuika is actively involved in resource management processes

*Expected outcomes for land – Ngā take mātua*

- Sites of Significance to Tapuika are recognised and protected
- Mauri of land and soil resources are enhanced
- Enable development of Tapuika Lands and access to customary resources
- Tapuika is actively involved in resource management processes

*Expected outcomes for air – Ngā whāinga*

- Mauri of air resources is valued and enhanced
- Tapuika is actively involved in resource management processes

*Expected outcomes for the coast – Ngā whāinga*

- Sites of Significance to Tapuika are recognised and protected
- Mauri of coastal resources is enhanced
- Tapuika leads by example regarding kōhi kaimoana practices
- Tapuika is actively involved in resource management processes

*Expected outcomes for people – Ngā whāinga*

- Tapuika is involved and empowered
- Tapuika values and interests are reflected in resource management decisions
- Greater collaboration for positive outcomes

*Expected outcomes for treaty settlements*

- Significance of Treaty Settlement Land is recognised
- Economic development opportunities with Commercial Redress Sites are explored
- The value and use of Cultural Redress sites and areas is enhanced

*Expected outcomes for scheduled sites of significance – Ngā whāinga*

- Recognition of importance and value of Scheduled Sites of Significance
- Physical and legal protection of Scheduled Sites of Significance

Ngāti Kea Ngāti Tūara Iwi Environmental Management Plan 2016

**Plan Purpose**

The purpose of this Iwi Environmental Management Plan is to introduce Ngāti Kea Ngāti Tuara and document our environmental goals and aspirations for the future. The Plan will also look at where we are today and what needs to be done to succeed in to the future. The basis for this plan is to express our rangatiratanga in order to exercise our kaitiaki roles and responsibilities within our rohe. It acknowledges and recognises the mana whenua of Ngāti Kea Ngāti Tuara and our

relationships with other entities. This is a living document and is inter-generational in acknowledging the past, providing relevance to the present and preparing us for the future.

## Aspirations

### Land

- The mauri of the land is restored, enhanced and protected for the future.
- As Ngāti Kea Ngāti Tuara restore and enhance the whenua we need to protect our native species and increase biodiversity of them all.
- Sites and areas of significance to Ngāti Kea Ngāti Tuara are protected.

### Water

- The health and wellbeing of our waterways is restored and enhanced so that:
  - Water is clean enough for mahinga kai, drinking and swimming
  - Freshwater fisheries and customary resources are protected
  - Waterways can be accessed for customary use e.g. food gathering o Riparian margins, wetlands, lakes and mahinga kai resources are protected and restored
- There is enough freshwater for drinking, land use, recreational and cultural use, while sustaining associated ecosystems.
- To protect, restore and eventually provide sustainable management of the unique fisheries within the Ngāti Kea Ngāti Tuara rohe.

### Geothermal

- Ngāti Kea Ngāti Tuara are actively involved in geothermal management and decision making.

## Nga Tikanga Whakahaere Taonga o Ngāti Pikiāo Whānui

### Key Policies

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Raupatu</li> <li>• Waahi Tapu – Uruapa</li> <li>• Taonga</li> <li>• Cultural Audit</li> <li>• Tribal Consultancies</li> <li>• Natural and Physical Resources</li> <li>• Land</li> <li>• Land Erosion</li> <li>• Water</li> <li>• Air</li> <li>• Parks and Reserves</li> <li>• Forest Resources</li> </ul> | <ul style="list-style-type: none"> <li>• Fishing – Traditional/Commercial</li> <li>• Property Development</li> <li>• Archaeological Investigation</li> <li>• Information and Research</li> <li>• Social Welfare</li> <li>• Health</li> <li>• Education</li> <li>• Housing</li> <li>• Employment</li> <li>• Justice</li> <li>• Taxation</li> <li>• Rates</li> <li>• Immigration</li> </ul> |
|--|---|

- Mining
- Nuclear Energy

- Iwi Business Development

### Plan Recommendation

- Housing and Papakāinga
  - Papakāinga developments should be encouraged as much as possible to enact the resettlement of our people as a matter of right, where this activity is been developed and a forum be established to facilitate discussion between the owners and the Council to enable the continuation of this development and any other development that may be effected in the future.
  - Papakāinga development should be considered a ‘permitted activity’ and not a discretionary activity in all zones because, of the undue restrictions p[placed on the development by Council rules. The time and added costs involved are not conducive to an expeditious, and the required outcome. It will be necessary therefore for submissions to be presented to Council to achieve this result.
  - Where contributions are to be made in respect of land used for this purpose Council should be made aware that this is a contradiction with the Treaty of Waitangi as such contributions for communal living on multiply owned Māori land should not be effected. Council should be made aware of this. If a submission is required then this should be done.

### Aspirations for relationships

- Policy Development
  - Determine relationships between and within ourselves in whanau, hapu, Iwi and other Māori groups and organisations.
  - Assist in the formation of non-negotiable baselines for the protection of our rights and resources.
  - Provide for unified position in the face of Crown action.

Te Tūāpapa o ngā Wai o Te Arawa - Te Arawa Cultural Values Framework - Te Arawa Lakes Trust

### Purpose

The purpose of this Framework is to provide a holistic and values-based foundation for the management of the Te Arawa Lakes and surrounding land. This has been achieved by identifying and articulating Te Arawa values, in a form that is easy to understand and apply. This Framework has been developed for Te Arawa and TALT, first and foremost. It has also been developed for Councils and the wider community

### Objectives

- Recognition of Treaty Settlement outcomes. This means that:
  - The legislative requirements associated with statutory acknowledgements are adhered to.
  - Protocol agreements are honoured, resulting in constructive and enduring working relationships.
- Progress towards a genuine Treaty partnership with local and central government. This means:
  - Te Arawa values, interests and intergenerational knowledge are reflected in central and local government plans, programmes, processes and decisions.
  - Working in a more focused and efficient manner.

- A working relationship that is genuine, collaborative and enduring.
- Agreed processes are in place to ensure effective working relationships between TALT and Te Arawa hapū and Iwi.
- Te mā o te wai e rite ana kia kite i ngā tapuwae ā te kōura. The quality of the water is such that you can see the foot steps of the kōura.
- Land and freshwater planning and management:
  - Affords greater priority to the natural limits of the Lakes; lands; and, freshwater that feeds into the Lakes.
  - Recognises the values and interests of mana whenua.
  - Recognises the intergenerational knowledge and experience of mana whenua.
  - Values the role of Te Arawa as a Treaty partner.
  - Values the role of TALT as Lakebed owner.
  - Encourages collective responsibility for the care and use of land and water.
- Restore and enhance the health and diversity of ecosystems and habitats in and around Te Arawa Lakes. This includes:
  - Enhancing and creating wetlands and Lake riparian habitats.
  - Enhancing ecological corridors within and across Lake catchments.
  - Enhancing mahinga kai / kai roto stocks.
- Take a targeted approach to improving the habitats in and around Te Arawa Lakes. This includes prioritising efforts in areas that are culturally significant to Te Arawa hapū and Iwi and/or have high ecological value.
- No further degradation or loss of wetlands and significant Lake riparian habitats around the Lakes and their catchments.
- Revitalise and utilise Te Arawa cultural knowledge and practices in relation to native fauna and flora.
- Reduce the risks and impacts of biological threats (e.g. disease and pests) on our Lakes, native flora and native fauna, through:
  - Surveillance monitoring.
  - Increased public awareness, particularly water users.
  - Continued management of existing threats.
  - Rapid response to new threats.
- Recognition of the culture and traditions of Te Arawa hapū and associated with their ancestral lands, water, sites, waahi tapu, and other taonga.
- Protection of Te Arawa cultural knowledge and practices from exploitation or inappropriate use.
- Enable Te Arawa hapū and iwi to:
  - Undertake cultural practices.
  - Reinstate traditional activities.
  - Strengthen and celebrate whakapapa connections in relation to the Lakes.
- TALT has an effective and enduring Resource Management Unit.

- Inspire and develop our next generation of hunga tiaki within resource and environmental management.
- Increased capacity and capability of TALT and Te Arawa hunga tiaki to:
  - Ensure Te Arawa values and interests are recognised and provided for by others, particularly Councils.
  - Influence positive outcomes for Te Arawa, our Lakes and taiao.
  - Enable more whānau members to be more actively involved in restoring the health and wellbeing of our Lakes and our taiao
- Te Arawa beneficiaries make up 50% of the team working on the Rotorua Te Arawa Lakes programme, at any time.
- Te Arawa whānau, hapū and iwi are prepared for, and resilient to, the effects of climate change on, and around the Te Arawa Lakes.
- Recognise and value Te Arawa intergenerational knowledge and experience living with natural hazards.
- Protect and honour sites, areas and landscapes of cultural significance located on, and around, Te Arawa Lakes.
- Recognise and celebrate Te Arawa cultural heritage and identity.
- Avoid Lake structures in culturally sensitive areas.
- Manage proliferation of structures on Te Arawa Lakes, particularly within high density areas.
- Enhance access to Te Arawa Lakes for recreation and cultural practices,
- Promote and provide for structures that:
  - Enable shared use.
  - Mitigate cultural, spiritual and/or cumulative impacts.
  - Are located and designed appropriately.
  - Are safe to use and not hazardous for cultural practices.
  - Provide multiple benefits e.g. ecological, recreational, cultural.
- Ensure that TALT is able to be financially sustainable and able to recover the cost of staff time and expertise to process resource consent applications and, where needed, prepare cultural impact assessments.

Ngāti Rangiwewehi Iwi Environmental Management Plan 2012

**Plan Goals**

- Cultural Wealth
- Spiritual Health
- Technologically Savvy
- Environmental Sustainability
- Political Enlightenment
- Legal Context

- Economic Viability
- Social Well-Being

### Plan Objectives

- Whenua: Lands and Areas of Significance
  - Land is protected and appropriate land use activities are encouraged.
  - Ecological corridors inter-connecting forest ecosystems are re-established
  - Places of significance and wāhi tapu are recognised and protected.
  - Habitat and natural resource restoration Wāhi tapu and cultural heritage protection Green technology is used where available and where feasible Sustainable land use is encouraged using three criteria (cultural, social and environmental).
  - Economic returns are assessed against tangible benefits to the surrounding community in general and Ngati Rangiwewehi in particular.
  - That land use activities that suit the land and climatic conditions are promoted (see Wai Maori Issues).
  - That livestock exclusion from waterways is encouraged (see Wai Maori Issues)
  - That all wetlands are protected.
  - The draining of wetlands will be opposed (see Wai Maori Issues).
  - That catchment-based integrated riparian management plans are promoted (see Wai Maori Issues).
  - That the ad-hoc use of chemicals or poisons near waterways are opposed (see Wai Maori Issues).
- Air: Nga Hau E Wha
  - Sites of significance as determined by Ngati Rangiwewehi are free from odour, noise, visual and other pollutants. ii. Ngati Rangiwewehi is proactively involved in the protection and management of the air resource, and participating in discussions locally, nationally and internationally on the impacts of climate change. iii. All energy sources are efficient and sustainable. iv. The life supporting capacity and mauri of air is maintained for future generations.

### Tuhourangi Tribal Authority- Enhanced Iwi Environment Resource Management Plan

#### Plan Purpose

The main focus for this report, is the current health of the Puarenga River and the overall catchment. The Puarenga catchment includes lands and streams that feed into the Puarenga River and ultimately into Lake Rotorua. Whilst the health of the land and waterways is not good, remedial action for restoration will also be included for consideration.

Changes in attitude are taking place from local councils and the days of passive participation and paternalistic consultation are coming to an end. For the benefit of future generations, it is incumbent on the writer, due to his experiences, that one must be prepared for political resistance from individuals and authorities whom may seek to obstruct the truth. It is envisaged that Tūhourangi will be at the forefront of cultural and societal development, as we always have been. For a large part of the wealth and strategic direction of Rotorua can be attributed to Tuhourangi Whanui. Building blocks for our present have been left from our tūpuna. Let us add to that foundation in a positive and proactive manner so that the blocks to be added in the future will be sure of their foundation.

## Aspirations

### Identify areas of immediate concern

As the demand for expansion increases within Rotorua, more pressure will be placed upon tribal lands, whether they are sites of cultural significance, or land pertinent to the Tūhourangi people. Areas for immediate consideration can be gauged by current resource consent applications lodged through the Environment Court. Consultation by applicants whose commercial interests lie within Tūhourangi boundaries has already occurred. For example, Red Stag Timber and Processing Plant have already engaged with TTA Trustees regarding a renewal of their Resource Consent Application to continue spraying treated effluent onto land that forms part of the wider TPT settlement. This is a work in progress. The total catchment of the Puarenga Basin, which includes a number of tributaries that all merge at the Hemo Gorge, is also identified as an area of immediate concern. As this river system flows past the village of Te Whakarewarewa, water and sediment quality has been a constant area of concern for Tūhourangi. Independent scientific monitoring of the catchment at regular intervals will provide the necessary information that will enable the TTA to provide informed recommendations to appropriate authorities, if required. It is paramount that Tūhourangi maintain a strong voice in matters that will affect the health and well-being of our lands and waterways moving forward into the future.

### Study of the Geothermal Field around the Whakarewarewa Village

Work is already underway in this field through GNS and it is envisaged that reports will be available to form part of the IMP. It must be noted however, that geothermal activity within Tūhourangi tribal boundaries is not limited to the valley of Te Whakarewarewa. Therefore, it is more than likely that geothermal research further afield may also occur and provision for more detailed exploration is a must for the TTA in order to sustainably manage such a resource. As the village of Te Whakarewarewa relies heavily upon geothermal activity, protection of this resource is of paramount importance to Tūhourangi and also the wider Rotorua community who also rely heavily upon the geothermal resource to entice tourists to our district. It is therefore in the best interests of all concerned, to not only being able to utilise this natural resource but to effectively manage and protect our ngāwha from overuse and exploitation. Partnerships with Government agencies and the TTA with workable memorandums will be the ideal outcome regarding the geothermal aspect of the IMP.

### Identify record and protect culturally significant sites:

From an historical point of view, there are many stories regarding the lives and movements of our ancestors. How they lived, what they did, and what they considered sacred is more often than not recorded through our songs and stories that were handed down through the generations, which we as Tūhourangi, continue to keep warm. In order to achieve the goal set out in this heading, it will be necessary to hui as a tribe in order to capture, in more detail, such important information. At least one hui a Iwi is planned for this specific kaupapa, with another pencilled in if considered necessary by the Project Manager. It may be that enough information is captured during the one hui, with follow up visits by a researcher to those Kuia/Kaumātua, identified with such knowledge to share. The information will then be collated, edited and included in the IMP.

### Identify and encourage the planning of riparian margins

The health of our waterways cannot be understated nor can poor water quality be ignored. It is acknowledged that a large number of riparian margins fall within lands that are private or administered by private land trusts or Māori land trusts. The TTA would first of all, like to encourage the planting of riparian margins on land that is administered through the various Government Departments that Tūhourangi have cultural connections to. Advice and guidance from BOPRC in relation to the implementation of this part of the IMP would be greatly appreciated. A timeframe to plan, action and complete this part of the task would be approximately six to eight months from September 2011.



**Plan Purpose**

The focus of this Plan is the health and wellbeing of the Waikato River. It is the river that links everything – not only the surrounding resources; the people that it sustains but also the past, the present and the future. This Plan advocates a more holistic and integrated approach to environmental management to reflect the Māori worldview of interconnectedness within, and between, the natural environment and ourselves. We all need to work together more, to take a shared interest in, and responsibility for, our environment. This Plan reflects the dual position of Te Arawa River Iwi – not only as protectors of the environment but also as land developers – for farming, forestry, power generation and tourism. While this is an environmentally-focused plan, one of the major drivers to change is our people – particularly our young people – getting them informed, engaged, involved, trained and empowered.

Te Taiao o Te Whatuoranganuku- The Environmental Resources of Whatuoranganuku - Ngāti Tamateatutahi- Ngāti Kawiti Hapū Environmental Management Plan

**Plan Purpose**

The basis for this plan is to express our rangātiratanga in order to exercise our kaitiaki roles and responsibilities within our rohe. It acknowledges and recognises the mana whenua of our hapū, our relationships through whakapapa with other hapū and iwi and our connection with other entities. This is a living document and is inter-generational in acknowledging the past, providing relevance to the present and preparing us as well as possible for our future. The plan articulates for local authorities the issues and aspirations of our physical and natural resources, providing guidance for the environmental sustainability of our hapū. This document will present local authorities with information for resource management and planning purposes by outlining environmental issues and opportunities of importance to Ngāti Tamateatutahi-Ngāti Kawiti. The plan affirms the mana whenua of our hapū, identifies our sites of significance and the intrinsic link with our Māori land entities. We are more than a general stakeholder or interest group. We are tangata whenua and a Treaty of Waitangi partner.

**Aspirations/Goals**

- Establish safe footpath access from Te Kura Kaupapa Māori o Te Rotoiti to Tamatea Street
- Continue and maintain our papakāinga land enhancement project
- Participate in decision-making and restore usage of traditional place names within the rohe
- Extend Wahanui urupa at Rotoehu
- Encourage māra kai on hapū land.
- Support local hapū to prepare iwi management plans
- Improve communication with key stakeholders
- Develop a hapū centre of excellence
- Improve hapū participation in resource management planning and development
- Sustainable development of geothermal resources
- Develop a marae emergency preparedness plan.
- Protect and enhance our whenua
- Build hapū capacity and capability
- Develop our natural resources sustainably

- Balance environmental and economic aspirations
- Manage hapū affairs to ensure the ongoing preservation of our land and cultural heritage.

#### Whakamarohitia ngā wai o Waikato (Te Arawa River Iwi Trust Environmental Plan 2021)

##### Plan Purpose

Te Arawa River Iwi Trust ('TARIT') has prepared this Environmental Plan ('Plan') to: articulate our strategic direction and supporting our affiliates in their role as kaitiaki of the Waikato River, its tributaries and the wider environment and to assert mana awa, mana whenua & mana whakahaere.

The focus of our Plan is the health and wellbeing of the Waikato River. It is the river that links everything – not only the surrounding resources; the people that it sustains but also the past, the present and the future. This Plan advocates a more holistic and integrated approach to environmental management to reflect our worldview of interconnectedness within, and between, the natural environment and ourselves. We all need to work together more, to take a shared interest in, and responsibility for, our environment. We all benefit if our land, rivers, streams and groundwater aquifers are healthy. This Plan also reflects the dual position of Te Arawa River Iwi – not only as protectors of the environment but also as land developers – for farming, forestry, power generation and tourism.

##### Plan Objectives

- Mana Tangata
  - Te Arawa River Iwi are provided with opportunities to be actively involved in resource management projects, processes and decisions relating to the Waikato River, its tributaries and environs.
  - The interests and values of Te Arawa River Iwi are acknowledged and reflected in resource management processes and decisions relating to the Waikato River, its tributaries and environs.
  - Te Arawa River Iwi are supported to lead, or be involved in, environmental projects relating to the Waikato River, its tributaries and environs.
  - Capacity is built within Te Arawa River Iwi in relation to resource management projects, processes and decisions.
- Mana Taiao
  - Te Mana o Te Wai is recognised in freshwater management, planning and decisions. This means that the:
    - a. first right to the water goes to the health of the waterbody; then,
    - b. second right to the water goes to the health of the environment; then,
    - c. third right to the water goes to the people.
  - An integrated and holistic approach is taken to restore and enhance the mauri of land, water and geothermal taonga to ensure that:
    - a. The health of the Waikato River, its tributaries and environs, including geothermal taonga, is not compromised as a result of land use and development.
    - b. The principle of interconnectedness or “ki uta ki tai” (from the mountains to the sea) is provided for.
    - c. Appropriate land use activities align with the capability of the land.
    - d. Water is clean enough for mahinga kai, drinking and swimming.

- e. Freshwater fisheries and customary resources are abundant and healthy.
  - f. Waterways can be accessed for customary use e.g. food gathering.
  - g. Ecological corridors for taonga bird and fish species are provided for.
  - h. Riparian margins, wetlands, lakes and mahinga kai resources are protected, restored and enhanced
- Mana Mātauranga
    - Te Arawa River Iwi feel connected to their ancestral lands and waterways.
    - Te Arawa River Iwi customary knowledge and practices are protected, revitalised and passed onto the next generation.
    - Sites, areas and landscapes of cultural significance to Te Arawa River Iwi are:
      - a. protected from land use and development.
      - b. protected from, and resilient to, natural hazards, disasters and a changing climate.

(Draft) Te Arawa Wellbeing Compass (Te Tatau o Te Arawa)

People flourishing across all measures of wellbeing is a priority of the Te Arawa 2050 Vision.

To help meet this priority, Te Tatau o Te Arawa, with AUT and the University of Canterbury as research partners, is producing a Te Arawa values-based model for housing created with the wellbeing of people, culture and the taiao at its core. The Mauri Ora Housing Development Wellbeing Compass is undergoing some tweaking to fit Te Arawa requirements.

# MAURI ORA HOUSING DEVELOPMENT WELLBEING COMPASS

TRANSITIONS TOWARDS:  
RENEWABLE ZERO-CARBON ENERGY  
REGENERATIVE ECOLOGICAL SYSTEMS  
CIRCULAR ECO-ECONOMIES  
COMMUNITY WELLBEING

## WHAKA-ORA: HOLISTIC WELLBEING ACTIONS

### KĀINGA-ORA: REGENERATIVE LIVING BUILDINGS & NEIGHBOURHOODS

- Local zero-carbon energy generation & storage, home &/or neighbourhood systems
- Living net zero or carbon-storing buildings with low-embodied carbon materials
- Mana whenua & wai: local living green & blue building systems (living roofs, rain gardens, composting toilets, rain water storage, grey & black water treatment)
- Energy efficiency
- Quality building envelopes & indoor moisture control
- Papakāinga, multi-generational living & co-housing
- Compact development
- Biophilic design
- Māra kai & rongoā, food commons, urban orchards
- Cultural landscape markers & signage
- Development protections (to support strategic aims, food commons, rain forest, & riparian habitats)

### WHENUA-ORA | WAI-ORA: GREEN & BLUE ECOSYSTEMS

- Mana whenua, mana wai – enhancing the agency of land and waters, cultural landscape restoration
- Ngāhere, greens & community infrastructure (papakāinga, barterbases)
- Ecological regeneration - whenua & wai (plants, microorganisms, insects, animals, lakes)
- Carbon sink infrastructures (carbon storage in living soil/plant systems, wetlands)
- Māra kai & rongoā, food commons (gardens & orchards)
- Blue-green infrastructure (cool infrastructure (parks & blue-green roofs), water control systems (park, wetlands & ponds), signage, urban water (rain gardens, permeable pavements, waterways))
- Regenerative agriculture

### PANEKE-ORA: ACTIVE & ZERO-CARBON MOBILITY

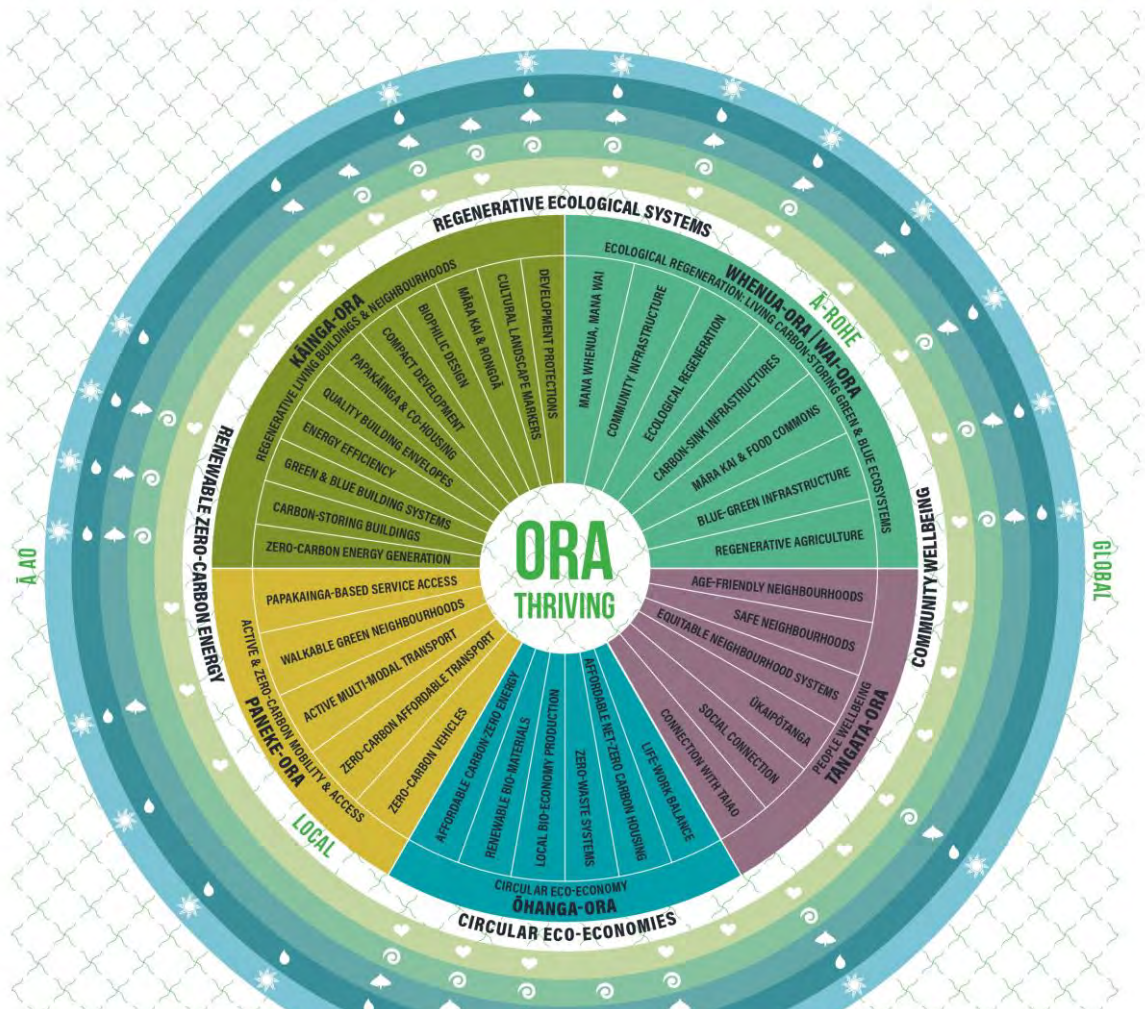
- Access to some papakāinga-based services
- Walkable, green neighbourhoods
- Active multi-modal transport
- Zero-carbon affordable public transport
- Zero-carbon vehicles

### ŌHANGA-ORA: CIRCULAR BIO-ECONOMY

- Affordable zero-carbon energy
- Renewable bio-materials, low-toxin & low-carbon materials
- Local bio-economy production
- Zero-waste systems (reuse, reuse design for disassembly, composting, recycling, upcycling)
- Affordable, net zero-carbon regenerative housing, energy, water, food
- Living wage & life-work balance (waka, tereaki, whānau)

### TANGATA-ORA: PEOPLE WELLBEING

- Biophilia & connection with taiao
- Social connection (papakāinga, marae, libraries, community gardens)
- Ōkaiapitanga – culture & cultural landscape connection
- Accessible, equitable neighbourhood systems: health, education, justice
- Neighbourhoods designed for safety
- Child-centred & age-friendly neighbourhoods





To: Rotorua Lakes Council  
From: Cam Wallace – Barker & Associates Limited  
Date: 8 July 2021  
Re: Method Statement – Accessibility & Demand Analysis – NPSUD Policy 5

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## 1.0 Introduction

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Barker & Associates (“**B&A**”) have been commissioned by Rotorua Lakes Council (“**RLC**”) to undertake an Accessibility & Demand Analysis to assist RLC in meeting its requirements as a Tier 2 local authority under Policy 5 of the National Policy Statement on Urban Development (“**NPSUD**”).

This document outlines the methodology used to undertake this analysis and provides a high-level summary of findings and recommendations for further work to assist RLC in meeting the broader requirements of the NPSUD.

## 2.0 Memo Structure

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The methodology utilised for the analysis is primarily based on the guidance as set out in the Ministry for the Environment guidance document “*Understanding and Implementing the Intensification Provisions for the National Policy Statement on Urban Development*”, published September 2020. Where B&A has access to additional information or more refined tools of analysis, these measures have been incorporated into the methodology.

The methodology is set out in four parts, being:

- (1) Policy Context;
- (2) Accessibility analysis;
- (3) Demand analysis;
- (4) Findings and next steps

The results of the analyses have been displayed in a map format using GIS software (ArcGIS) to enable visual interpretation of the data, comparison of areas, identification of areas for refinement and ground-truthing.

## 3.0 Policy Context

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### 3.1 National Policy Statement on Urban Development

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The NPSUD replaced the National Policy Statement on Urban Development Capacity 2016 (“**NPSUDC**”) and came into force on 20 August 2020. The NPSUD provides national direction under the Resource Management Act (“**RMA**”) and intends to improve the responsiveness and competitiveness of land and development markets. It requires local authorities to open-up more development capacity, so more homes can be built in response to demand.

Relevant objectives of the NPSUD which are useful in informing a methodology for undertaking an accessibility and demand analysis include:

**Objective 1:** *New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.*

**Objective 3:** *Regional policy statements and district plans enable more people to live in, and more businesses and community services to be located in, areas of an urban environment in which one or more of the following apply:*

- (a) *The area is in or near a centre zone or other area with many employment opportunities*
- (b) *The area is well-serviced by existing or planned public transport*
- (c) *There is high demand for housing or for business land in the area, relative to other areas within the urban environment.*

**Objective 8:** *New Zealand's urban environments:*

- (a) *Support reductions in greenhouse gas emissions*

Relevant policies of the NPSUD which are useful in informing a methodology for undertaking an accessibility and demand analysis include:

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

- (c) *have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; ...*
- (e) *support reductions in greenhouse gas emissions ...*

**Policy 5:** *Regional policy statements and district plans applying to tier 2 and 3 urban environments enable heights and density of urban form commensurate with the greater of:*

- (a) *the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services;*
- (b) *or relative demand for housing and business use in that location.*

Policy 5 must apply to the entire urban area.

## 4.0 Study Area

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The study area for this work is based on the boundaries of the Rotorua (functional) urban area as defined by Statistics New Zealand and shown in Figure 1 overleaf. This area includes aggregations of a number of smaller statistical areas (SA1, SA2 and meshblocks). These statistical boundaries are generally well aligned with the zoned urban area of Rotorua (e.g. residential, industrial) and allows for easy interpretation of census data relevant to any assessment of accessibility or demand.





Figure 1 - Rotorua Urban Area

## 5.0 Accessibility Analysis

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In order to demonstrate compliance with Policy 5(a) of the NPSUD, it is necessary to determine the ‘level of accessibility’ for any given area across the entire Rotorua urban area. A high-level desktop review of approaches was undertaken to help inform this analysis.

Although reference to some form of accessibility analysis to help inform the plan development process under the RMA is new, accessibility analysis (or accessibility planning) is a well-established concept in both New Zealand and overseas for a range of similar purposes. Waka Kotahi defines ‘accessibility planning’ as:<sup>1</sup>

*“a structured process for the assessment of, and planning for, accessibility. It uses quantitative and qualitative data and employs tools such as geographical information systems to systematically assess a range of accessibility related information, including origins, the location and delivery of*

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<sup>1</sup> Chapman & Weir (2008) NZ Transport Agency Research Report 363 ‘Accessibility Planning Methods’



*key activities and the transport links to and from them, and assist in the development of a set of accessibility indicators.”*

Well-established overseas examples of accessibility analysis include Transport for London’s (“TfL”), Public Transport Access Level (“PTAL”) and Access to Opportunities and Services (“ATOS”) measures. PTAL rates a selected place based on how close it is to public transport and how frequent services are in the area, while ATOS attempts to indicate how easy it is to access essential key services and employment locations, using public transport or by foot. Both measures provide a simple ranking system based on overlapping walking and public transport catchment analysis to enable an understanding of relative levels of accessibility across the Greater London area. Example of outputs of this type of analysis are provided below.



**Figure 2 - ATOS scores for secondary school access in London, U.K.**

Based on an assessment of approaches to accessibility analysis, accessibility can most easily be defined as your ability to go places so that you can do things. The assessment of this is strongly driven by data (e.g. census, GIS) and is based on two key components:

- (1) the transport network serving any urban area (the how we travel); and
- (2) the spatial distribution and location of activities or destinations (the why we travel).

Based on this, determination of an area’s ‘level of accessibility’ needs to be informed by how many destinations can be accessed within a given time frame.

## 5.1 Transport Network

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The first step in measuring accessibility involves defining the transport network that contributes to accessibility. The general focus of the policy framework of the NPSUD is on travel via active or public transport which for Rotorua includes the bus network, cycle network and walking network.

It is important to note that this policy framework does not explicitly exclude accessibility via private motor vehicles. However, in the Rotorua context, which is a relatively compact urban area unencumbered by significant congestion issues, access to goods and services via private vehicle is relatively easy from everywhere. Combined with the NPSUD objectives and policies seeking to support a reduction in greenhouse gas emissions, detailed consideration of accessibility via private vehicle is not considered necessary or appropriate.

In terms of the other elements of the active and public transport network, it is considered that consideration of the walking network should form the primary driver for an accessibility analysis for the Rotorua urban area. Instead, cycling and public transport (and access to these networks) should form a sub-set of a wider accessibility analysis focused on the walking network. This is considered appropriate as:

- The compact nature of the Rotorua urban area means goods and services are all easily accessible within relatively short timeframes via either cycle or public transport.
- For cyclists, assuming an average travel time of 12km/hr (which is at the slower end of typical cyclist speeds) the entirety of the study area could be traversed within a 1-hour journey time. In reality, journey times are likely to be shorter for the majority of cycling trips with the City Centre and most major destinations within a 30-minute cycle from anywhere in the study area.
- The extent of the cycling network to include within any analysis should be limited to any existing or planned separated cycleways and shared paths. This is because the on-road facilities (e.g. a painted lane on a busy road) provide a limited degree of access for the general population by cycling due to perceived and real safety issues. In addition, these should form an integrated network that is able to connect residential areas with multiple commercial and community destinations (i.e. short runs of segregated facilities that are isolated from the wider network and where there are no funded/ planned extensions provide limited accessibility (and safety) benefits.
- For public transport, the Rotorua bus network comprises 11 different radial routes between the City Centre and outlying neighborhoods all of which run on 30-minute frequencies. There are no cross-town or orbital routes within the network. As such, access via public transport is considered to be relatively constant across the entire urban area with the only difference being shorter journey times for those that live/ work closer to the City Centre.

As such, the accessibility analysis set out further within Section 5.0 of this memo is based on a consideration of the walking network and walking catchments.

### 5.1.1 Walking Catchments

Walking catchments (also referred to as pedestrian catchments) represent the distance that people can walk over a given time period. Although walking catchments are only specifically referred to under Policy 3 which only applies to Tier 1 urban areas, the use of walking catchments as a key metric in understanding the level of accessibility for any given area has been utilised for this work.

Accordingly, there is a need to establish the walking catchments that should apply for an accessibility analysis of the Rotorua urban area. NPSUD Guidance<sup>2</sup> notes that not all places are equal and different locations with different characteristics may often have different-sized walkable catchments. A general approach adopting 400m/800m catchments (equivalent to a 5 or 10-minute walk) as a starting point is consistent with standard national and international practice. However, consideration also needs to be given to how far people walk and what types of destinations they are walking to for higher values amenities (e.g. a City Centre).

The New Zealand Household Travel Survey 2015-2018 identifies 12 minutes (equivalent to around 1km) is the average trip leg for pedestrians. A trip leg is a single leg of a journey between two stops, with no stops or changes in travel mode. While the New Zealand Household Travel Survey does not currently record distances for walking trips (only times), based on a walking speed of 12 minutes per kilometre, it demonstrates that 70% of our walking trips are for distances of under 1km, while 30% are likely to involve longer distances. However, this research also indicates that journeys undertaken solely on foot tend to be longer in duration, with 34% lasting for more than 12 minutes compared to only 15% of walking trips undertaken as part of ‘multi-mode’ journeys. Further walk-only trips are more likely to occur for education, social/leisure or shopping purposes, and less likely to occur for work purposes<sup>3</sup>. There is some supporting evidence of these observations. For example, New Zealand research has shown that the likelihood for walking to school drops off significantly at a distance of between 1.4 and 2km<sup>4</sup>.

Based on the above, the approach to undertaking an accessibility analysis for the Rotorua urban area will be based on a bespoke catchment analysis of key destinations and activities. An example of this approach based on research undertaken by Auckland Transport is shown in Figure 3 below. A summary of the destinations identified for Rotorua and applicable catchments considered is set out in Section 5.2 overleaf.



**Figure 3 - Acceptable Walking Times to Destinations (Auckland Transport)**

<sup>2</sup> MfE (2020) *Understanding and implementing intensification provisions of the NPSUD*

<sup>3</sup> <https://www.nzta.govt.nz/resources/nz-pedestrian-profile/5/>

<sup>4</sup> Ikeda et al., (2018) *Built environment associates of active school travel in New Zealand children and youth: A systematic meta-analysis using individual participant data*

## 5.2 Destinations

The NPSUD policy framework and guidance provides an outline of the destinations which need to be considered when seeking to establish a ‘level of accessibility’. This includes jobs, commercial services, community services, natural spaces, and open spaces.

NPSUD guidance states that commercial activities include those that serve the needs of the community (e.g. shops) and provide people with employment. Community services include health care, education (including universities and tertiary training institutes), cultural activities (e.g. churches) and land or venues for sport and recreation. A ‘range’ of services, as required by NPSUD Policy 5(a) should be thought of as a variety of commercial and community services that serve the needs of the catchment when implementing this policy. For example, a doctor and/or pharmacy, school and/or kindergarten and a café and shops would be considered as providing a range of services.

An initial long-list of destinations that should be included in an accessibility analysis was identified and discussed with RLC officers. Data for these destinations was obtained from a variety of sources and is set out within Attachment 1 of this memo. Following this, a review of destinations was undertaken by both B&A and RLC staff to determine the appropriateness and validity of this information. A workshop was also undertaken with RLC officers to get an understanding of the potential prioritisation of particular destination types. This enabled an understanding of those destinations that were considered most important in getting an understanding of an area’s level of accessibility.

Based on this review of destinations and workshop with staff, the destinations, along with their prioritisation and catchment extents were derived to form the basis of the accessibility analysis. For identified destinations, up to two separate catchments are identified (e.g. 400m and 800m). This is to reflect that all those who live within the largest catchment benefit from general proximity to the destination, however living within a 400m catchment of a primary school vs an 800m catchment clearly provides a greater level of accessibility to that particular destination and should be afforded a greater weighting. A summary of destinations and their associated catchments is set out in Tables 1 to 3 below.

**Table 1 – First Order Destination Catchment and Weighting**

Destination	Catchment 1	Catchment 1 Weighting	Catchment 2	Catchment 2 Weighting
City Centre	800m	4	1600m	2
Major Employment Nodes <sup>^</sup>	Areas where 80% of all jobs in Rotorua are within a 30-minute walk		4	
Primary School	400m	3	800m	1
Secondary School	800m	3	1600m	1
Large Supermarket	400m	4	800m	2
Major Open Space <sup>*</sup>	500m	3	1000m	1
Medical Centre	400m	2	800m	1

<sup>^</sup> “Catchments” for major employment nodes are based on proximity between the centroids of meshblocks as defined by Stats NZ.

<sup>\*</sup>Major open spaces are not a defined term in any Council strategy. They have been based on an assessment where a single, large open space, which combines a sportsfield(s), playground and general reserve area (e.g. passive or ecological area). An example of this is Kuirau Park in central Rotorua.

**Table 2 - Second Order Destination Catchment and Weighting**

Destination	Catchment 1	Catchment 1 Weighting	Catchment 2	Catchment 2 Weighting
Commercial Centres <sup>^</sup>	400m	3	800m	1
Small supermarkets/ Superettes	400m	2	-	-
Library	800m	2	1600m	1
Marae	800m	2	-	-
Frequent Bus Stop	400m	3	-	-
Segregated Cycling Network	100m	4	-	-

<sup>^</sup> Refer to Attachment 2

**Table 3 - Third Order Destination Catchment and Weighting**

Destination	Catchment 1	Catchment 1 Weighting	Catchment 2	Catchment 2 Weighting
Early Childhood Education	400m	1	800m	1
Tertiary Education	800m	1	1600m	1
Pharmacy	400m	1	800m	1
Public hospital	800m	1	1200m	1
Plunket	400m	1	800m	1
Religious facility	400m	1	800m	1
Neighbourhood Centre	400m	1	-	-
Bus stop	200m	1	400m	1
Playground	500m	1	-	-
Open Space/ Reserve	500m	1	-	-
Sportsfield	500m	1	1000m	1

### 5.3 Barriers to Walkability

In establishing walking catchments, it is necessary to consider contextual factors that may impact on the distance one can walk. Factors which can impact on how far people are willing to walk include: the quality of the street environment and surrounding built environment; appropriate provision of infrastructure (e.g. street lighting, footpath widths, safe crossing points); traffic volumes, general perceptions of safety and topography.



### 5.3.1 Transport Severance

Major roads (e.g. State Highways) with high traffic volumes and limited safe crossing opportunities can act as a barrier to walkability and reduce the effective walking catchment of individuals due to time lost waiting to cross. To assess potential transport severance, annual average daily traffic counts (“AADT”) at major intersections and Waka Kotahi’s Crash Analysis System (“CAS”) were analysed.

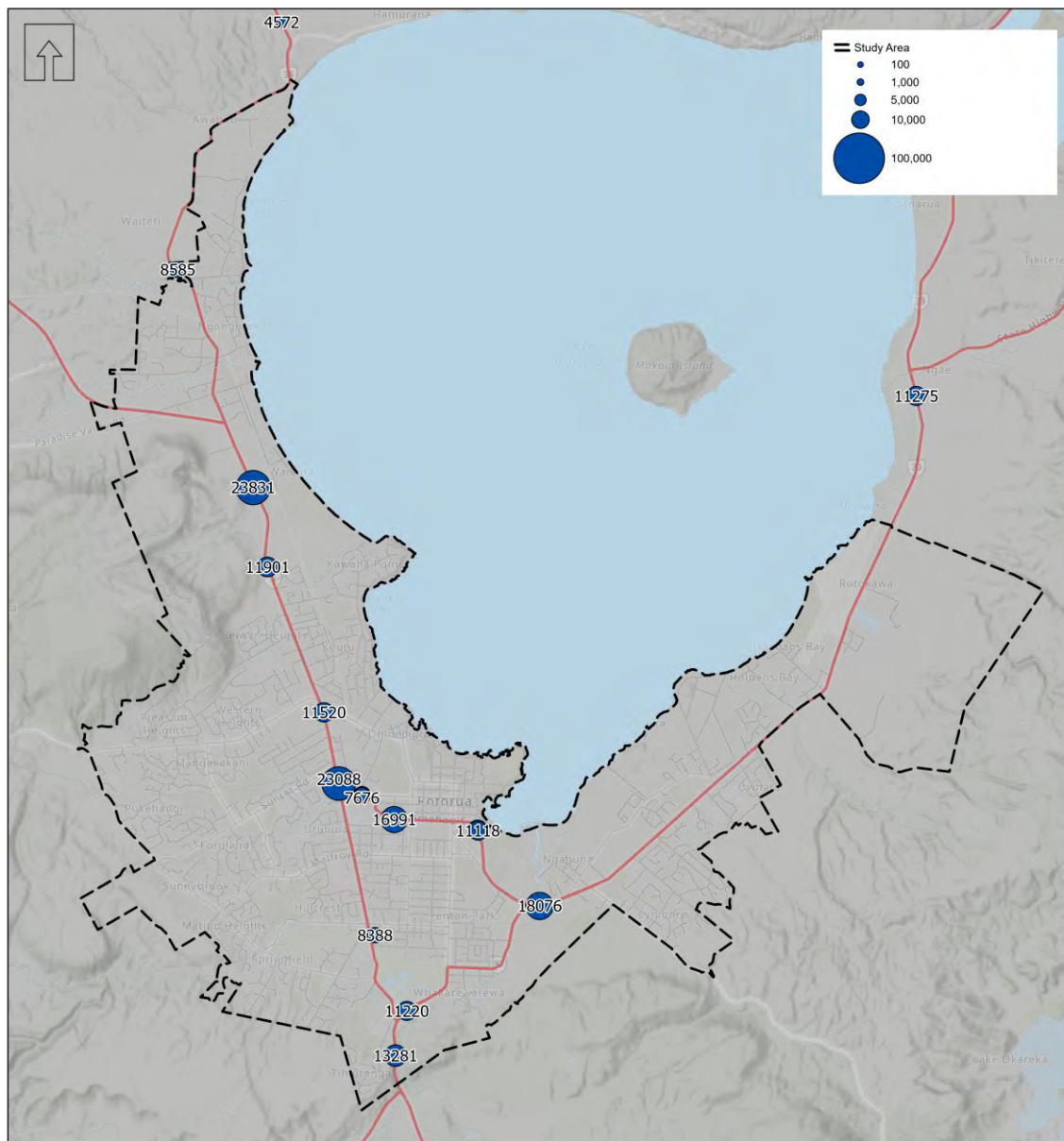
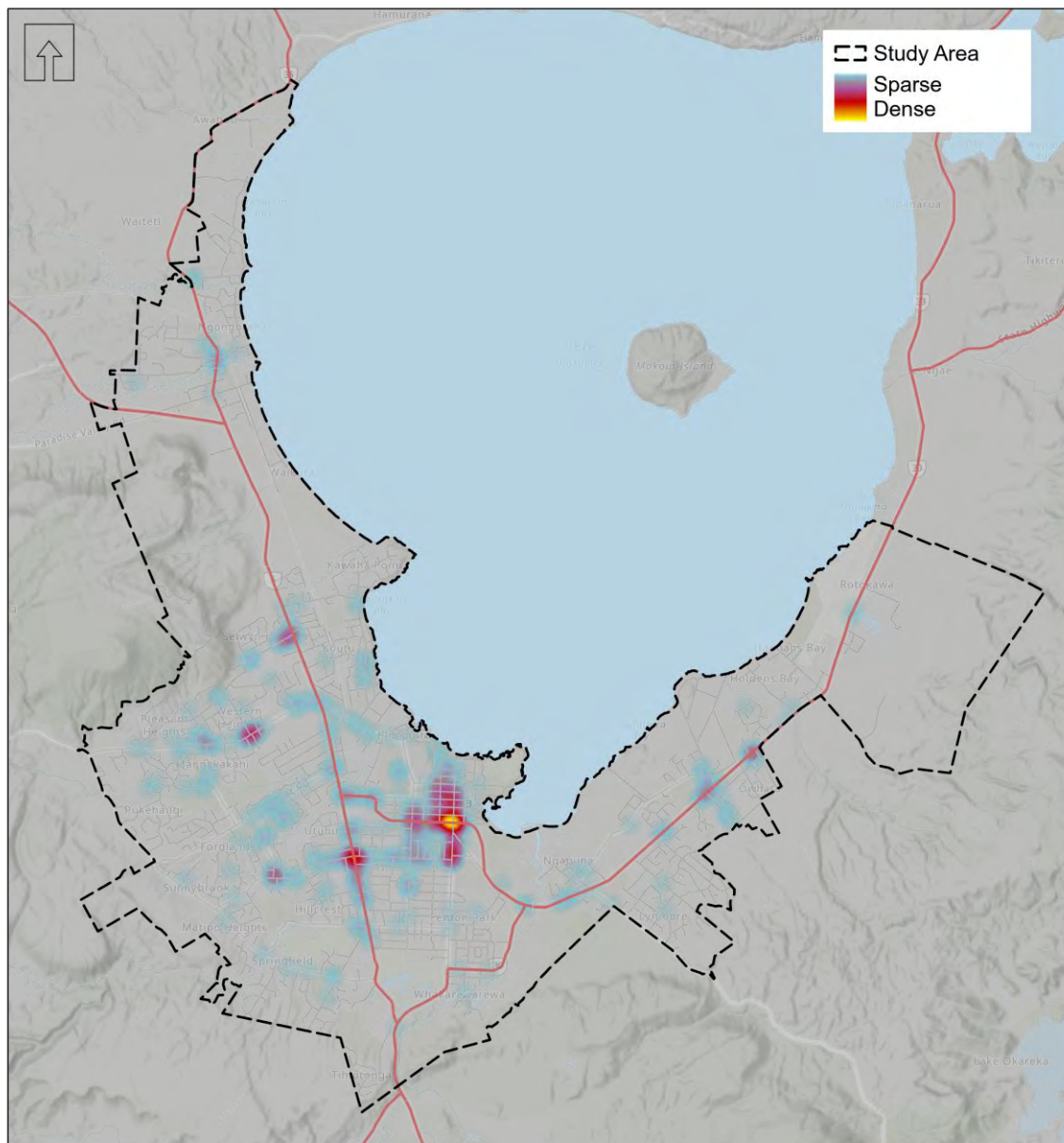
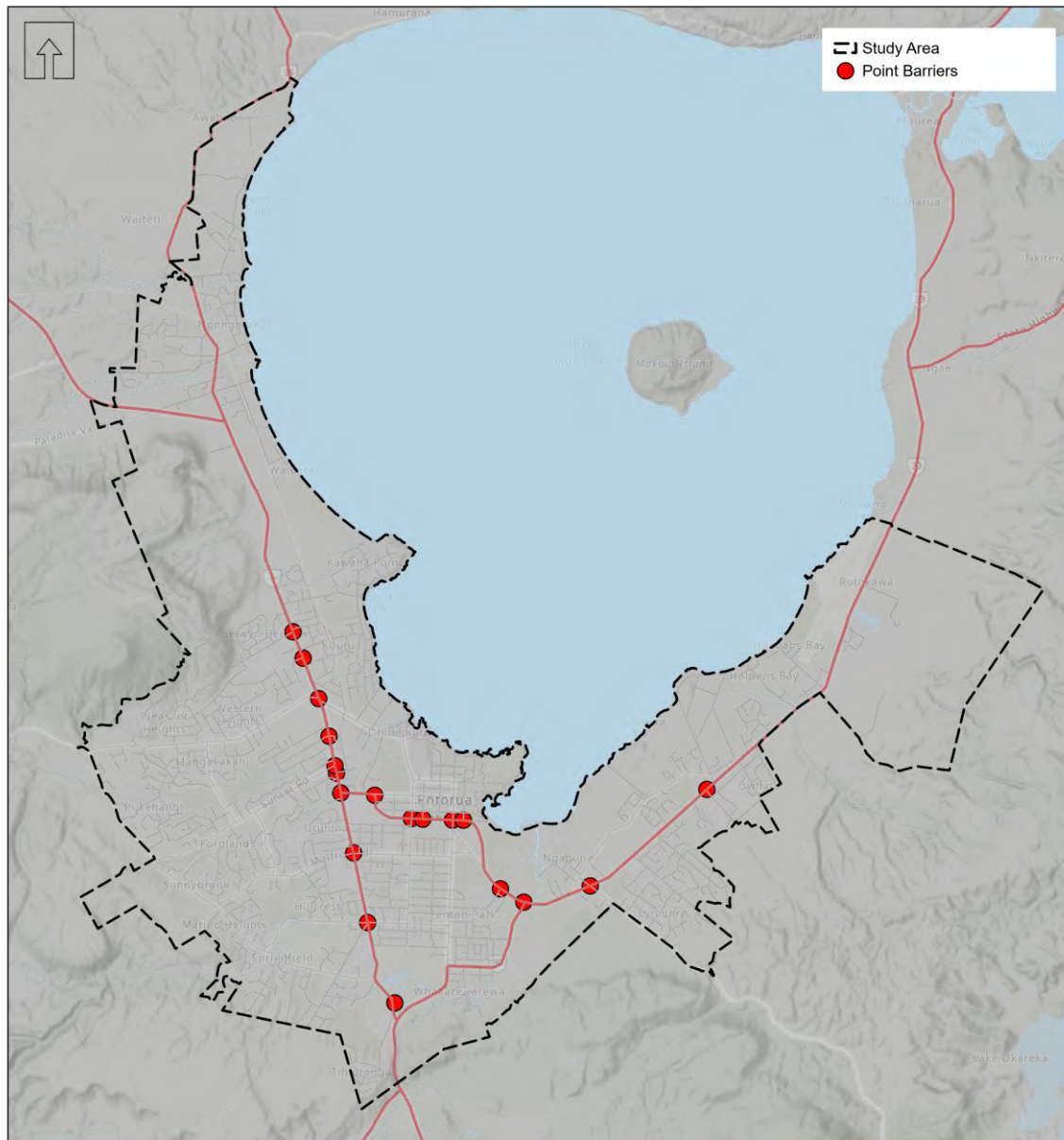


Figure 4 - AADT Data for Rotorua's State Highway Network



**Figure 5 - AADT (left) and Pedestrian CAS Summary (right)**

Figure 4 and Figure 5 identifies summary outputs of this data. These images provide an indication of where traffic volumes are at their highest as well as areas where pedestrians are more likely to be involved in recorded collisions. An increased frequency of collisions is generally expected around a City Centre and other smaller centre environments as shown above due to larger volumes of pedestrians. However, the location of incidents near or around the State Highway network provides a general indication that there are some real barriers or constraints to walkability at major intersections along State Highways 5, 30 and 30A. In addition, these routes are important inter-regional connections and carry a high proportion of freight traffic. Based on this data, a number of barriers to walking catchments have been identified and are shown on Figure 6 overleaf. These barriers create a ‘time penalty’ in the catchment analysis reflecting an increased difficulty to cross. For simplicity a uniform penalty of 75-seconds/ 100m was applied at each of these barriers. This results in a slight reduction of catchment extent from individual destinations where any resulting journeys are required to cross this barrier (e.g. a 400m catchment is reduced to 300m).



**Figure 6 - Walking Catchment Barriers**

### 5.3.2 Slope Analysis

A slope analysis was undertaken to understand whether local topographic conditions could form a notable barrier to how easily (or how far) people can walk within a given period of time. Using contour data sourced from RLC’s online GIS platform (Geyser View), a slope analysis was generated. This analysis divides the slope of land up into five categories based on the average gradient in percentage terms:

- Flat/ gentle (under 5%)
- Moderate (between 5-12.5%)
- Strongly rolling (between 12.5-20%)
- Steep (between 20-30%)
- Very Steep (over 30%).

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Figure 7 shows the output of this analysis. Generally speaking, the vast majority of the Rotorua urban area sits on land that can be classified as either flat or gently sloping. Flat or gently sloping land is not considered to give rise to any walkability issues, including for those with mobility issues. There are some areas with more severe slope throughout but these are aligned with stream networks which already form natural barriers to movement and is reflected in the existing transport network. There are some larger areas of moderately sloping land around the periphery of Rotorua in Western Heights, Springfield, Lynmore and Ōwhata. The more extreme slopes which would likely pose a significant barrier to walkability are generally on the periphery of the urban area on reserve land. Overall, it is our opinion that the nature of topography across the Rotorua urban area is well suited to support active travel and does not give rise to any circumstances where walking catchments can or should be reduced as part of the wider accessibility analysis.

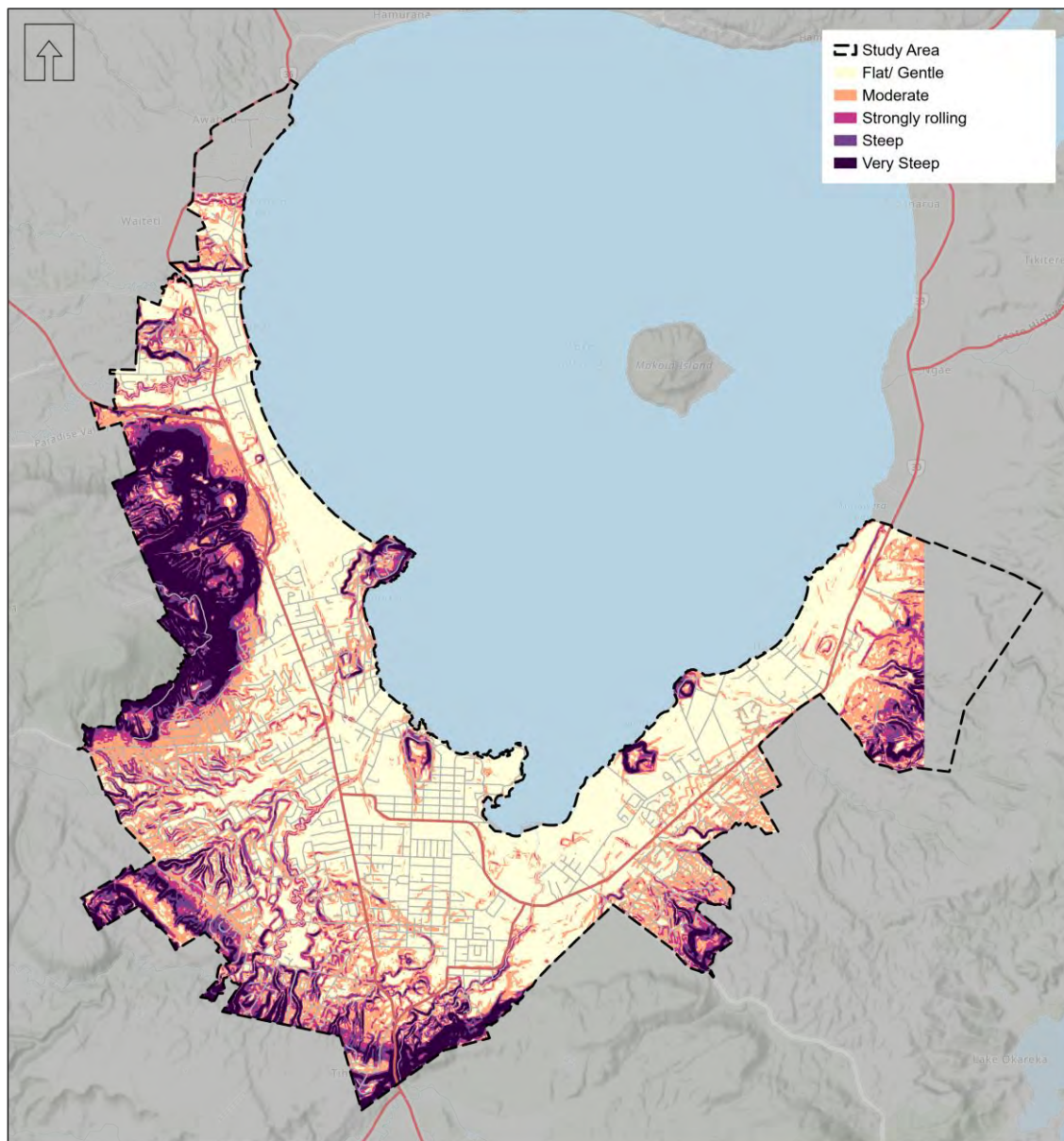


Figure 7 - Slope Analysis

## 5.4 Catchment Analysis

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Section 5.4 provides a brief analysis and discussion of the various destination types identified in Tables 1 - 3.

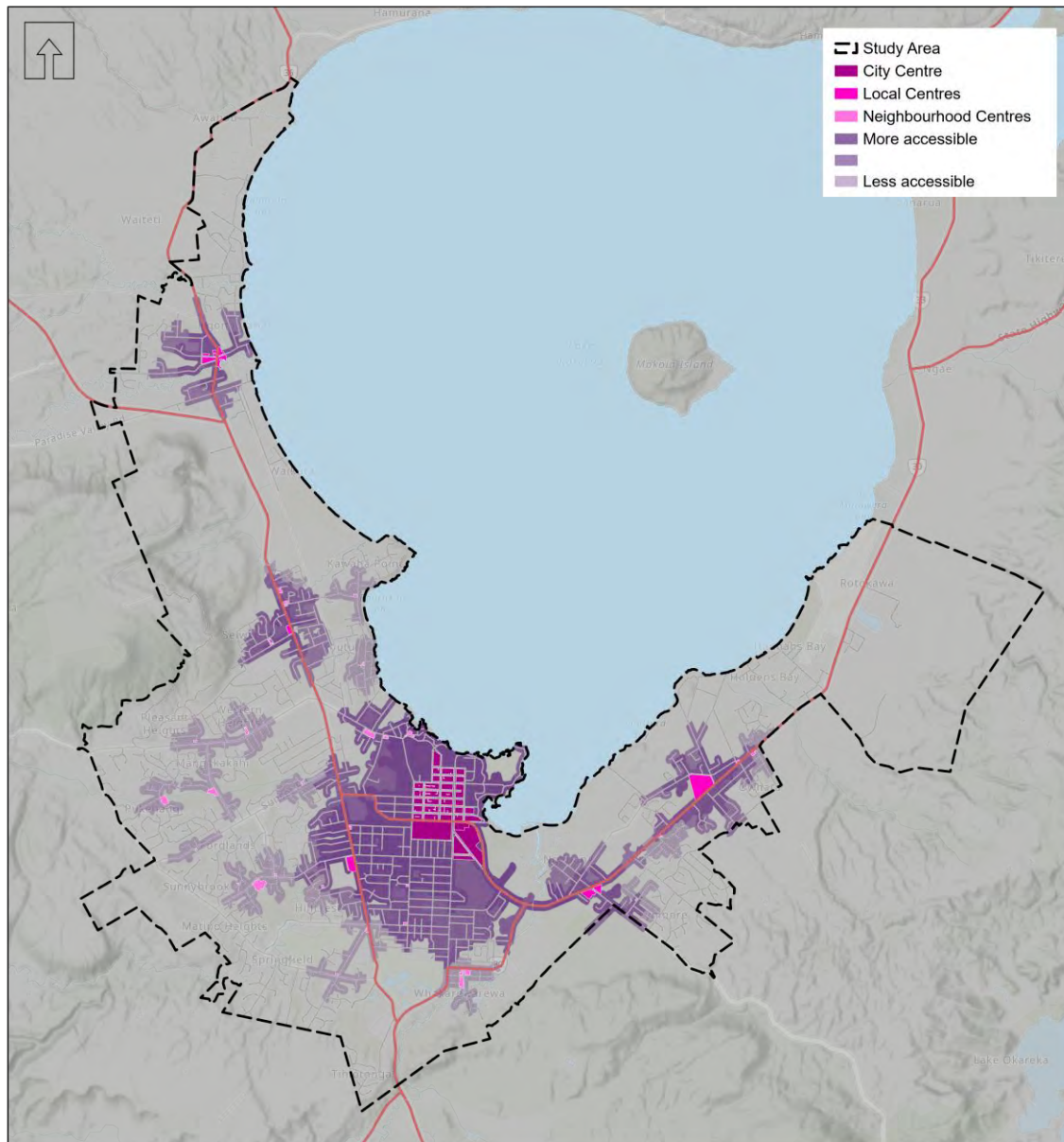
### 5.4.1 Commercial Centres

RLC staff identified four categories of commercial centres which could be considered as part of this analysis. The City Centre, Ngongotahā, Local Centres and Neighbourhood Centres. Although closely aligned, these are not existing classifications under the Operative District Plan and it is understood that these are based on RLC's current understanding of how the centres hierarchy is functioning. This understanding is broadly based on the existing commercial zonings but recognising that the function of some commercial areas differs from the zoning. A summary of these centres is set out in Attachment 2 of this memo.

During a desktop review of each of the main centres (City, Ngongotahā and Local) it was considered that the centre at Ngongotahā served a similar role and function as other local centres (e.g. Ōwhata) within the urban area. As such, three sets of catchments covering the City Centre, Local Centres and Neighbourhood Centres were developed from the edge of the proposed centre zone extent. A description of these centres is provided below.

- **City Centre** – The City Centre features the densest concentration of employment and retail activity within Rotorua and also contains a number of significant civic and community uses (e.g. Council offices).
- **Local Centres** – These centres serve a wider sub-city catchment and feature a range of commercial and community services. At a minimum this includes a supermarket and/or a concentration of food retail (e.g. butcher and greengrocer). Local centres also typically feature a range of commercial services along with general retail spaces for a wider variety of products than a Neighbourhood Centre. Local centres include Ngongotahā, Ōwhata, Lynmore, Fairy Springs and Westend.
- **Neighbourhood Centres** – These centres are typically small scale and serve the immediate needs of the surrounding (often residential) community. In most instances Neighbourhood Centres represent a small group of shops containing a limited number of commercial services such as a café, takeaways and dairy. An example can be seen on the corner of Ranolf and Devon Streets.

Catchments for these proposed centres are shown in Figure 8 overleaf.



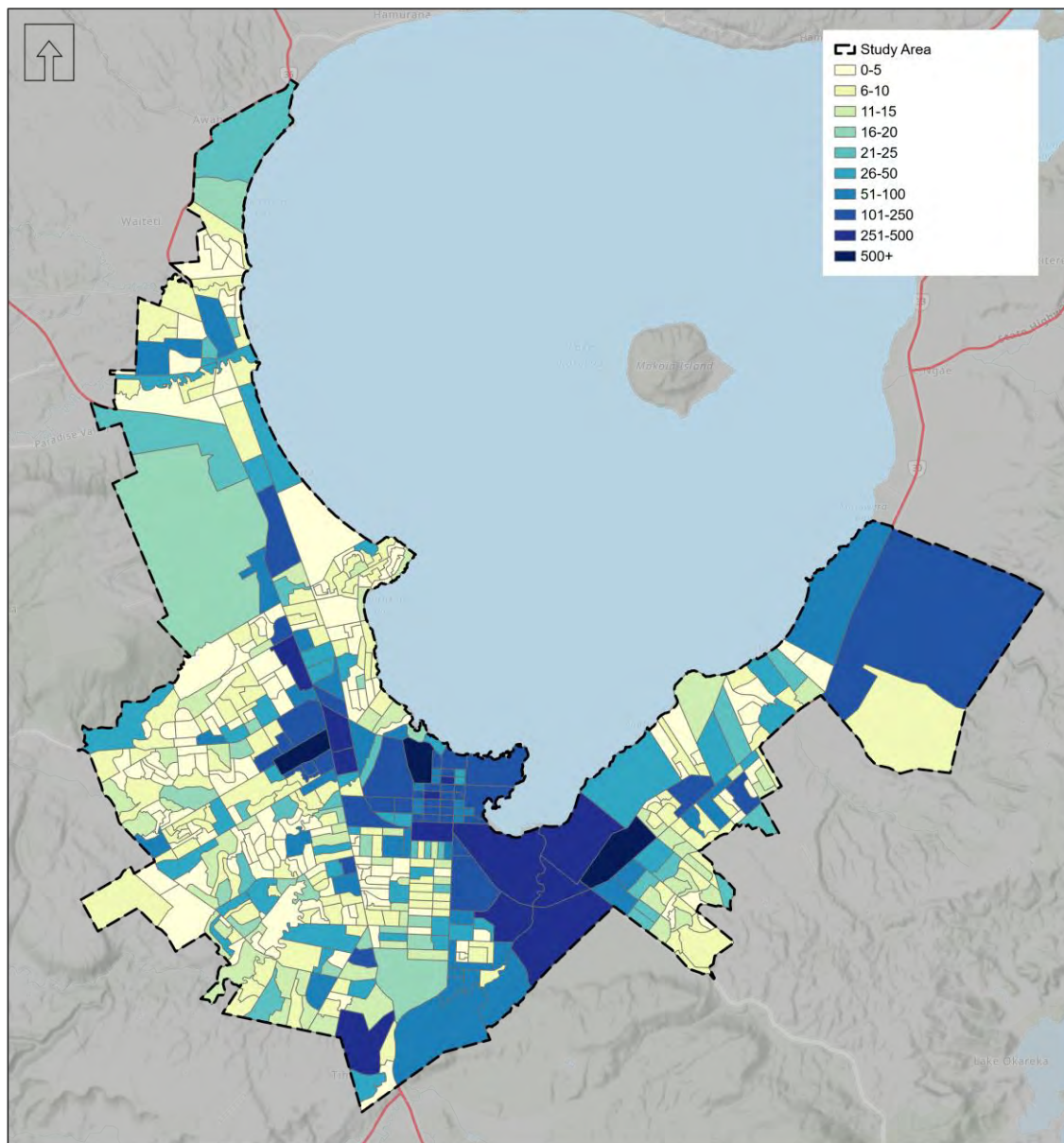
**Figure 8 - Commercial Centres Accessibility Summary**

Catchments of 800m and 1600m from the City Centre zones were identified (equivalent to a 10 and 20-minute walk). A larger catchment was considered appropriate from the City Centre due to the concentration and range of activities available. This is reflective of its function as a service centre for the wider district. Catchments of 400m and 800m from local centres were also identified (equivalent to a 5 and 10-minute walk). These local centres typically feature a supermarket (or superette) with a number of other supporting convenience retail and services such as banks and takeaways. Finally, a 400m/ 5-minute catchment from neighbourhood centres was also assessed. This was given a low weighting but acknowledges that these areas can perform an important role for local communities in providing smaller scale convenience retail (e.g. dairy) within a closer proximity from other larger centres within the urban area. When combined with other services and facilities these can have some contribution towards an area's level of accessibility.



### 5.4.2 Employment Nodes

Major employment nodes within the urban area were identified based on data from the 2018 Census. Figure 9 identifies total employment counts per meshblock<sup>5</sup> whilst the image on the right identifies the total number of jobs available within a 30-minute walk broken down into quintiles<sup>6</sup>. The catchments for this matter differ from all others in that they are derived based on the distance from the centroid of individual meshblocks to the next. This is because the data available for employment locations has been derived from the 2018 Census with meshblocks forming the smallest statistical area for which this data is collected.

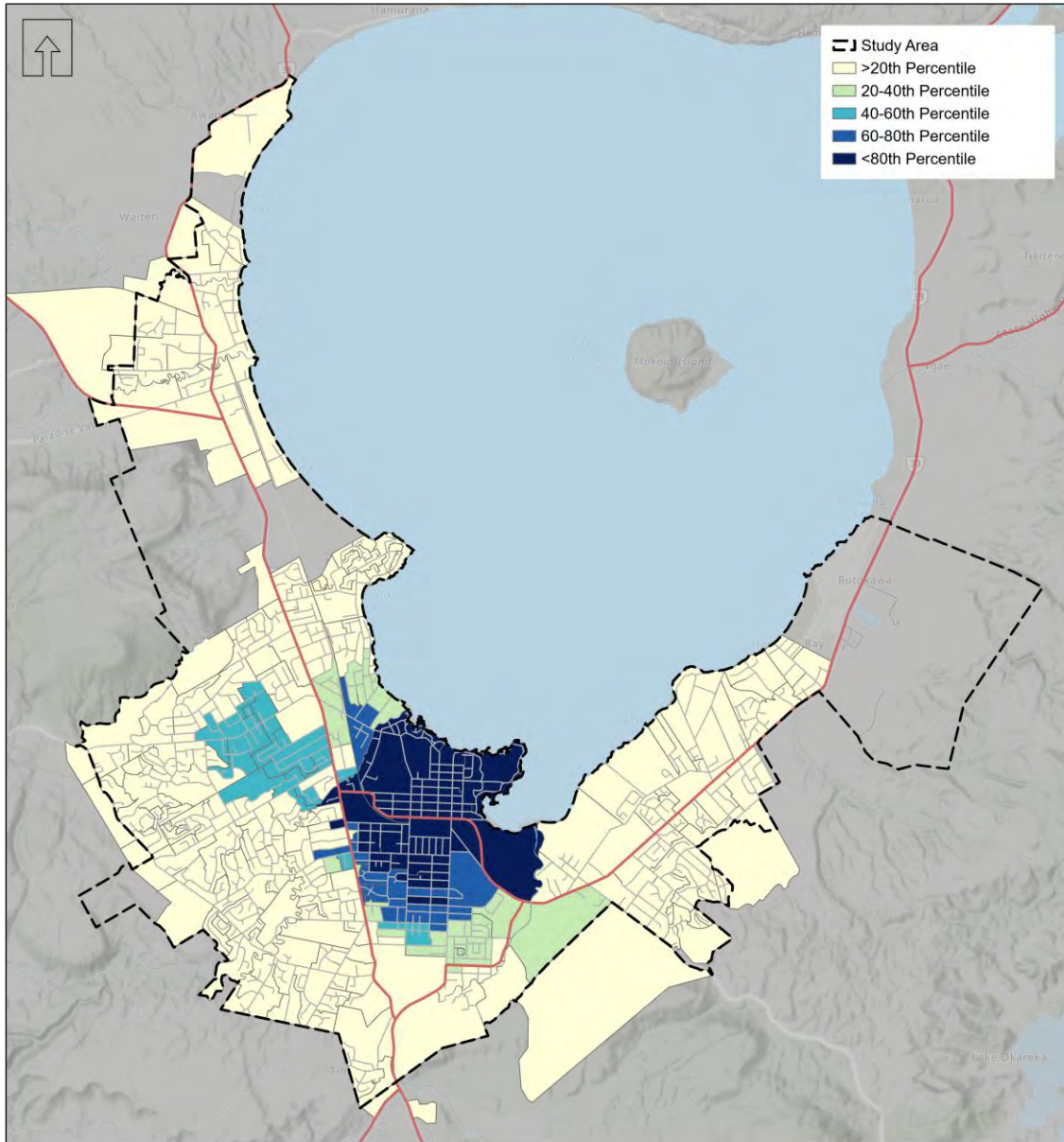


**Figure 9 – Job Distribution by Meshblock (2018 Census)**

<sup>5</sup> A meshblock is the smallest geographic unit for which statistical data is collected and processed by Stats NZ.

<sup>6</sup> A quintile is one of five values that divide a range of data into five equal parts, each being 20% of the range.

Unsurprisingly, Rotorua City Centre features as a major employment node. Notably, Rotorua’s two other major employment nodes, the industrial areas of Mangakakahi and Ngāpuna sit almost immediately adjacent to the City Centre. This has the result of concentrating the vast majority of all jobs in the urban area along a 5km wide corridor along the lake front as shown below in Figure 10.

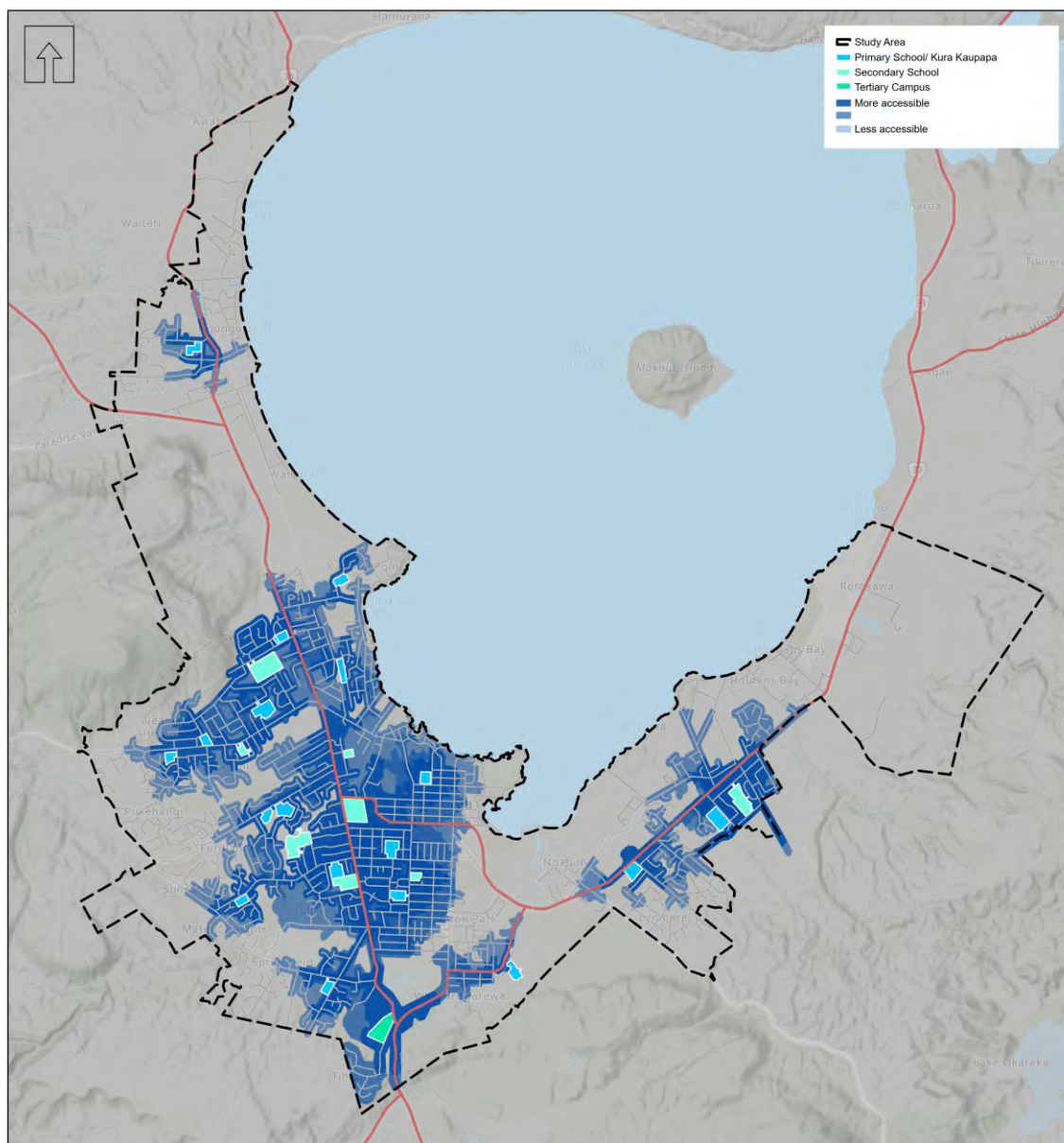


**Figure 10 - % of total jobs in Rotorua reachable within a 30-minute walk (2018 Census)**



### 5.4.3 Education Opportunities

Catchments for primary, secondary, tertiary and early childhood education facilities were generated. Primary and secondary schools were identified as ‘first order’ destinations with their immediate catchments given a greater weighting in the overall assessment. This higher weighting afforded to schools is, in part, a reflection of the age profile of the Rotorua District with almost ¼ of the population of school age (a figure which rises to around 1/3 for the Māori population).<sup>7</sup> As attendance is compulsory between the ages of six and 16, schools therefore represent an important destination which people are required to access on a regular basis. In addition, schools often provide important community functions through the provision of additional open space (on school fields) and facilities such as halls that are used by the wider population.



**Figure 11 – Education Accessibility Summary**

<sup>7</sup> Stats NZ Place Summaries (<https://www.stats.govt.nz/tools/2018-census-place-summaries/rotorua-district>)

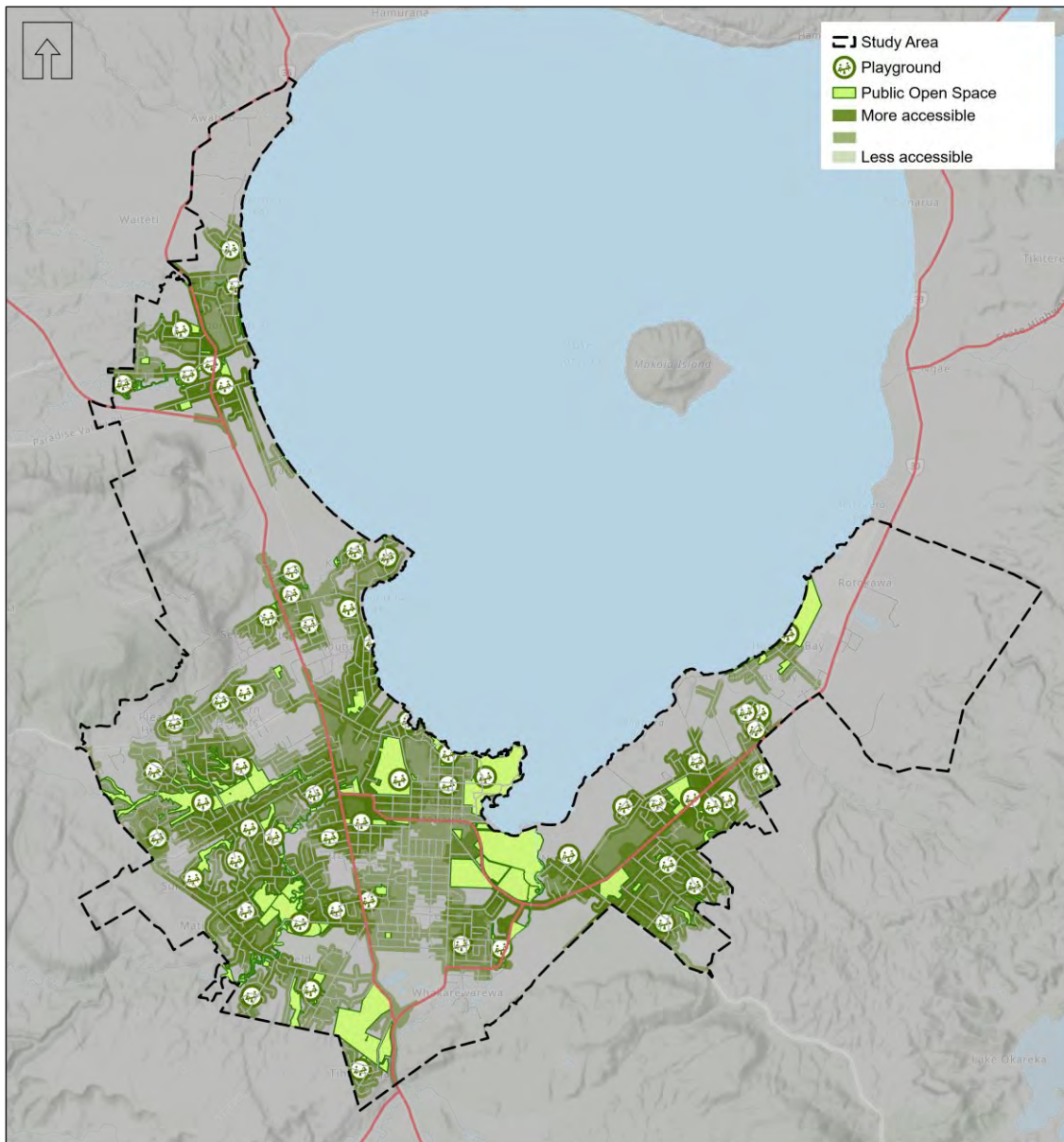
Figure 11 shows the outputs of the catchment assessment for primary, secondary and tertiary education. Catchments of 800m and 1600m were identified for both secondary schools and tertiary education facilities in recognition that these facilities typically serve young adults who are, on average, more mobile and typically spend a greater portion of their overall travel time walking. Catchments of 400m and 800m (equivalent of a 5-to-10-minute walk) were identified for all primary/ intermediate schools and early childhood education (including Kōhanga Reo), primarily due to the fact they are less mobile. It is notable that the location of both primary and secondary schools is predominantly concentrated west of the City Centre with Glenholme, Western Heights and Hillcrest particularly well served. Ōwhata also stands out as a relatively discrete area well served by education facilities.

#### 5.4.4 Open Space Opportunities

A range of open spaces were identified as being relevant for understanding accessibility. These were broken down into three different categories for ease of assessment – Sportsfields, playgrounds and general open space/ reserves (e.g. esplanade reserve). A minimum size of 300m<sup>2</sup> was also placed on any general open space included within the assessment as a proxy for usability. Although classified as open spaces, golf courses, and the International Stadium were all excluded from consideration due to their private/ semi-private function and/ or because they host activities which are usually associated with fee paying visitors.

All open spaces selected for inclusion in the analysis were then peer reviewed by Recreation and Open Space officers within RLC. This resulted in a number of exclusions and inclusions which took into account the nature and function of these open spaces (e.g. open spaces which functioned as drainage reserves and had no recreational/ leisure value for residents were excluded).

A base catchment of 500m was used to assess all open spaces to align with RLC's open space provision policy. An additional catchment out to 1000m was applied to the main sportsfields across the urban area. This is reflective of the nature of these facilities which can, by their size, accommodate a greater number of different uses including organised sport and recreation. In terms of outputs, these are presented overleaf in Figure 12 all areas are generally well served by open spaces and playgrounds. The notable exception to this is in the Glenholme area which is not located in close proximity to any of the main sportsfields and features some areas outside of a 500m walking catchment of any open space.



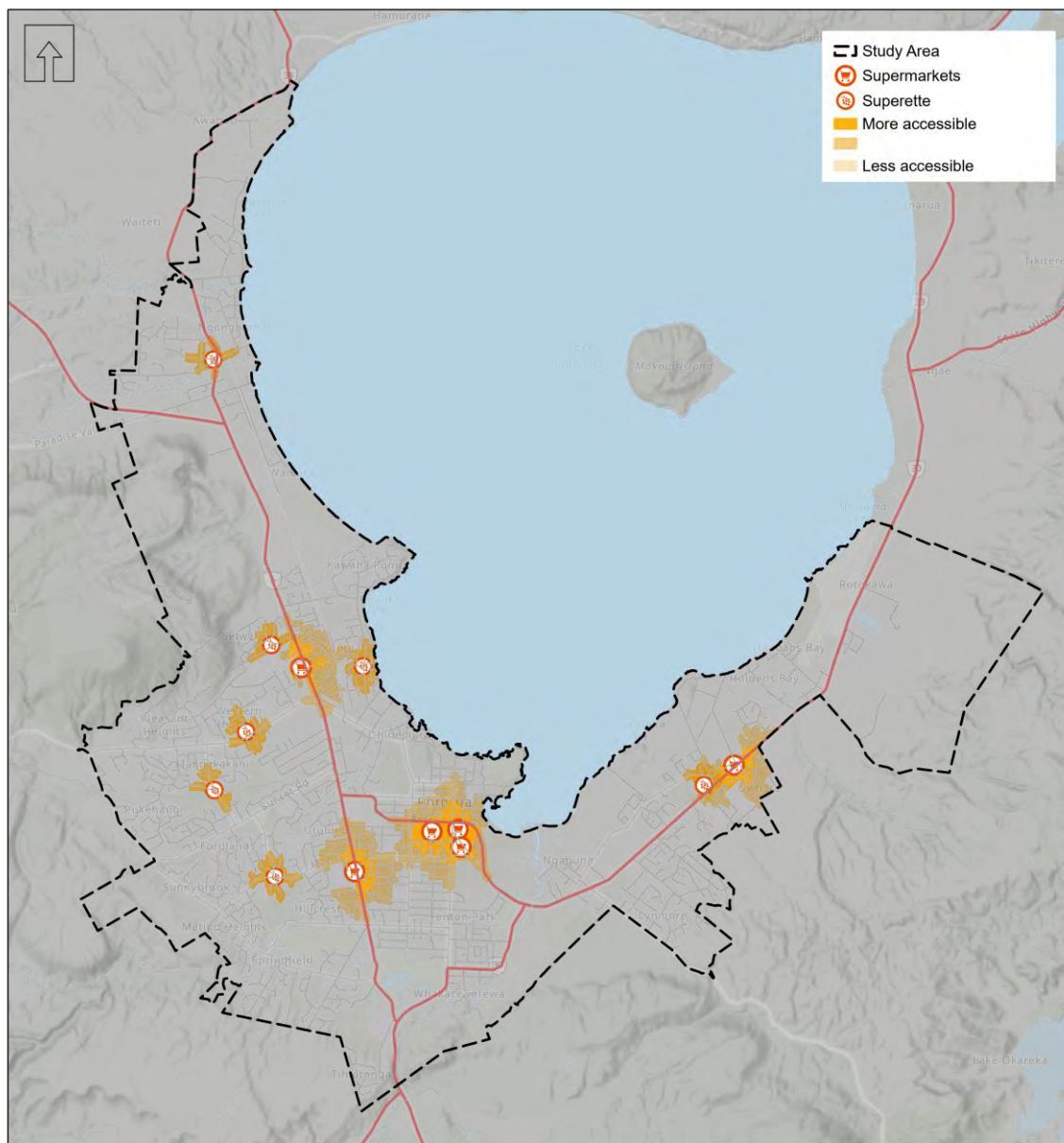
**Figure 12 - Public Open Space Accessibility Summary**

#### 5.4.5 Food Retail

Two categories of food retail were identified as being relevant for this accessibility analysis – supermarkets and small supermarkets/ superettes. The supermarket category focusses on the larger “full service” supermarket facilities such as New World , Pak n Save and Countdowns which provide a broader range of goods (e.g. fresh produce, butcher, bakery). Small supermarkets/ superettes tend to be bigger in scale than a corner diary and are related to more compact supermarket offerings such as a Four Square and feature a more restricted range of items more closely aligned with convenience shopping (e.g. packaged meat as opposed to a butcher). A 400m/ 5-minute walking catchment have been mapped for small supermarkets/ superettes while a 400m and 800m catchment have been identified for supermarkets.



It is notable that 4 of the 6 supermarkets within the Rotorua urban area are concentrated to the south of the City Centre and Westend local centre in close proximity to one another. It is also notable that suburbs including Lynmore and Springfield<sup>8</sup> are not supported by any proximate supermarket or superettes opportunities. This highlights that there is a potential gap in the commercial centres network. There are some notable gaps in the catchments adjacent to destinations at Westend and Fairy Springs. This is a result of larger urban blocks in these areas (which both encompass schools) that limits permeability around these areas.

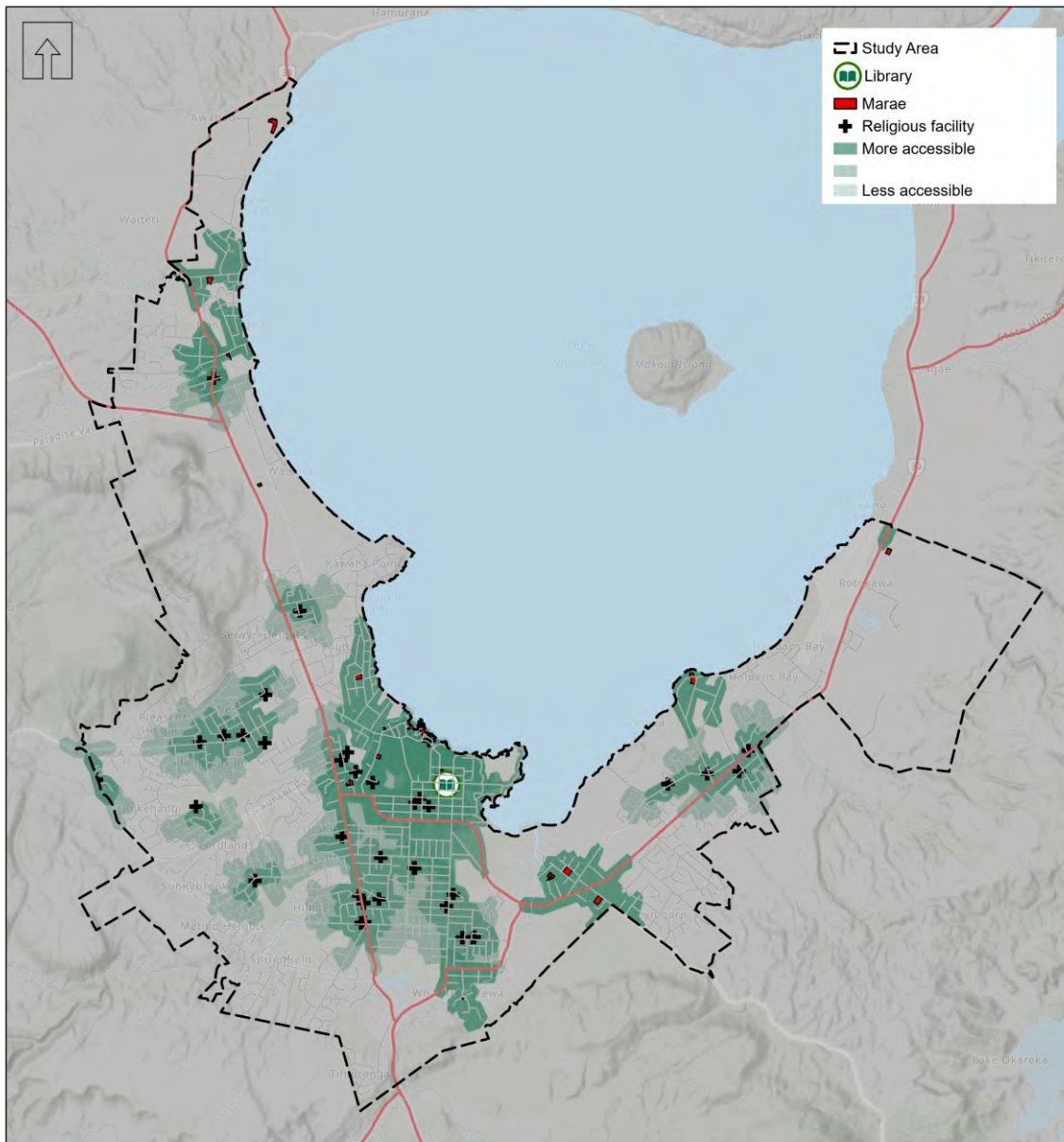


**Figure 13 - Food Retail Accessibility Summary**

<sup>8</sup> It is noted that these areas are supported to a degree by some smaller scale food retailers such as butchers, green grocers and dairies. These are captured, in part, by the assessment of commercial centres under 5.4.1.

### 5.4.6 Cultural Opportunities

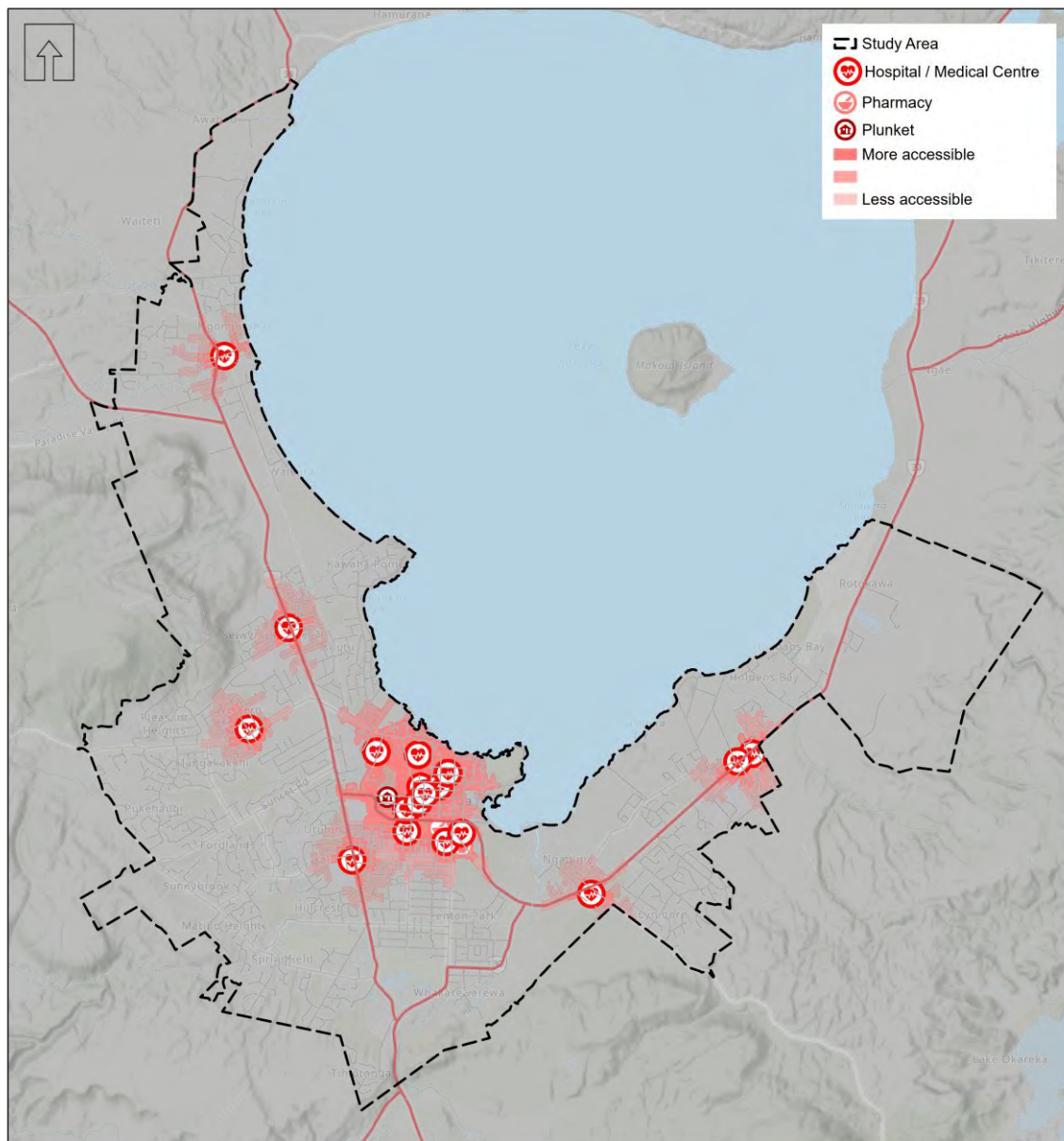
Key cultural opportunities within the local context include Rotorua Library, Te Aka Mauri, religious facilities and marae. Catchments of 800m and 1600m were included for the Rotorua Library in acknowledgement that it is the only library within the urban area and has an important civic function for the local community. 400m and 800m catchments were identified for religious facilities whilst an 800m catchment was identified around all marae. Based on feedback from RLC officers, marae were also given a greater weighting in the overall assessment of accessibility due to their importance for a large proportion of the local community. It is notable that the majority of cultural facilities are concentrated in and around the City Centre and local centres.



**Figure 14 - Cultural Accessibility Summary**

### 5.4.7 Healthcare

Medical centres were identified as being of particular importance as they are a key community facility that typically incorporates a range of different healthcare providers (e.g. GP, pharmacy, physiotherapist, radiology) in a centralised location. This makes them particularly convenient for a wide cross-section of the community although they are considered increasingly important for New Zealand’s aging population. 400m and 800m catchments from these facilities have been identified with a higher weighting applied to the 400m catchment. It is noted that medical centres can be found in each of Rotorua’s local centres although there is a clear concentration located in and around the City Centre. The Rotorua Hospital and pharmacies (where not part of a medical centre) were also identified and assessed as part of this work.

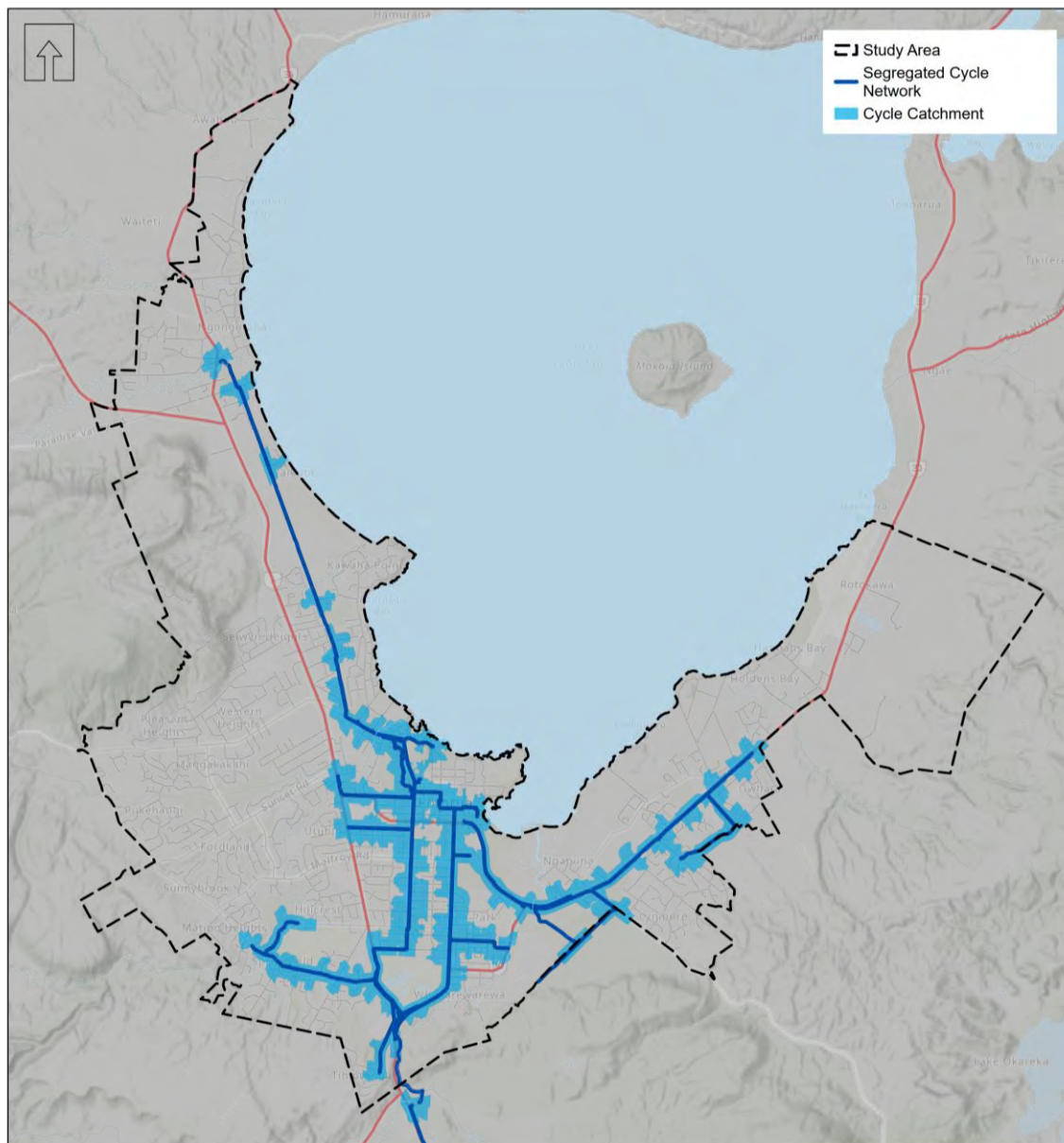


**Figure 15 - Medical Centre Catchment Assessment**



### 5.4.8 Sustainable Transport Opportunities

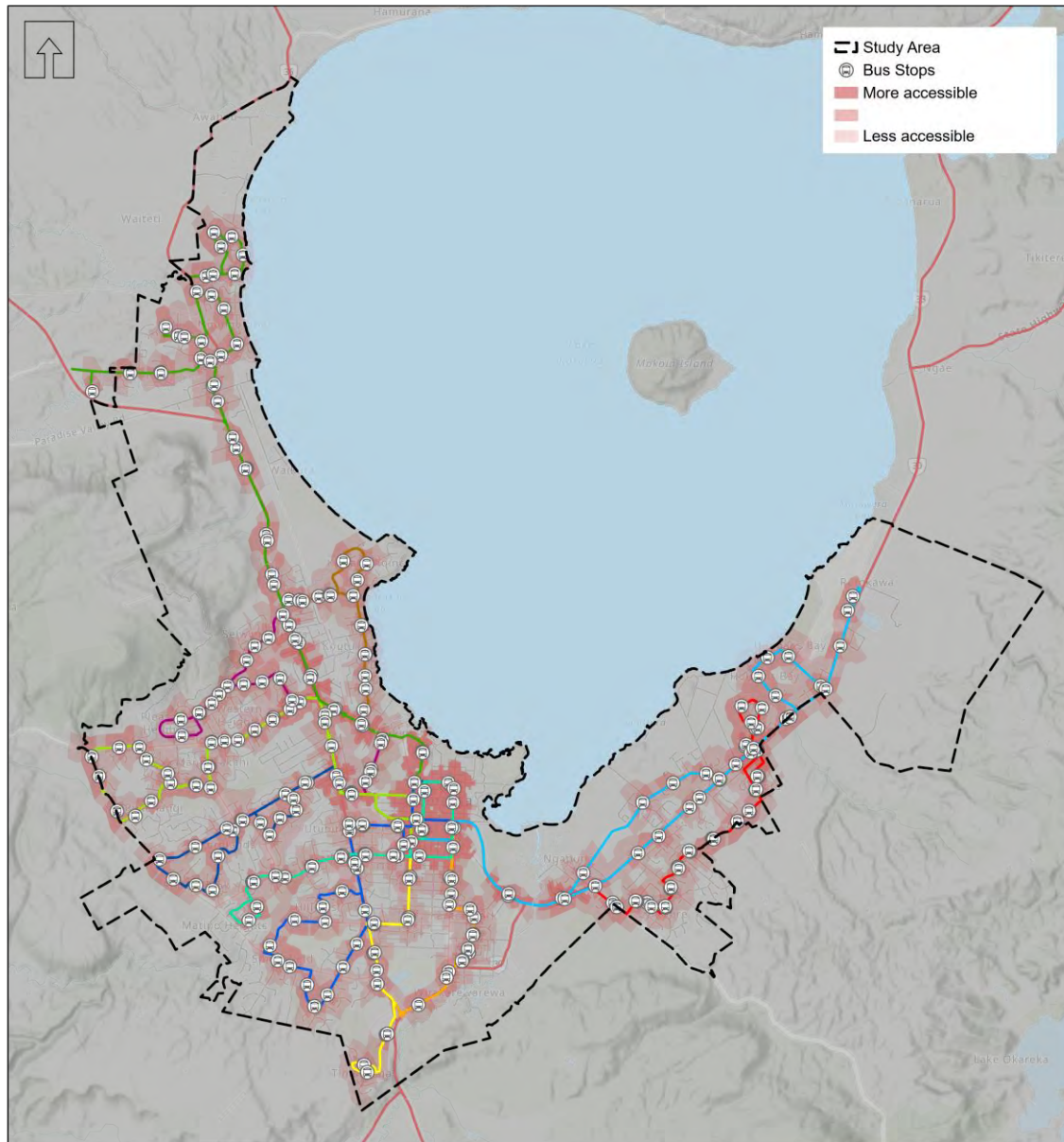
As set out in Section 5.1 of this memo, public transport and the cycling network have been incorporated as part of a broader assessment focused on walking catchments to and from particular destinations. A 100m / 1-minute ride catchment from the segregated cycle network emanating from the City Centre was identified (i.e. 100m of travel on the road or footpath is required before accessing a segregated route). It is noted that there are other established shared paths or segregated cycle facilities across Rotorua not included in this assessment as this assessment has sought to limit the total extent of non-segregated travel required to access a range of different destinations. Our assumption is that this is more reflective of likely use across a broader spectrum of the population – especially more vulnerable road user groups including children, the elderly and women.<sup>9</sup>



**Figure 16 – Segregated Cycling Catchment Assessment**

<sup>9</sup> Russell et al., Pedalling towards equity: Exploring women's cycling in a New Zealand city, Journal of Transport Geography, Volume 91, 2021.

In terms of public transport, existing bus routes and bus stops were identified and a 200m and 400m catchment from bus stops was identified. This more restrained catchment extent is reflective of the fact that the use of buses tends to support a multi-modal journey with additional onward travel once a bus stop has been reached. An additional 400m catchment with a greater weighting was also identified for those bus stops which serve multiple routes. These are primarily concentrated in and around the City Centre and provide access to a higher level of overall frequencies as well as a higher number of potential destinations.



**Figure 17 - Public Transport Accessibility Summary**

## 6.0 Demand Analysis

---

Policy 5(b) of the NPSUD references the concept of ‘relative demand’ when seeking to establish heights and a density of urban form. The NPSUD Guidance<sup>10</sup> sets out some types of areas where demand can often be considered high. This includes:

- (i) areas with high land prices relative to others
- (ii) locations close to open space and recreation opportunities
- (iii) areas within, or close to, centres
- (iv) areas with good transport opportunities – including frequent public transport, multi-mode transport opportunities (eg, public transport, walking and cycling) and freight
- (v) areas close to key services including, schools, hospitals and supermarkets
- (vi) areas close to a range of business activities
- (vii) locations with good views, outlook and amenity, including areas with water views or green space outlooks

Matters (ii), (iii), (iv), (v) and (vi) have been captured as part of the accessibility analysis set out in the accessibility methodology within Section 4 of this memo. As such, it is considered that the results of the accessibility analysis itself form a reliable input into understanding the ‘relative demand’ component of Policy 5(b).

The Guidance goes on to note that determining and understanding ‘relative demand’ in a Tier 2 urban area could be achieved through a number of different methods related to the matters identified above. However, as a general starting point, land price is a good proxy to consider in relation to understanding demand as areas with high land prices tend to correlate with areas that are more desirable to live in. When this information is combined with capital values it is possible to highlight locations where it is potentially desirable and/or feasible to deliver intensification.

To support the accessibility analysis (where this relates to matters influencing demand), further analysis of land values, the land-value-to-capital-value-ratio (“LV2CV”) and general amenity have been undertaken. These are discussed further in Sections 6.1 and 6.2 below.

### 6.1 Quantitative Measures

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#### 6.1.1 Land Value

Based on the discussion above, land values (matter (i) identified in Section 6.0) are considered to be the best indicator of where, without budget constraints, people would prefer to be. That does not mean that no one wants to live in areas with lower land values. People often have links to neighbourhoods that may lack the location or amenity that make some areas more expensive (i.e. this is not to say there isn’t ‘demand’ to live in areas without high land prices). Overall, the best indication of what area people value most on average and in aggregate is the land prices there.<sup>11</sup>

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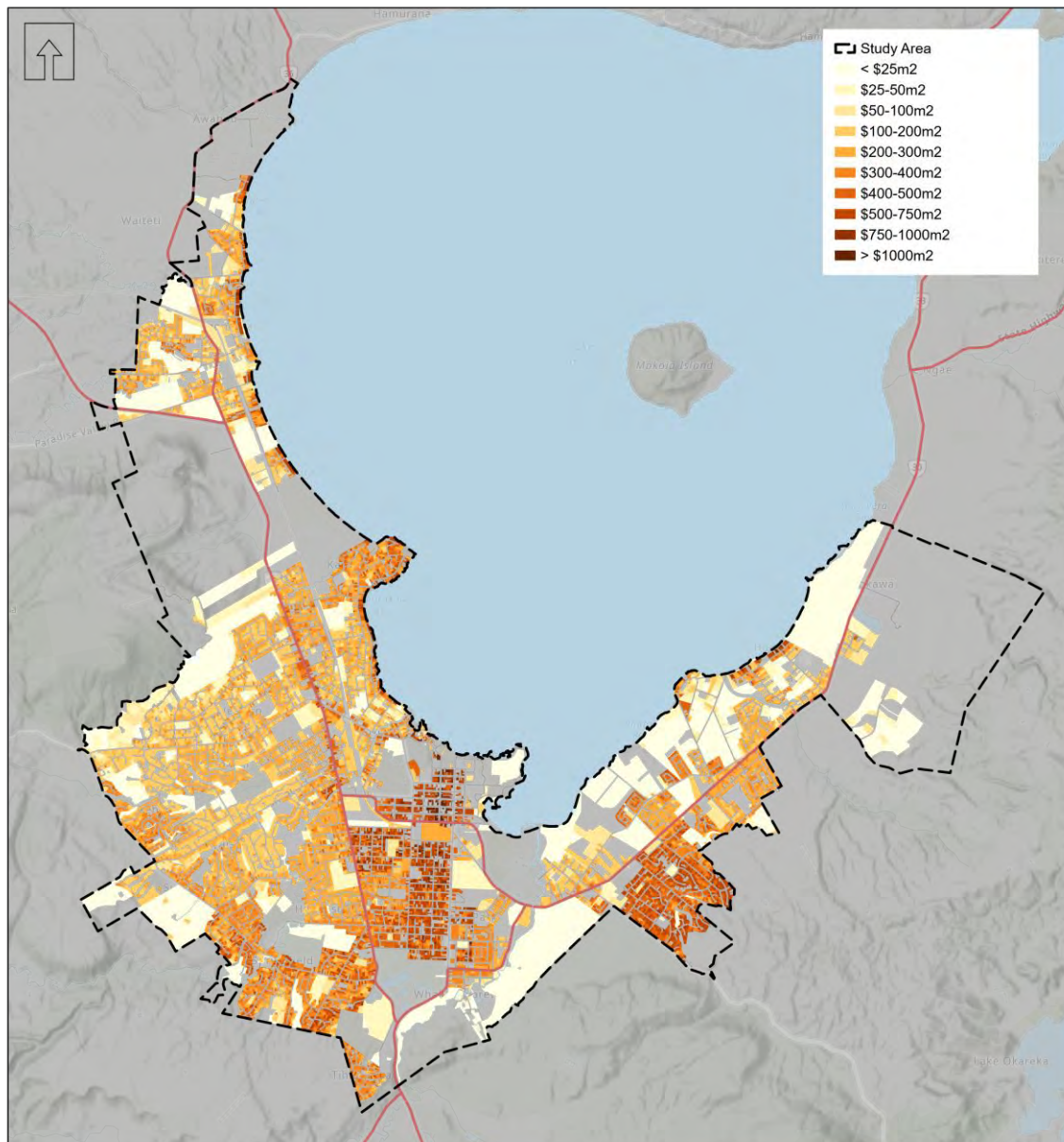
<sup>10</sup> MfE (2020) *Understanding and implementing intensification provisions of the NPSUD*

<sup>11</sup> Auckland Economic Quarterly, May 2021, accessed 14 June 2022, from <https://www.aucklandcouncil.govt.nz/about-auckland-council/business-in-auckland/Pages/economic-advice.aspx>



Two things make land valuable. One is its **proximity** to amenities that people value (location). The second is *what you can do with the land*. To help determine demand, land prices (refer to Figure 18) were calculated for all rateable land parcels on a square metre basis, and based on the most recent property valuation data made available by RLC, as per the equation below:

$$\text{Land Value} \div \text{Parcel area (m}^2\text{)} = \text{Land Price per m}^2$$



**Figure 18 - Average Land Value (\$ per m<sup>2</sup>)**

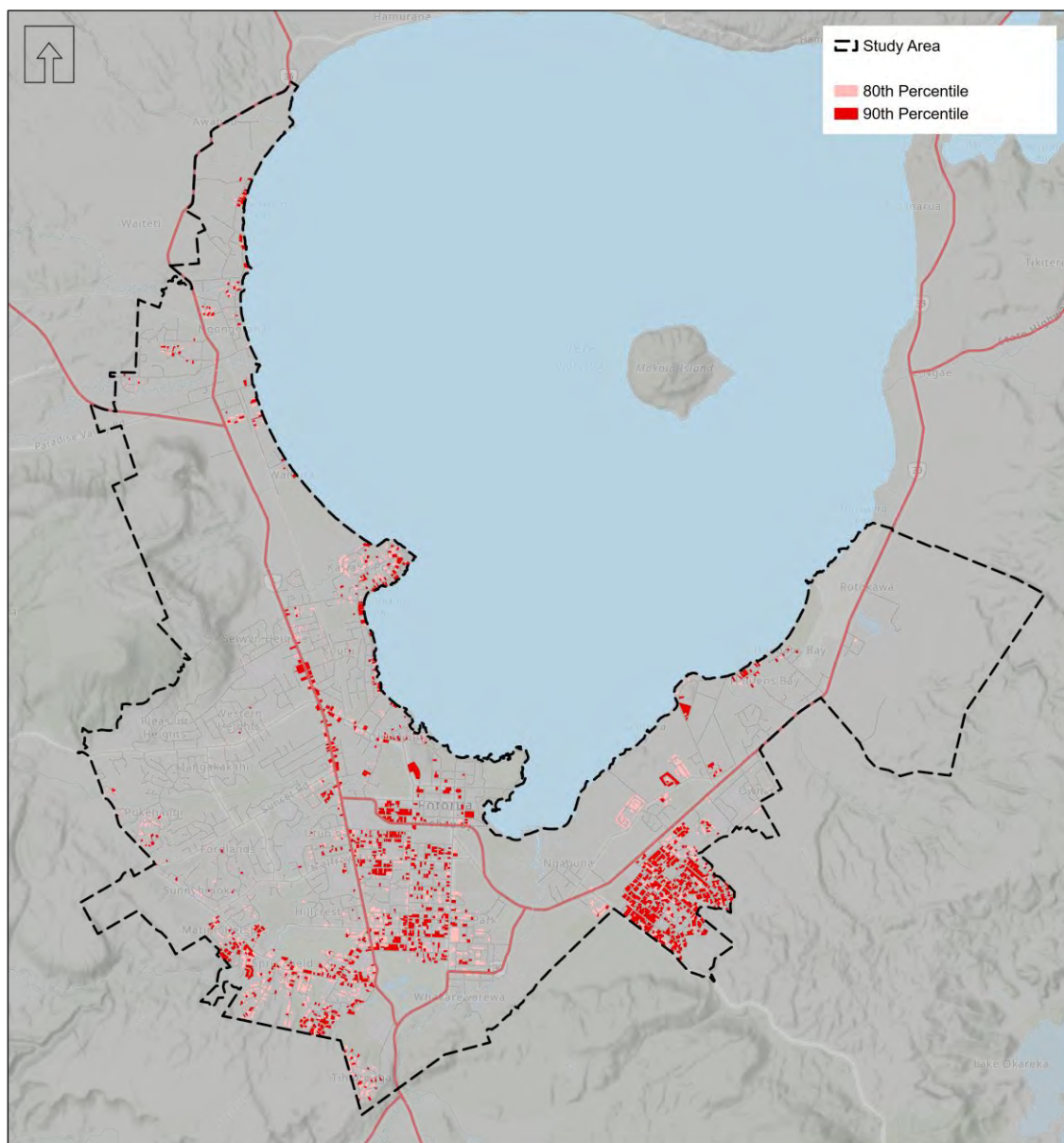
However, understanding land prices for individual parcels along is not particularly useful when trying to understand relative demand for the purposes of an exercise which is likely to inform a zoning exercise (i.e. it would not be appropriate or practical to apply specific heights and densities to individual parcels based on their own land price). In order to understand the “relative demand” of a particular area in comparison to other areas at a spatial level, it was necessary to aggregate individual parcels into percentile groups to spatially identify areas where increased heights and/ or density may be appropriate into the top 80<sup>th</sup> and

90<sup>th</sup> percentiles of parcels based on their land values on a square metre basis. This was undertaken to try and identify any patterns at a broader block/ neighbourhood scale in-line future zoning outputs consistent with good urban design practice.

The cut-off values for the percentiles considered were:

- 80-90<sup>th</sup> Percentile – Land values between \$439 and \$553 per square meter; and
- 90-100<sup>th</sup> Percentile – Land above \$553 per square meter.

This analysis shown in Figure 19 below clearly identifies the City Centre, Glenholme and Lynmore as having a concentration of parcels with higher relative land values than the rest of Rotorua.



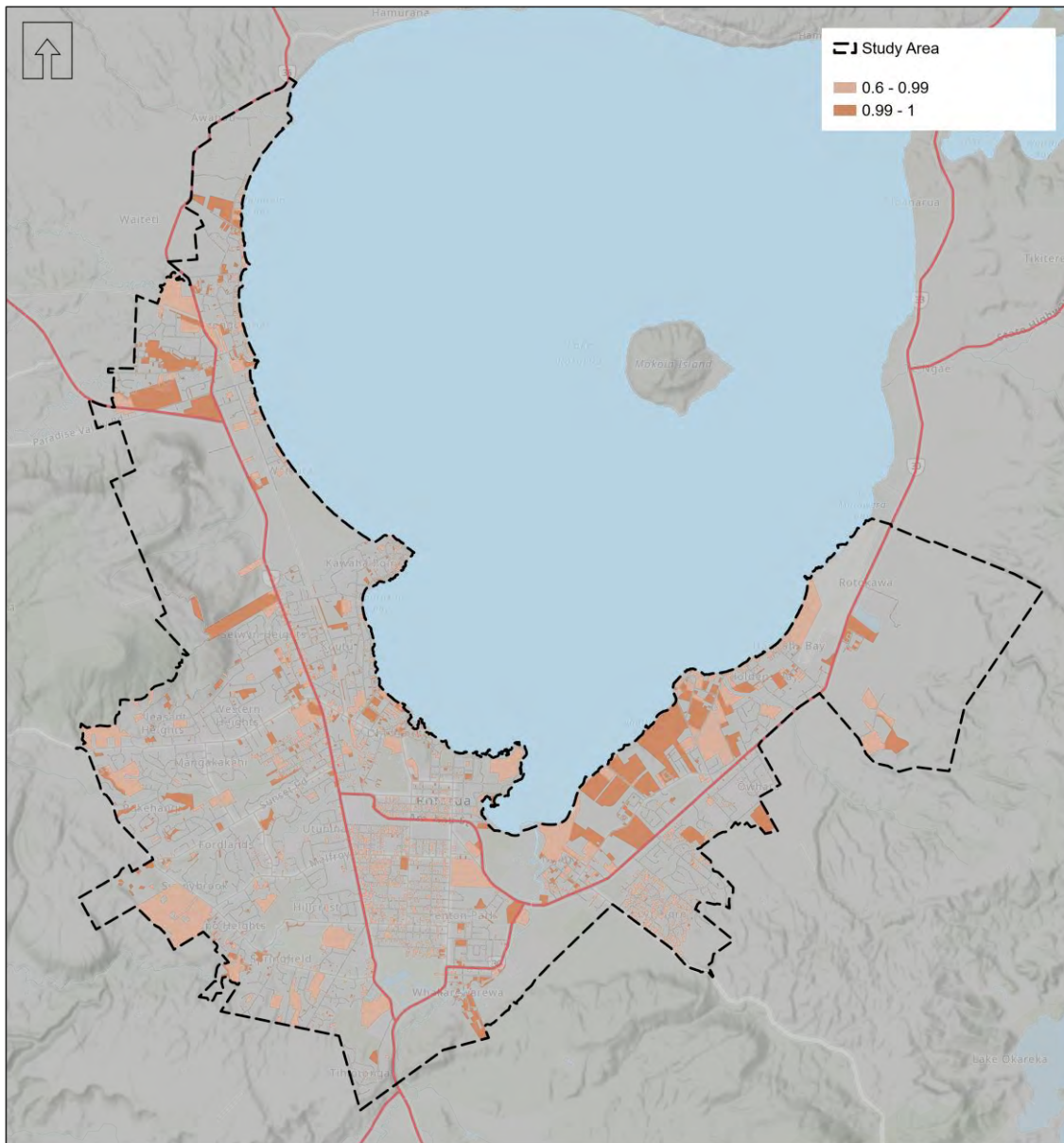
**Figure 19 - Average Land Value (\$ per m<sup>2</sup>)**



### 6.1.2 LV2CV

The NPSUD Guidance notes that a high LC2CV ratio can indicate land is in a location of high demand and the existing land use is under-capitalised. For example, when the relative price of a land parcel rises, it is a signal people want to live and work in that location. Increases in underlying land values can assist in making intensification more feasible. Land with a low capitalisation is easier and more profitable for development because most of the value is in the land. Under-capitalisation might also be present in relation to a disparity between the current and possible land use, such as what is there now and what could be provided if greater density was enabled. Overall, this helps to provide an indication that these places could be suitable for greater levels of intensification than currently enabled.

To calculate the LV2CV ratio, data was obtained from RLC's rating database and work undertaken to inform Council's Housing and Business Development Capacity Assessment ("HBA"). This provides a broad understanding of redevelopment potential across larger areas, where generally speaking ratios of greater than 0.5 indicate an increasing likelihood of supporting redevelopment with feasibility of development increases the closer the LV2CV is to 1.0. A LV2CV of 1.0 generally indicates that a site is currently vacant. The results show that higher average LV2CV ratios can be seen in areas including Glenholme, Lynmore, Ōwhata and lakefront locations around Kawaha Point (refer to Figure 20 overleaf). identifies those parcels that feature LV2CV ratios greater than 0.6. In other words, what percentage of properties are likely to better support feasible intensification. This provides an understanding of which neighborhoods, as opposed to individual sites, may be more suitable for enabling widespread intensification.



**Figure 20 - Average LV2CV Ratio**

## 6.2 Qualitative Measures

### 6.2.1 Aspect

In addition to the quantitative measures identified in Section 6.1, brief consideration was also given to aspect. In this context, sites with a northern, eastern or western orientation are generally seen as more desirable due to improved solar access. Within the Rotorua context, these aspects also better align with outlook and views over Lake Rotorua. The aspect analysis was derived using contour data obtained from RLC. In general, the majority of the Rotorua urban area features a favourable aspect that could be supportive of intensification.

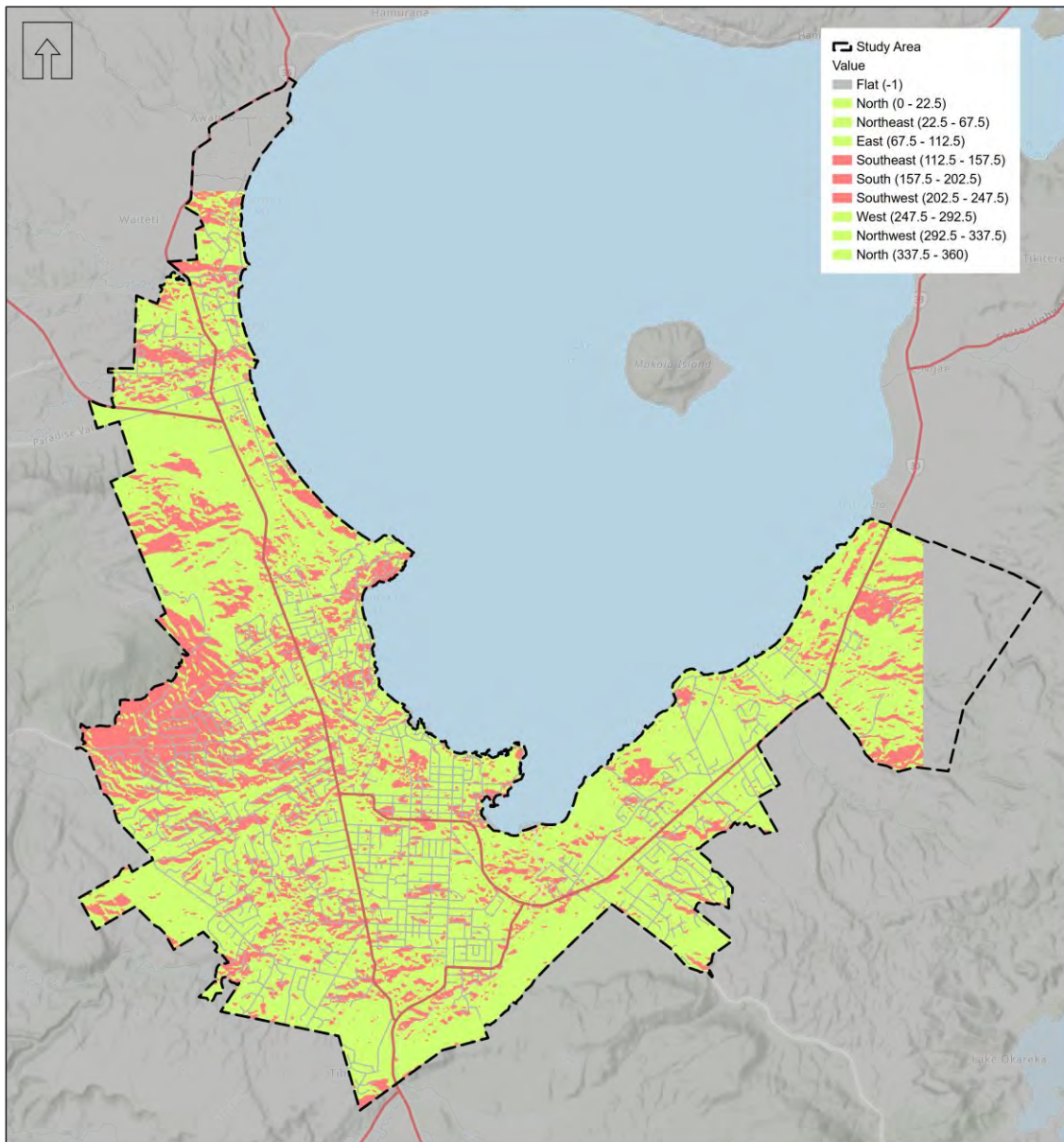


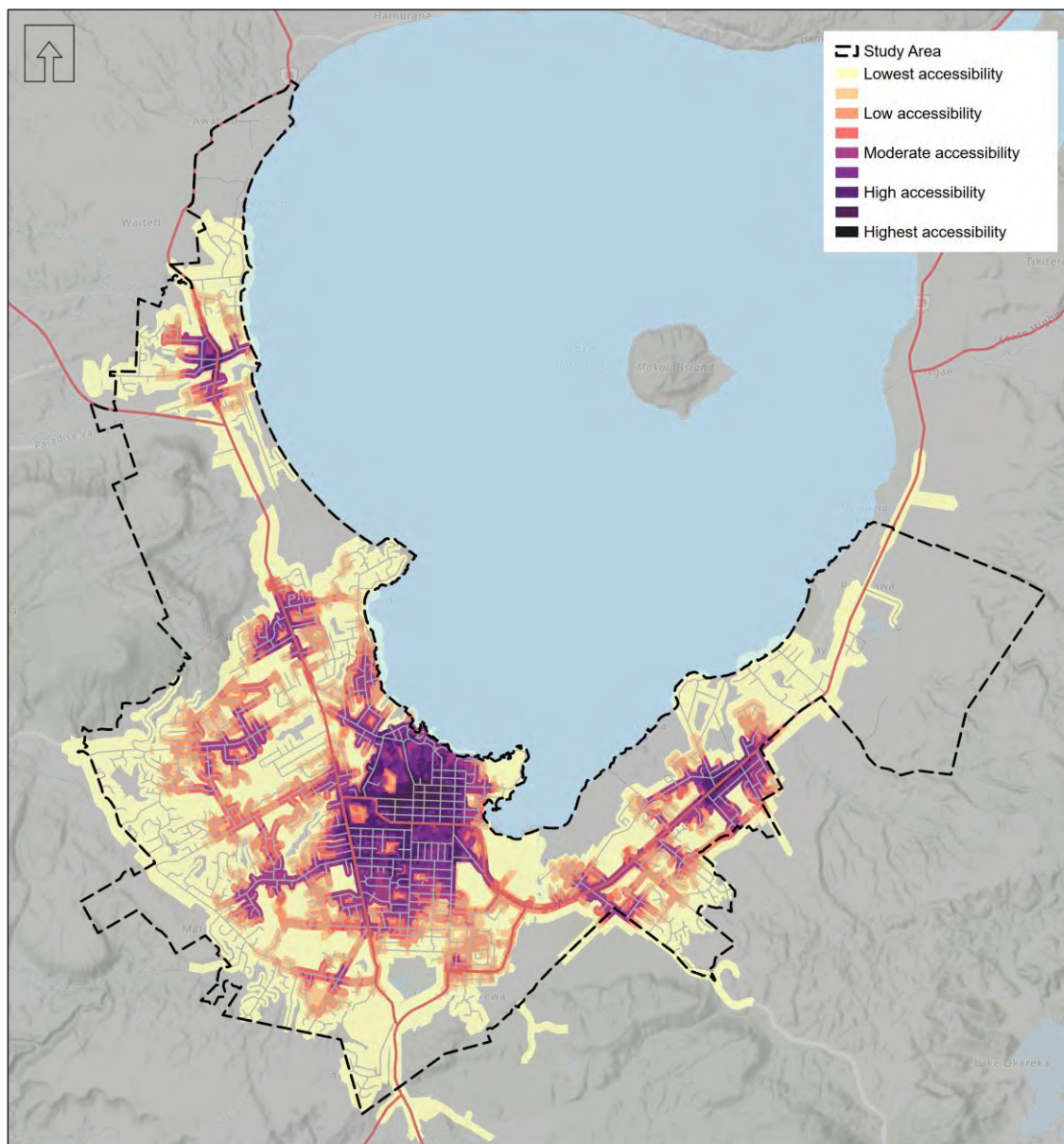
Figure 21 - Aspect Analysis



## 7.0 Summary & Findings

### 7.1 Accessibility

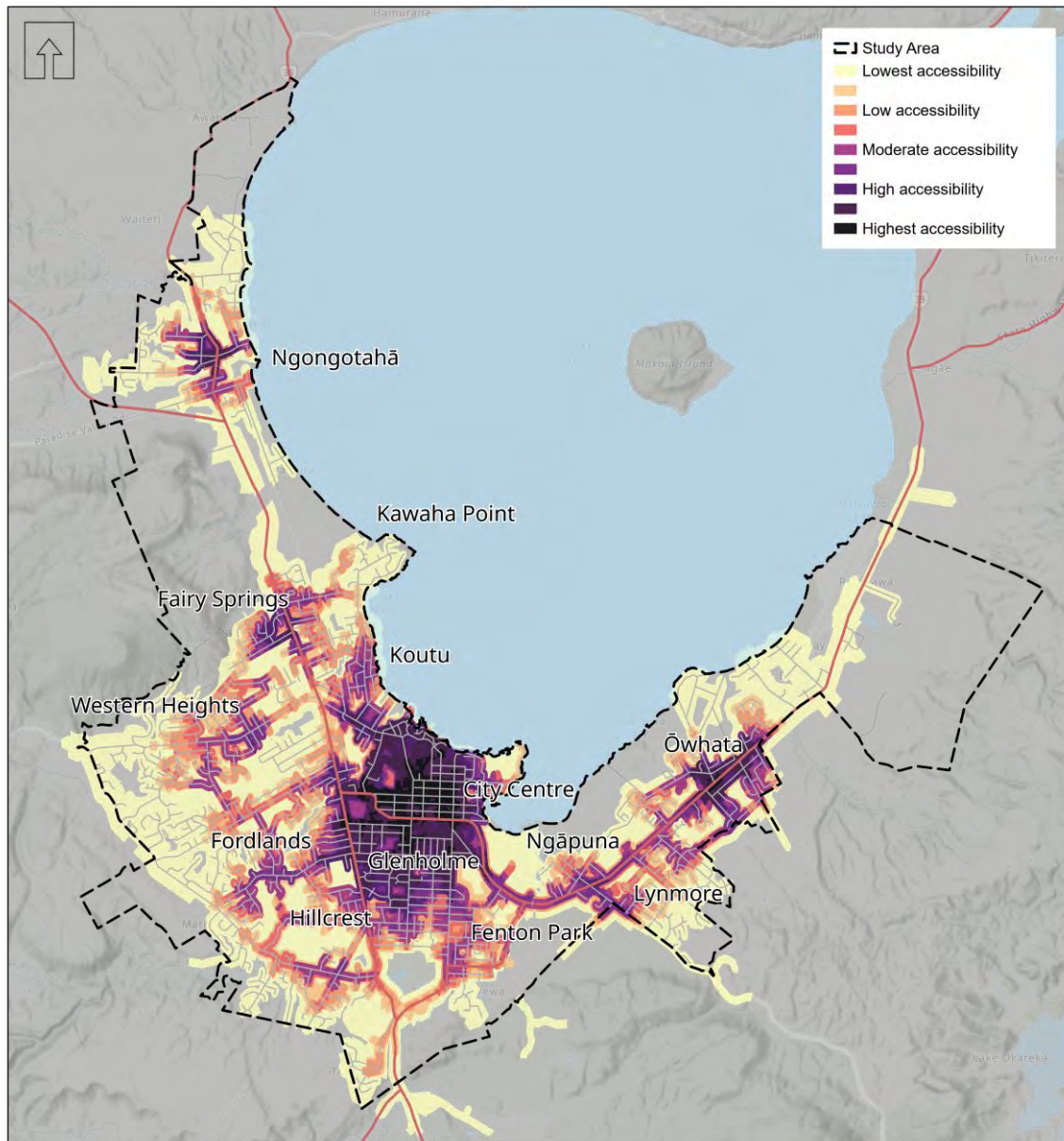
Figure 22 and Figure 23 present the summary findings of the accessibility analysis set out in Section 5 of this memo. Figure 22 shows the result of all catchments overlaid with one another. No catchment associated with any particular destination has been given any priority under this summary. Unsurprisingly, the City Centre in the vicinity of the intersection of Arawa and Ranolf streets is identified as having the highest level of accessibility across the Rotorua urban area. City fringe areas from Lake Road in the north, State Highway 5 in the west, Malfroy Road in the south and Fenton Street in the East also feature a high level of accessibility relative to the majority of the rest of the Rotorua urban area.



**Figure 22 - Total Accessibility (Unweighted)**

Figure 23 shows the results of all catchment overlaid with one another and weightings applied according to the priority of the destination and the proximity of the catchment. Under this analysis, the main drivers of accessibility include the proximity to: the City Centre; the majority of employment opportunities; primary and secondary schools; large supermarkets; medical centres and major open spaces. The major change between the weighted

and unweighted analysis is the increase in highly accessible areas around the City Centre and south into Glenholme. Ōwhata also performs well in relation to this analysis. A summary of key drivers of accessibility within areas across Rotorua is provided overleaf.



**Figure 23 - Total Accessibility (Weighted)**

### 7.1.1 Accessibility

**Ngongotahā** – This area generally performs well in terms of accessibility due to the concentration of services and amenities in and around the centre. The area also benefits from a direct, segregated cycling route to the City Centre. The key amenities missing from Ngongotahā are a Secondary school and larger supermarket which reduce its relative accessibility compared with the City Centre, Glenholme and other outlying centres such as Ōwhata and Westend. Nevertheless, the area is considered suitable for increased residential densities.

**Fairy Springs** – Fairy Springs, particularly west of State Highway 5 towards Selwyn Heights, is a clearly identifiable node within the accessibility analysis relative to other commercial centres across Rotorua. The area benefits from good accessibility to a wide range of commercial and community services. The lack of safe/ segregated crossing facilities across State Highway 5 restricts overall accessibility, particularly to the east.

**Kawaha Point/ Koutu** – Despite its relatively central location, Kawaha Point performs poorly in terms of its relative accessibility with no commercial centres, community services and employment opportunities within a close walking distance. Accessibility generally improves as one moves south along Koutu Road. Accessibility improves as one moves south through Koutu and Ōhinemutu which are closer to the City Centre.

**Western Heights** – The Western Heights area along Clayton Road between Edmund Road and Brookland Road functions as one of the more accessible neighbourhood centres in Rotorua with the western portion of the neighbourhood performing relatively poorly. The area is well supported by a concentration of education services, open spaces, a small supermarket and some healthcare facilities. The area is still relatively proximate to the City Centre and employment areas around Fairy Springs Road. The area could support more modest levels of intensification and this could be supported by improved transport connections along Clayton and Lake Roads.

**Fordlands** – The majority of this neighbourhood performs relatively poorly in terms of accessibility. In part this is driven by natural barrier created by the Utuhina Stream and post-war curvilinear street network. However, Malfroy Road West through to Fordlands Neighbourhood Centre and Westbrook Park also stands out as one of the more accessible corridors within the Rotorua urban area with a wide range of access to services and a direct route through to other services available at Westend and the City Centre. Increased densities along this corridor could be further supported by improvements to segregated cycling facilities and bus frequencies along Malfroy Road.

**Hillcrest / Westend** – Westend and Hillcrest perform well relative to much of the Rotorua urban area in terms of accessibility. These areas benefit from their proximity to the City Centre as well as services available within the Westend Local Centre itself, along with a high concentration of schools. The area is likely to be suitable for higher levels of intensification and would act as a logical transition in heights and scale of development from the City Centre towards outlying residential suburbs with lower levels of accessibility such as Fordlands and Pomare.

**Glenholme** – Glenholme benefits from its location adjacent to Rotorua's City Centre. It is serviced by key cycling infrastructure and a number of bus routes from outlying suburbs travelling through to the City Centre. There is a notable concentration of all key services and amenities to support a much denser residential population. A notable gap is the lower provision of open spaces relative to other suburbs of Rotorua. Provision of new open spaces with any intensification and/ or better utilisation of Arawa Park Racecourse would help to address this.

**Fenton Park** – Although Fenton Park does not perform as strongly as other areas in this analysis, it remains a relatively short distance to the City Centre and benefits from flat, direct cycling access along Fenton Street. The main gaps in accessibility relate to proximity to a supermarket, healthcare facilities, and education opportunities. However, it is noted that Fenton Park is generally located just beyond the identified catchments of these destination groups.

**Ngāpuna/ Lynmore** – This area benefits from its proximity to the City Centre as well as major employment opportunities in Ngāpuna. The main constraint in terms of accessibility relate to its distance from the nearest secondary school (although good connectivity through to Rotorua Lakes High School exists) and lack of any supermarket. In time, an increasing residential population in this area would likely support a greater range of services improving overall accessibility.

**Ōwhata** – Ōwhata performs strongly within the accessibility analysis. It incorporates a wide range of services including all first order destinations, is close to major employment nodes, has segregated cycling access to City Centre and is served by two bus routes. Outside of the City Centre it is the best performing area within the Rotorua urban area. The area also provides a unique opportunity with large tracts of greenfield land in close proximity to the local centre provides opportunities to realise comprehensive medium-to-high density development.

**Pukehangi, Springfield, Holdens Bay** – These outlying suburbs all perform relatively poorly in the accessibility analysis with access to a range of commercial services and community facilities (with the exclusion of open spaces and smaller neighbourhood centres) generally outside of identified walking catchments.

## 7.2 Demand

---

Areas which perform well under the various demand measures identified are generally well aligned with those which have performed best under the accessibility analysis. This is shown overleaf in Figure 24. A summary of key observations in relation to demand is shown below.

**Glenholme** – Glenholme benefits from higher land values and a higher average LV2CV. The area extending south between Ranolf and Fenton Street features a large concentration of land with values above the 90<sup>th</sup> percentile across Rotorua. This builds upon the results of the accessibility analysis and reinforces this areas suitability to accommodate greater levels of intensification. The existing expanse of cross-lease development in this area likely forms a barrier to full uptake of the intensification opportunity within this area. However, it is understood that Kaingā Ora is a major landowner in this area. This provides an opportunity for a comprehensive brownfield redevelopment within this area to help realise both the accessibility and demand potential.

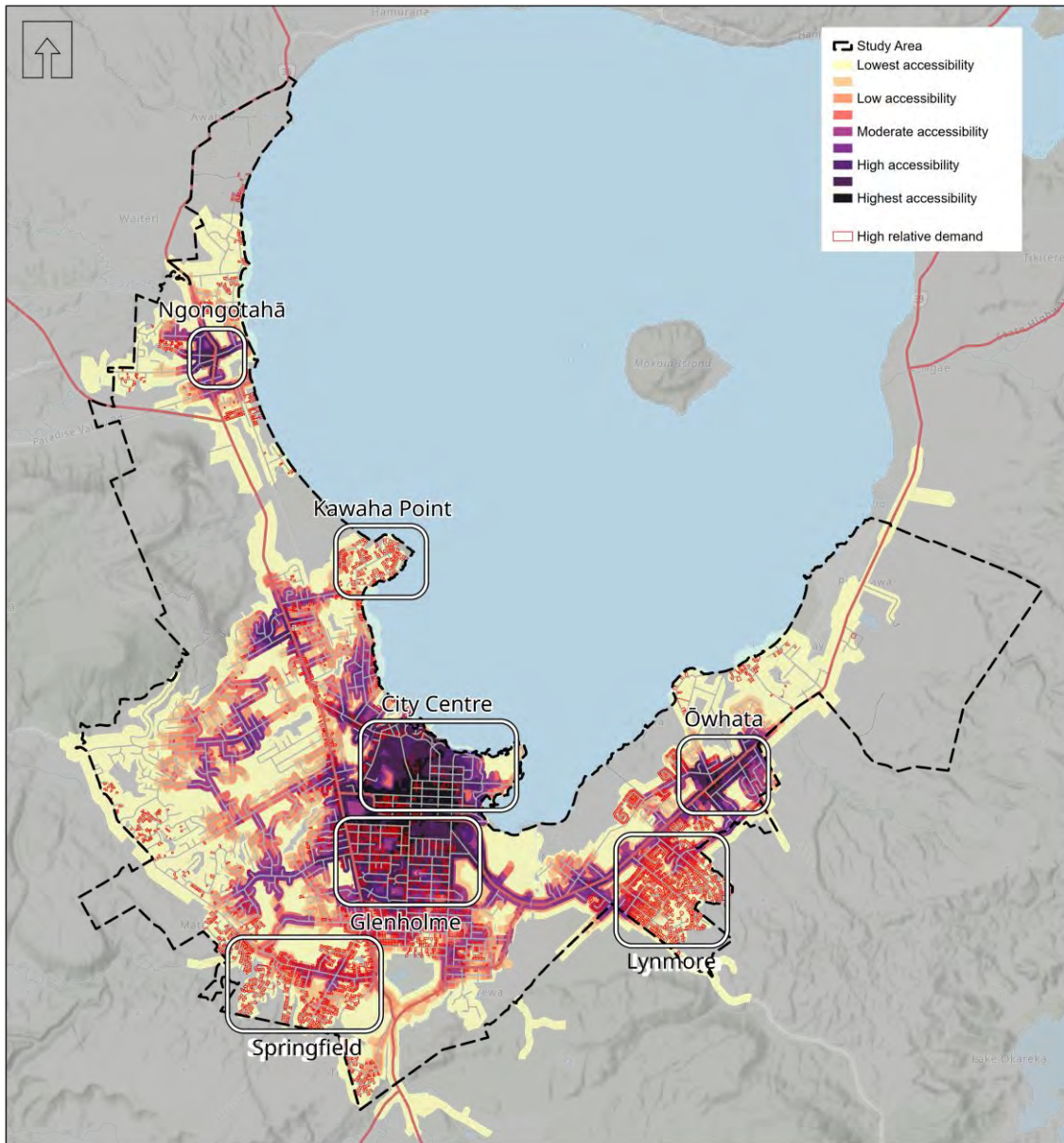
**Lynmore** – Lynmore displays a similar concentration of high land values relative to the rest of Rotorua as Glenholme. LV2CV ratios are also at a level which may better support feasible intensification. The eastern portion of this neighbourhood has been identified as having the lowest levels of accessibility relative to other areas, however the western portion along Tarawera Road does benefit from access to the Redwood Centre

**Springfield** – There is some small notable concentrations of high land values throughout Springfield, predominantly south of Pukehangi/ Springfield Road. However, these are not concentrated to the same extent as seen in Glenholme and Lynmore. Like Lynmore, Springfield generally performs poorly under the accessibility analysis with the areas of higher demand generally at the edge of the existing urban zoned area.



**Kawaha Point** – Kawaha Point shows some higher relative demand, likely driven by its elevated lakefront location and generally proximity to the City Centre. Parcels with higher land values in this area are generally more dispersed in their spatial extent.

**Other areas** – Higher land values are also observed in small pockets of lakefront areas in Ngongotahā, Holdens Bay, and Koutu. It is assumed that this is in part driven by the high natural amenity of these lakefront locations.



**Figure 24 - Demand & Accessibility**



## 7.3 Built Form Implications

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### 7.3.1 Resource Management (Enabling Housing Supply & Other Matters) Amendment Act

The Resource Management (Enabling Housing Supply & Other Matters) Amendment Act (“**the Amendment Act**”) seeks to accelerate the supply of housing in Tier 1 urban areas where demand for housing is high as well as Rotorua where there is an acute housing need. The Amendment Act requires the application of medium density residential standards (“**MDRS**”) across qualifying residential zones. These standards enable medium density housing (up to three dwellings of up to three storeys per site) to be built as of right across more of New Zealand’s urban environments subject to a limited number of design controls.

Adoption of the MDRS within the context of Rotorua still require consideration of the requirements of Policy 5 (as well as Policy 1). In this regard, the MDRS sets a baseline for future residential development across the urban area. In effect, there remains a need to consider whether higher densities over and above those enabled via the MDRS are appropriate.

### 7.3.2 Spatial Implications

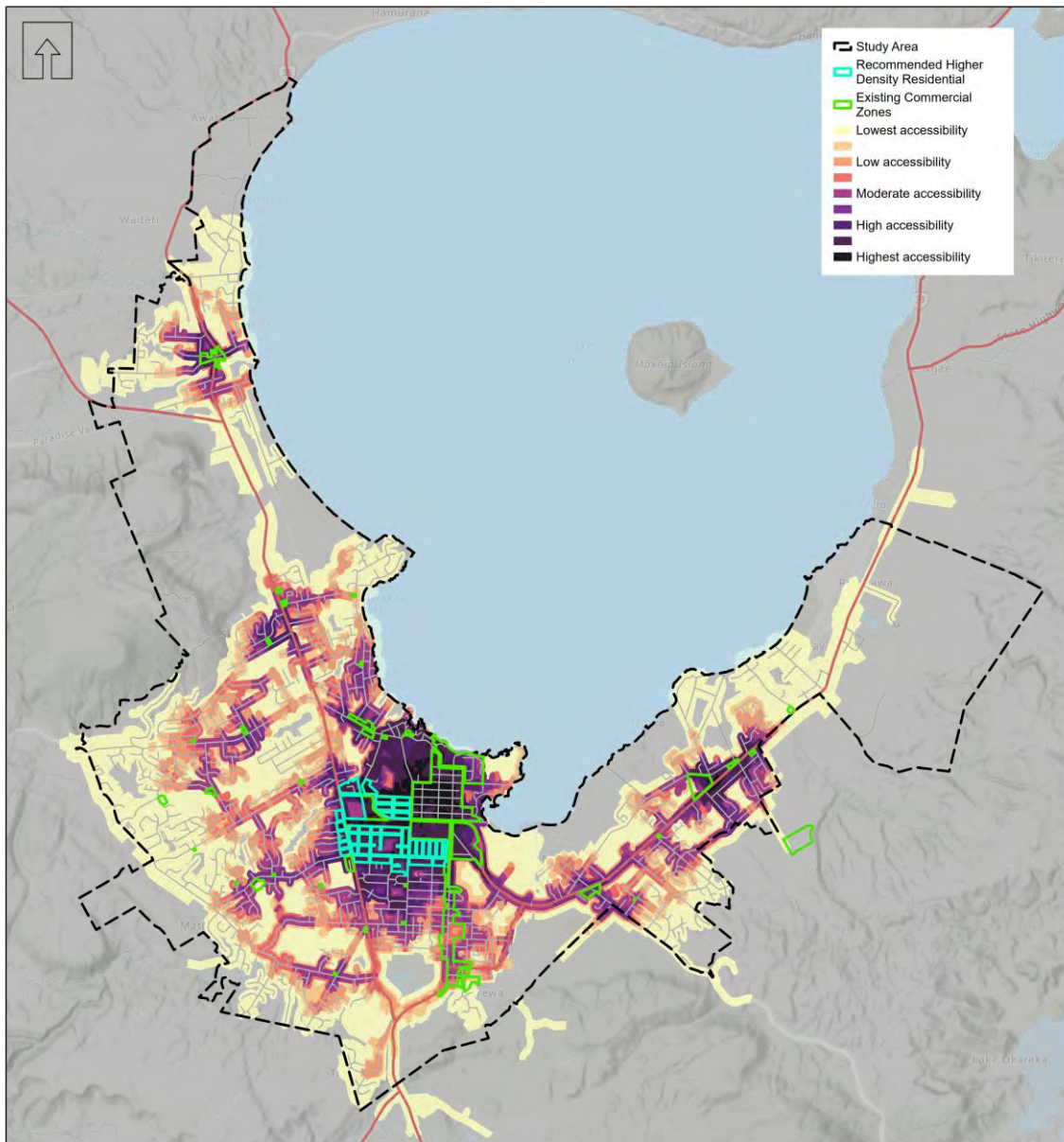
The Operative District Plan features a limited area of more intensive residential zonings focused around the Malfoy Road area of Glenholme (Residential 2 zone). Other smaller pockets of more intensive residential development area enabled in Fenton Park and Ngāpuna. The heights and density enabled within the Residential 2 zone allow low levels of intensification, albeit in areas generally well aligned with the accessibility analysis.

Based on the analysis set out within this memo, it is considered that a number of areas would benefit from increased heights and densities to reflect their level of accessibility. These are key centres within Rotorua which all score relatively well in terms of accessibility and include:

- Ngongotahā
- Ōwhata
- Lynmore (Redwood)
- Westend
- Fairy Springs

In addition to these, the City Centre unsurprisingly performs well within the analysis. Current height limits within the City Centre 1 zone are limited to 20m (Approximately 5 stories). Noting the policy direction set out within the NPSUD and the 11m/ 3-storey height limits enabled via the MDRS it is considered that height and density of development enabled within the City Centre should be increased. Fenton Street also performs relatively well in terms of its accessibility, as such increased heights/ densities within the Commercial 4 zone would be appropriate.

In terms of residential uses, the northern portion of Glenholme features strongly in terms of both accessibility and demand. In contrast, other residential areas perform moderately well in terms of accessibility or demand. In these instances, the MDRS offers a significant increase in the height/ density of development enabled and is considered appropriate. Based on the above, the introduction of a High Density Residential Zone (**HDRZ**) in Glenholme is recommended (refer to Attachment 3). The spatial extent of this is shown in relation to the analysis undertaken is shown in Figure 25 and Figure 26 overleaf.



**Figure 25 - Recommended areas for increased heights/ densities**

The proposed extent of the HDRZ is aligned with the findings of the accessibility and demand analysis and has been concentrated in the existing zoned residential land around Malfroy Road north to the City Centre. This area includes some of the best performing areas in terms of accessibility. Notable drivers of this are the proximity to the City Centre/ employment, supermarkets and educational facilities. This area is also served by the segregated cycling network and due to its central location gives residents the opportunity to access more destinations across Rotorua via the public transport network which currently operates in a radial pattern extending outwards from the City Centre. In addition, the northern part of Glenholme is better served by the existing open space network, with a notable gap in the network located in the southern portion of the neighbourhood. In my opinion, these characteristics are almost unique within the wider Rotorua urban area and justify a greater level of intensification than that enabled via the MDRS.



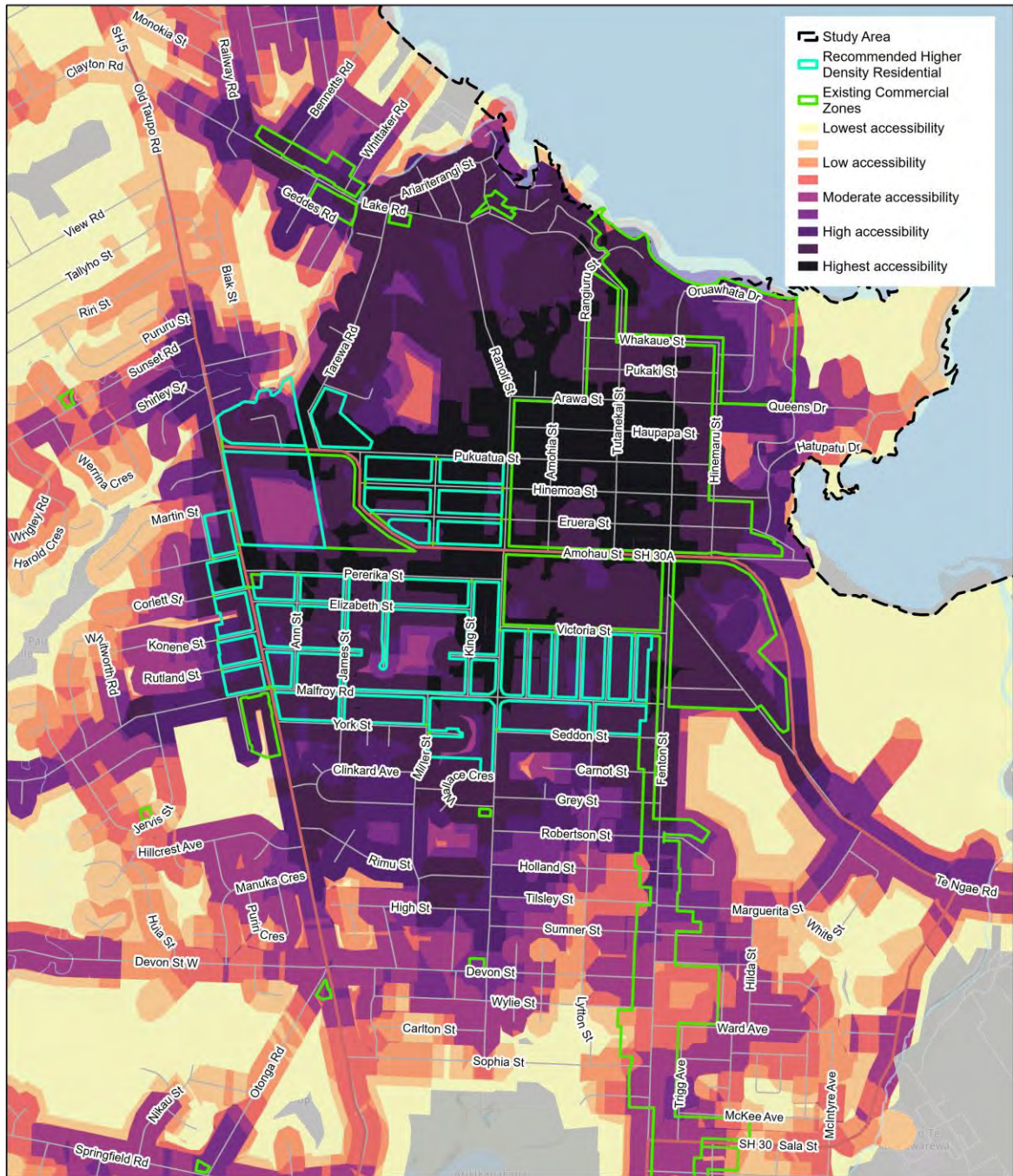


Figure 26 - Recommended spatial extent of a High Density Residential Zone overlaid with accessibility

## Attachment 1 – Destination Priority & Data Sources

Destination	Priority	Data Source
<b>Educational Opportunities</b>		
Primary Schools	First	Ministry of Education – Directory of Educational Institutions
Secondary Schools	First	
State Integrated Schools	First	
Early Childhood Education Services (incl. Kohanga Reo)	Third	
Tertiary Education	Third	
<b>Open Space Opportunities</b>		
Open space/ reserves	Third	Rotorua Lakes Council Internal GIS
Playgrounds	Third	
Sports fields/ large open spaces	First	
<b>Commercial Centres</b>		
City Centre	First	Rotorua Lakes Council Internal GIS
Local Centre (incl. Ngongotahā)	Second	
Neighbourhood Centre	Third	
<b>Employment Opportunities</b>		
Total jobs per meshblock	First	Statistics New Zealand 2018 Census
<b>Food Retail</b>		

Large Supermarkets (e.g. New World, Countdown)	First	Google Maps
Superettes (e.g. Four Square)	Second	

### Cultural Opportunities

Marae	Second	Rotorua Lakes Council Internal GIS
Religious Facilities	Third	Google Maps
Library	Second	Rotorua Lakes Council Internal GIS

### Healthcare Opportunities

Rotorua Hospital	Third	Google Maps
Medical Centres	Second	Google Maps
Pharmacies (excl. where integrated with a medical centre)	Third	Google Maps

### Transport Opportunities

Bus Stops	First / Second	Bay of Plenty Regional Council Internal GIS
Bus Routes	n/a	
Segregated Cycling Network	First	Rotorua Lakes Council Internal GIS

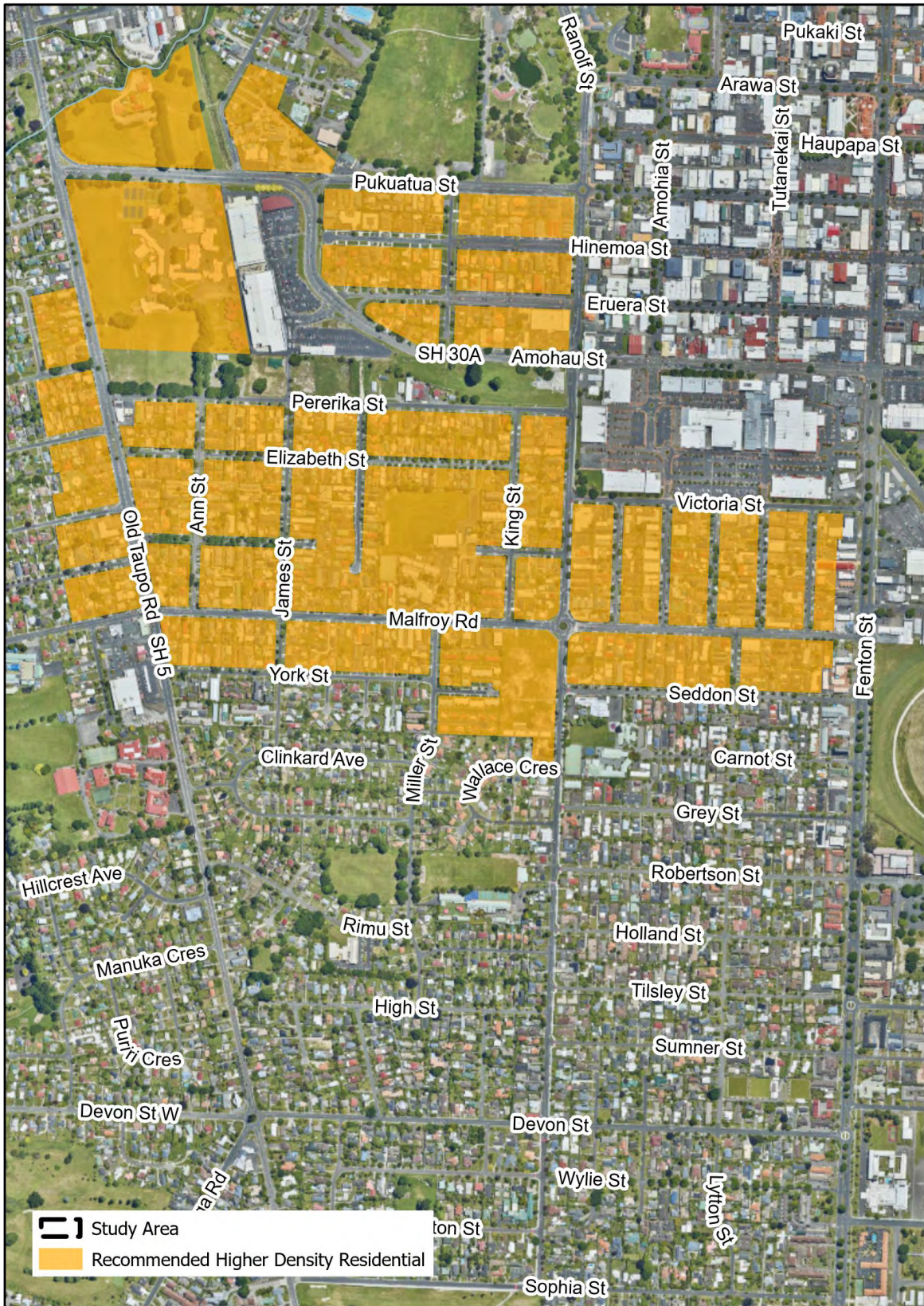
## Attachment 2 – Commercial Centres

Centre ID	Centre Name	Centre Hierarchy
C-001	City Centre Blocks 1-27, 30-31	CBD Function
C-002	City Centre Block 28	CBD Function
C-003	City Centre Block 32	CBD Function
C-004	City Centre Blocks 33 and 34	CBD Function
C-005	Ngongotahā Central	Outside Primary centre
C-006	Fairy Springs (100 Fairy Springs Road)	Local Centre
C-007	Redwood Centre-Tarawera Road	Local Centre
C-008	Te Ngae Shopping Centre	Local Centre
C-009	Westend Shopping Centre	Local Centre
C-010	Fairy Springs, North	Neighbourhood centre
C-011	Fordlands (Ford-Malfroy)	Neighbourhood centre
C-012	Glenholme (Ranolf-Devon)	Neighbourhood centre
C-013	Glenholme (Ranolf-Wallace)	Neighbourhood centre
C-014	Hillcrest (Jervis Street)	Neighbourhood centre
C-015	Kawaha Point (Kawaha Point-Koutu)	Neighbourhood centre
C-016	Koutu (Koutu Road)	Neighbourhood centre
C-017	Koutu-Ōhinemutu (Lake-Karaka-Geddes)	Neighbourhood centre
C-018	Kuirau Park (Tarewa-Lake)	Neighbourhood centre
C-019	Lynmore (Lynmore-Lynbert)	Neighbourhood centre
C-020	Mangakakahi (Mount View-Sunset)	Neighbourhood centre
C-021	Ngāpuna (Vaughan-Te Ngae Rd)	Neighbourhood centre
C-022	Ōhinemutu (Lake-Houkotuku)	Neighbourhood centre

C-023	Ōwhata (542-556 Te Ngae Road)	Neighbourhood centre
C-024	Ōwhata (Basley-Melrose-Te Ngae)	Neighbourhood centre
C-025	Ōwhata (Te Ngae-Coulter)	Neighbourhood centre
C-026	Pleasant Heights (Clayton-Thomas)	Neighbourhood centre
C-027	Pukehangi (Edmund Road)	Neighbourhood centre
C-028	Pukehangi (Goldie Street)	Neighbourhood centre
C-029	Selwyn Heights (Kokado-Old Quarry)	Neighbourhood centre
C-030	Springfield (Otonga-Old Taupo)	Neighbourhood centre
C-031	Springfield (Otonga-Springfield)	Neighbourhood centre
C-032	Sunnybrook (330 Sunset Road)	Neighbourhood centre
C-033	Sunnybrook (Pandora Ave)	Neighbourhood centre
C-034	Utuhina (Old Taupo-Pereika)	Neighbourhood centre
C-035	Victoria (Ranolf- Pererika)	Neighbourhood centre
C-036	Western Heights (Brookland-Clayton)	Neighbourhood centre
C-037	Whakarewarewa-Fenton Park	Neighbourhood centre



Attachment 3 – Spatial Extent of Recommended HDRZ









# Rotorua Intensification Economic Assessment

Intensification Plan Change

7 July 2022 – Final

m.e  
consulting



# Rotorua Intensification Economic Assessment

Intensification Plan Change

Prepared for

Rotorua Lakes Council

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# 1 Introduction

Market Economics (M.E) have been commissioned by Rotorua Lakes Council (RLC) to undertake an economic assessment of residential demand and capacity and other relevant urban form considerations to inform the development of provisions for an intensification plan change. The economic assessment is used to inform the planning assessment (undertaken by Barker & Associates (B&A)), which develops the spatial scenarios for intensification, as well as informing the section 32 report for the plan change.

The intensification plan change is being undertaken as RLC (a tier 2 territorial authority) is required to provide sufficient district plan capacity in key areas of accessibility within the urban environment. Policy 5 of the National Policy Statement on Urban Development (NPS-UD<sup>1</sup>) requires that “tier 2 and 3 urban environments enable heights and density of urban form commensurate with the greater of: (a) the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services; or (b) relative demand for housing and business use in that location”.

RLC have developed a series of spatial scenarios (Options 1 to 4) for intensification around key nodes of accessibility across the urban environment. M.E have conducted analysis of the total market size and projected growth for higher density development in each location and assessed the capacity of provisions within each location under the proposed options. Together these assess the adequacy of the options in meeting the NPS-UD Policy 5 requirements.

The assessment builds off the existing base of capacity and demand modelling undertaken by M.E for RLC’s NPS-UD Housing and Business Capacity and Demand Assessment (HBA) in 2021. The HBA relied on operative district plan zoning in the short-medium term. Further demand modelling has been undertaken to model a revised market shift toward higher density dwellings with the allowance for this type of proposed intensification capacity. An updated capacity assessment has modelled the capacity for higher density development through applying the proposed higher density provisions in the short-medium term in key accessibility areas and MDRS provisions across the residential areas of the urban environment.

## 1.1 Report Structure

The assessment contained within this report is structured as follows:

- Section 2 estimates the current and projected future market size for higher density dwellings. Demand by dwelling typology is estimated by location across Rotorua’s urban development. This will inform the potential demand for residential location and development in key areas of accessibility.
- Section 3 models the capacity for residential dwellings enabled by the planning provisions under each of the four spatial scenarios (options). Capacity is modelled by dwelling typology and location across Rotorua’s urban environment.

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<sup>1</sup> Ministry for the Environment, 2020. *National Policy Statement on Urban Development 2020*, July 2020.





- Sections 2 and 3 are brought together in Section 4, which compares the residential demand with the plan enabled capacity under each of the scenarios. This assesses the adequacy of each provision in allowing for higher density development in key areas of accessibility.
- Section 4 also contains a brief description of the development patterns of higher density residential development in key areas of accessibility within other urban economies. This provides important context for the development of spatial provisions within Rotorua.
- Section 5 provides a brief discussion of on the high-level economic costs and benefits of the intensification scenarios relative to the do-nothing scenario, with commentary on the effectiveness and efficiency of the preferred intensification option relative to the HBA baseline.
- Concluding remarks are in Section 6.



## 2 Residential Dwelling Demand

This section estimates the size of the market demand for residential dwellings by type and location in Rotorua’s urban environment. In particular, it assesses the potential scale of dwelling demand for higher density dwellings that will be further enabled through the proposed residential intensification provisions.

### 2.1 Introduction

To meet the NPS-UD Policy 2 and 5 requirements, RLC seeks to understand the likely level of demand for residential development in key locations to assess the adequacy (sufficiency) of the proposed provisions in catering for that demand in those intensification locations and across the remainder of the general suburban area. It is also important to understand the likely market size to assess the appropriateness of the spatial extent of provisions. The combination of the level of market demand and location and extent of the provisions will affect the likely future urban form outcomes. The adequacy of provisions and potential urban form effects will be considered in subsequent stages of analysis that draw together the market demand and capacity assessments.

### 2.2 Approach

The market demand assessment builds off the detailed demand assessment undertaken by M.E for the Rotorua HBA 2021. It uses the existing modelling capability<sup>2</sup> to generate a baseline demand projection for Rotorua, then undertakes further analysis to model the market shift that may occur through the introduction of intensification planning provisions and market constraints.


The demand assessment ultimately estimates the likely future demand for different types of dwelling typologies that correspond to different types of location across the urban environment. The analysis considers both the total dwelling demand base as well as the net increase in demand (i.e. growth in each time period). The total market size provides a picture of the total market size, while the net increase shows the growth within the market.

Demand has been estimated for the following dwelling typologies:

- Higher density attached dwellings – these range from higher density terraced housing up to vertically attached apartments.
- Other attached dwellings – these range from lower density attached dwellings, such as duplex pairs and one-level attached units, up to terraced housing.
- Detached dwellings – these range from larger standalone houses on full sites, up to smaller standalone houses on much smaller sites that could potentially occur under higher density provisions.

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<sup>2</sup> This is the M.E 2021 Rotorua Housing Demand and Affordability Model.



Importantly, the assessment recognises that there is likely to be a level of overlap between different types of dwelling demand. Demand for one type of dwelling could potentially be met through dwelling supply in a different market segment. Households typically make trade-offs between price, size and location, which often results in demand substitution between different dwelling typologies. Furthermore, underlying demand preferences may not correspond to final dwelling choices based on consumer constraints such as household budget or travel efficiency. For instance, a household may have an underlying preference for a standalone dwelling on a full site. However, they may instead choose to occupy a similar sized attached dwelling on a smaller site in a more accessible location.

Compared with the operative district plan provisions, the introduction of intensification provisions are likely to result in greater diversity of the future dwelling stock offered by the market in Rotorua as different types of supply become viable. These are likely to enable the potential for greater substitution of demand where a greater range of housing options are available for consumers than would otherwise have been the case. The modelling analyses the levels of market demand substitution that have occurred in other urban economies and estimates how this may occur within the Rotorua context.

The key stages of our approach are set out in the sub-sections below.

#### **Estimation of Baseline Market Demand**

The HBA M.E Rotorua Housing Demand and Affordability Model converts the structure of underlying residential growth drivers into demand for different types of dwellings by location. These were presented for detached and attached dwellings in the HBA, largely as a function of the household demographic structure.

The first stage of the analysis provides a more detailed disaggregation of the structure of demand. It uses the modelling capability to produce estimates of baseline demand by the dwelling typologies outlined above. Specifically, it disaggregates attached dwellings into demand for higher density attached dwellings (e.g. apartments and higher density terraced housing) that are likely to occur in more central areas and key nodes of accessibility, and other attached housing (e.g. duplex pairs, terraced housing and single story attached units) that are likely to occur more broadly across the general suburban area.

#### **Estimation of Future Market Demand from Household Structure**

The next stage of modelling estimates the dwelling demand growth within each of the above typologies based on the projected changes in the structure of the household base through time. Importantly, this stage isolates the effect of changes in demand as a function of household base changes from any level of market demand substitution or trade-offs that may occur. The baseline demand estimation forms the starting position from which to model potential market shifts in subsequent stages.

This differs to the HBA, which incorporated a gradual market shift to reflect trade-offs made within the existing market structure of dwelling supply through time. Subsequent stages of analysis model the market shifts that instead occur within a different potential supply under proposed zoning.

The HBA M.E Rotorua Housing Demand and Affordability Model was used to generate these baseline market demand structure through time.



## Analysis of Market Demand Substitution

This stage of the assessment analyses other market studies to gauge the levels of market demand substitution that may occur. M.E have undertaken a range of housing market assessments<sup>3</sup> in other urban economies across New Zealand that estimate how the patterns of housing demand differ between unconstrained household choices and then constrained choices<sup>4</sup> where households reveal the trade-offs they would make across different typologies and locations within budgetary constraints and market price points. They show the distribution of demand by dwelling typology within each of the unconstrained and constrained choice scenarios.

The relevant underlying data have been analysed from these studies to estimate the level of demand shift that occurs from one dwelling typology to another when choices are constrained. For example, it shows the share of detached dwelling demand that is likely to instead be met in attached dwellings within the existing market. These relative shifts have been analysed across different market sizes and market contexts.

Different scenarios of market substitution (high and low) have been produced to apply to the Rotorua market taking into accounts its comparability to the markets used within the studies. These are then applied to the baseline demand structures in the following stage of assessment.

## Application of Market Demand Substitution to the Rotorua Market

This assessment stage applies the estimated patterns of demand substitution to the Rotorua market to estimate how the future patterns of demand by dwelling typology that may be realised within the market. These have been estimated within the previous stage from the Housing We'd Choose studies that show the shift in dwelling type choices households make when they are constrained by budget.

Patterns of demand substitution are applied incrementally within Rotorua to reflect the rates of market churn through time of existing households and growth in new households. In doing this, the analysis only applies the demand substitution to households that are moving within the market, rather than the total household base.

In the short-term, the patterns of demand have been applied to 1% of the existing 2020 dwelling demand base, and just over one-fifth of the net demand increase. In the medium-term, these have been applied to 3% of the 2023 base and half of the net increase. In the long-term, these have been applied to 8% of the demand base and 80% of the net change in dwelling demand. The percentages take into account the average length of time households remain in a dwelling, the share of the market that may face constrained choices and the level of divergence required from the shift in established dwelling patterns within the market.


Market substitution factors have been applied to minor shares of the existing household base to reflect a small level of household change through market churn<sup>5</sup>, as well as only a share of the growth in the market

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<sup>3</sup> These are the Housing We'd Choose studies, which have been undertaken by M.E in a range of urban economies across New Zealand. These follow a methodology established and tested by the Grattan Institute in Australia.

<sup>4</sup> Put simply, this compares the patterns of household preferences by dwelling type with the actual dwelling type choices that they are likely to make within the realities of the urban dwelling market.

<sup>5</sup> Generally, the average length of time a dwelling is occupied is around 7 years. This would result in a market churn of around 50% across 10 years, and 90% across 30 years.



base. Substitution conversions have not been applied to the whole share of the base that is likely to represent market churn, or the whole net increase in demand, as it reflects patterns of demand that respond to a combination of the existing dwelling demand supply structure and the potential future estate patterns of dwelling demand. The share of the market where substitution is applied increases gradually through time to reflect gradual increases in the relative proportion of the potential future estate through time.

### **Spatial Distribution of Dwelling Demand**

The final stage of the demand assessment estimates the spatial distribution of dwelling demand by typology across Rotorua's urban environment. Demand has been disaggregated into the four urban catchment areas of the HBA – Central, Western, Eastern and Ngongotahā. This has occurred through applying the rates of market substitution (outlined above) at the catchment level.

It is important that demand is not spatially disaggregated further beyond this level, particularly within a smaller urban economy such as Rotorua. Within this lies an important distinction between the origin of demand and the location within which demand is met. Demand typically arises at a city or sub-city level where households are formed from demographic change within the existing base and the movement of households to the city generally. This demand is then met within a range of different locations within the urban area where households make location decisions across a number of different locations and types of locations within the market. The eventual location where demand is met is dependent upon the market supply and availability of choices within the market.

It is important that the assessment is able to compare the level of market demand arising at the city or sub-city level with a range of different options where demand can be met within these areas. A key focus is how the type of location corresponds with the level of market demand, taking into account the likely development patterns within these locations.

The output of this stage of analysis is the market demand by each of the dwelling typologies within each of the four urban HBA catchments. This is then compared in subsequent sections of the overall analysis to the level of capacity by type of location to accommodate this demand within each catchment to assess the adequacy of the proposed provisions.

## **2.3 Residential Demand by Dwelling Typology and Location**

This section contains the modelled results from the residential market demand analysis in relation to each of the dwelling categories described above. It presents results for high and low market substitution scenarios. These refer to the level of market substitution that are estimated to occur within the share of the market to which the substitution is applied.

Under the high scenario, 32% of the detached dwelling demand is estimated to be met through attached dwellings (almost all within the lower density attached dwellings), and 38% of the lower density attached dwelling demand is estimated to be met within higher density attached dwellings (apartments and higher density terraced housing). Under the low scenario, 25% of the detached dwelling demand is estimated to be met through attached dwellings, and 30% of the lower density attached demand in higher density attached dwellings.



In the first instance, the modelled results for the projected demand for the intensification provisions at the city level are presented. These are then compared to the structure of demand projected for the HBA and the baseline patterns of demand occurring as a function of demographic changes within the household base. Lastly, the modelled results are then disaggregated spatially by the four catchments used in the HBA.

### 2.3.1 City Level Modelled Results

The modelled projected demand by dwelling typology is shown in Table 2-1 (high scenario) and Table 2-2 (low scenario). The upper part of the tables show the total projected demand by dwelling typology in the current base (2020) and short (2023), medium (2030) and long-term (2050). The lower section of the table shows the net increase of demand across each of these periods. The right hand side of the tables show the structure of demand by dwelling typology within each year as well as the structure of the net changes in dwelling demand.

The tables show that there is a net increase in demand for 9,700 additional dwellings across Rotorua's urban environment over the next 30 years (to 2050) (based on Council's preferred Medium growth outlook). This includes existing latent demand (an estimated current shortfall of 1,500 dwellings in 2020) and, in accordance with the NPS-UD requirements, 15%-20% margins on net increases in future demand. The total demand remains the same as that projected under the HBA, while the structure of the demand changes with the changes in proposed planning provisions.

The tables show that detached housing is projected to remain the dominant form of dwelling demand in Rotorua into the long-term. It currently accounts for 86% of dwelling demand, with this share projected to decrease to between 77% and 78% in the long-term. This equates to an increase in demand for an additional 5,300 to 5,800 detached dwellings over the long-term.

While detached dwellings form the largest overall share of net growth, attached dwellings are projected to account for an increasing share of market growth through time, and consequently, an increasing share of the total dwelling demand base. There is a projected demand for an additional 3,200 to 3,500 lower density attached dwellings over the long-term. Their share of the total dwelling base demand is projected to increase from an existing 14% to a projected 19% to 20% in the long-term.

In the short-term (2020-2023), lower density attached dwellings account for between one-fifth and one-quarter of demand growth. During the long-term (beyond 2030, to 2050), they are projected to account for nearly half (45% to 49%) of the dwelling demand growth. Over the full time period (2020-2030), they are projected to account for around one-third of dwelling demand growth.

These include the lower density attached dwellings, where dwellings are attached horizontally. They are generally 1 to 2 storeys, with a smaller number of 3-level walk-ups. Examples include one-level attached units, townhouse/duplex pairs and terraced housing. Demand for these dwellings is likely to typically occur across much for the general suburban areas, but with a greater relative concentration within the walkable catchments of higher accessibility/amenity areas as households make trade-offs between location, dwelling type and price.

In many cases, lower density dwellings are able to provide viable alternatives for households that would otherwise seek a standalone dwelling. Lower density forms of attached dwellings, such as townhouses,



offer many of the same dwelling size and attribute characteristics of standalone dwellings, and in similar locations, albeit on a smaller average site area.

There may also be a level of market substitution to other attached dwellings within this category as households trade-off price and location. A high share (54%-59%) of Rotorua's current and projected future household base is in 1-2 person households, generally placing demand on smaller dwelling size requirements. This may mean that duplex dwellings and lower density terraced housing within higher amenity areas may form an attractive option for these households.

Lastly, higher density attached dwellings (apartments) currently only account for 1% of Rotorua's urban dwelling demand, amounting to around 200 dwellings. Under the modelled scenarios, there is a projected future demand for an additional 700 to 1,000 higher density apartment dwellings in Rotorua's urban area over the next 30 years to 2050. This amounts to a total future demand for 900 to 1,100 apartment dwellings by 2050, which would equate to around 3% of the total market.

Activity in Rotorua's apartment market is currently very small and is not well established. Growth in the market is more likely to occur over the medium to long-term as developers gain more confidence in this form of development. This is reflected in the modelled scenarios where apartments represent 3% to 4% of the projected net increase in demand in the short-term (2020-2023), increasing gradually over the longer-term. Under the low substitution scenario, apartments account for 12% of long-term demand (400 apartments from 2030 to 2050). Under the high substitution scenario, they account for 17% of demand in the long-term (600 apartments from 2030 to 2050).

The modelled projected demand for apartments predominantly occurs through substitution of demand from lower density attached dwellings, with smaller shares occurring as base demand growth from the existing patterns in the projected household structure, and substitution from detached dwellings. The demand for apartment dwellings is likely to be focussed around the nodes of higher accessibility areas based on patterns observed across most other urban economies. The demand may not all be met through vertically attached apartments. A share is also likely to be met through higher density (horizontally attached) terraced housing, up to three storeys.

In other urban economies this type of higher density horizontally attached development has typically occurred in nodes and areas of higher accessibility. This is also likely to occur within the Rotorua urban market where the vertically attached apartment market is not well established.

Table 2-1: Projected Rotorua Urban Demand by Dwelling Typology: High Substitution Scenario

Demand Substitution Scenario: HIGH SUBSTITUTION SCENARIO								
YEAR	DWELLING TYPOLOGY				DWELLING TYPOLOGY			
	Detached	Duplex/Terrace	Apartments	TOTAL	Detached	Duplex/Terrace	Apartments	TOTAL
	Projected Demand				Share of Demand			
2020	21,200	3,400	200	24,700	86%	14%	1%	100%
2023	23,800	4,200	300	28,300	84%	15%	1%	100%
2030	25,300	5,100	500	30,900	82%	16%	2%	100%
2050	26,500	6,800	1,100	34,400	77%	20%	3%	100%
	Net Change				Share of Net Change			
2020-2023	2,600	800	100	3,600	73%	23%	4%	100%
2020-2030	4,100	1,800	400	6,200	66%	28%	6%	100%
2020-2050	5,300	3,500	1,000	9,700	55%	35%	10%	100%
2023-2030	1,500	900	200	2,700	57%	35%	8%	100%
2030-2050	1,200	1,700	600	3,500	35%	49%	17%	100%

Source: M.E Residential Intensification Analysis, 2022 and M.E Rotorua Residential Demand and Affordability Model, 2021.

Table 2-2: Projected Rotorua Urban Demand by Dwelling Typology: Low Substitution Scenario

Demand Substitution Scenario: LOW SUBSTITUTION SCENARIO								
YEAR	DWELLING TYPOLOGY				DWELLING TYPOLOGY			
	Detached	Duplex/Terrace	Apartments	TOTAL	Detached	Duplex/Terrace	Apartments	TOTAL
	Projected Demand				Share of Demand			
2020	21,200	3,400	200	24,700	86%	14%	1%	100%
2023	23,800	4,100	300	28,300	84%	15%	1%	100%
2030	25,500	5,000	500	30,900	82%	16%	2%	100%
2050	27,000	6,600	900	34,400	78%	19%	3%	100%
	Net Change				Share of Net Change			
2020-2023	2,700	800	100	3,600	75%	22%	3%	100%
2020-2030	4,300	1,700	300	6,200	69%	26%	4%	100%
2020-2050	5,800	3,200	700	9,700	60%	33%	7%	100%
2023-2030	1,700	900	200	2,700	62%	32%	6%	100%
2030-2050	1,500	1,600	400	3,500	43%	45%	12%	100%

Source: M.E Residential Intensification Analysis, 2022 and M.E Rotorua Residential Demand and Affordability Model, 2021.

## Comparison to Base Scenario and HBA

The total projected demand by dwelling type under each of the modelled scenarios is shown in Figure 2-1, and the net increase by typology within each time period, within Figure 2-2. These figures highlight the difference in the structure of demand by typology between each of the scenarios. The attached dwelling demand in the HBA scenario includes all attached dwellings (i.e. duplex, terraced housing, apartments, etc), and should be compared to the sum of the yellow and maroon sections of the other modelled scenarios.

The Base Market scenario shows a gradual change in the structure of demand through time with an increase in the share of demand for attached dwellings. This occurs as a function of changes in the underlying demographic structure of households with no modelled preference shift. Attached dwellings account for 15% of the base market total demand in 2020 (1% for apartments), and account for 20% of the net increase in demand in the short-term (2020-2023) (2% for apartments). By 2050, attached dwellings





are modelled to increase their total share of demand to 17% (apartments remaining at 1%), accounting for 23% of the net increase in demand over the next 30 years, and 29% of the net increase in demand projected to occur within the long-term (2030-2050).

The HBA scenario includes a gradual modelled preference shift to attached dwellings in addition to the shift occurring as a function of demographic changes in the household structure. This modelled preference shift occurs within the context of the current patterns of dwelling development in Rotorua (as dictated by operative zoning and some assumptions around long-term zoning under the 2018 Spatial Plan). The share of total demand in attached dwellings increases from 15% in 2020 to 19% in 2050. The share of the total net increase in demand (2020-2050) is at 32%, which is higher than the base scenario at 23%. The share of the net increase in demand occurring in the long-term (2030-2050) is at 45% for this scenario. While this is significantly higher than the existing Rotorua demand profile structure, it is below the share of attached dwellings seen in the current patterns of building consents in a number of growing urban economies outside of Auckland.

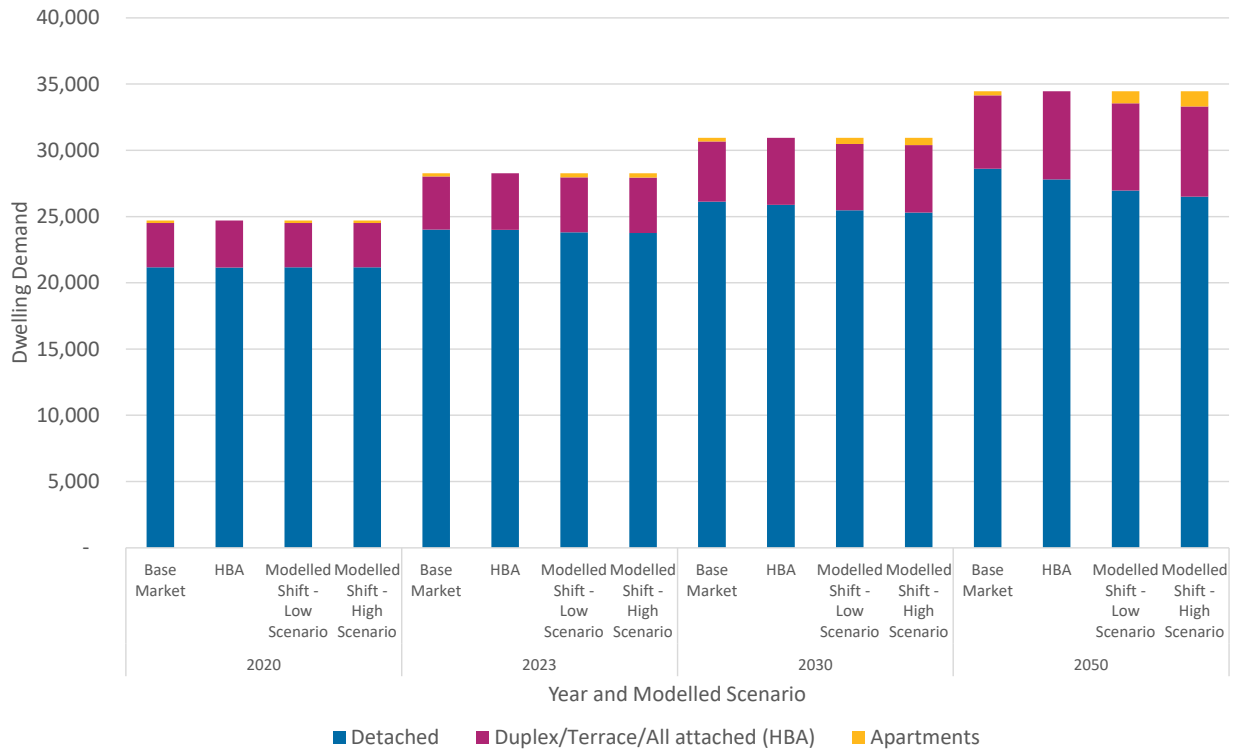
The two additional modelled scenarios (Modelled Shift High and Low) include a further modelled shift in dwelling preferences as described above in response to proposed intensification provisions. These scenarios have a higher share of future dwelling demand as attached dwellings than the Base and HBA scenarios. The greater shift to attached dwellings is anticipated as a greater range of dwelling typologies would be enabled as a result of the intensification plan change and become viable through time.

Under these scenarios, attached dwellings (all attached dwellings) account for 22% to 23% of total demand in 2050, in comparison to the 17% to 19% in the Base and HBA scenarios. Attached dwellings account for 32% to 40% of the total net increase in demand from 2020 to 2050, in comparison to 23% to 32% under the other scenarios. The share of demand increase occurring in the long-term (2030-2050) increases to 57% to 65% as attached dwellings. This is similar to the share of attached dwellings in recent building consent patterns currently occurring within higher growth urban economies.

Within these shifts, there is a greater modelled shift toward apartment dwellings. The apartment market is currently small within Rotorua and only accounts for around 1% of total demand. This is modelled to increase to around 3% by 2050 under these scenarios, in comparison to remaining at 1% under the Base scenario with no modelled preference shift. Over the long-term 2020-2050, apartment demand is modelled to account for 7% to 10% of total demand increase, and 12% to 17% of the net increase that occurs within the long-term (2030-2050). This is similar to the patterns of new dwelling development that are currently occurring across a number of higher growth New Zealand urban economies.

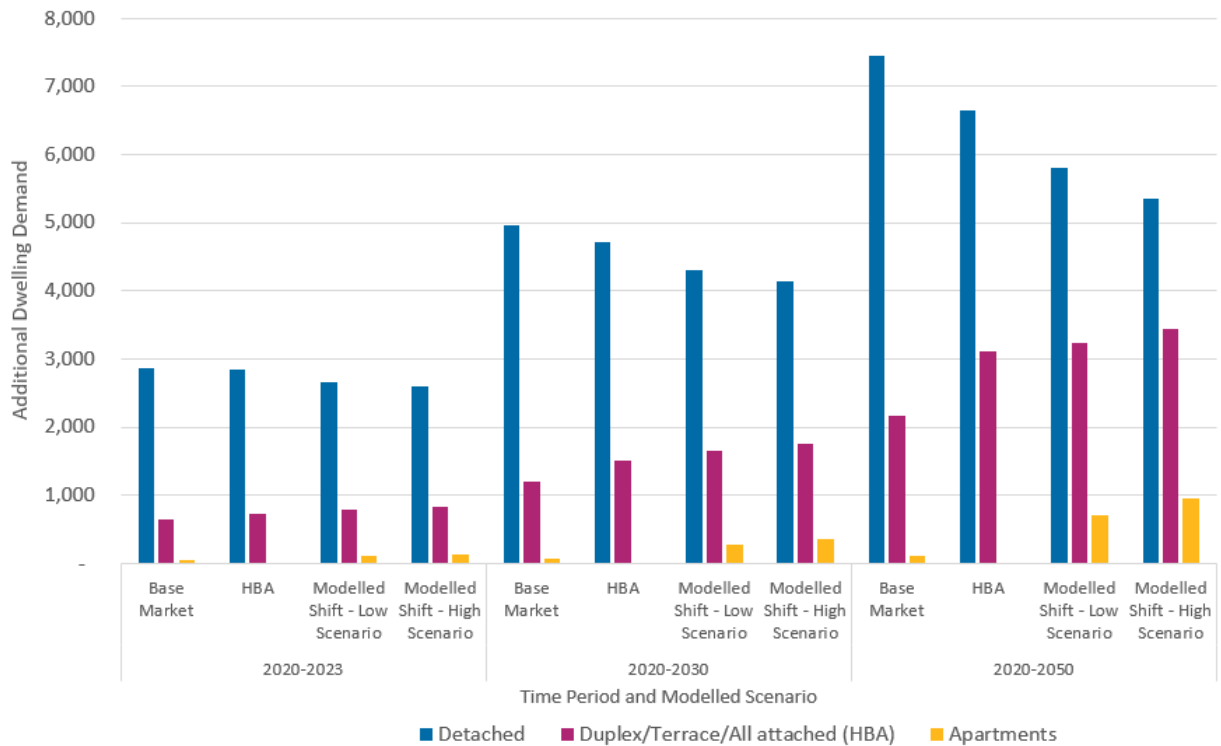


Figure 2-1: Projected Total Dwelling Demand by Typology and Modelled Scenario



Source: M.E Residential Intensification Analysis, 2022 and M.E Rotorua Residential Demand and Affordability Model, 2021.

Figure 2-2: Projected Net Change in Dwelling Demand by Typology and Modelled Scenario



Source: M.E Residential Intensification Analysis, 2022 and M.E Rotorua Residential Demand and Affordability Model, 2021.



### 2.3.2 Spatial Distribution of Demand

This section shows the modelled dwelling demand disaggregated spatially across the four HBA urban catchments of Central, Western, Eastern and Ngongotahā. Table 2-3 and Table 2-5 show the total dwelling demand by typology in each time period across the four catchments under the High and Low Substitution scenarios respectively. The net changes in dwelling demand from the base year across each typology and location are shown in Table 2-4 and Table 2-6 for each scenario.

Overall, the higher density attached dwellings are currently more concentrated into Rotorua's central urban areas, in particular, the Central reporting area. This concentration is projected to increase through time. It is projected to occur as a combination of higher growth of higher density attached dwellings (apartments and higher density terraced housing) within the most central areas, as well as increasing levels of growth in lower density attached dwellings (e.g. duplexes, units, townhouses and terraced housing) across the more central suburban areas (Central and Western reporting areas).

The Western reporting area is the largest catchment area, containing nearly half (46%) of the total dwelling demand in the base year. Demand in this catchment is dominated by standalone dwellings, which is reflective of its coverage across much of Rotorua's general suburban area. In the short-term, growth is dominated by detached dwellings. However, through time, a large share of this demand instead occurs as attached dwellings, focussed on the lower density duplexes, units, townhouses and terraced housing. These account for 61% of demand increases projected to occur in the long-term (2030-2050).

The Central reporting area is the second largest catchment, with 29% of total dwelling demand in the base year. Demand in this catchment differs to the rest of the urban area as a much higher share occurs as attached dwellings. In the base year, the Central reporting area contains nearly three-quarters (71%) of the city's demand for attached dwellings.

The share of total dwelling demand in the Central reporting area is projected to increase slightly through time, accounting for 34% of long-term dwelling demand growth. Attached dwellings account for higher shares of growth than the rest of the urban area, with the share increasing through time. They account for over half (57%) of long-term (2020-2050) demand growth, and around two-thirds (68%) of the growth that occurs within the long-term (2030-2050).

Table 2-3: Modelled Total Demand by Dwelling Typology and HBA Catchment: High Substitution Scenario

Demand Substitution Scenario: HIGH SUBSTITUTION SCENARIO								
Catchment	DWELLING TYPOLOGY							
	Detached	Duplex/Terrace	Apartments	TOTAL	Detached	Duplex/Terrace	Apartments	TOTAL
	Projected Demand				Share of Demand Type			
	2020				2020			
Central	4,700	2,400	100	7,200	22%	71%	71%	29%
Western	10,600	700	40	11,400	50%	22%	22%	46%
Eastern	4,000	100	10	4,200	19%	4%	4%	17%
Ngongotahā	1,800	100	10	2,000	9%	4%	4%	8%
<b>Total Urban Environment</b>	<b>21,200</b>	<b>3,400</b>	<b>200</b>	<b>24,700</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2023				2023			
Central	5,200	2,800	200	8,200	22%	66%	66%	29%
Western	11,900	1,000	80	13,000	50%	25%	25%	46%
Eastern	4,600	200	20	4,800	19%	5%	5%	17%
Ngongotahā	2,100	200	10	2,300	9%	4%	4%	8%
<b>Total Urban Environment</b>	<b>23,800</b>	<b>4,200</b>	<b>300</b>	<b>28,300</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2030				2030			
Central	5,600	3,100	300	9,100	22%	61%	61%	29%
Western	12,500	1,400	100	14,000	49%	27%	27%	45%
Eastern	4,900	400	40	5,300	19%	7%	7%	17%
Ngongotahā	2,200	300	30	2,500	9%	5%	5%	8%
<b>Total Urban Environment</b>	<b>25,300</b>	<b>5,100</b>	<b>500</b>	<b>30,900</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2050				2050			
Central	6,100	3,800	600	10,500	23%	56%	56%	30%
Western	12,700	1,900	300	14,900	48%	28%	28%	43%
Eastern	5,300	700	100	6,200	20%	10%	10%	18%
Ngongotahā	2,400	400	70	2,900	9%	6%	6%	8%
<b>Total Urban Environment</b>	<b>26,500</b>	<b>6,800</b>	<b>1,100</b>	<b>34,400</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: M.E Residential Intensification Analysis, 2022 and M.E Rotorua Residential Demand and Affordability Model, 2021.

Table 2-4: Projected Net Change in Demand by Typology and HBA Catchment: High Substitution Scenario

Demand Substitution Scenario: HIGH SUBSTITUTION SCENARIO								
Catchment	DWELLING TYPOLOGY							
	Detached	Duplex/Terrace	Apartments	TOTAL	Detached	Duplex/Terrace	Apartments	TOTAL
	Projected Demand				Share of Demand Type			
	2020-2023				2020-2023			
Central	600	400	80	1,100	22%	47%	59%	30%
Western	1,200	300	40	1,600	48%	35%	28%	44%
Eastern	500	100	10	600	21%	12%	7%	18%
Ngongotahā	200	60	10	300	9%	7%	5%	9%
<b>Total Urban Environment</b>	<b>2,600</b>	<b>800</b>	<b>100</b>	<b>3,600</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2020-2030				2020-2030			
Central	1,000	800	200	1,900	24%	43%	56%	31%
Western	1,800	600	100	2,600	45%	36%	29%	41%
Eastern	900	200	30	1,200	22%	14%	9%	19%
Ngongotahā	400	100	20	600	10%	7%	6%	9%
<b>Total Urban Environment</b>	<b>4,100</b>	<b>1,800</b>	<b>400</b>	<b>6,200</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2020-2050				2020-2050			
Central	1,400	1,400	500	3,300	27%	41%	53%	34%
Western	2,000	1,200	300	3,500	38%	34%	29%	36%
Eastern	1,300	600	100	2,000	25%	17%	12%	20%
Ngongotahā	600	300	60	900	11%	8%	6%	9%
<b>Total Urban Environment</b>	<b>5,300</b>	<b>3,500</b>	<b>1,000</b>	<b>9,700</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: M.E Residential Intensification Analysis, 2022 and M.E Rotorua Residential Demand and Affordability Model, 2021.

Table 2-5: Modelled Total Demand by Dwelling Typology and HBA Catchment: Low Substitution Scenario

Demand Substitution Scenario: LOW SUBSTITUTION SCENARIO								
Catchment	DWELLING TYPOLOGY							
	Detached	Duplex/Terrace	Apartments	TOTAL	Detached	Duplex/Terrace	Apartments	TOTAL
	Projected Demand				Share of Demand Type			
	2020				2020			
Central	4,700	2,400	100	7,200	22%	71%	71%	29%
Western	10,600	700	40	11,400	50%	22%	22%	46%
Eastern	4,000	100	10	4,200	19%	4%	4%	17%
Ngongotahā	1,800	100	10	2,000	9%	4%	4%	8%
<b>Total Urban Environment</b>	<b>21,200</b>	<b>3,400</b>	<b>200</b>	<b>24,700</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2023				2023			
Central	5,300	2,800	200	8,200	22%	66%	66%	29%
Western	11,900	1,000	70	13,000	50%	24%	24%	46%
Eastern	4,600	200	20	4,800	19%	5%	5%	17%
Ngongotahā	2,100	200	10	2,300	9%	4%	4%	8%
<b>Total Urban Environment</b>	<b>23,800</b>	<b>4,100</b>	<b>300</b>	<b>28,300</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2030				2030			
Central	5,700	3,100	300	9,100	22%	62%	62%	29%
Western	12,600	1,300	100	14,000	49%	26%	26%	45%
Eastern	5,000	300	30	5,300	20%	7%	7%	17%
Ngongotahā	2,300	200	20	2,500	9%	5%	5%	8%
<b>Total Urban Environment</b>	<b>25,500</b>	<b>5,000</b>	<b>500</b>	<b>30,900</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2050				2050			
Central	6,200	3,800	500	10,500	23%	57%	57%	30%
Western	12,900	1,800	200	14,900	48%	27%	27%	43%
Eastern	5,400	600	80	6,200	20%	9%	9%	18%
Ngongotahā	2,500	400	50	2,900	9%	6%	6%	8%
<b>Total Urban Environment</b>	<b>27,000</b>	<b>6,600</b>	<b>900</b>	<b>34,400</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: M.E Residential Intensification Analysis, 2022 and M.E Rotorua Residential Demand and Affordability Model, 2021.

Table 2-6: Projected Net Change in Demand by Typology and HBA Catchment: Low Substitution Scenario

Demand Substitution Scenario: LOW SUBSTITUTION SCENARIO								
Catchment	DWELLING TYPOLOGY							
	Detached	Duplex/Terrace	Apartments	TOTAL	Detached	Duplex/Terrace	Apartments	TOTAL
	Projected Demand				Share of Demand Type			
	2020-2023				2020-2023			
Central	600	400	70	1,100	22%	49%	60%	30%
Western	1,300	300	30	1,600	48%	33%	28%	44%
Eastern	500	90	10	600	21%	11%	7%	18%
Ngongotahā	200	50	10	300	9%	6%	5%	9%
<b>Total Urban Environment</b>	<b>2,700</b>	<b>800</b>	<b>100</b>	<b>3,600</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2020-2030				2020-2030			
Central	1,000	800	200	1,900	24%	46%	57%	31%
Western	1,900	600	80	2,600	45%	34%	29%	41%
Eastern	900	200	20	1,200	22%	13%	9%	19%
Ngongotahā	400	100	20	600	10%	7%	6%	9%
<b>Total Urban Environment</b>	<b>4,300</b>	<b>1,700</b>	<b>300</b>	<b>6,200</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	2020-2050				2020-2050			
Central	1,500	1,400	400	3,300	27%	44%	54%	34%
Western	2,200	1,100	200	3,500	38%	33%	29%	36%
Eastern	1,400	500	80	2,000	24%	15%	11%	20%
Ngongotahā	600	300	40	900	11%	8%	6%	9%
<b>Total Urban Environment</b>	<b>5,800</b>	<b>3,200</b>	<b>700</b>	<b>9,700</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: M.E Residential Intensification Analysis, 2022 and M.E Rotorua Residential Demand and Affordability Model, 2021.



# 3 Plan Enabled Residential Dwelling Capacity

This section contains our assessment of the residential dwelling capacity enabled by Rotorua’s proposed planning provisions across the existing urban environment (excluding greenfield areas). It calculates the capacity for additional residential development enabled by the proposed provisions. These do not take into account the commercial feasibility of constructing the capacity or the infrastructure constraints to development.

## 3.1 Introduction

Our assessment calculates the capacity enabled by the proposed residential planning provisions in intensification Options 1 to 4, developed by B&A. These include the capacity for higher density development within the commercial zones and key nodes of accessibility as well as the application of the Medium Density Residential Standards (MDRS) across the general residential suburban area.

Policy 5 of the NPS-UD requires adequate provision for higher density development in key nodes of accessibility relative to the level of accessibility and demand. The areas of accessibility and proposed density provisions have been defined within the B&A planning assessment. Our assessment then calculates the level of capacity enabled by these provisions in each location (consistent with the methods applied in the HBA 2021), which are then brought together with our estimates of demand to assess the adequacy of the enabled capacity. In these areas, we assess higher density residential development in the form of vertically attached apartments of up to five storeys as enabled by the proposed intensification provisions.


Capacity is also assessed across the remainder of the general residential area. The assessment calculates the capacity enabled by the MDRS when it is applied to the base zones proposed by the B&A planning assessment.

The following sub-section sets out the proposed intensification planning provisions and our approach to the assessment of capacity enabled by these provisions. The outputs of our assessment are contained in Section 3.4.

## 3.2 Proposed Intensification Planning Provisions

Analysis was undertaken by B&A to identify the areas of high accessibility within the urban environment as required by the NPS-UD. These broadly included areas of high amenity from commercial activities and access to social infrastructure.

The proposed provisions provide for higher density vertically attached apartment development within most of the commercial zones as well as areas of the residential zones surrounding the main commercial centres. The latter occurs through the application of a High Density Residential (HDR) Zone or through additional height overlays within the residential base zone. The remainder of the general residential suburban area



(outside of the commercial zones and proposed HDR) has a proposed upzoning to a Medium Density Residential (MDR) Zone. The exception is the Residential 3 Zone where the ODP zoning has been retained (but has the MDRS provisions applied within the base modelling). The MDRS have been applied to this area, providing for increased density across the urban environment with a range of dwelling typologies. Within the MDRS, the modelled typologies range from detached dwellings up to higher density horizontally attached dwellings (e.g. higher density terraced housing) up to three storeys<sup>6</sup>.

Four options were developed by B&A that contain progressive levels of increased density provision. These are displayed in Figure 3-1 to Figure 3-4 respectively, and are described below:

- **Option 1:** Provision for higher density vertically-attached apartment dwellings within the commercial centres and commercial zoned area along Fenton Street and Lake Road. Addition of provisions for residential development within the Southern Edge commercial area. All other areas<sup>7</sup> upzoned to MDR with the application of MDRS.
- **Option 2:** In addition to the provision in Option 1, the inclusion of a limited HDR zone, providing for vertically attached dwellings up to five storeys. The proposed HDR zone surrounds the south-western side of the City Centre and is similar<sup>8</sup> in spatial extent to the operative Residential 2 (Medium Density) Zone.
- **Option 3:** In addition to the provision in Option 2, this option includes a more extensive HDR zoning. The HDR zone extends further outward from the City Centre and is also applied in the residential areas surrounding Ngongotahā and Ōwhata suburban centres.
- **Option 4:** In addition to the provision in Option 2, this option provides for higher density vertically-attached dwellings within areas of the MDR zone through additional height overlays. The combined extent and location of the HDR zone and additional height overlays are similar to the full extent of the HDR zone proposed in Option 3.

In addition to the above options, we have modelled the capacity from the application of the MDRS to the existing ODP base zones (without any change to MDR base zoning) to understand the effect of MDRS in the absence of the intensification plan change.

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<sup>6</sup> The MDRS provisions do not restrict development to horizontally attached dwellings, with the possibility for construction of vertically stacked apartments. However, the modelling has assumed that dwellings will be horizontally attached given the increased development cost of constructing vertically attached dwellings without any increase in yield. The initial lot size within Rotorua (and the size of subsequent land areas per dwelling) is also likely to result in horizontally attached, rather than vertically attached, dwellings.

<sup>7</sup> For the purpose of this study, MDR with MDRS has been applied to operative Residential 1 and 2 zones, unless otherwise upzoned to HDR in Options 1-4.

<sup>8</sup> The proposed HDR has a smaller southern extent than the existing Residential 2 Zone and extends further east than the existing Residential 2 Zone.





Figure 3-1: Proposed Spatial Structure of Zones: Option 1

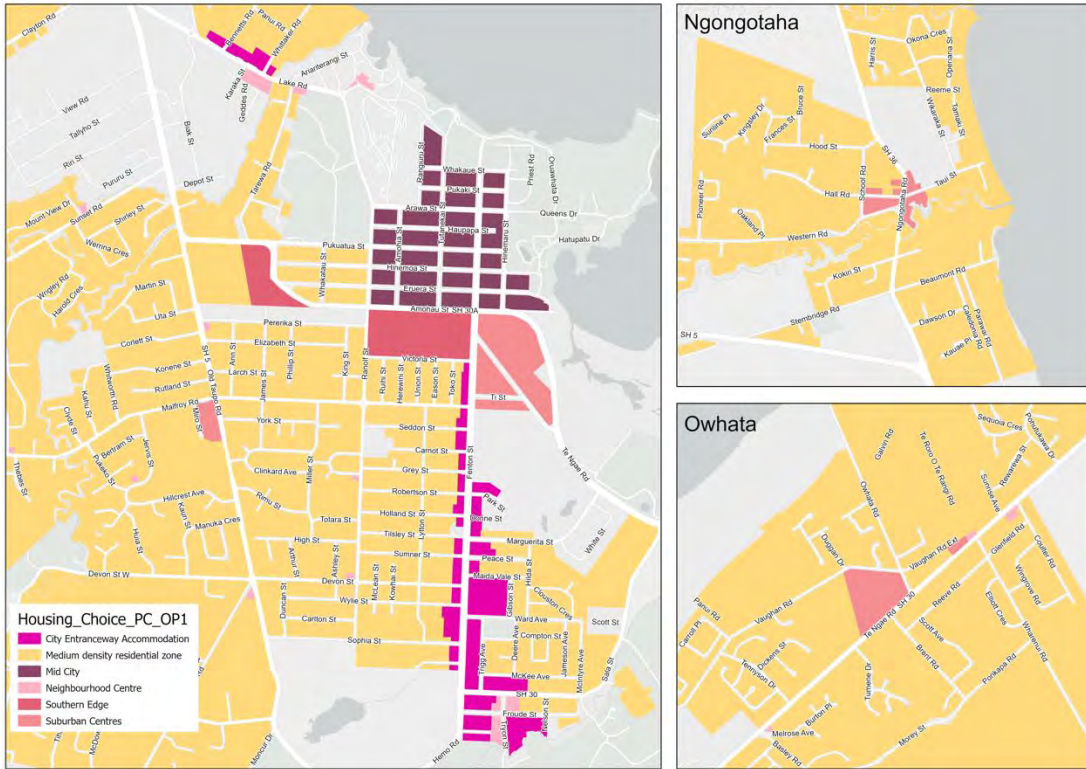


Figure 3-2: Proposed Spatial Structure of Zones: Option 2

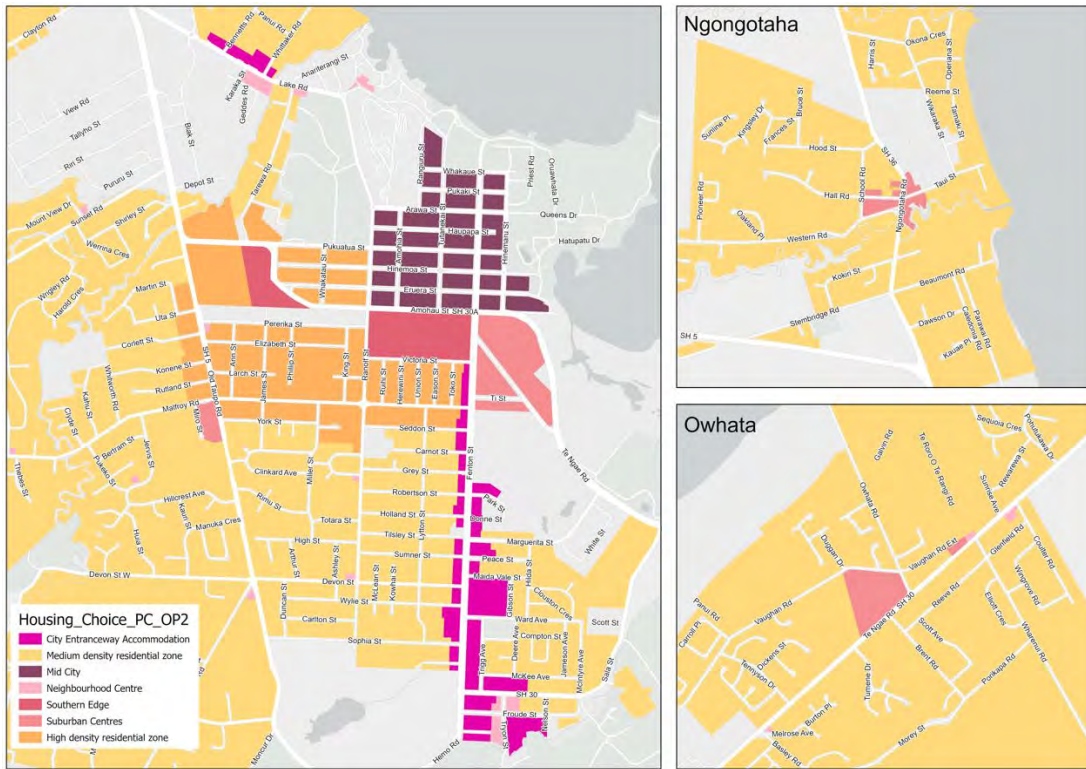






Figure 3-3: Proposed Spatial Structure of Zones: Option 3

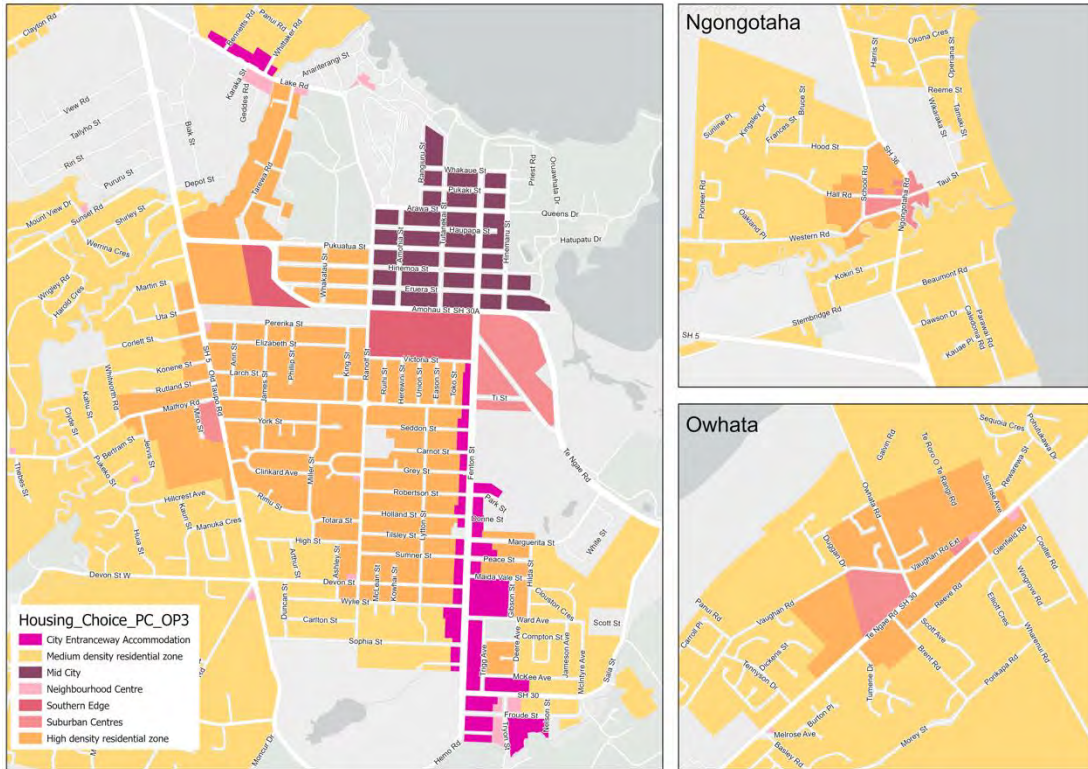
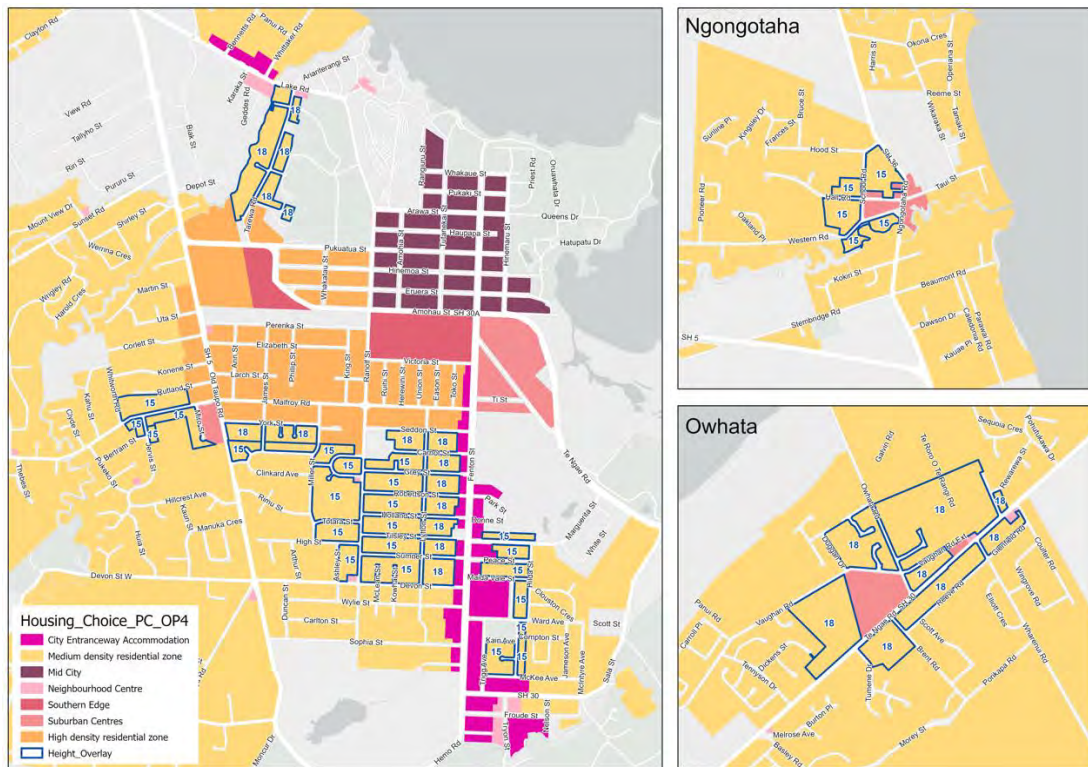


Figure 3-4: Proposed Spatial Structure of Zones: Option 4





### 3.2.1 Proposed Residential Provisions within the Southern Edge

The modelled scenarios include the same provisions for residential apartments within commercial zones as those modelled under the HBA. The exception is the addition of the Southern Edge area, which covers two areas surrounding the City Centre - the existing City Centre 2 Zone (eastern part) and the Commercial 6 zoned area (western part). These areas currently contain (but are not limited to) large format retail (LFR), with the focus on Trade Retail within the western part. Within the ODP (operative district plan), these zones anticipate LFR development (and a small range of other activities) and provide for this in a relatively central location.

From an economic perspective, it is important to retain the viability of these areas as a location for LFR. This may reduce the pressure for LFR to alternatively locate in other areas within the urban environment, which may be less efficient. The Industrial 1E zone also provides for some LFR. This is mainly limited to Trade Retail, and provides limited opportunity for the aggregation of LFR stores that function together. While this zone anticipates LFR, its location is less central than the Commercial 6 zone, where LFR is more likely to contribute to the centralised concentration of retail within Rotorua. The centrality of the Commercial 6 zone means it is likely to be more sustainably configured to serve the surrounding catchment areas.

We consider that it is important that, at a minimum, residential provisions are excluded from ground floor location within these areas. RLC may also consider differentiating between the east and west areas of the Southern Edge due to the differences in the types of LFR they currently provide for (i.e. Trade Retail vs. general LFR). In our view, the viability of trade retail activities has a greater reliance on the availability of yard space and tends to occupy lower cost, larger format buildings with higher stud heights. It is likely that the construction of additional floorspace on above ground levels may result in higher cost floorspace that reduces the economic viability for trade retail location. As such, the construction of additional above ground floorspace within the Commercial 6 zone would be likely to change the nature of ground floor floorspace within the zone, making it less viable for trade retail activity, thereby increasing its propensity to locate in other areas. However, it may be relatively more feasible to develop residential apartments above non-LFR activities anticipated in these zones.


## 3.3 Approach

There are several key stages to our approach in calculating the capacity enabled by the above proposed provisions for residential intensification across Rotorua's urban environment.

The first key stage involves undertaking a trigonometric assessment of different parcel sizes to test the consistency of the proposed planning provisions within the HDR zone and the appropriateness of modelling parameters<sup>9</sup>. In summary, this approach determined the binding planning constraints for modelling plan-enabled capacity for apartments on parcels within the proposed HDR zone.

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<sup>9</sup> This process identified the total amount of floorspace that could occur within the three-dimensional building envelope determined by the height to boundary requirements for a range of different parcel sizes. For each potential storey, it determined whether the site cover or height to boundary requirements formed the applicable modelling parameter. The total floorspace was then divided into potential apartments, with the outdoor living space requirements being tested on the balance of the site.



The next stage of the analysis build off existing modelling capability developed for the NPS-UD Rotorua HBA<sup>10</sup>. In 2021, M.E developed a detailed parcel-level model for the HBA that calculated plan-enabled and commercially feasible residential capacity (measured in terms of net additional dwellings) on each property parcel. This model calculates capacity for lower to medium density development across Rotorua's residential zones (as applicable) as well as higher density, vertically-attached apartments in the commercial zones though a sub-component within the model.

The following are the key changes and updates that were applied to the HBA model for this assessment:


- Parcel level input files were updated to reflect the proposed zoning within the four options mapped above.
- The vertical development sub-component within the model was expanded to include vertically-attached apartment buildings within the HDR zone and additional height overlay areas within the MDR zone in Option 4.
- The provisions within the proposed commercial zones were mapped to the existing modelling assumptions within commercial zones based on their spatial alignment.
- Additional stages were included within the general suburban residential component of the model to first form residential lots based on the base zone subdivision requirements, then develop up to three dwellings on each lot (through the application of the MDRS).
- The model was expanded to enable additional dwelling typologies to occur within each zone to reflect the higher density development patterns enabled under the MDRS.
- Modelling parameters were then developed to reflect minimum land areas required to accommodate the different dwelling typologies within each site. These assumptions were verified by B&A.

The updated model was applied to calculate the net additional dwellings that could potentially be constructed, under the proposed planning provisions, on each property parcel. The following multiple options for dwelling development were calculated for each parcel to include the range of potential dwelling typologies:

- **Detached dwellings:** These range from smaller two-storey detached dwellings on smaller sites (at a minimum, around 175m<sup>2</sup>-200m<sup>2</sup>) up to larger single level detached dwellings on general suburban scale sites (up to 400m<sup>2</sup>). These dwellings are modelled across the residential zones within the urban environment, including the HDR zone.
- **Attached dwellings:** These include a range of different dwelling typologies. They range from single level attached units up to higher density, horizontally-attached terraced houses. Dwellings within the higher density range can include two to three-level walk up terraced houses/apartments. These dwellings are modelled across the residential zones within the urban environment, including the HDR zone.
- **Vertical apartments:** These include vertically attached apartment dwellings in buildings that are up to the maximum height enabled within the zone (up to five storeys). These dwellings are modelled

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<sup>10</sup> Application of the existing modelling capability ensures consistency with the HBA analysis in relation to the areas modelled and exclusions/constraints identified across the urban environment.



within the commercial zones that enable residential uses, the HDR zone, and the areas of the MDR zone with the additional height overlay in Option 4.

Importantly, the additional dwelling yields calculated within each dwelling typology are not additive. A further column output has been included within the results tables to show the maximum combination of net additional dwellings from these categories<sup>11</sup>.

The outputs of the plan enabled capacity calculations are contained in the following sub-section.

### **3.3.1 Geotechnical Considerations and Constraints**

Geotechnical constraints are an important aspect affecting development patterns within Rotorua's urban area. These occur due to the geothermal nature of Rotorua's urban area and soil structure. The constraints are likely to generate additional development considerations that may affect the viability and commercial feasibility of development.

Geotechnical constraints are concentrated around the central city area, corresponding to the areas of soft soil. This covers much of the proposed intensification areas and is likely affect the feasibility of higher density development.

At a high level, geotechnical issues are likely to require additional piling for higher density vertical development. Additional piling is typically likely to be required to support vertically attached apartment buildings over three storeys. Much of the effect is associated with the requirement for piling, with a lesser amount of variation required as building height increases.

Geotechnical constraints are less likely to affect the dwelling typologies that are enabled as part of the MDRS. At the highest density in Rotorua, the modelled typologies include higher density horizontally attached terraced housing. These dwellings have lower weight bearing requirements that are less likely to require additional piling due to geotechnical constraints.

### **3.3.2 Qualifying Matters**

A number of qualifying matters have been modelled within the residential capacity assessment. Qualifying matters relate to certain aspects and characteristics of a property in a location that mean it is less appropriate to enable the additional level of residential development enabled by the intensification provisions.


RLC have identified a number of qualifying matters where intensification or further development would be less appropriate. Most of these are aspects that already restrict development under the ODP and therefore capacity has been excluded from these parcels under both the base ODP provisions scenario and the modelled intensification provisions under Options 1 to 4.

Qualifying matters limiting capacity that have been applied in both the base ODP modelled scenario and the intensification scenarios (Options 1 to 4) are listed below, including how they have been applied within the modelling:

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<sup>11</sup> The maximum yield is calculated at the individual parcel level and then aggregated to the totals within the output tables.



- 
- Parcels containing key pieces of social or public infrastructure (e.g. schools or hospitals), reserves or conservation land, Maori reservations, access and road areas and spatial requirements around infrastructure and utilities (including airport height restrictions) have been excluded from the analysis.
  - Sections of parcels that have been restricted from development have been excluded from the modelling. These include areas of parcels that fall within the setback rule areas from waterways/water bodies and electricity network pylons.

A further qualifying matter has been applied within the intensification scenarios: the exclusion of MDRS provisions from the Residential 3 zone. The effect of this has been modelled within the plan enabled capacity through comparing the capacity enabled on the Residential 3 zone with and without the application of MDRS.

## 3.4 Plan Enabled Residential Capacity

### 3.4.1 Capacity by Modelled Scenario

The total plan enabled capacity across the existing urban area (i.e. the urban environment excluding the greenfield area) is summarised for each modelled scenario in Table 3-1. The modelled scenarios include the baseline HBA infill and redevelopment capacity, the MDRS applied to the existing ODP zones, with the remainder of the table modelling the proposed intensification provisions (including the application of the MDRS).

The intensification provisions result in substantial increases in plan enabled capacity across the existing urban environment. The plan enabled capacity increases by around 3.5 to nearly 8 times that estimated under the HBA. This equates to an increase from an additional 20,100 dwellings to between 71,100 to 157,700 additional dwellings. The total capacity is large relative to a long-term demand for an additional 9,700 dwellings.

The differences between modelled scenarios show that the capacity increases occur through a combination of the application of the MDRS to the residential zones, the upzoning of much of the general suburban area to MDR, and the provisions for higher density vertically attached apartment development within the key areas of accessibility.

The second row of Table 3-1 shows the application of the MDRS to the existing ODP base zones results in a large increase in plan enabled capacity across Rotorua's general suburban area. Under this scenario, the plan enabled capacity increases by nearly three and a half times that of the HBA to reach an additional 71,100 dwellings. The increase occurs across the general suburban area for both detached and horizontally attached dwellings, with high levels of capacity occurring within both typology categories. Apartment dwelling capacity remains the same as no further provisions are modelled with this scenario for higher density development in areas of high accessibility.

The remainder of Table 3-1 shows the modelled results for the proposed options 1 to 4, which include the provision for high density vertically-attached apartments in key areas of accessibility. Under these scenarios, the general suburban area has been upzoned to MDR zone, with the application of the MDRS to the underlying MDR zones.



The modelled capacity ranges from an additional 118,200 dwellings to 157,700 dwellings. This equates to around six to eight times the capacity calculated under the HBA on the ODP zones. The redevelopment detached dwelling capacity increase (+41,500 additional dwellings) is similar to that of the MDRS applied to the ODP zones due to the assumed physical space requirements of constructing a standalone dwelling. Meanwhile, the largest increase occurs for attached dwellings where the MDR upzoning allows for greater densities of attached dwellings to be achieved. The redevelopment capacity for horizontally attached dwellings increases to an additional 105,800 to 106,700 dwellings.

Under the modelled scenarios, there is an estimated infill capacity for an additional 26,100 to 32,700 dwellings. Infill capacity for detached and horizontally attached dwellings is consistent across the scenarios, with the difference relating to vertically attached dwellings through the extent of the HDR Zone. While there is a sizeable infill capacity for vertically attached apartments, a large proportion of this occurs on fully vacant sites. Any uptake of this type of development is more likely to occur through development of a whole site (i.e. redevelopment or vacant sites) than through the construction of apartment buildings on smaller infill portions of sites.

The differences in total capacity between these scenarios (Options 1 to 4) reflect the spatial extent of the HDR zone and MDR zone additional height overlay where higher density vertically-attached apartment dwellings are enabled. Under Option 1, the redevelopment capacity for vertically-attached apartments only increases by an additional 1,900 dwellings from the HBA. This occurs due to the inclusion of provisions for residential development within the Southern Edge area, resulting in a total vertically-attached apartment redevelopment capacity for an additional 10,500 dwellings. Option 1 does not contain any provision for vertically-attached apartments outside of the commercial zones.

There is a sizeable increase in vertically-attached apartment dwelling capacity under Option 2. This modelled scenario has a redevelopment capacity for around 25,200 additional vertically-attached apartments, and a total redevelopment capacity for an additional 127,500 dwellings overall. The increase in capacity is due to the provision of the HDR zone within the residential area surrounding the City Centre.

The capacity for vertically-attached apartment dwellings increases substantially under Options 3 and 4. The expansion of the HDR Zone or the MDR zone additional height overlay increases the apartment redevelopment capacity by nearly 40,000 apartment dwellings. Under these options, there is a redevelopment capacity for an additional 62,200 to 63,100 vertically-attached apartments and 154,200 to 155,800 additional dwellings overall. The capacity for detached and other horizontally-attached dwellings does not significantly increase under these options as the extent of the provisions for these dwellings remains constant across the options.

Table 3-1: Rotorua Existing Urban Area Total Plan Enabled Capacity by Modelled Scenario

Modelled Scenario	INFILL CAPACITY				REDEVELOPMENT CAPACITY				Max Infill + Redevelopment
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Infill	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	
<b>Net Additional Dwellings</b>									
HBA Capacity	5,500	100	600	6,200	10,100	1,300	8,600	19,800	20,100
MDRS Applied to ODP Zones	12,100	15,300	4,500	19,900	42,100	59,000	8,700	68,700	71,100
Option 1	12,300	22,100	4,100	26,100	41,500	105,800	10,500	116,300	118,200
Option 2	12,400	22,100	5,000	26,600	41,500	106,200	25,200	127,500	129,500
Option 3	12,400	22,200	12,400	31,400	41,500	106,800	62,200	154,200	156,100
Option 4	12,400	22,200	13,700	32,700	41,500	106,700	63,100	155,800	157,700
<b>Net Change in Capacity from Previous Modelled Scenario</b>									
MDRS Applied to ODP Zones	6,600	15,200	4,000	13,700	32,100	57,700	100	48,900	51,000
Option 1	200	6,700	-500	6,200	-600	46,700	1,800	47,600	47,100
Option 2	0	100	900	500	0	400	14,700	11,300	11,300
Option 3	0	0	7,500	4,700	0	600	37,000	26,600	26,600
Option 4	0	100	1,200	1,300	0	-100	900	1,700	1,700

Source: DRAFT M.E Rotorua MDRS Residential Capacity Model, 2022.

### 3.4.2 Capacity by Zone within Modelled Scenarios

The following tables provide a more detailed picture of the modelled additional capacity across Rotorua’s urban environment. As above, capacity is modelled across the existing urban area within the urban environment, and does not include capacity within greenfield areas. The tables show the net additional capacity by dwelling typology and zone under each of the modelled scenarios.

Table 3-2: Plan Enabled Infill Capacity (Net Additional Dwellings) by Zone – HBA and MDRS Applied to ODP Zones

Zone (ODP)	HBA Capacity				MDRS Applied to ODP Zones				Net Change in Capacity with MDRS			
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Infill	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Infill	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Infill
City Centre 1	-	-	1,200	1,200	-	-	1,200	1,200	-	-	-	-
City Centre 3	-	-	1,600	1,600	-	-	1,600	1,600	-	-	-	-
Commercial 1	-	-	60	60	-	-	60	60	-	-	-	-
Commercial 2	-	-	700	700	-	-	700	700	-	-	-	-
Commercial 3	-	-	200	200	-	-	200	200	-	-	-	-
Commercial 4	-	-	800	800	-	-	800	800	-	-	-	-
Mixed-Use	-	-	-	-	-	-	-	-	-	-	-	-
Transitional	-	-	-	-	-	-	-	-	-	-	-	-
Residential 1	4,500	-	-	4,500	11,600	14,500	-	14,500	7,100	14,500	-	10,000
Residential 2	80	200	-	200	200	300	-	300	100	40	-	40
Residential 3	300	-	-	300	300	600	-	600	40	600	-	300
Residential 5	-	-	-	-	-	-	-	-	-	-	-	-
Future Residential 1	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>4,900</b>	<b>200</b>	<b>4,500</b>	<b>9,600</b>	<b>12,100</b>	<b>15,300</b>	<b>4,500</b>	<b>19,900</b>	<b>7,300</b>	<b>15,100</b>	<b>-</b>	<b>10,300</b>

Source: DRAFT M.E Rotorua MDRS Residential Capacity Model, 2022.

Table 3-2 and Table 3-3 show the modelled infill and redevelopment capacity (respectively) within the HBA and the ODP zones with the application of the MDRS. The increases in capacity occur across the general suburban residential zones<sup>12</sup> and correspond to the spatial extent of the zone. The largest increase occurs within the Residential 1 zone, which covers most of Rotorua’s suburban residential area. The application of

<sup>12</sup> There are some minor changes which occur within the commercial zones due to minor parcel adjustments between the HBA and updated intensification MDRS model.

the MDRS to this zone increases both the detached dwelling capacity, and the attached dwellings, which are not currently enabled within this zone.

Table 3-3: Plan Enabled Redevelopment Capacity (Net Additional Dwellings) by Zone – HBA and MDRS Applied to ODP Zones

Zone (ODP)	HBA Capacity				MDRS Applied to ODP Zones				Net Change in Capacity with MDRS			
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment
City Centre 1	-	-	5,400	5,400	-	-	5,400	5,400	-	-	10	10
City Centre 3	-	-	1,100	1,100	-	-	1,200	1,200	-	-	90	90
Commercial 1	-	-	90	90	-	-	90	90	-	-	-	-
Commercial 2	-	-	800	800	-	-	800	800	-	-	-	-
Commercial 3	-	-	300	300	-	-	300	300	-	-	-	-
Commercial 4	-	-	900	900	-	-	900	900	-	-	-10	-10
Mixed-Use	-	-	-	-	-	-	-	-	-	-	-	-
Transitional	30	-	-	30	60	80	-	80	30	80	-	50
Residential 1	9,200	-	-	9,200	40,000	55,000	-	55,000	30,800	55,000	-	45,800
Residential 2	300	1,300	-	1,400	1,400	2,400	-	2,900	1,200	1,100	-	1,500
Residential 3	600	-	-	600	600	1,500	-	2,000	50	1,500	-	1,400
Residential 5	-	-	-	-	-	-	-	-	-	-	-	-
Future Residential 1	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>10,100</b>	<b>1,300</b>	<b>8,600</b>	<b>19,800</b>	<b>42,100</b>	<b>59,000</b>	<b>8,700</b>	<b>68,700</b>	<b>32,100</b>	<b>57,700</b>	<b>100</b>	<b>48,900</b>

Source: DRAFT M.E Rotorua MDRS Residential Capacity Model, 2022.

The remainder of the tables (Table 3-4 to Table 3-7) show the modelled capacity within the proposed zones under Options 1 to 4. The key analyses from the disaggregation of capacity by zone are:

- Under Option 1, most of the capacity for additional dwellings occurs within the general suburban area MDR as detached and horizontally-attached dwellings. This option still contains substantial redevelopment capacity (+10,500 additional dwellings) for vertically-attached apartment dwellings, which occur within the commercial zones. These are concentrated into the central city area, with 82% occurring with the CBD zones (Mid City and City Centre 3 - 63%), and the Southern Edge (19%).
- Under Option 2, a high share of the capacity still occurs within the general suburban area with the MDR zone due to the spatial extent of this zone. Significant vertically-attached apartment dwelling capacity is also added under Option 2 through the HDR. Under this scenario, the HDR forms the largest share of apartment capacity, with over half (58%) of the apartment capacity. Net additional apartment capacity within the commercial zones remains the same as Option 1.
- Significant apartment capacity is added under Options 3 and 4 with the expansion of the HDR and the MDR additional height overlay areas. Under Option 3, the apartment redevelopment capacity increases by 37,000 dwellings (from Option 2). Just over half (53%; +19,600 dwellings) of this increase occurs within the Central/Western HBA reporting area. The balance occurs within Ōwhata (+13,200 dwellings) and Ngongotahā (+4,100 dwellings).
- The total capacity and distribution of apartment dwelling capacity is similar in Option 4 to Option 3 through the application of MDR additional height overlays. Under this scenario, there is a decrease of around 1,700 apartment dwellings redevelopment capacity within the Central/Western HBA reporting area in comparison to Option 3. Meanwhile, there is a net increase of 2,500 dwellings in apartment redevelopment capacity within the area surrounding Ōwhata Suburban Centre.



Table 3-4: Modelled Plan Enabled Capacity by Proposed Zone: Option 1

Zone (Proposed)	Infill Capacity (Net Additional Dwellings)				Redevelopment Capacity (Net Additional Dwellings)				Max Infill + Redevelopment
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Infill	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	
Mid City	-	-	1,200	1,200	-	-	5,400	5,400	5,700
City Centre 3	-	-	-	-	-	-	1,200	1,200	1,200
Southern Edge	-	-	1,300	1,300	-	-	2,000	2,000	2,000
City Entranceway Accommodation	-	-	700	700	-	-	800	800	1,000
Suburban Centres	-	-	800	800	-	-	800	800	1,300
Neighbourhood Centre	-	-	100	100	-	-	300	300	300
Transitional	-	-	-	-	60	80	-	80	80
High Density Residential Zone - Central	-	-	-	-	-	-	-	-	-
High Density Residential Zone - Ngongotaha	-	-	-	-	-	-	-	-	-
High Density Residential Zone - Owkata	-	-	-	-	-	-	-	-	-
Medium Density Residential Zone	12,100	21,600	-	21,600	40,800	104,100	-	104,100	105,100
Residential 3	200	400	-	400	600	1,500	-	1,500	1,500
MDR - Tarewa Road 18	-	-	-	-	-	-	-	-	-
MDR - Southern 15	-	-	-	-	-	-	-	-	-
MDR - Southern 18	-	-	-	-	-	-	-	-	-
MDR - Fenton 15	-	-	-	-	-	-	-	-	-
MDR - Owkata 18	-	-	-	-	-	-	-	-	-
MDR - Ngongotaha 15	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>12,300</b>	<b>22,100</b>	<b>4,100</b>	<b>26,100</b>	<b>41,500</b>	<b>105,800</b>	<b>10,500</b>	<b>116,300</b>	<b>118,200</b>

Source: DRAFT M.E Rotorua MDRS Residential Capacity Model, 2022.

Table 3-5: Modelled Plan Enabled Capacity by Proposed Zone: Option 2

Zone (Proposed)	Infill Capacity (Net Additional Dwellings)				Redevelopment Capacity (Net Additional Dwellings)				Max Infill + Redevelopment
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Infill	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	
Mid City	-	-	1,200	1,200	-	-	5,400	5,400	5,700
City Centre 3	-	-	-	-	-	-	1,200	1,200	1,200
Southern Edge	-	-	1,300	1,300	-	-	2,000	2,000	2,000
City Entranceway Accommodation	-	-	700	700	-	-	800	800	1,000
Suburban Centres	-	-	700	700	-	-	800	800	1,300
Neighbourhood Centre	-	-	100	100	-	-	300	300	300
Transitional	-	-	-	-	60	80	-	80	80
High Density Residential Zone - Central	200	500	900	900	1,000	3,800	14,700	14,700	14,700
High Density Residential Zone - Ngongotaha	-	-	-	-	-	-	-	-	-
High Density Residential Zone - Owkata	-	-	-	-	-	-	-	-	-
Medium Density Residential Zone	11,900	21,200	-	21,200	39,800	100,700	-	100,700	101,700
Residential 3	200	400	-	400	600	1,500	-	1,500	1,500
MDR - Tarewa Road 18	-	-	-	-	-	-	-	-	-
MDR - Southern 15	-	-	-	-	-	-	-	-	-
MDR - Southern 18	-	-	-	-	-	-	-	-	-
MDR - Fenton 15	-	-	-	-	-	-	-	-	-
MDR - Owkata 18	-	-	-	-	-	-	-	-	-
MDR - Ngongotaha 15	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>12,400</b>	<b>22,100</b>	<b>5,000</b>	<b>26,600</b>	<b>41,500</b>	<b>106,200</b>	<b>25,200</b>	<b>127,500</b>	<b>129,500</b>

Source: DRAFT M.E Rotorua MDRS Residential Capacity Model, 2022.

Table 3-6: Modelled Plan Enabled Capacity by Proposed Zone: Option 3

Zone (Proposed)	Infill Capacity (Net Additional Dwellings)				Redevelopment Capacity (Net Additional Dwellings)				Max Infill + Redevelopment
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Infill	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	
Mid City	-	-	1,200	1,200	-	-	5,400	5,400	5,700
City Centre 3	-	-	-	-	-	-	1,200	1,200	1,200
Southern Edge	-	-	1,300	1,300	-	-	2,000	2,000	2,000
City Entranceway Accommodation	-	-	700	700	-	-	800	800	1,000
Suburban Centres	-	-	800	800	-	-	800	800	1,300
Neighbourhood Centre	-	-	100	100	-	-	300	300	300
Transitional	-	-	-	-	60	80	-	80	80
High Density Residential Zone - Central	500	900	1,600	1,600	2,700	9,400	34,300	34,300	34,300
High Density Residential Zone - Ngongotaha	100	300	700	700	500	1,400	4,100	4,100	4,100
High Density Residential Zone - Owahata	700	2,100	6,000	6,100	1,300	4,000	13,200	13,200	13,200
Medium Density Residential Zone	10,800	18,500	-	18,500	36,300	90,300	-	90,300	91,300
Residential 3	200	400	-	400	600	1,500	-	1,500	1,500
MDR - Tarewa Road 18	-	-	-	-	-	-	-	-	-
MDR - Southern 15	-	-	-	-	-	-	-	-	-
MDR - Southern 18	-	-	-	-	-	-	-	-	-
MDR - Fenton 15	-	-	-	-	-	-	-	-	-
MDR - Owahata 18	-	-	-	-	-	-	-	-	-
MDR - Ngongotaha 15	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>12,400</b>	<b>22,200</b>	<b>12,400</b>	<b>31,400</b>	<b>41,500</b>	<b>106,800</b>	<b>62,200</b>	<b>154,200</b>	<b>156,100</b>

Source: DRAFT M.E Rotorua MDRS Residential Capacity Model, 2022.

Table 3-7: Modelled Plan Enabled Capacity by Proposed Zone: Option 4

Zone (Proposed)	Infill Capacity (Net Additional Dwellings)				Redevelopment Capacity (Net Additional Dwellings)				Max Infill + Redevelopment
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Infill	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	
Mid City	-	-	1,200	1,200	-	-	5,400	5,400	5,700
City Centre 3	-	-	-	-	-	-	1,200	1,200	1,200
Southern Edge	-	-	1,300	1,300	-	-	2,000	2,000	2,000
City Entranceway Accommodation	-	-	700	700	-	-	800	800	1,000
Suburban Centres	-	-	700	700	-	-	800	800	1,300
Neighbourhood Centre	-	-	100	100	-	-	300	300	300
Transitional	-	-	-	-	60	80	-	80	80
High Density Residential Zone - Central	200	500	900	900	1,000	3,800	14,700	14,700	14,700
High Density Residential Zone - Ngongotaha	-	-	-	-	-	-	-	-	-
High Density Residential Zone - Owahata	-	-	-	-	-	-	-	-	-
Medium Density Residential Zone	10,800	18,600	-	18,600	36,600	91,100	-	91,100	92,100
Residential 3	200	400	-	400	600	1,500	-	1,500	1,500
MDR - Tarewa Road 18	80	100	200	200	200	500	1,800	1,800	1,800
MDR - Southern 15	100	200	300	300	800	2,700	9,400	9,400	9,400
MDR - Southern 18	10	30	60	60	200	1,100	4,700	4,700	4,700
MDR - Fenton 15	10	30	50	50	100	500	2,000	2,000	2,000
MDR - Owahata 18	800	2,100	7,400	7,400	1,300	4,000	15,800	15,800	15,800
MDR - Ngongotaha 15	100	300	700	700	500	1,400	4,200	4,200	4,200
<b>TOTAL</b>	<b>12,400</b>	<b>22,200</b>	<b>13,700</b>	<b>32,700</b>	<b>41,500</b>	<b>106,700</b>	<b>63,100</b>	<b>155,800</b>	<b>157,700</b>

Source: DRAFT M.E Rotorua MDRS Residential Capacity Model, 2022.

The following section (Section 4) compares the modelled plan enabled redevelopment capacity with the projected demand by dwelling type in Section 2.

### 3.4.3 Effect of Residential 3 Zone as a Qualifying Matter

The effect, on capacity, of excluding the MDRS provisions from the Residential 3 zones (as a qualifying matter), and retaining the ODP capacity, is shown in Table 3-8. The first (upper) section of the table shows the modelled plan enabled capacity in each of the intensification scenarios (Options 1 to 4) where the MDRS provisions *have* been applied, while the second section shows the capacity once the MDRS provisions have been excluded from the Residential 3 Zone area. The lower two sections of the table show the net and percentage difference in the modelled plan enabled capacity with the application of the Residential 3 Zone qualifying matter.

The exclusion of the MDRS provisions from the Residential 3 Zone areas decreases the total plan enabled capacity within each of the modelled intensification options by between 0.6% and 0.8%. This amounts to a difference of 1,000 fewer net additional dwellings across all modelled scenarios.

The difference in capacity is greater within the horizontally attached redevelopment option. In this development option, there are 1,500<sup>13</sup> fewer net additional dwellings – a decrease in additional capacity of 1.4%. In percentage terms, the relative impact within the infill horizontally attached dwelling development option is also greater, at a reduction of 2.0% (400 fewer net additional dwellings).

The modelled plan enabled capacity under each of the modelled intensification scenarios (Options 1 to 4) is still large relative to the level of projected long-term demand. The exclusion of the MDRS provisions from the Residential 3 Zone area is unlikely to have any significant effect on the longer-term growth patterns of Rotorua’s urban area at a city level. The reduction in capacity within these local areas is unlikely to constrain the city’s ability to meet long-term growth needs.

Table 3-8: Effect of Residential 3 Zone Qualifying Matter on Rotorua Existing Urban Area Total Plan Enabled Capacity by Modelled Scenario

Modelled Scenario	INFILL CAPACITY				REDEVELOPMENT CAPACITY				Max Infill + Redevelopment
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Infill	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	
<b>Net Additional Dwellings (with MDRS Applied to Residential 3 Zone)</b>									
Option 1	12,300	22,100	4,100	26,100	41,500	105,800	10,500	116,300	118,200
Option 2	12,400	22,100	5,000	26,600	41,500	106,200	25,200	127,500	129,500
Option 3	12,400	22,200	12,400	31,400	41,500	106,800	62,200	154,200	156,100
Option 4	12,400	22,200	13,700	32,700	41,500	106,700	63,100	155,800	157,700
<b>Net Additional Dwellings (without MDRS Applied to Residential 3 Zone)</b>									
Option 1	12,300	21,600	4,100	25,900	41,400	104,200	10,500	115,300	117,200
Option 2	12,300	21,700	5,000	26,400	41,400	104,600	25,200	126,600	128,500
Option 3	12,300	21,700	12,400	31,100	41,400	105,200	62,200	153,200	155,100
Option 4	12,400	21,800	13,700	32,500	41,400	105,100	63,100	154,900	156,800
<b>Change in Net Additional Dwellings</b>									
Option 1	0	-400	0	-200	-100	-1,500	0	-1,000	-1,000
Option 2	0	-400	0	-200	-100	-1,500	0	-1,000	-1,000
Option 3	0	-400	0	-200	-100	-1,500	0	-1,000	-1,000
Option 4	0	-400	0	-200	-100	-1,500	0	-1,000	-1,000
<b>Change in Net Additional Dwellings</b>									
Option 1	-0.2%	-2.0%	0.0%	-0.9%	-0.1%	-1.4%	0.0%	-0.8%	-0.8%
Option 2	-0.3%	-2.0%	0.0%	-0.9%	-0.1%	-1.4%	0.0%	-0.8%	-0.8%
Option 3	-0.3%	-2.0%	0.0%	-0.8%	-0.1%	-1.4%	0.0%	-0.6%	-0.6%
Option 4	-0.3%	-2.0%	0.0%	-0.7%	-0.1%	-1.4%	0.0%	-0.6%	-0.6%

Source: M.E Rotorua MDRS Residential Capacity Model, 2022.

<sup>13</sup> The net change within this development option is larger than that within the maximum combination development option. This is because the maximum yields on many of these parcels are likely to still be exceeded by higher density development options (i.e. vertically attached apartments), resulting in no effect (for the parcel) on the maximum yield for the parcel.



## 4 Comparison of Plan Enabled Capacity with Demand

Analysis within this section forms an important part of assessing the adequacy of the proposed options for the intensification plan change in meeting demand within Rotorua's urban environment. It compares the projected demand for different dwelling typologies from Section 2 with the capacity to accommodate additional dwellings within Rotorua's existing urban area, modelled in Section 3.

### 4.1 Introduction and Approach

Rotorua's proposed intensification plan change is intended to provide for sufficient capacity within the urban environment to meet demand within the existing urban area. It aims to provide for a range of different dwelling options and in locations of high accessibility and amenity in alignment with the NPS-UD policy 5 requirements and the MDRS within the Resource Management (Enabling Housing Supply and Other Matters) Amendment Bill.

Within the time available, the analysis considers the share of plan enabled redevelopment capacity that would be required to be taken up to meet projected demand. It is important, in the first instance, to identify the sufficiency of any planning provisions in providing adequate capacity to ascertain whether there is a planning constraint in any of the options at the outset. The assessment recognises that only a portion of plan enabled capacity is likely to be realised over the planning period, with other factors affecting the take-up of capacity. It therefore includes analysis of the *share* of plan enabled capacity that would be required to be taken up to meet demand for dwellings within the urban environment.

The first stage of this section compares the modelled redevelopment capacity within each dwelling typology in each location with the projected demand for the same combination of location and typology. The analysis takes a conservative approach as it compares *total* demand within each category to capacity only within the existing urban area (i.e. the capacity does not include capacity within greenfield areas). In effect, a large share of the urban demand is likely to be met within Rotorua's greenfield areas.

The second part of this section considers more closely the sufficiency of provision for higher density residential development in key areas of accessibility. It compares the redevelopment capacity for vertically-attached apartment dwellings in these locations with the projected demand for this higher density development. This assessment is undertaken to ensure the proposed intensification provisions meet the requirement of the NPS-UD Policy 5 to provide for residential location in accessible areas relative to the level of demand for these areas.

The assessment also takes a conservative approach in assessing the sufficiency of higher density capacity as it compares capacity to the total demand for vertically-attached apartment dwellings. This is likely to represent the upper range of demand for higher density dwellings. In effect, a share of this demand is likely to be met through other dwelling typologies such as higher density horizontally-attached dwellings. These



typologies are also modelled in the key areas of accessibility to assess the sufficiency of planning provisions if a lower density of development occurs.

It is also important to assess the spatial extent of the proposed planning options. The NPS-UD Policy 5 requires the provision for higher density development within areas of high accessibility and demand. However, it does not stipulate the spatial extent of the provisions within these areas.

We consider that the appropriate spatial extent of higher density provisions is likely to differ between urban economies. Key commercial centres within larger urban economies are more likely to be able to support higher density development across greater spatial extents from the core of the accessible area. Higher density development within wider walkable catchments in these larger urban economies is more likely to function together with the core node of the accessible area. This would result in nodes of activities that effectively function together to produce a sustainable urban form with observable concentrations of density supporting the viability of the commercial node.

In contrast, there is likely to be lower demand for higher density development in smaller urban economies. If the same spatial extent of higher density provisions suited to larger economies were applied in a smaller economy, they would likely to cover areas that extend, on a relative basis, to cover significant shares of the general suburban areas. In smaller urban economies, it is considerably less likely that development further away from the central node of the accessible area would function together with the commercial centre. This is due to a combination of the overall level of demand for higher density development as well as the more localised effects of these centres.

Moreover, if higher density residential provisions are applied across more extensive areas, then it increases the possibility for opportunistic development to occur in locations that do not function together with the core node of accessibility. Any take-up of these developments is likely to represent a significant share of the total demand for higher density development, thus reducing the likelihood of the development occurring in more appropriate locations that function together with and support the viability of commercial activity/amenity in accessible nodes, producing a more sustainable urban form.

It is therefore important to consider the spatial extent of the proposed provisions together with their location. The final part of this section examines examples of higher density residential development patterns that have occurred in other urban economies in relation to core areas of accessibility.

## 4.2 Capacity and Demand by Type and Location

The following tables compare the modelled redevelopment capacity and demand for different types of dwellings in each location for each of the modelled scenarios. They provide an overview of the balances between plan enabled capacity and demand across the existing urban environment. Table 4-1 contains the high demand substitution scenario, and Table 4-2, the low demand substitution scenario. These tables compare total urban demand with capacity only within the existing urban environment. However, it is likely that a large share of demand would instead be met within greenfield areas, which are not included within the capacity assessment.

The first part of each table contains the modelled plan enabled redevelopment capacity from Section 3, with the projected demand from Section 2 in the middle portion of the tables. The final section of the tables



brings these components together to show the net balance (implied sufficiency) by subtracting projected demand from plan enabled capacity within each combination.

The tables show that, at the total level, the capacity enabled by both the current and proposed planning provisions is large relative to the projected long-term demand. Under the proposed provisions, the total capacity amounts to seven to 16 times the level of long-term demand. It is important that plan enabled capacity exceeds demand by a substantial margin as only a portion of the capacity is likely to be feasible or available for development.

As identified within the HBA<sup>14</sup>, demand for horizontally-attached dwellings exceeds the capacity for these dwellings, which is due to the absence of provision for attached dwellings on smaller sites across most of the general suburban area. Once this typology is enabled within the proposed MDRS provisions, the capacity enabled by the plan is much larger than projected demand. This is also consistent with the balance between capacity and demand for detached dwellings.

This comparison suggests that the proposed provisions provide flexibility to the market to provide for these type of dwellings across Rotorua's general suburban area. We consider that the site sizes enabled within the MDR zone, or within the ODP zones with the application of the MDRS, do not contain any constraint to development of dwellings. The potential site sizes are substantially smaller than the existing provisions and reflect the smaller end of land areas required to physically construct these dwelling typologies<sup>15</sup>.

There is large scope for development of smaller dwellings within the modelled scenarios across all of Rotorua's general suburban area. The sizes required under the proposed provisions are unlikely to form any binding constraint to the density of dwellings constructed, which are more likely to instead reflect the physical space requirements within the context of the land area. This means that the planning provisions within the general suburban areas, while not constraining development, are also unlikely to affect the patterns of density across the urban area. Any differences in density are instead likely to occur through a combination of market demand for more accessible locations and opportunistic development across the suburban area that is made feasible through the higher potential yields on each site. The latter could result in isolated higher density developments away from key areas of accessibility.

The capacity for vertically-attached dwellings enabled in the modelled scenarios is also substantive relative to the projected demand. The upper level (high substitution scenario) of projected demand is for an additional 1,000 vertically-attached apartment dwellings across the next three decades. In effect, a share of this demand is instead likely to be met within the horizontally-attached dwellings in accessible locations where the densities enabled are sufficiently high to create substitution between these market segments. For example, the MDR zone provisions include scope for 2-3 level walk-up attached dwellings on smaller average land areas of 100m<sup>2</sup>. Development of horizontally-attached dwellings at these densities within key nodes of accessibility are likely to form attractive options to this market segment.

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<sup>14</sup> The sufficiency results here differ to the HBA for three reasons. Firstly, this analysis includes only capacity within the existing urban environment, while the HBA also included greenfield capacity. Secondly, the analysis is based upon a modelled preference shift in demand. Lastly, the modelled capacity is different to the HBA as a result of the proposed provisions.

<sup>15</sup> This is suggested through analysis of building consents and development patterns across other parts of New Zealand.

The apartment demand compares to an existing provision for 8,600 apartments within the commercial zones, and a modelled capacity of between 10,500 and 63,100 dwellings across Options 1 to 4. This suggests that there is no planning constraint to the development of these typologies.

The HBA, MDRS on ODP zones, and Options 1 and 2 show a small shortfall (around 100 dwellings under the High Substitution Scenario) in vertically attached apartment dwellings in the eastern catchment. This is unlikely to result in a constraint in capacity within these scenarios for three reasons. Firstly, they exclude th capacity within greenfield areas, which is likely to contain capacity for this typology in any commercial zoning within the greenfield area. Secondly, a share of the demand for vertically attached apartments is likely to be able to be met through other dwelling typologies (e.g. higher density terraced housing) that are provided for under these scenarios and have a large surplus within this area. Lastly, there is also likely to be a level of substitutability in location with this dwelling typology where demand could be met in other locations.

Table 4-1: Comparison of Plan Enabled Capacity and Projected Long-Term Demand (High Substitution Scenario) by Modelled Scenario

Modelled Scenario and Catchment	Redevelopment Capacity (Net Additional Dwellings)				Projected Long-Term Demand: High Substitution Scenario				Sufficiency			
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment
<b>HBA</b>												
Central	800	1,300	8,100	10,100	1,400	1,400	500	3,300	-600	-70	7,600	6,800
Western	4,400	-	300	4,700	2,000	1,200	300	3,500	2,300	-1,200	60	1,200
Eastern	3,500	-	10	3,500	1,300	600	100	2,000	2,100	-600	-100	1,500
Ngongotahā	1,500	-	90	1,500	600	300	60	900	900	-300	30	600
<b>TOTAL</b>	<b>10,100</b>	<b>1,300</b>	<b>8,600</b>	<b>19,800</b>	<b>5,300</b>	<b>3,500</b>	<b>1,000</b>	<b>9,700</b>	<b>4,700</b>	<b>-2,100</b>	<b>7,600</b>	<b>10,100</b>
<b>MDRS Applied to ODP Zones</b>												
Central	4,400	6,800	8,200	15,700	1,400	1,400	500	3,300	3,000	5,400	7,700	12,300
Western	21,900	29,600	300	29,900	2,000	1,200	300	3,500	19,900	28,400	60	26,400
Eastern	11,100	15,900	10	16,200	1,300	600	100	2,000	9,700	15,300	-100	14,200
Ngongotahā	4,700	6,800	90	6,900	600	300	60	900	4,200	6,500	30	6,000
<b>TOTAL</b>	<b>42,100</b>	<b>59,000</b>	<b>8,700</b>	<b>68,700</b>	<b>5,300</b>	<b>3,500</b>	<b>1,000</b>	<b>9,700</b>	<b>36,800</b>	<b>55,600</b>	<b>7,700</b>	<b>58,900</b>
<b>Option 1</b>												
Central	4,100	12,000	10,200	22,200	1,400	1,400	500	3,300	2,700	10,600	9,700	18,800
Western	23,000	55,200	200	55,400	2,000	1,200	300	3,500	20,900	54,000	-30	51,900
Eastern	10,000	26,900	10	26,900	1,300	600	100	2,000	8,700	26,400	-100	24,900
Ngongotahā	4,400	11,700	90	11,800	600	300	60	900	3,800	11,400	30	10,800
<b>TOTAL</b>	<b>41,500</b>	<b>105,800</b>	<b>10,500</b>	<b>116,300</b>	<b>5,300</b>	<b>3,500</b>	<b>1,000</b>	<b>9,700</b>	<b>36,100</b>	<b>102,300</b>	<b>9,600</b>	<b>106,500</b>
<b>Option 2</b>												
Central	4,100	12,300	23,300	32,300	1,400	1,400	500	3,300	2,700	10,900	22,800	28,900
Western	23,000	55,200	1,800	56,500	2,000	1,200	300	3,500	20,900	54,000	1,500	53,100
Eastern	10,000	26,900	10	26,900	1,300	600	100	2,000	8,700	26,400	-100	24,900
Ngongotahā	4,400	11,700	90	11,800	600	300	60	900	3,800	11,400	30	10,800
<b>TOTAL</b>	<b>41,500</b>	<b>106,200</b>	<b>25,200</b>	<b>127,500</b>	<b>5,300</b>	<b>3,500</b>	<b>1,000</b>	<b>9,700</b>	<b>36,100</b>	<b>102,700</b>	<b>24,300</b>	<b>117,800</b>
<b>Option 3</b>												
Central	4,100	12,700	41,200	45,500	1,400	1,400	500	3,300	2,700	11,200	40,700	42,100
Western	23,000	55,300	3,600	57,800	2,000	1,200	300	3,500	20,900	54,200	3,300	54,400
Eastern	10,000	27,000	13,200	36,300	1,300	600	100	2,000	8,700	26,500	13,100	34,300
Ngongotahā	4,400	11,700	4,200	14,600	600	300	60	900	3,800	11,400	4,200	13,700
<b>TOTAL</b>	<b>41,500</b>	<b>106,800</b>	<b>62,200</b>	<b>154,200</b>	<b>5,300</b>	<b>3,500</b>	<b>1,000</b>	<b>9,700</b>	<b>36,100</b>	<b>103,300</b>	<b>61,300</b>	<b>144,400</b>
<b>Option 4</b>												
Central	4,100	12,600	39,700	44,700	1,400	1,400	500	3,300	2,700	11,200	39,200	41,300
Western	23,000	55,300	3,400	57,700	2,000	1,200	300	3,500	20,900	54,100	3,100	54,200
Eastern	10,000	27,000	15,800	38,800	1,300	600	100	2,000	8,700	26,500	15,700	36,800
Ngongotahā	4,400	11,700	4,300	14,600	600	300	60	900	3,800	11,400	4,200	13,700
<b>TOTAL</b>	<b>41,500</b>	<b>106,700</b>	<b>63,100</b>	<b>155,800</b>	<b>5,300</b>	<b>3,500</b>	<b>1,000</b>	<b>9,700</b>	<b>36,100</b>	<b>103,200</b>	<b>62,200</b>	<b>146,100</b>

Source: DRAFT M.E Rotorua MDRS Residential Capacity Model, 2022.

Table 4-2: Comparison of Plan Enabled Capacity and Projected Long-Term Demand (Low Substitution Scenario) by Modelled Scenario

Modelled Scenario and Catchment	Redevelopment Capacity (Net Additional Dwellings)				Projected Long-Term Demand: Low Substitution Scenario				Sufficiency			
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment
<b>HBA</b>												
Central	800	1,300	8,100	10,100	1,500	1,400	400	3,300	-800	-70	7,800	6,800
Western	4,400	-	300	4,700	2,200	1,100	200	3,500	2,100	-1,100	100	1,200
Eastern	3,500	-	10	3,500	1,400	500	80	2,000	2,000	-500	-70	1,500
Ngongotahā	1,500	-	90	1,500	600	300	40	900	800	-300	50	600
<b>TOTAL</b>	<b>10,100</b>	<b>1,300</b>	<b>8,600</b>	<b>19,800</b>	<b>5,800</b>	<b>3,200</b>	<b>700</b>	<b>9,700</b>	<b>4,300</b>	<b>-1,900</b>	<b>7,900</b>	<b>10,100</b>
<b>MDRS Applied to ODP Zones</b>												
Central	4,400	6,800	8,200	15,700	1,500	1,400	400	3,300	2,900	5,300	7,900	12,300
Western	21,900	29,600	300	29,900	2,200	1,100	200	3,500	19,700	28,500	100	26,400
Eastern	11,100	15,900	10	16,200	1,400	500	80	2,000	9,600	15,400	-70	14,200
Ngongotahā	4,700	6,800	90	6,900	600	300	40	900	4,100	6,600	50	6,000
<b>TOTAL</b>	<b>42,100</b>	<b>59,000</b>	<b>8,700</b>	<b>68,700</b>	<b>5,800</b>	<b>3,200</b>	<b>700</b>	<b>9,700</b>	<b>36,300</b>	<b>55,800</b>	<b>8,000</b>	<b>58,900</b>
<b>Option 1</b>												
Central	4,100	12,000	10,200	22,200	1,500	1,400	400	3,300	2,500	10,600	9,800	18,800
Western	23,000	55,200	200	55,400	2,200	1,100	200	3,500	20,700	54,100	50	51,900
Eastern	10,000	26,900	10	26,900	1,400	500	80	2,000	8,600	26,400	-70	24,900
Ngongotahā	4,400	11,700	90	11,800	600	300	40	900	3,800	11,400	50	10,800
<b>TOTAL</b>	<b>41,500</b>	<b>105,800</b>	<b>10,500</b>	<b>116,300</b>	<b>5,800</b>	<b>3,200</b>	<b>700</b>	<b>9,700</b>	<b>35,700</b>	<b>102,500</b>	<b>9,800</b>	<b>106,500</b>
<b>Option 2</b>												
Central	4,100	12,300	23,300	32,300	1,500	1,400	400	3,300	2,500	10,900	22,900	28,900
Western	23,000	55,200	1,800	56,500	2,200	1,100	200	3,500	20,700	54,200	1,600	53,100
Eastern	10,000	26,900	10	26,900	1,400	500	80	2,000	8,600	26,400	-70	24,900
Ngongotahā	4,400	11,700	90	11,800	600	300	40	900	3,800	11,400	50	10,800
<b>TOTAL</b>	<b>41,500</b>	<b>106,200</b>	<b>25,200</b>	<b>127,500</b>	<b>5,800</b>	<b>3,200</b>	<b>700</b>	<b>9,700</b>	<b>35,700</b>	<b>102,900</b>	<b>24,500</b>	<b>117,800</b>
<b>Option 3</b>												
Central	4,100	12,700	41,200	45,500	1,500	1,400	400	3,300	2,500	11,200	40,800	42,100
Western	23,000	55,300	3,600	57,800	2,200	1,100	200	3,500	20,700	54,300	3,400	54,400
Eastern	10,000	27,000	13,200	36,300	1,400	500	80	2,000	8,600	26,500	13,200	34,300
Ngongotahā	4,400	11,700	4,200	14,600	600	300	40	900	3,800	11,500	4,200	13,700
<b>TOTAL</b>	<b>41,500</b>	<b>106,800</b>	<b>62,200</b>	<b>154,200</b>	<b>5,800</b>	<b>3,200</b>	<b>700</b>	<b>9,700</b>	<b>35,700</b>	<b>103,500</b>	<b>61,500</b>	<b>144,400</b>
<b>Option 4</b>												
Central	4,100	12,600	39,700	44,700	1,500	1,400	400	3,300	2,500	11,200	39,300	41,300
Western	23,000	55,300	3,400	57,700	2,200	1,100	200	3,500	20,700	54,300	3,200	54,200
Eastern	10,000	27,000	15,800	38,800	1,400	500	80	2,000	8,600	26,500	15,700	36,800
Ngongotahā	4,400	11,700	4,300	14,600	600	300	40	900	3,800	11,500	4,200	13,700
<b>TOTAL</b>	<b>41,500</b>	<b>106,700</b>	<b>63,100</b>	<b>155,800</b>	<b>5,800</b>	<b>3,200</b>	<b>700</b>	<b>9,700</b>	<b>35,700</b>	<b>103,400</b>	<b>62,400</b>	<b>146,100</b>

Source: DRAFT M. E Rotorua MDRS Residential Capacity Model, 2022.

The following tables (Table 4-3 – high scenario and Table 4-4 – low scenario) consider the share of plan-enabled capacity that would need to be taken up to meet projected long-term demand. This is a conservative assessment as it only includes capacity within the existing urban area, while a substantive share of demand is instead likely to be met within the greenfield areas, particularly for detached and lower density horizontally-attached dwellings.

The tables show that generally only a small share of the plan-enabled capacity would need to be taken up to meet long-term demand. At the total level, this amounts around 6% to 8% of the capacity under the modelled scenarios by 2050, and 14% for the MDRS applied to the ODP zones. If the share of demand being met within greenfield areas were excluded, then these shares would be lower.

Within this, the share of capacity required to meet detached dwelling demand is higher (13% to 14% overall by 2050), particularly within the Central reporting area, where it amounts to around 35% to 38% under Options 1 to 4. The share of horizontally-attached dwelling capacity required to meet long-term demand is much lower, at around 3% by 2050. We consider that these shares overall are low and therefore do not suggest a high reliance on the uptake of this capacity to meet demand.





The share of capacity required to meet long-term demand for vertically-attached apartments is much lower. Currently, at most, 11% of the provision within commercial zones<sup>16</sup> would be required to meet long-term demand if all demand to 2050 were met within this typology. Once provision for vertical apartments is expanded through the HDR zone and the additional height overlays in the MDR zone (Options 2 to 4), the share decreases further to 1% to 4% over the long-term.

The assessment indicates that the current and proposed provision for vertically-attached apartments is much larger than the projected level of long-term demand and is therefore unlikely to form any restriction on the market in delivering this type of capacity.

We note that there may be other factors, such as geothermal constraints, that correlate spatially with the proposed planning provision for vertical apartments. These will be assessed as information becomes available. However, they would need to exclude very high levels of the plan enabled capacity in central areas for the planning provision to be insufficient to meet the projected demand.

The above analysis has assessed the adequacy of the proposed planning provisions for dwelling capacity. This is an important first stage in identifying the appropriateness of the provisions. However, it is also important to understand whether the provisions are likely to appropriately encourage positive urban form outcomes. Very small uptake rates of capacity are less likely to achieve the sustainable and efficient urban form planning objectives.

The following sub-section considers more closely the adequacy of provision for higher density residential development in key areas of accessibility with regard to the NPS-UD Policy 5.

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<sup>16</sup> This share is also conservative due to the HBA modelling assumptions applied to the commercial zones. If the assumptions around actual height and residential share were relaxed, then the capacity would substantially increase and the share required to be taken-up would correspondingly decrease.

Table 4-3: Share of Modelled Plan Enabled Capacity Take-Up Required to Meet Projected Demand (High Substitution Scenario)

Modelled Scenario and Catchment	Short-Term (2020-2023)				Medium-Term (2020-2030)				Long-Term (2020-2050)			
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment
<b>HBA</b>												
Central	73%	29%	1%	10%	122%	56%	2%	19%	180%	105%	6%	33%
Western	28%	0%	11%	33%	42%	0%	31%	55%	47%	0%	82%	74%
Eastern	16%	0%	86%	19%	26%	0%	269%	34%	38%	0%	915%	58%
Ngongotahā	17%	0%	8%	20%	28%	0%	22%	36%	40%	0%	66%	60%
<b>TOTAL</b>	<b>26%</b>	<b>61%</b>	<b>2%</b>	<b>18%</b>	<b>41%</b>	<b>130%</b>	<b>4%</b>	<b>31%</b>	<b>53%</b>	<b>256%</b>	<b>11%</b>	<b>49%</b>
<b>MDRS Applied to ODP Zones</b>												
Central	13%	6%	1%	7%	22%	11%	2%	12%	32%	21%	6%	21%
Western	6%	1%	11%	5%	8%	2%	31%	9%	9%	4%	82%	12%
Eastern	5%	1%	86%	4%	8%	2%	269%	7%	12%	4%	915%	12%
Ngongotahā	5%	1%	8%	4%	9%	2%	22%	8%	12%	4%	66%	13%
<b>TOTAL</b>	<b>6%</b>	<b>1%</b>	<b>2%</b>	<b>5%</b>	<b>10%</b>	<b>3%</b>	<b>4%</b>	<b>9%</b>	<b>13%</b>	<b>6%</b>	<b>11%</b>	<b>14%</b>
<b>Option 1</b>												
Central	14%	3%	1%	5%	24%	6%	2%	9%	35%	12%	5%	15%
Western	5%	1%	16%	3%	8%	1%	42%	5%	9%	2%	112%	6%
Eastern	5%	0%	86%	2%	9%	1%	269%	4%	13%	2%	915%	7%
Ngongotahā	5%	0%	8%	3%	9%	1%	22%	5%	13%	2%	66%	8%
<b>TOTAL</b>	<b>6%</b>	<b>1%</b>	<b>1%</b>	<b>3%</b>	<b>10%</b>	<b>2%</b>	<b>3%</b>	<b>5%</b>	<b>13%</b>	<b>3%</b>	<b>9%</b>	<b>8%</b>
<b>Option 2</b>												
Central	14%	3%	0%	3%	24%	6%	1%	6%	35%	12%	2%	10%
Western	5%	1%	2%	3%	8%	1%	6%	5%	9%	2%	15%	6%
Eastern	5%	0%	86%	2%	9%	1%	269%	4%	13%	2%	915%	7%
Ngongotahā	5%	0%	8%	3%	9%	1%	22%	5%	13%	2%	66%	8%
<b>TOTAL</b>	<b>6%</b>	<b>1%</b>	<b>1%</b>	<b>3%</b>	<b>10%</b>	<b>2%</b>	<b>1%</b>	<b>5%</b>	<b>13%</b>	<b>3%</b>	<b>4%</b>	<b>8%</b>
<b>Option 3</b>												
Central	14%	3%	0%	2%	24%	6%	0%	4%	35%	11%	1%	7%
Western	5%	1%	1%	3%	8%	1%	3%	4%	9%	2%	8%	6%
Eastern	5%	0%	0%	2%	9%	1%	0%	3%	13%	2%	1%	5%
Ngongotahā	5%	0%	0%	2%	9%	1%	0%	4%	13%	2%	1%	6%
<b>TOTAL</b>	<b>6%</b>	<b>1%</b>	<b>0%</b>	<b>2%</b>	<b>10%</b>	<b>2%</b>	<b>1%</b>	<b>4%</b>	<b>13%</b>	<b>3%</b>	<b>2%</b>	<b>6%</b>
<b>Option 4</b>												
Central	14%	3%	0%	2%	24%	6%	1%	4%	35%	11%	1%	7%
Western	5%	1%	1%	3%	8%	1%	3%	4%	9%	2%	8%	6%
Eastern	5%	0%	0%	2%	9%	1%	0%	3%	13%	2%	1%	5%
Ngongotahā	5%	0%	0%	2%	9%	1%	0%	4%	13%	2%	1%	6%
<b>TOTAL</b>	<b>6%</b>	<b>1%</b>	<b>0%</b>	<b>2%</b>	<b>10%</b>	<b>2%</b>	<b>1%</b>	<b>4%</b>	<b>13%</b>	<b>3%</b>	<b>2%</b>	<b>6%</b>

Source: DRAFT M.E Rotorua MDRS Residential Capacity Model, 2022.

Table 4-4: Share of Modelled Plan Enabled Capacity Take-Up Required to Meet Projected Demand (Low Substitution Scenario)

Modelled Scenario and Catchment	Short-Term (2020-2023)				Medium-Term (2020-2030)				Long-Term (2020-2050)			
	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment	Detached Dwellings	Horizontally Attached Dwellings	Apartments (vertically attached)	Max Redevelopment
<b>HBA</b>												
Central	75%	29%	1%	10%	128%	56%	2%	19%	194%	105%	5%	33%
Western	29%	0%	9%	33%	44%	0%	24%	55%	51%	0%	60%	74%
Eastern	16%	0%	70%	19%	27%	0%	202%	34%	41%	0%	647%	58%
Ngongotahā	17%	0%	6%	20%	30%	0%	17%	36%	43%	0%	47%	60%
<b>TOTAL</b>	<b>26%</b>	<b>59%</b>	<b>1%</b>	<b>18%</b>	<b>43%</b>	<b>123%</b>	<b>3%</b>	<b>31%</b>	<b>58%</b>	<b>240%</b>	<b>8%</b>	<b>49%</b>
<b>MDRS Applied to ODP Zones</b>												
Central	14%	6%	1%	7%	23%	11%	2%	12%	35%	21%	5%	21%
Western	6%	1%	9%	5%	9%	2%	24%	9%	10%	4%	60%	12%
Eastern	5%	1%	70%	4%	8%	1%	202%	7%	13%	3%	647%	12%
Ngongotahā	5%	1%	6%	4%	9%	2%	17%	8%	13%	4%	47%	13%
<b>TOTAL</b>	<b>6%</b>	<b>1%</b>	<b>1%</b>	<b>5%</b>	<b>10%</b>	<b>3%</b>	<b>3%</b>	<b>9%</b>	<b>14%</b>	<b>5%</b>	<b>8%</b>	<b>14%</b>
<b>Option 1</b>												
Central	15%	3%	1%	5%	25%	6%	2%	9%	38%	12%	4%	15%
Western	5%	0%	13%	3%	8%	1%	32%	5%	10%	2%	81%	6%
Eastern	6%	0%	70%	2%	9%	1%	202%	4%	14%	2%	647%	7%
Ngongotahā	6%	0%	6%	3%	10%	1%	17%	5%	14%	2%	47%	8%
<b>TOTAL</b>	<b>6%</b>	<b>1%</b>	<b>1%</b>	<b>3%</b>	<b>10%</b>	<b>2%</b>	<b>3%</b>	<b>5%</b>	<b>14%</b>	<b>3%</b>	<b>7%</b>	<b>8%</b>
<b>Option 2</b>												
Central	15%	3%	0%	3%	25%	6%	1%	6%	38%	12%	2%	10%
Western	5%	0%	2%	3%	8%	1%	4%	5%	10%	2%	11%	6%
Eastern	6%	0%	70%	2%	9%	1%	202%	4%	14%	2%	647%	7%
Ngongotahā	6%	0%	6%	3%	10%	1%	17%	5%	14%	2%	47%	8%
<b>TOTAL</b>	<b>6%</b>	<b>1%</b>	<b>0%</b>	<b>3%</b>	<b>10%</b>	<b>2%</b>	<b>1%</b>	<b>5%</b>	<b>14%</b>	<b>3%</b>	<b>3%</b>	<b>8%</b>
<b>Option 3</b>												
Central	15%	3%	0%	2%	25%	6%	0%	4%	38%	11%	1%	7%
Western	5%	0%	1%	3%	8%	1%	2%	4%	10%	2%	6%	6%
Eastern	6%	0%	0%	2%	9%	1%	0%	3%	14%	2%	1%	5%
Ngongotahā	6%	0%	0%	2%	10%	1%	0%	4%	14%	2%	1%	6%
<b>TOTAL</b>	<b>6%</b>	<b>1%</b>	<b>0%</b>	<b>2%</b>	<b>10%</b>	<b>2%</b>	<b>0%</b>	<b>4%</b>	<b>14%</b>	<b>3%</b>	<b>1%</b>	<b>6%</b>
<b>Option 4</b>												
Central	15%	3%	0%	2%	25%	6%	0%	4%	38%	11%	1%	7%
Western	5%	0%	1%	3%	8%	1%	2%	4%	10%	2%	6%	6%
Eastern	6%	0%	0%	2%	9%	1%	0%	3%	14%	2%	0%	5%
Ngongotahā	6%	0%	0%	2%	10%	1%	0%	4%	14%	2%	1%	6%
<b>TOTAL</b>	<b>6%</b>	<b>1%</b>	<b>0%</b>	<b>2%</b>	<b>10%</b>	<b>2%</b>	<b>0%</b>	<b>4%</b>	<b>14%</b>	<b>3%</b>	<b>1%</b>	<b>6%</b>

Source: DRAFT M.E Rotorua MDRS Residential Capacity Model, 2022.

### 4.3 Adequacy of Provision for Higher Density Residential Development in Areas of High Accessibility

The previous sub-section has shown that the proposed provision for higher density development is very high relative to the projected long-term demand. Only a minor share of the capacity would need to be taken up to meet demand. This suggests that there is unlikely to be a planning constraint<sup>17</sup> to development within areas of high accessibility. In accordance with Policy 5, there is a high level of scope for higher density residential development within the key areas of accessibility.

However, as set out in Section 4.1, it is also important to consider the relativities between provision and demand in relation to the efficiency and effectiveness of the provisions in achieving the urban form planning objectives. Policy 5 requires the provision of capacity in highly accessible areas. It is important to also consider the appropriateness of the spatial extent of the provisions. In particular, this relates to the spatial extent of the HDR zone (and additional height overlays in the MDR zone under Option 4).

We consider that if the spatial application of the provision is too extensive, then it may not adequately encourage the concentration of higher density development into areas that function together with, and

<sup>17</sup> The analysis has not tested the commercial feasibility of the capacity, which may be affected by planning provisions. However, the scale of difference between demand and the level of capacity enabled by the proposed provisions is substantial.



support the viability of, key nodes. Development may occur in locations that do not function together with these nodes and consequently reduce the level of remaining market size for intensification of the nodes.

This is particularly an issue for urban economies such as Rotorua where the apartment market size is small and not well established (and remains relatively small even under the revised preference shifts). An opportunistic development away from the central part of the node (i.e. on the edge of an up-zoned area) may absorb a significant share of the market, and not generate the optimal urban form of a concentration of density immediately around the centres within the long-term. The spatial extent across which developments will function together with a centre is likely to be smaller within smaller markets. In contrast, larger urban economies are able to sustain much wider gradients of density around centres due to the overall level of demand.

It is important also to consider that these areas within the HDR zone could still develop to relatively high densities under the MDR zone provisions with the application of the MDRS. We consider that the densities of horizontally-attached dwellings modelled under this zone (e.g. higher density terraced housing) would still enable concentrations of development around key nodes of accessibility that are appropriately scaled to the Rotorua market.

The following figures provide further detail on the share of apartment redevelopment capacity that would need to be taken up, at different densities, to accommodate projected long-term demand under the modelled scenarios.

Figure 4-1 and Figure 4-2 show the share of apartment redevelopment capacity that would need to be taken up to accommodate the projected long-term demand under each modelled scenario if apartments in the HDR zone were developed **at 5 storeys (as proposed)**. The horizontal (x) axis shows the share of projected long-term demand, with the corresponding share of capacity take-up required to meet demand shown on the vertical (y) axis. Each line represents a different modelled scenario<sup>18</sup>.

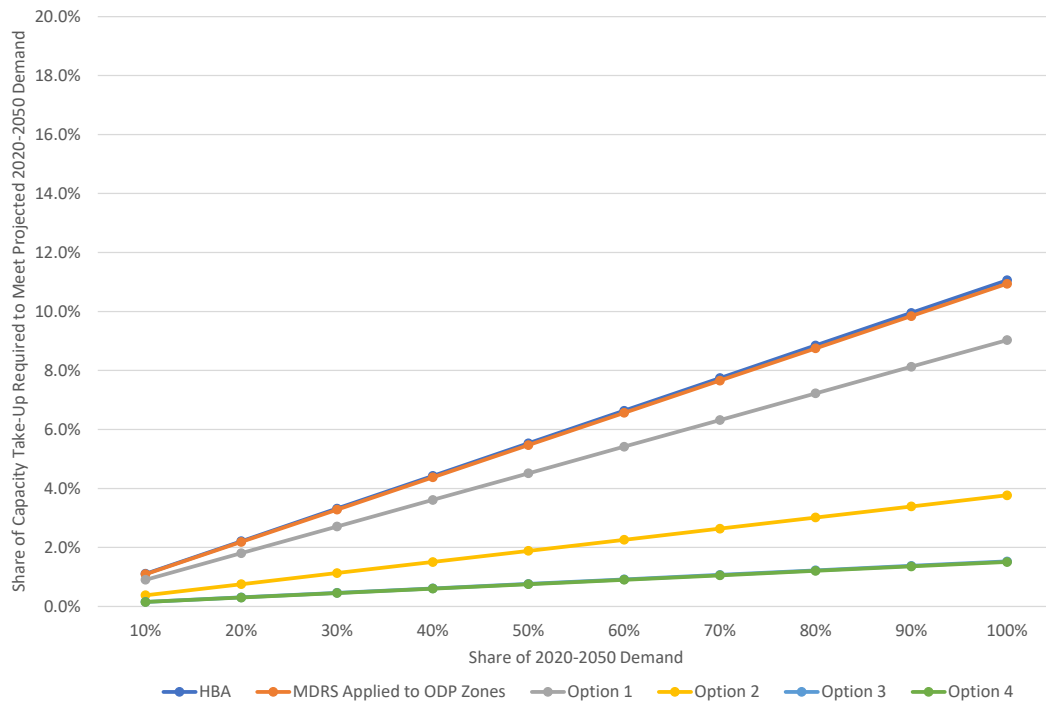
These figures show that the share of take-up required is very small. To meet all of the long-term demand, only 7% to 9% of the capacity in commercial zones would need to be taken up over the next 30 years (Option 1). With the addition of the smaller HDR zone area, only 3% to 4% of the capacity would need to be taken up. In the medium-term, which corresponds to around 40% of long-term demand, only 0.6% to 1.4% of the capacity would need to be taken up in Options 2 to 4.

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<sup>18</sup> Note that the line for Option 4 obscures the line for Option 3 due to the similarity of results.

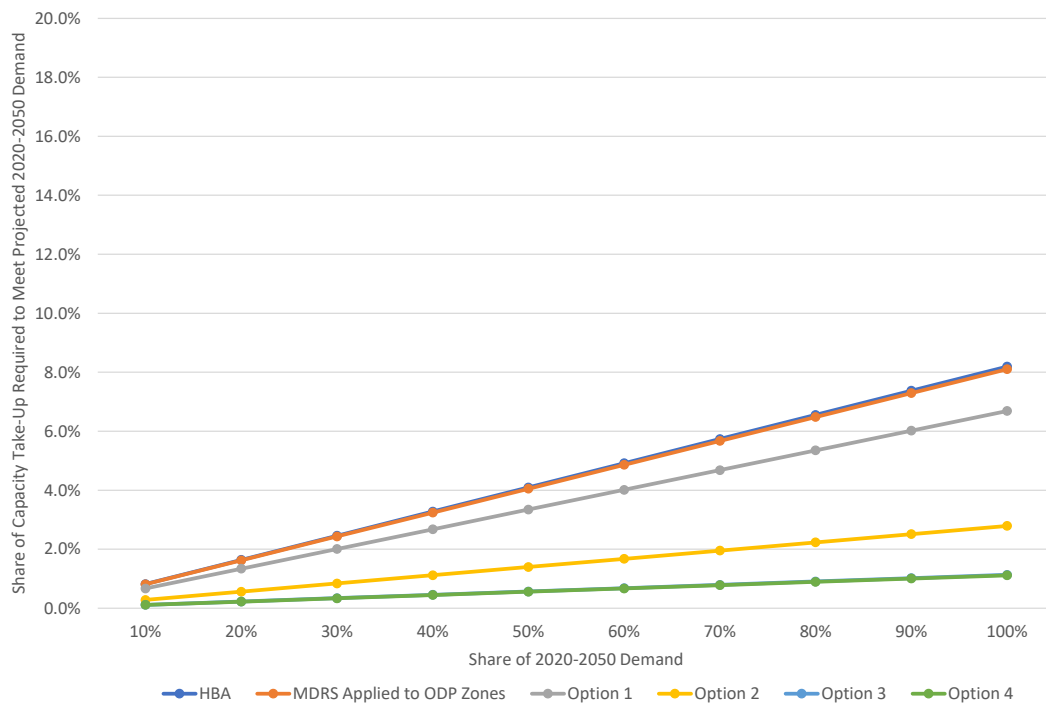


Figure 4-1: Share of Plan Enabled Capacity Take-Up Required to Meet Share of Projected Long-Term Vertically-Attached Apartment Demand: High Demand Substitution Scenario – 5 Storey HDR Development



Source: M.E Rotorua Intensification Plan Change Modelling, 2022.

Figure 4-2: Share of Plan Enabled Capacity Take-Up Required to Meet Share of Projected Long-Term Vertically-Attached Apartment Demand: Low Demand Substitution Scenario – 5 Storey HDR Development



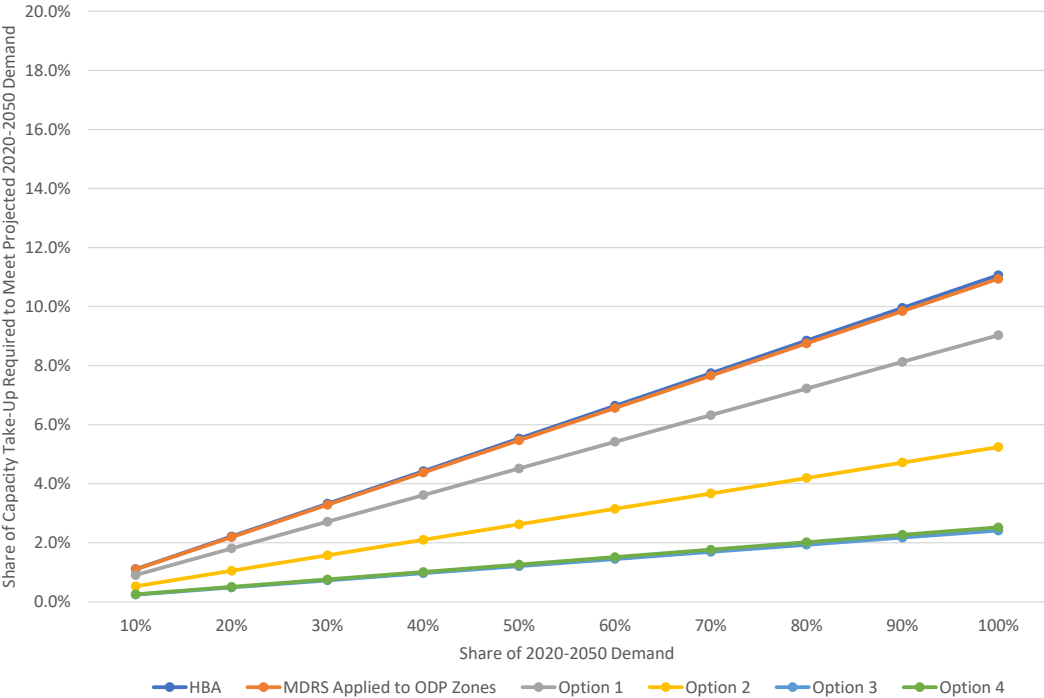
Source: M.E Rotorua Intensification Plan Change Modelling, 2022.



Figure 4-3 and Figure 4-4 show the shares of plan-enabled apartments capacity that would need to be taken up to meet long-term demand if development within the HDR zone (and the MDR zone additional height overlay under Option 4) instead occurred **at only 3 storeys** (similar to the MDR zone provisions). They show that if development were to occur at this density, then still only a small share (2% to 5% under Options 2 to 4) of capacity would be required to meet projected long-term demand. This may suggest that the MDRS provisions with the MDR zone may be sufficient to meet projected demand and achieve the types of intensification within more accessible locations.

The following section examines the levels of vertical apartment development that have occurred in other urban economies. It looks at the building heights which have occurred and their distance from the core central area to understand the spatial extent over which concentrations of development form to function together with nodes within the urban environment.

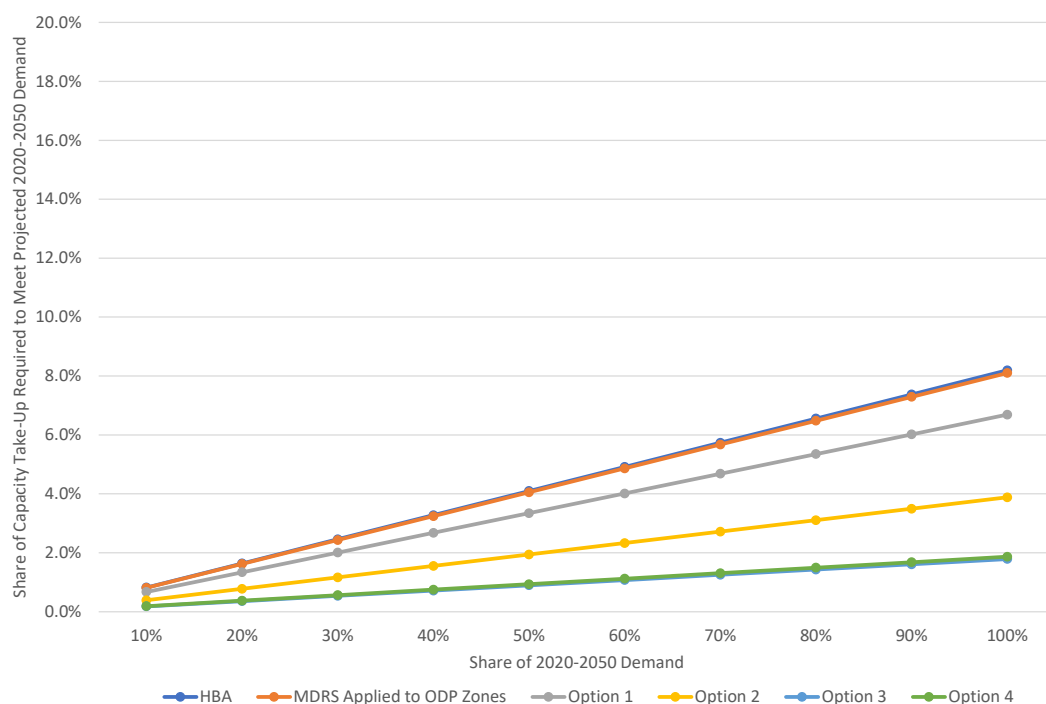
Figure 4-3: Share of Plan Enabled Capacity Take-Up Required to Meet Share of Projected Long-Term Vertically-Attached Apartment Demand: High Demand Substitution Scenario – 3 Storey HDR Development



Source: M.E Rotorua Intensification Plan Change Modelling, 2022.



Figure 4-4: Share of Plan Enabled Capacity Take-Up Required to Meet Share of Projected Long-Term Vertically-Attached Apartment Demand: Low Demand Substitution Scenario – 3 Storey HDR Development



Source: M.E Rotorua Intensification Plan Change Modelling, 2022.

## 4.4 High Density Residential Development Relative to Highly Accessible Areas in Other Urban Economies


### 4.4.1 Approach

M.E have examined the patterns of higher density residential development that have occurred in other locations. The intent is to inform the appropriateness of the proposed provisions through understanding the underlying potential for future development patterns that may occur in Rotorua. Examining a wider range of markets provides context for the likelihood of development patterns through considering the differences between markets and their relative positioning. This approach will provide context as to the planning parameters for building height and the spatial extent of their application.

Our assessment has focused on the levels of residential density in each location by the accessibility to the core area of amenity. Specifically, it has looked at the spatial extent across which different types of higher density development have occurred in relation to the distance from the amenity and overall market size. We have considered the type of development (e.g. vertically-attached apartments, terraced housing, etc), the density of the typology in relation to the storeys of development<sup>19</sup> and its location.

The analysis has examined the cross-sectional picture of how the density and typology of residential development changes with distance from the central point of amenity. It enables comparisons to be drawn

<sup>19</sup> The number of storeys forms the main focus as it is the provision for assessment.



between the levels of density observed in different cities and types of location. It also shows the rate of density distance decay and how this differs between locations. The combination of these factors are important in understanding the appropriateness of the levels of density provided for and the spatial extent across which they are provided.

Our assessment also considers more recent development patterns in relation to the density provided for within the proposed HDR zone. For the NPS-UD Policy 5, it is important to understand the levels of density that get taken up by the market when the scope of development is not limited by zoning restrictions. As such, our focus has been on higher density residential zones and commercial centre zones where greater height limits are generally enabled.

Higher density residential development patterns around key nodes of accessibility have been considered across a range of other urban economies. These include Tauranga, Dunedin, Hamilton and Auckland. In these areas we have looked at examples of the height and location of vertically-attached apartments. The analysis of intensification in these areas has been based on current zoning patterns, meaning that these areas may further intensify with the required intensification under the NPS-UD.

The subsequent part of our assessment has examined more recent patterns of redevelopment around selected commercial centres in Auckland. The Auckland Unitary Plan (AUP) provides an opportunity to observe the prevalence and nature of higher density development in different locations. Many centres are surrounded by substantial areas of higher density residential zoning (Terrace Housing and Apartment Buildings (THAB) Zone) that allow for intensification around centres and the development of residential density gradients.

Although Auckland is a much larger urban economy than Rotorua, with a reasonably well-established higher density residential market, it provides some guidance through consideration of a range of different smaller suburban centres. It also indicates the types of development patterns that may occur in the future as the higher density apartment market becomes more developed. A number of centres were selected as examples, based on available information, presence of redevelopment patterns, and absence of significant physical constraints.

#### **4.4.2 Findings**

Our assessment found that, outside of the larger, higher growth urban economies, higher density residential development in the form of vertically-attached apartments were not well established in many locations. Most cities contained examples of apartment buildings, but did not have this form of development to a large degree within the areas of higher urban amenity. In most cases, there were isolated vertically-attached apartment buildings surrounded by much lower levels of development. The exceptions were Mt Maunganui in Tauranga, and in some of the location examined within Auckland.

Many of the locations did display some level of residential density gradient where density increased with centrality or accessibility. However, this typically occurred in lower forms of higher density residential development than vertically-attached apartments. These typically occurred in the form of terraced housing, two to three-level walk-up apartments, and a greater share of attached dwellings in comparison to their broader suburban areas.





In many locations, there were limited examples of vertically-attached apartments in commercial zones where non-residential uses are required on the ground floor. However, these locations instead had significant amounts of terraced housing development of up to three storeys. This form of development is likely to be more attractive to the market in these locations where there is only limited apartment demand. Walk-up style developments can achieve higher yields on these sites, but avoid the higher construction cost of vertically-attached apartments, which are more difficult to offset with lower demand.

### **Example: Higher Density Development in Mt Maunganui**

Outside of Auckland, Mt Maunganui in Tauranga was the only area (out of the areas considered) with a sizeable number of vertically-attached apartments. We have focussed more closely on this area to look at the spatial extent of this development across the zone and how far this has occurred away from the core area of amenity.

The largest part<sup>20</sup> of Mt Maunganui's High Density Urban Residential (HDR) Zone is shown in Figure 4-5. It covers approximately a 1 kilometre stretch of the Mt Maunganui coastline about 300 to 500m wide. It includes the core central area at the northern end as well a wider area of suburban development. The core location of amenity within the zone occurs at the main beach on the northern coast, and is shown as the red line on the map<sup>21</sup>. A High Rise Plan Area is applied in the north western part of the zone close to the core area of amenity.

The residential development patterns within the HDR Zone are shown in Figure 4-6 and Figure 4-7. Figure 4-6 shows the typology of residential development. In order of density (highest to lowest), these range from vertically-attached highrise apartments, vertically-attached lowrise apartments, terraced housing, attached dwellings and detached dwellings. Figure 4-7, as another measure of density, shows the storeys of development.

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<sup>20</sup> There is a smaller area further south, which is outside the scope of this example.

<sup>21</sup> This has been identified through a visual analysis of the area and is not defined within the Plan.



Figure 4-5: Northern Section of Mt Maunganui's High Density Urban Residential Zone

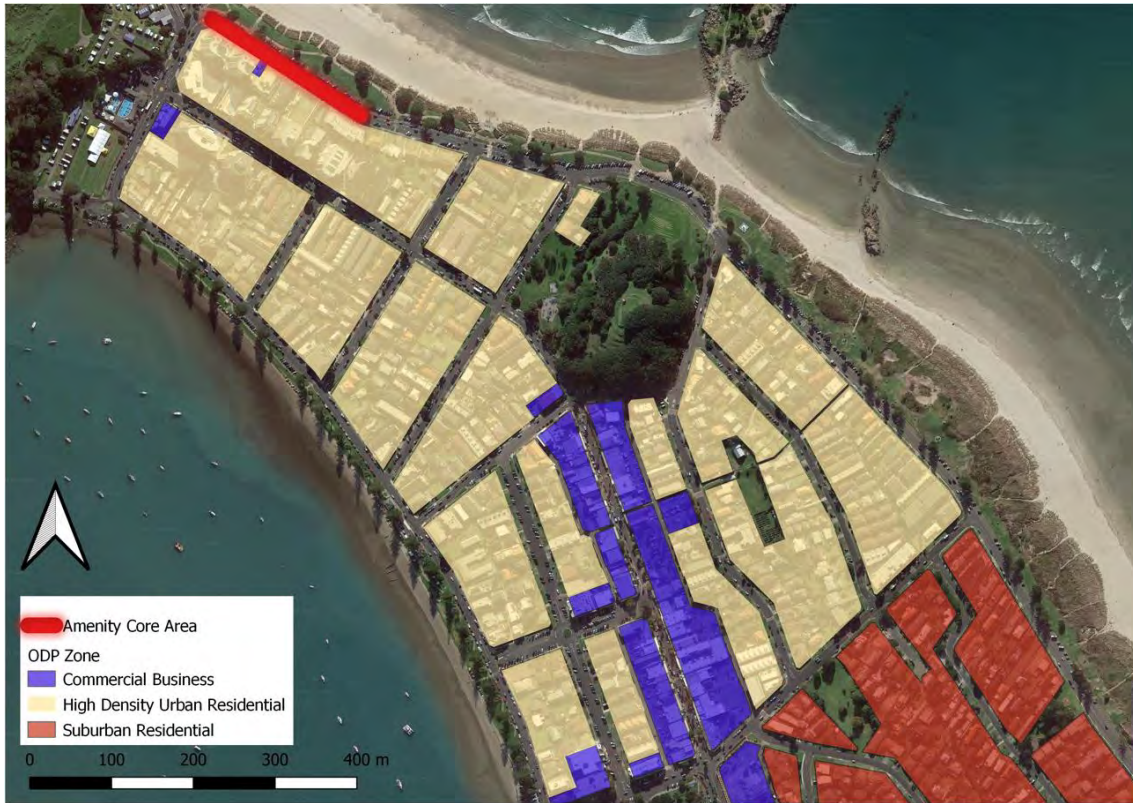
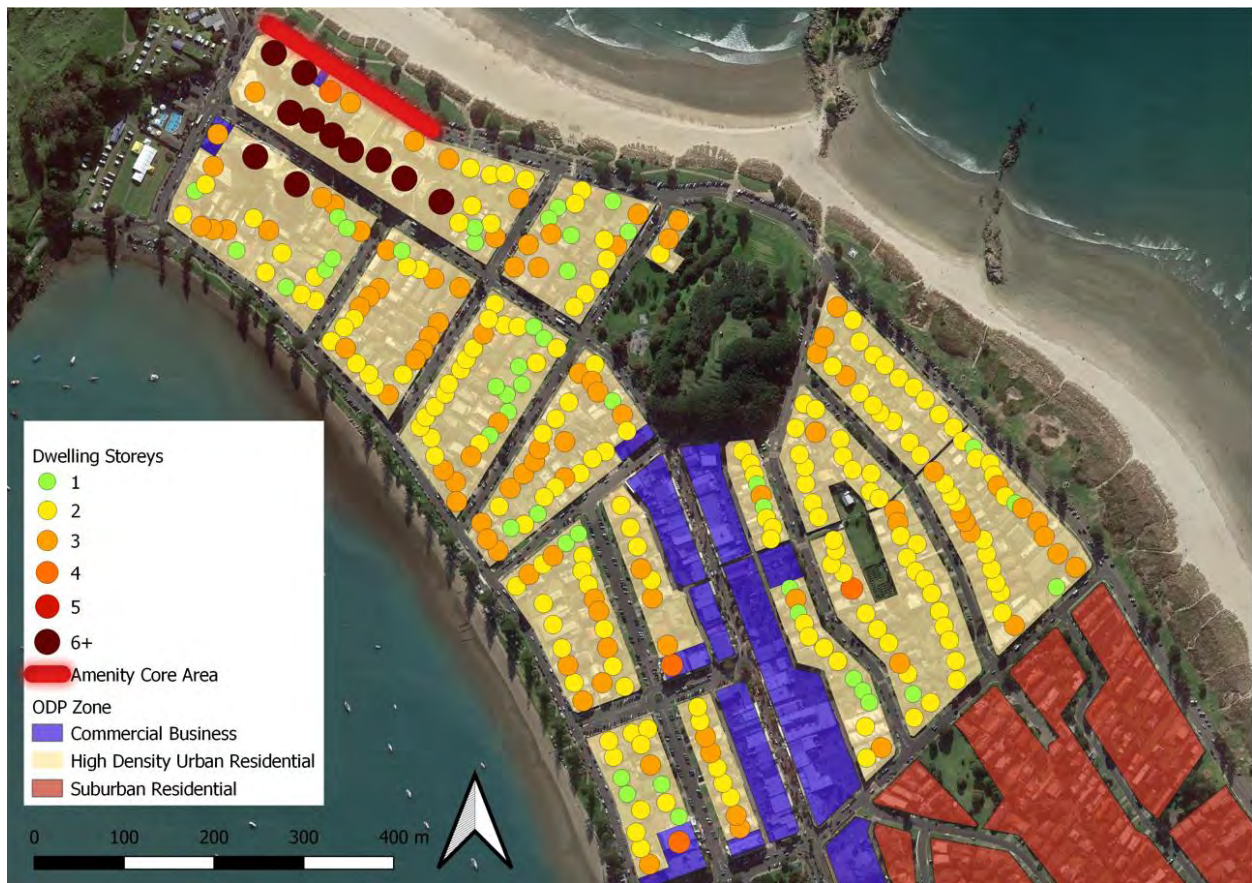


Figure 4-6: Residential Development Patterns by Typology in Mt Maunganui's High Density Urban Residential Zone





Figure 4-7: Residential Development Patterns by Height (Storeys) in Mt Maunganui's High Density Urban Residential Zone



The maps show that higher density residential development typologies are more heavily concentrated into the central areas of amenity and occur to a much smaller spatial extent than the overall HDR zone. Vertically-attached apartments are clustered together in the northern part of the zone closest to the core area of amenity, corresponding to a portion of the High Rise Plan Area. Almost all of the high rise buildings (6-11 storeys) are concentrated into the first block from the coast (approx. 85m wide), with two buildings occurring adjacently in the second block. There are a few smaller low-rise vertically-attached apartment buildings (3-4 storeys) within other parts of the zone. These are considerably lower in density than the high-rise blocks.

Other forms of medium to higher density residential typologies extend to a greater extent across the HDR Zone. While there are broad patterns of distance density decay across the zone, the gradient is much shallower than the drop off in presence of higher density vertically-attached dwellings. Terraced housing is more concentrated around the edges of the core area of vertically-attached apartment buildings, but also occurs across the extent of the HDR Zone. Greater shares of the residential development in areas further away from the core area are at the lower end of the density scale as either detached or attached dwellings.

The maps show that outside of the core area of highrise apartment development, nearly all of the development is between 1 to 3 storeys. It shows that the development of higher buildings is more heavily concentrated into central areas, with very limited spatial expansion across the wider area. The concentration of high rise vertically attached apartment buildings is likely to occur due to the location of



the High Rise Plan Area. However, there has still been significant intensification occurring beyond this area. This intensification across the remainder of the area is still significant and has occurred within the limits provided by the Plan, with a sizeable portion of the development occurring at densities below these limits.

The analysis has found some intensification within and surrounding the Commercial Business Zone (which is located within the geographic extent of the HDR Zone). Although, the level of intensification beyond that occurring within the Commercial Business Zone itself, is broadly consistent with the development patterns across the HDR Zone generally. There are many residential properties on parcels immediately adjacent to this commercial centre that are developed significantly below that enabled by the zone (which provides for 3 storey dwellings with a minimum of 100m<sup>2</sup> land area per dwelling).

The patterns of development observed in Mt Maunganui provide relevant consideration for Rotorua. Higher density residential development is substantially less well established in Rotorua, particularly for vertically-attached apartments, meaning that a smaller degree of intensification is likely to occur.

These patterns show that the general provisions for 1-3 storey development, which are present within the general suburban zones (with the MDRS provisions applied), capture much of the the level of intensification that has occurred in an area with a more established market. The degree of spatial concentration of higher density beyond those enabled by the MDRS is very confined in spatial extent, and is likely to occur to an even lesser degree in Rotorua over the long-term where the market is much smaller.

#### **Example: Redevelopment within THAB Zone of Selected Auckland Centres**

Analysis of the redevelopment patterns around the selected Auckland centres showed that vertically attached apartments were only present to a significant degree within the higher value centres. In many cases, the intensification surrounding centres tended to instead occur through the redevelopment of sites in the form of two to three storey terraced housing, town houses, and in some cases, smaller detached dwellings.

Figure 4-8 plots the identified instances of redevelopment around the selected Auckland centres as outlined in Section 4.4.1 (with separate plots for each centre provided in Appendix 1). These are redevelopments that have occurred in either the centre zone itself or the THAB zone surrounding the centre. The horizontal axis shows the distance of the redevelopment from the edge of the centre zone (distances of 0 show redevelopments occurring within the centre zone). The vertical axis shows the storey height of the redevelopment.

The key points from the figure are:

- Higher density vertically-attached apartments are generally limited to the higher value centres. With the exception of Takapuna<sup>22</sup>, they are concentrated either into the centre zone or within close proximity to the centre zone. Development of vertically-attached apartments typically occur within 100m of the centre zone and do not typically occur beyond this spatial extent.
- Most of the redevelopment beyond one block (70m) of the centre edge was limited to either two to three storeys. These were mainly in the form of terraced housing. The average number of storeys

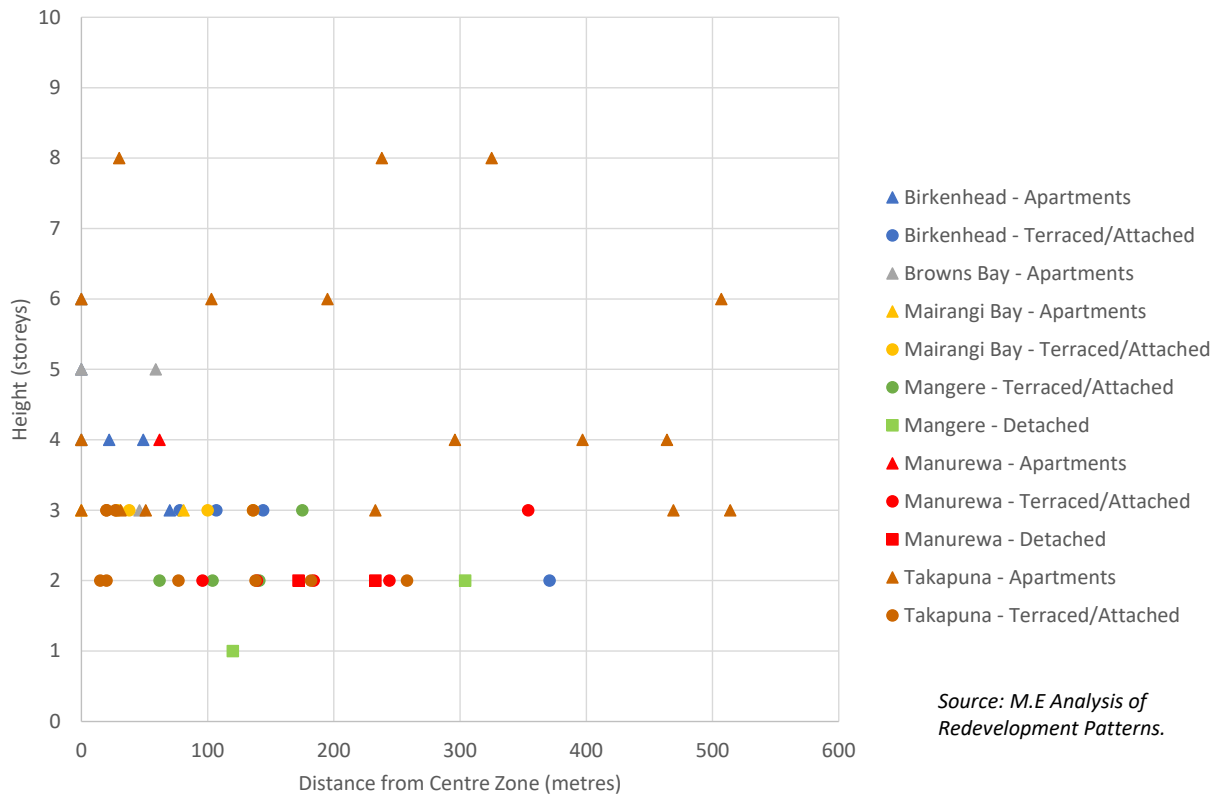
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<sup>22</sup> Takapuna is significant Metropolitan Centre in a high value location within Auckland that is relative close to the City Centre. It is consequently able to sustain levels of intensification surrounding the centre over greater distances.



decreased with distance from the centre edge, with three storey development predominantly limited to within 175m of the centres edge.

Figure 4-8: Redevelopment Patterns Surrounding Selected Auckland Centres



Source: M.E Analysis of Redevelopment Patterns.

### Implications for Rotorua Options

The spatial extent of the plan enabled allowance for higher vertical development (under the HDR zone) is large in comparison to the patterns of higher density residential development in other urban economies. Under Option 2, it extends up to 1 kilometre from the City Centre, and, under Options 3 and 4, the extent of higher density vertical development (through the HDR zone or MDR zone with the Height Overlay) extends around up to 1.5 kilometres from the City Centre. This is considerably larger than the spatial extent of higher density vertical development occurring in other locations in higher growth urban economies where apartment markets are more established.

It is unlikely that development would occur across the extent of the areas proposed for higher density vertical development in response to the higher accessibility node area. Development within the zone away from the accessibility node would instead be more likely to occur opportunistically in response to the provisions.

In most markets (outside of the largest high growth markets), vertically-attached apartments are tightly spatially concentrated around the central parts of the key nodes of accessibility. The analysis of development patterns in other locations has shown that increased density around commercial centres and other key nodes, beyond the smaller area of vertically attached dwellings, has instead occurred in the form of horizontally attached dwellings or higher density detached dwellings. At the upper end of the scale, these



include higher density walk-up terraced housing of up to three storeys. Much of the intensification observed in the above analysis is provided for under the MDRS and the proposed MDR zone provisions.



# 5 Costs, Benefits and Preferred Option

This section provides a brief overview of the anticipated economic costs and benefits of the intensification options (including application of MDRS) as a whole, relative to the status quo, with further discussion of the costs and benefits of the preferred intensification option.

## 5.1 Economic Costs and Benefits of the Intensification Plan Change

The proposed provisions (including the application of the MDRS) are likely to generate significant changes through time to the nature and distribution of residential growth in Rotorua's urban area. Changes to growth patterns are likely to incrementally and cumulatively impact the city's urban form, becoming significant through time. The nature of urban form has important impacts on the efficiency of spatial interactions across and within the city.

These factors give rise to a range of costs and benefits that are likely to flow from changes to the underlying planning structure. Part of the effect relates generally to the implementation of provisions for intensification, and is observable in aggregate at the city level; while part relates to the location and spatial extent of the provisions and how they are applied within the urban environment. 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.

### *City Level Aggregate Effects of Intensification Provisions*

The implementation of intensification provisions is likely to generate an economic benefit to households through increasing the range of different housing options available. A greater range of dwellings would be enabled, ranging from smaller detached dwellings or townhouses, up to higher density horizontally attached terraced housing. This is an important aspect as the HBA identified gaps in the planning provisions to enable the delivery of smaller dwellings across a range of typologies. Importantly, these include a greater *range* of attached dwelling densities (and smaller detached dwellings) that would enable the substitution of demand across different dwelling typologies<sup>23</sup>.

The provisions enabling smaller sites are likely to result in changes to the cost structures of dwelling construction and delivery due to changes in the nature of dwellings constructed. Generally, the provision of smaller sites is likely to result in greater ability for the market to deliver smaller dwellings that are more appropriately scaled to the site size. Under the current provisions for larger site sizes, there is a market

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<sup>23</sup> For example, the provision of smaller detached dwellings on smaller sites, or larger attached townhouse dwellings on smaller sites (where the construction of attached dwellings increases the size of the dwelling that can be constructed on a site) are lower to medium-density housing options that are likely to be able to meet a share of the demand that is currently met through standalone dwellings on larger sites. There is likely to be greater potential market substitution across these dwelling categories than between standalone dwellings on larger sites and higher density vertically attached apartments.



tendency to construct larger dwellings that are scaled to the site size, decreasing the ability for the market to respond to demand for lower value dwellings.

The increased ability for the market to deliver a wider range of dwellings is likely to have a positive effect on housing affordability relative to the development patterns of new dwellings that would otherwise occur under the existing provisions. This is important for Rotorua as there is a sizeable share of market demand for more affordable dwellings. In aggregate, the provision of a greater range and value distribution of dwellings is likely to enable the market to increase its alignment with future citywide household demand structures.

The ability to form smaller site sizes increases the potential dwelling yield of sites. This is likely to increase the feasibility of redevelopment and development, particularly in higher value areas. The HBA indicated that feasibility within some of the city's inner suburban areas was likely to be constrained through the restriction on dwelling yields able to be achieved on sites due to the relatively large lot size requirement. The market generally requires higher total dwelling sales prices in higher value areas. Under the current provisions, this encourages the construction of larger dwellings that can achieve the higher prices and generate the required return for developers. There is limited market demand for higher value dwellings, decreasing the propensity for overall higher development in these areas. Together, these factors currently constrain the ability to intensify residential areas in higher value locations relative to provisions enabling smaller site sizes.

### ***Effects from the Location of Provisions***

The *location* and *extent* of intensification provisions are important and affect the costs and benefits that may arise from changes to development patterns across the urban area. Part of the effects occur to private households involved in the transaction of individual dwellings, while the resulting development patterns have wider effects observed at the community and the city levels. The location of intensification provisions and the spatial extent across which they are applied determine the level of optimisation of effects of intensification and need to be considered together.

The application of intensification provisions within key areas of accessibility is likely to have positive effects on urban form through supporting a centres-based structure. This generates a range of benefits that accrue to both individual households and the wider community. Concentration of development into these areas increases the amenity received by households through greater accessibility. It also supports the viability of centres through the concentration of demand in local surrounding areas, thereby increasing the level of amenity provided by the centre to the community within its catchment area. This is important as centres play an important social role and function in addition to the amenity offered by their commercial activities.

Increased centres' function and the concentration of growth around these key nodes has benefits through increasing the sustainability of urban form. This occurs through several mechanisms. These include a greater share of alternative mode trips (e.g. walking/cycling to the centre), increased travel efficiency at the city scale through the concentration of commercial and social activities within centres relative to a more dispersed distribution, and the increased viability of public transport options where transport hubs are supported by centres.

Further economic benefits that accrue to the public sector are also achieved through the implementation of growth patterns that support intensification within centres. Increased nodes of activity allow for the





more efficient delivery of transport and social infrastructure through their concentration into centres. A concentration of residential demand within close proximity to these centres enables investment in this infrastructure to more efficiently serve a greater demand.

### ***Effects from the Spatial Extent of Provisions***

It is important to consider the spatial extent of any intensification provisions as this is likely to affect the type of urban form outcomes that are achieved, and the costs and benefits that flow from these development patterns.

The spatial extent of the provisions determines whether there is likely to be sufficient differentiation of development intensities across the urban area. The benefits of intensification rely on a level of concentration of growth around key nodes of accessibility and sufficient differentiation of these patterns within the urban area.

The application of walkable catchments has different relative effects within different sized urban economies. Application of intensification areas across a constant distance across all urban economies will generally cover considerably larger shares of the total residential area in smaller urban economies. Depending upon the nature (dwelling scale, etc) of provisions, high relative coverage of urban areas may reduce the level of differentiation across the urban area<sup>24</sup>. This may reduce the degree to which growth is concentrated around key nodes of accessibility, potentially reducing the benefits associated with intensification into these areas set out in the previous sub-section.

The spatial extent of provisions that apply to the highest density development (e.g. vertically attached apartments) is also important to appropriately encourage growth that functions together with the centre and encourage development patterns that are appropriate for the surrounding urban environment. If the spatial extent of higher density development provisions are too large, then this may result in higher density developments occurring opportunistically within parts of the area that are less likely to function together with the centre. Moreover, these developments could potentially absorb a high share of the total higher density market demand. This may therefore reduce the likelihood of this development occurring elsewhere in locations that are more likely to function together with the centre and achieve the intensified urban form concentrated around centres.

The concentration of growth into the core parts of accessible areas enables more efficient infrastructure provision. This occurs through the higher density of demand<sup>25</sup> as well as the timing and sequencing of growth. If intensification provisions are too widespread, then this reduces the ability to achieve infrastructure efficiencies and may increase infrastructure costs through the requirement to supply increased infrastructure across larger areas due to the possibility of intensification.

### ***Effects from the Scale of Market Demand***

The overall scale of market demand is likely to affect the appropriateness of the scale of intensification provisions by location. The level of market demand for different types of dwelling densities will affect the

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<sup>24</sup> The share of urban area covered by a constant catchment distance tends to be inversely related to city size.

<sup>25</sup> Infrastructure costs are generally lower if demand is more spatially concentrated than the higher costs from more expansive networks required to serve more dispersed patterns of growth.



degree to which concentration of development within key areas of accessibility are achieved and the nature of that intensification.

Smaller urban economies typically have lower demand for the higher density dwelling typologies, such as vertically attached apartments. This market is not well established in Rotorua. Lower demand means that core nodes of accessibility are less able to sustain intensification of higher density dwellings than areas where there is greater market demand. A smaller market size increases the propensity for any higher density vertical development outside of the centre zone or not directly adjacent to the centre to form a standalone development that is less consistent with the surrounding urban environment.

In contrast, larger urban economies with higher demand are able to sustain higher density development across greater distances that function together with the centre and are consistent with the density gradient within the catchment area. This was seen in the analysis of redevelopment patterns in Section 4.4 where higher density vertical development was typically more consistently sustained across larger walkable catchment areas within higher value areas in larger urban economies.

In smaller urban economies, intensification patterns around centres are instead more likely to be characterised by medium density attached dwellings, such as those provided for within the MDR zone or the MDRS provisions applied to the underlying residential zone.

### ***Summary***

We consider that the proposed options are likely to be beneficial for residential urban development in Rotorua. They generally provide a greater range of housing options that are likely to contribute toward addressing identified gaps within the market. In particular, they provide for dwellings to be constructed on smaller sites, and include a greater range of medium density attached housing options. These are likely to contribute positively to housing affordability within the urban area.

The higher density housing options are generally proposed in appropriate areas of highest accessibility, which contributes positively to urban form outcomes. However, the spatial extent of these provisions may dilute the level of concentration around key nodes and reduce the benefits that could occur through intensification.

## **5.2 The Preferred Option**

Option 2 forms the preferred option for intensification provisions within Rotorua. This option includes provision for higher density (5 storey), vertically attached apartment dwellings *within* the key commercial zones across Rotorua's urban environment. In addition, it has a HDR zone applied across the adjacent residential area to the south of the City Centre. The extent of the HDR zone is similar to the extent of the existing Residential 2 zone, extending up to 1 kilometre from the City Centre. The remainder of much of the residential area is covered by the MDR zone with the MDRS provisions applied<sup>26</sup>.

We consider that the combination of costs and benefits of this option are likely to be more favourable than the other proposed options. The differences relate primarily to the extent across which provisions for

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<sup>26</sup> The MDRS provisions are also applied within the HDR zone in addition to the provisions for vertically attached apartment dwellings.



higher density vertically attached dwellings are applied. In Options 3 and 4, vertically attached dwellings are provided across a substantially larger area through an expanded HDR zone (Option 3) or a Height Overlay (Option 4). These are applied across both an expanded area to the south of the City Centre as well as in the residential areas surrounding Ngongotahā and Ōwhata commercial centres. The proposed provisions (i.e. MDR zone with the MDRS) across the remainder of the urban residential area is consistent across the proposed options.

Our demand and capacity assessments (Sections 2 and 3) have estimated a relatively small level of future demand for higher density vertically attached dwellings in Rotorua. The level of projected demand is small in comparison to the estimated plan enabled capacity for higher density dwellings under all of the scenarios. As such, it is likely that the option with the smaller extent of the HDR zone will more appropriately concentrate higher density development relative to the options with a more extensive provision for higher density vertically attached dwellings (Options 3 and 4).

While the Option 2 capacity for higher density dwellings is still very large in comparison to projected demand, the provision of a HDR zone generates a level of differentiation within the urban environment around the southern part of the City Centre. This area has an existing planning differentiation through the application of the Residential 2 zone within this area, which is likely to be appropriate given the centrality of the area. Option 1 does not include a HDR zone or Height Overlay within the MDR zone, therefore not allowing for differentiation within this area.

While the Option 2 HDR zone creates a differentiation of this area, the small market size for higher density dwellings means that there may be potential for higher density development across this area to be isolated and different to the immediately surrounding area.


Outside of the HDR zone, the identification of key areas of accessibility to provide for higher density vertically attached dwellings is consistent across the four options. These include areas *within* the centre zones<sup>27</sup>. We therefore consider that higher density development within these areas is likely to support the centres' viability and therefore give rise to the benefits identified in the previous section, albeit at the scale of likely market demand.

The remainder of the urban area (outside of the higher density areas) under Option 2 is covered by the MDR zone with the application of the MDRS. With the exception of areas covered by qualifying matters (already set out in the Operative District Plan), the application of the MDRS is required across all residential urban areas. It therefore forms part of the counterfactual (as applied to the existing zones) when considering the likely costs and benefits of the proposed options. The costs and benefits across the remainder area therefore relate to the difference between the MDRS applied to the MDR zone (Option 2) vs. the MDRS applied to the existing base zone (counterfactual).

The MDRS applied to the base zones would enable the development of a range of medium density housing typologies. Based on the existing Residential 1 minimum site sizes, this would range from smaller detached dwellings on smaller sites, up to horizontally attached higher density terraced housing, and include other densities within this range (e.g. townhouses, duplex pairs, etc). These levels of density are generally

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<sup>27</sup> An assessment of the appropriateness of Rotorua's centres' hierarchy is beyond the scope of this assessment. We have accordingly assumed this is appropriate relative to the future growth aspirations of the city and therefore have considered the effects of higher density development in relation to whether or not they support the centres structure.



reflective of the intensification patterns that have occurred around key nodes of accessibility in other higher growth urban economies and would therefore likely provide sufficient opportunities for intensification to occur around these areas within Rotorua.

The application of an MDR zone across the suburban area, together with the MDRS applied, would further increase the density of development within the general suburban area. The change in the initial minimum lot size would provide increased opportunities for subdivision across this area, however, would not result in a substantial shift in the types of dwelling typologies enabled (in comparison to MDRS applied to Residential 1). The greatest difference is likely to be at the upper end of the scale with an increase in the density of higher density horizontally attached terraced housing. Within Rotorua, these are likely to remain horizontally attached due to the feasibility constraints of vertically attached dwellings at only three storeys.

The proposed provisions are consistent across the four options in the remainder of the urban residential area beyond the key areas of accessibility and provision for higher density residential development. This area is largely covered by the MDR zone together with the application of the MDRS. As such, our assessment is not able to differentiate on this basis between the options for this area.

## 5.3 Alternative Option

In light of the findings of this report, M.E consider that there may be an alternative option to meet future intensification needs within Rotorua's urban environment. This may be an appropriate option, depending upon the consideration of infrastructure provision.

This option is set out as follows:

- Provision of higher density residential development within the commercial zones as set out in Options 1 to 4.
- Application of a smaller HDR zone, than in Option 2, around the edge of the City Centre.
- Application of the MDR zone (with MDRS standards applied) across parts of the existing residential areas. These include the balance of the extent of the HDR zone in Option 2, and further areas surrounding the commercial centres and zones where higher density residential development is provided for.
- Application of the existing ODP zones across the rest of the residential urban area. With the exception of qualifying matters, the MDRS is required to be applied across these areas.

The alternative option may act to increase the concentration of higher density development around key nodes of accessibility and reduce the extent to which it is diluted across the urban environment. As such, it may increase the benefits associated with concentrating growth into these areas.



## 6 Concluding Remarks

The economic assessment has identified a level of demand for higher density dwellings across Rotorua's urban environment. There is likely to be a gradual shift through time to greater numbers of attached dwellings, and smaller detached dwellings. Part of the modelled shift is likely to occur in response to changes in planning provisions that allow for greater development of smaller dwellings across much of Rotorua's residential and commercial areas.

Most of the shift to attached dwellings is likely to occur in the form of horizontally-attached dwellings ranging from town houses/duplex pairs up to higher density terraced housing. Horizontally-attached dwellings include those where dwellings are attached through shared walls and do not occur in a vertically-stacked configuration. There is likely to be typically higher levels of market demand substitution to horizontally attached dwellings from Rotorua's well established patterns of detached dwelling development, than to other higher density forms of attached dwellings.

The assessment has found that there is likely to be only limited demand for higher density vertically-attached dwellings. These refer to apartments that are vertically stacked in low to high rise apartment buildings that require provision for multi-storey vertical development. The apartment market in Rotorua is not currently well established and is unlikely to experience any significant growth within the short-term (following any intensification plan change becoming operative). Even allowing for higher rates of demand substitution and development of this market in the future, there is still a relatively small projected demand.

The capacity assessment has estimated high levels of plan enabled capacity relative to demand under each of the modelled intensification spatial scenarios (options). In particular, the capacity for higher density, vertically-attached apartment dwellings is large relative to the estimated market size. This occurs under all four modelled scenarios, with the greatest differences in Options 3 and 4. The implication is that by 2050, anticipated demand-driven development will take up only a small share of the total capacity enabled.

The spatial extent of the plan enabled allowance for higher vertical development (under the HDR) is large in comparison to the patterns of higher density residential development in other urban economies. In most markets (outside of the largest high growth markets), vertically-attached apartments are tightly spatially concentrated around the central parts of the key nodes of accessibility. The density gradient instead occurs through terraced housing, which is provided for under the MDRS and the proposed Medium Density Residential Zone provisions.

It is important to consider the spatial extent of any proposed provisions for higher density vertical development together with their location due to the potential effects on urban form. Because long-term demand is relatively small and can be realised across a relatively small number of developments, it is important that it occurs in appropriate locations that are likely to function together with and support the viability of commercial activity/amenity in accessible nodes, producing a more efficient and well-functioning urban form in the medium-long term (although noting that growth will continue beyond the periods assessed in this report).



The spatial extent of the plan enabled allowance for higher vertical development (under the HDR zone) is large in comparison to the patterns of higher density residential development in other urban economies. In most markets (outside of the largest high growth markets), vertically-attached apartments are tightly spatially concentrated around the central parts of the key nodes of accessibility. The density gradient instead occurs through terraced housing, which will be provided for under the MDRS and the proposed MDR Zone provisions.

The proposed provisions (including the application of the MDRS) are likely to generate significant changes through time to the nature and distribution of residential growth in Rotorua's urban area. Changes to growth patterns are likely to incrementally and cumulatively impact the city's urban form, becoming significant through time. The nature of urban form has important impacts on the efficiency of spatial interactions across and within the city.

These factors give rise to a range of costs and benefits that are likely to flow from changes to the underlying planning structure. Part of the effect relates generally to the implementation of provisions for intensification, and is observable in aggregate at the city level; while part relates to the location and spatial extent of the provisions and how they are applied within the urban environment. 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.

We consider that the proposed options are likely to be beneficial for residential urban development in Rotorua. They generally provide a greater range of housing options that are likely to contribute toward addressing identified gaps within the market. In particular, they provide for dwellings to be constructed on smaller sites, and include a greater range of medium density attached housing options. These are likely to contribute positively to housing affordability within the urban area.

The higher density housing options are generally proposed in appropriate areas of highest accessibility, which contributes positively to urban form outcomes. However, the spatial extent of these provisions may dilute the level of concentration around key nodes and reduce the benefits that could occur through intensification.

We consider that the combination of costs and benefits of the preferred option (Option 2) are likely to be more favourable than the other proposed options. The differences relate primarily to the extent across which provisions for higher density vertically attached dwellings are applied.

We consider that there may be an alternative option to meet future intensification needs within Rotorua's urban environment. This may be an appropriate option, depending upon the consideration of infrastructure provision.

The alternative option may act to increase the concentration of higher density development around key nodes of accessibility and reduce the extent to which it is diluted across the urban environment. As such, it may increase the benefits associated with concentrating growth into these areas.

# Appendix 1

The following figures show the patterns of redevelopment occurring within and around selected Auckland centres. They are the individual centre graphs from the combined centres analysis in Figure 4-8 in Section 4.4.2.

These are redevelopments that have occurred in either the centre zone itself or the THAB zone surrounding the centre. The horizontal axis shows the distance of the redevelopment from the edge of the centre zone (distances of 0 show redevelopments occurring within the centre zone). The vertical axis shows the storey height of the redevelopment. The graphs also identify the maximum extent of the THAB zone from the edge of the centre zone.

Figure 0-1: Redevelopment Patterns Surrounding Birkenhead Town Centre

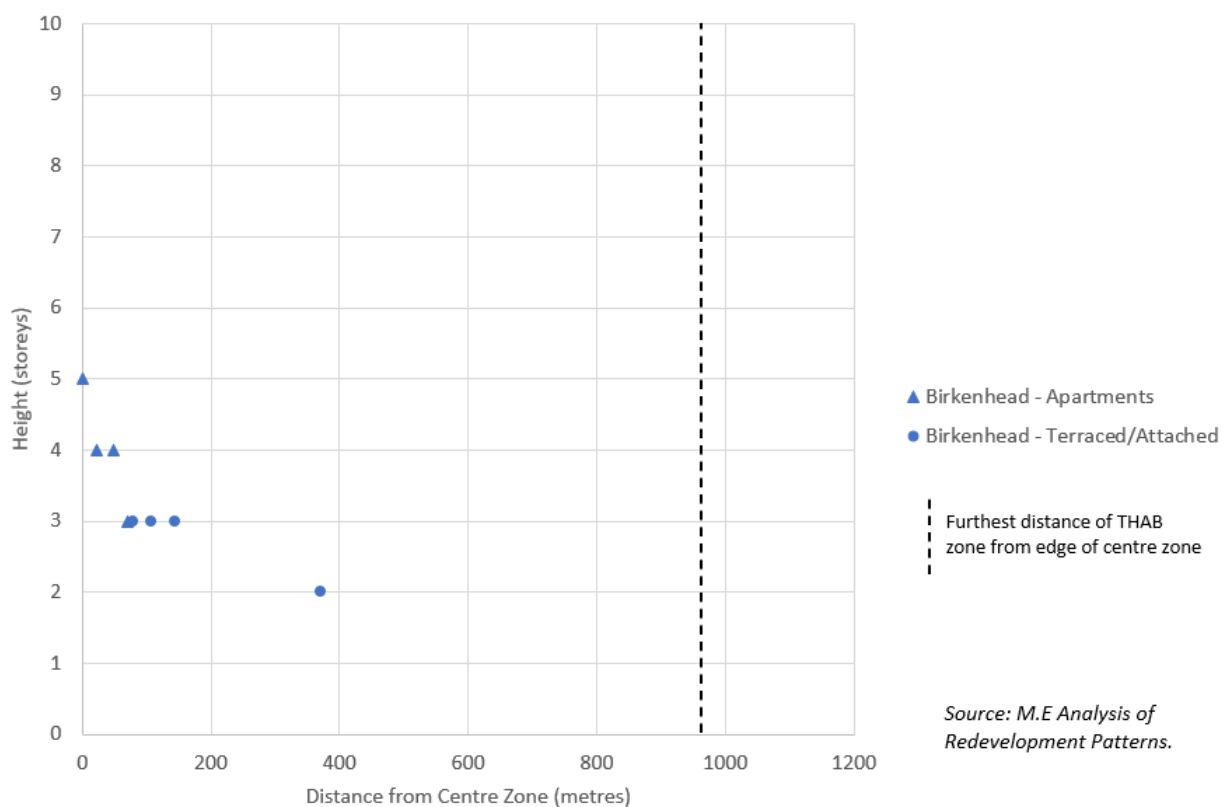




Figure 0-2: Redevelopment Patterns Surrounding Browns Bay Town Centre

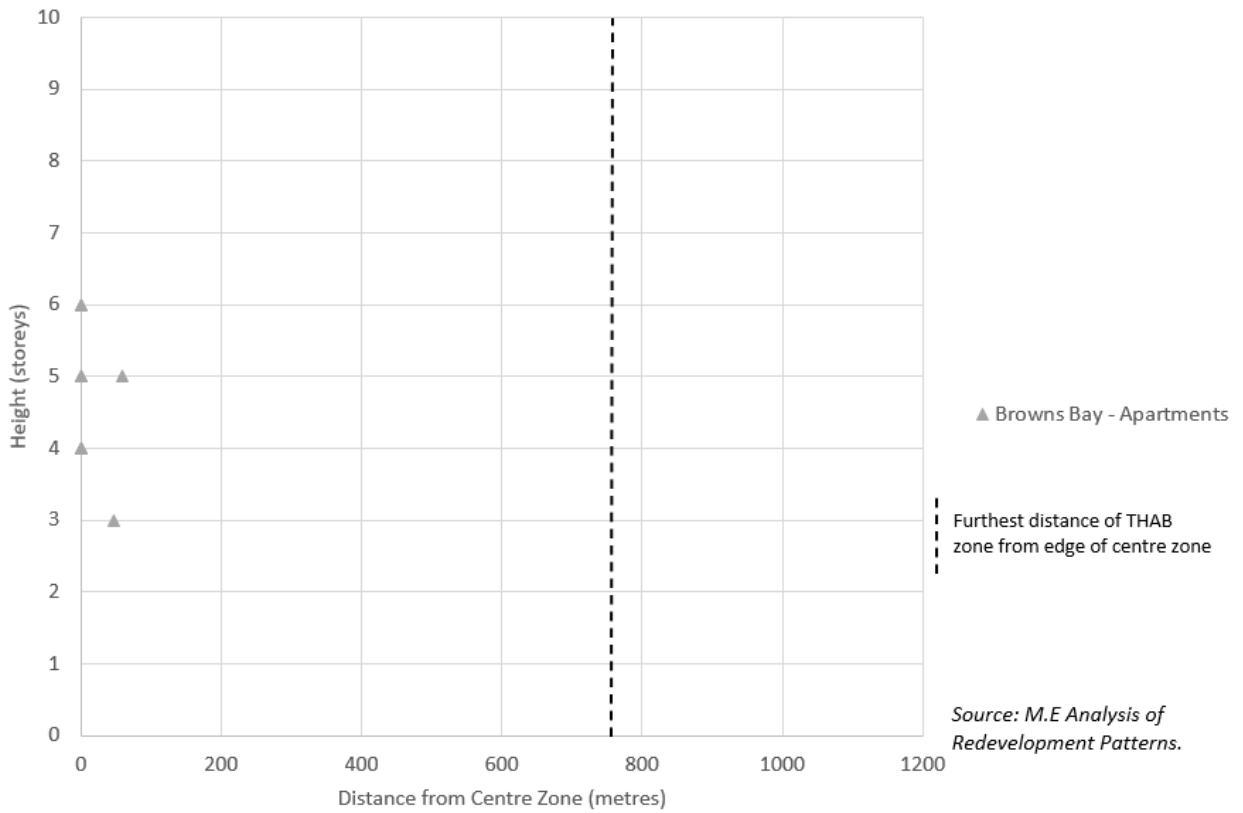


Figure 0-3: Redevelopment Patterns Surrounding Mairangi Bay Local Centre

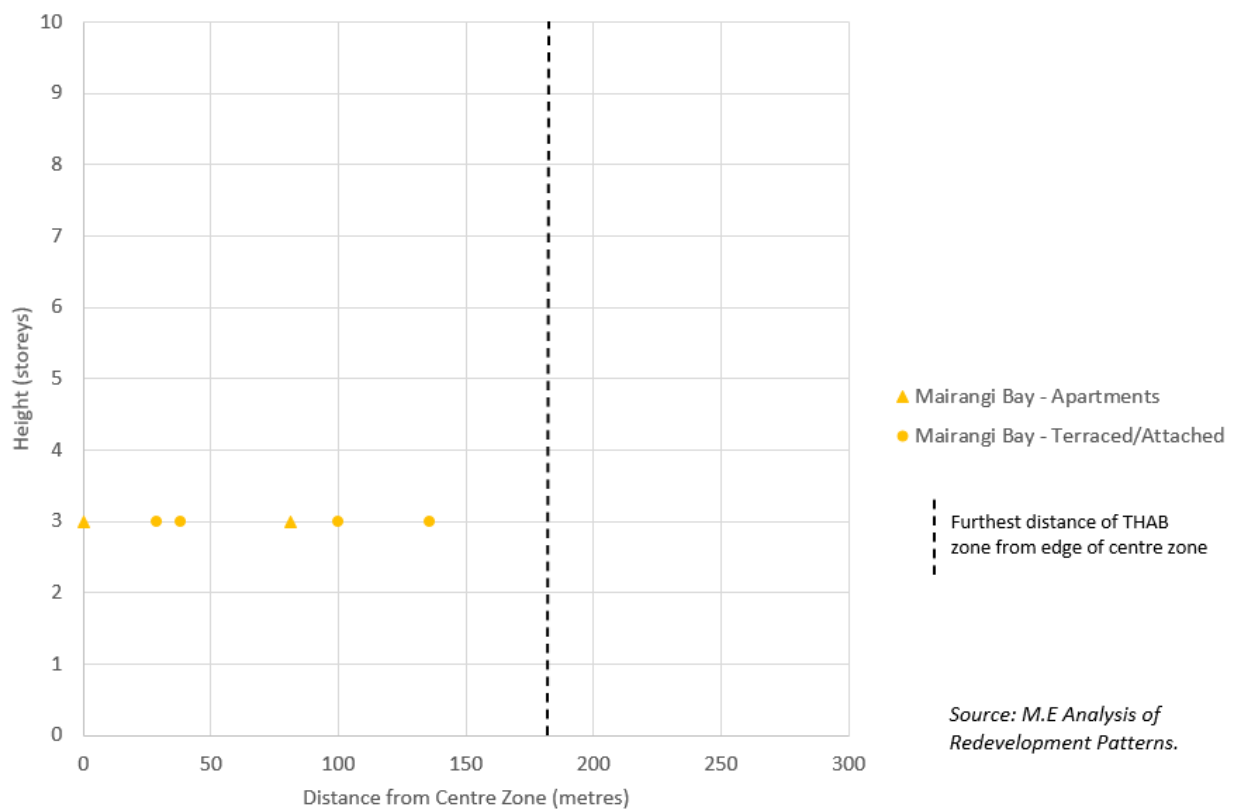






Figure 0-4: Redevelopment Patterns Surrounding Mangere Town Centre

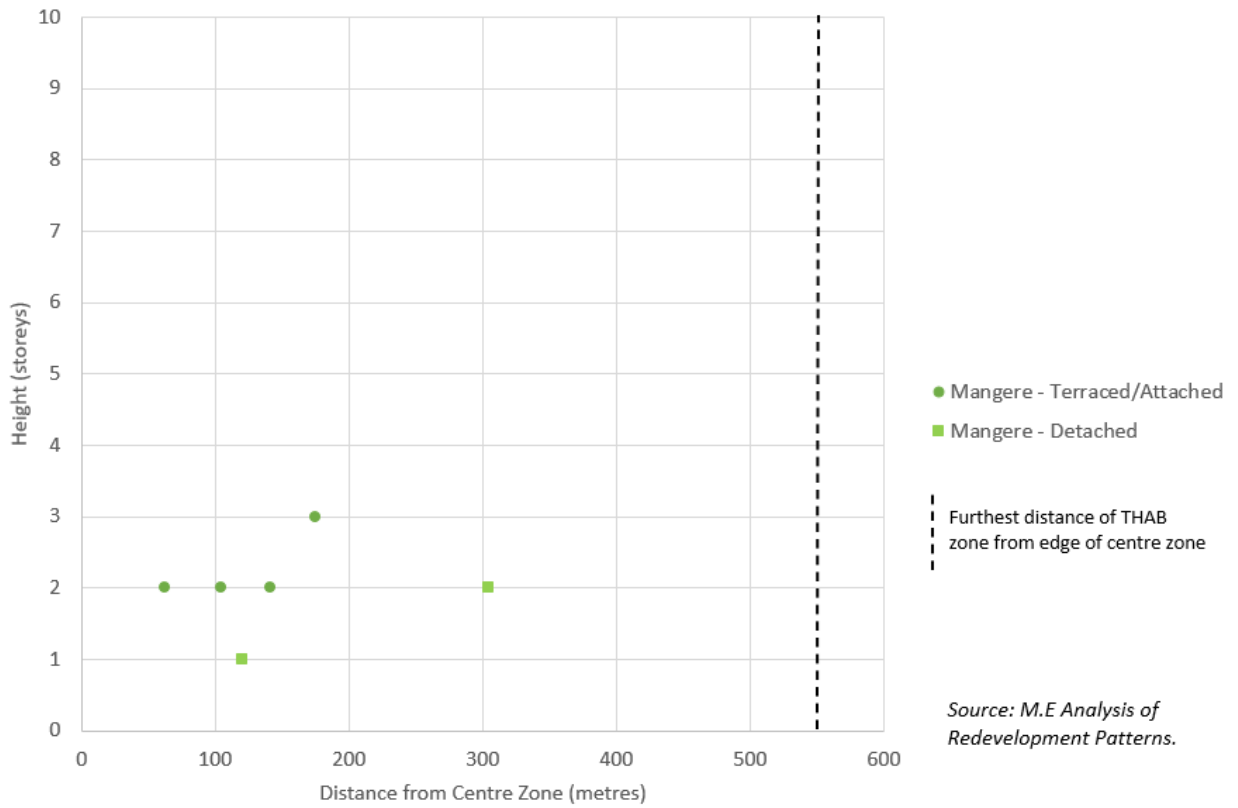


Figure 0-5: Redevelopment Patterns Surrounding Manurewa Town Centre

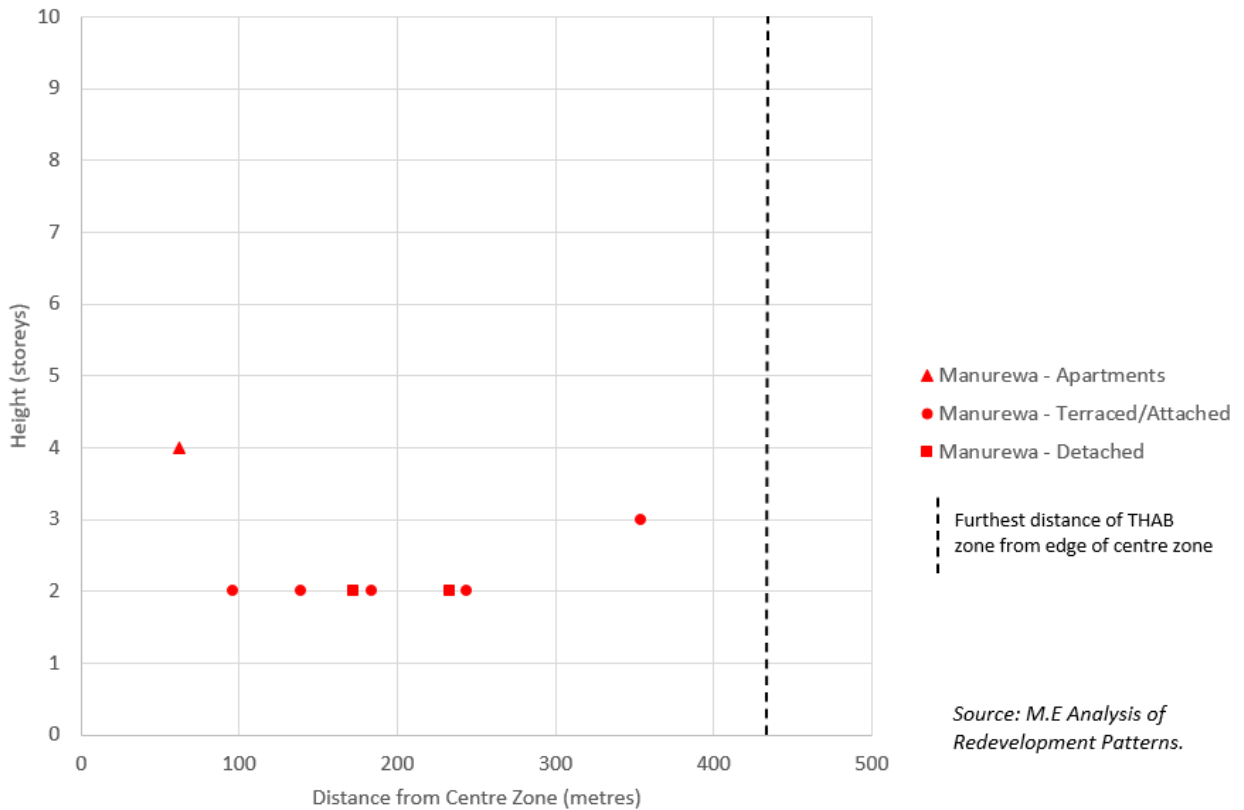
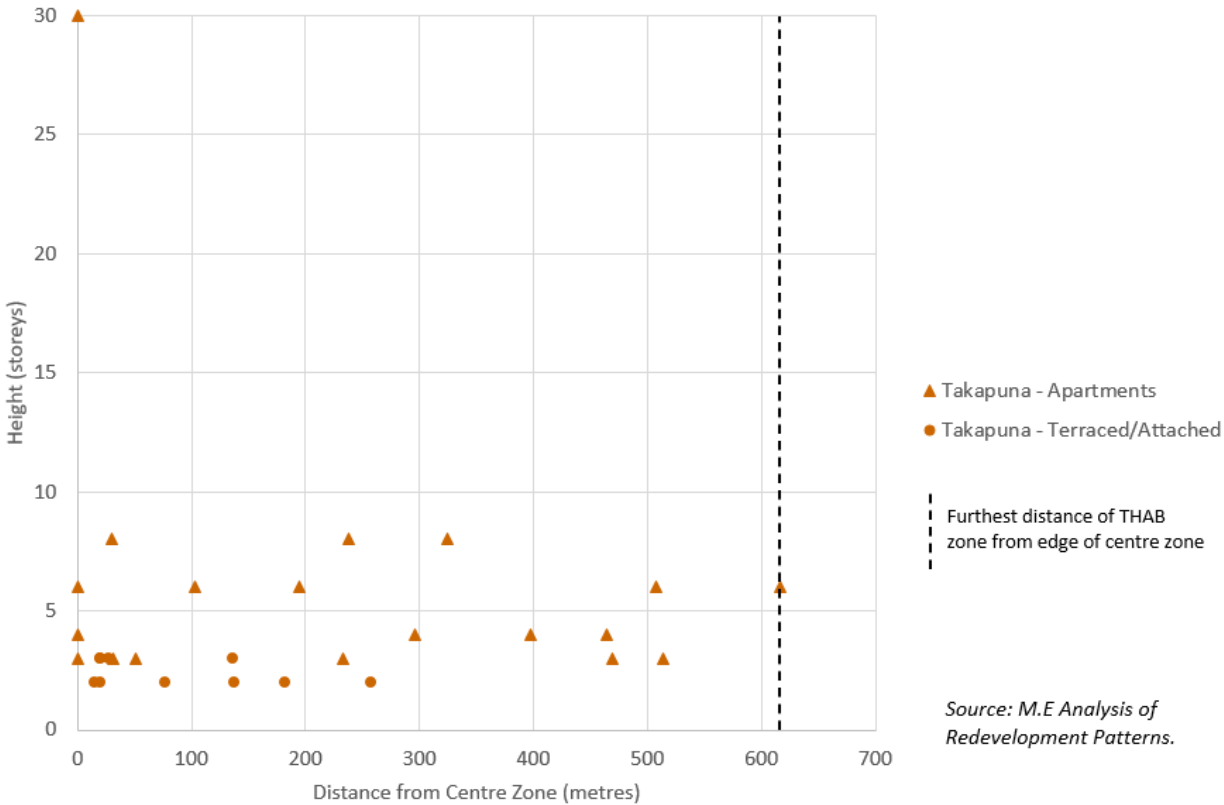




Figure 0-6: Redevelopment Patterns Surrounding Takapuna Metropolitan Centre



To: Damon Mathfield – Rotorua Lakes Council  
From: Cam Wallace – Barker & Associates Limited  
Date: 27 June 2022  
Re: Plan Change 9 – Development Standards and related provisions – Urban Design Considerations

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## 1.0 Introduction

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The purpose of this memo is to identify relevant urban design considerations that should be considered as part of the development of Plan Change 9 to the Rotorua District Plan. The purpose of Plan Change 9 is to give effect to the Resource Management (Enabling Housing Supply & Other Matters) Amendment Act 2021 (**the Amendment Act**), the relevant provisions of the National Policy Statement on Urban Development and help address growing housing issues within Rotorua.

This memo includes considerations of urban design matters related to the provisions of chapters covering:

- Residential zones;
- Commercial zones;
- Subdivision.

## 2.0 Planning Context

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The Amendment Act 2021 is designed to improve housing supply in New Zealand’s five largest cities by speeding up implementation of the National Policy Statement on Urban Development (**NPS-UD**) and enabling more medium density homes. Rotorua has been identified as an area of acute housing need and therefore it is now considered a “specified territorial authority” under the Act. Under the new s77G of the RMA specified territorial authorities will be required to amend the district plan to:

- give effect to Policy 5 of the NPS-UD;
- Ensure every relevant residential zone incorporates the Medium Density Residential Zone Standard (MDRS).; and
- Include the objectives and policies set out in clause 6 of Schedule 3A.

Within the Rotorua Lakes District Plan the “relevant residential zones” where the MDRS must be applied include the Residential 1 and 2 zones. Within clause 6, objectives and policies of particular relevance to urban design include (my *emphasis* added):

Objective 2 - a relevant residential zone provides for a variety of housing types and sizes that respond to—

- (i) housing needs and demand; and
- (ii) the neighbourhood’s *planned urban built character*, including 3-storey buildings

Policy 1 - enable a variety of housing types with a mix of densities within the zone, including 3-storey attached and detached dwellings, and low-rise apartments

Policy 3 - encourage development to *achieve attractive and safe streets and public open spaces*, including by providing for passive surveillance:

Policy 4 - enable housing to be designed to meet the *day-to-day needs* of residents

Policy 5 - provide for developments not meeting permitted activity status, while encouraging *high-quality developments*

The medium density residential standards (**MDRS**) include seven core standards to enable development. These standards are intended to enable landowners to build up to three houses of up to three storeys on their site as of right on most sites with greater density enabled as a restricted discretionary activity. The MDRS are summarised as follows:

- Density: 1-3 dwellings per site – permitted and 4 or more dwellings – restricted discretionary.
- Height: 11m (with provision for up to additional 1m to enable pitched roof forms).
- Height in Relation to Boundary: 4m + 60 degrees (does not apply to common walls).
- Maximum Building Coverage: 50% of the net site area
- Minimum landscaping: A residential unit at ground floor level must have a landscaped area of a minimum of 20% of a developed site. May be located on any part of the development site, and does not need to be associated with each residential unit.
- Front yard: 1.5m Yards (Side and Rear)/ 1m (excluded on corner sites)
- Dwellings Fronting the Street: Any residential unit facing the street must have a minimum of 20% of the street-facing façade in glazing. This can be in the form of windows or doors.
- Outdoor Living Space - Residential Unit at ground floor: Must have outdoor living space:
  - Minimum 20m<sup>2</sup> area:
  - where located at ground level has no dimension less than 3m and where provided in the form of a balcony, patio, or roof terrace, is at least 8 square metres and has a minimum dimension of 1.8 metres.
  - May be grouped cumulatively in 1 communally accessible location or located directly adjacent to the unit.
- Outdoor Living Space Residential Unit above ground floor: Must have outdoor living space:
  - Minimum 8m<sup>2</sup> area with a minimum dimension of 1.8m.
  - May be grouped cumulatively in 1 communally accessible location or located directly adjacent to the unit.
- Outlook Space: Principal living room outlook 4m depth x 4m width. All other habitable rooms – outlook 1m depth x 1m width.

The above standards partially give effect to the mandatory policies as they relate to design matters. However, these standards are focussed on developments of 3 or less dwellings. With increased density on any given site there is an increase in design complexity where a range of competing interests around access,

privacy, and amenity need to be considered for future occupants and to a lesser extent surrounding properties.

## 3.0 Residential 1 Zone

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The MDRS are intended to apply to the existing Residential 1 zone which spans the majority of Rotorua's existing urban area. A review of the MDRS has highlighted some potential urban design issues which would require further refinement to the provisions to help deliver a high quality, attractive urban environment. These issues relate to:

- Visual dominance and off-site amenity effects;
- On-site amenity; and
- Streetscape interface.

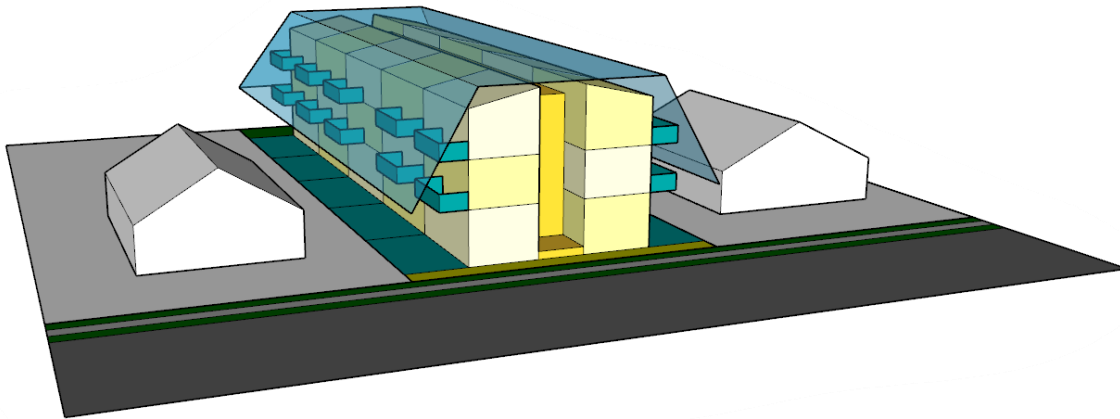
To address these, refinements to the provisions including objectives, policies, development standards, and matters of discretion have been identified and are discussed below.

### 3.1 Maximum building length

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New Zealand's predominant cadastral pattern is typically characterised by sites which are longer than they are wide. This pattern can be clearly seen across Rotorua. Longer sites in combination with narrower widths tends to generate buildings which extend a long way back from street frontages. This is reinforced by development standards such as side yards and HiRB which consistently apply over the length of a site. The increased height enabled by the MDRS in combination with other standards (including engineering standards around access and parking) has the potential to encourage a "wall" of development running perpendicular to the street. With higher buildings and the removal of density controls, this can result in a visually dominant built form that can affect the outlook of neighbouring sites; directs outlook over adjoining sites impacting on privacy and the amenity of existing residents reducing a person's enjoyment of that space; and can create a feeling of being closed in or contained.

Whilst people living in an urban environment can reasonably expect to see others – both in neighbouring dwellings/ private open spaces and in public places – this is generally in a more transient, incidental situation (i.e. someone walking past). The MDRS (combined with the predominant cadastral pattern) could promote a situation where dwellings are design to permanently orientate over neighbouring sites. The impact of this increases with height (above ground level) in combination with the overall density of development (refer to Figure 1). These issues are potentially further exacerbated in the event neighbouring sites are developed under similar circumstances.



**Figure 1 - Modelled walk-up apartment building compliant with all development standards except for glazing to the street**

To address the above, it is considered that there would be merit in introducing a maximum building length control above ground level<sup>1</sup>. There are a number of urban design benefits that a building length control could provide and adverse effects that it could manage. These include

- Limits the potential for adverse visual dominance impacts resulting from the ‘wall’ effect that long, low and uninterrupted building elevations perpendicular to the street can have on adjoining sites;
- Potentially encourages a greater proportion of dwellings to maximise their outlook over the street and internally towards the rear, rather than over neighbouring properties to the side;
- Allows for daylight and/ or sunlight penetration into new buildings at each end enhancing internal amenity for future residents;
- Allows for improved daylight and/ or sunlight penetration through to adjoining sites; and
- Encourages more meaningful/ functional areas of open space (private or communal) that can cater for increased on-site amenity.

Maximum building lengths of between 15m and 30m are currently in operation within district plans for Dunedin, Tauranga, Gisborne, Queenstown and New Plymouth councils. 22m has been modelled and is recommended to apply as measured perpendicular to the street only with a 4m gap between buildings, above ground floor level. This would allow ‘back-to-back’ type apartment development on a site to occur and enable living spaces at each end of the buildings to access natural light. The 4m gap aligns with the required outlook depth from principal living spaces and whilst exceeding the 3m minimum dimension for ground floor living space would likely be well aligned with probably dimensions of such spaces to meet the 20m<sup>2</sup> minimum area. As such, the building length standard could complement existing standards and ensure a degree of efficiency in overall site configuration.

8m is generally regarded as an ideal preferred depth for single aspect units (but increased depth can be suitable in instances where higher floor-to-ceiling heights or greater areas of glazing are included). Placed back-to-back, this generates a building length of approximately 17-18m when taking into account the depth of external and internal walls. The additional length proposed is intended to provide a greater degree of

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<sup>1</sup> At ground level, potential effects would be adequately addressed by boundary fencing and any proposed landscaping.

design flexibility including the ability to potentially accommodate an increase in the depth of units and/ or the presence by a common hallway or core area between units.

### 3.2 Minimum dwelling size

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The MDRS includes no standards relating to the size of dwellings. A minimum dwelling size standard is useful for ensuring that the smallest dwellings will provide reasonable conditions of function and amenity for its design occupancy. Minimums, if set at an appropriate level, will provide a degree of guidance to the development community over the potential yield on any given site which will also assist with long-term infrastructure planning. They can also provide assurance to the wider public around the likely form and typologies of dwellings which could be expected to occur across the district.

Minimum areas of 35m<sup>2</sup> for a studio dwelling and 45m<sup>2</sup> for one or more-bedroom dwelling are considered appropriate, in urban design terms, and broadly comparable with other towns and cities across New Zealand. For example:

- (a) Across residential and business zones, the Auckland Unitary Plan provides for minimum studio apartments sizes of between 30m<sup>2</sup> and 35m<sup>2</sup>, and 45m<sup>2</sup> for one or more bedrooms;
- (b) The Palmerston North District Plan enables dwellings with minimum sizes of 45m<sup>2</sup> without any qualifiers relating to bedrooms within identified multi-unit housing areas;
- (c) The Christchurch District Plan enables studio units of 35m<sup>2</sup>, and 45m<sup>2</sup> for 1-bedroom units; and
- (d) Proposed Plan Change 26 of the Tauranga District Plan seeks to enable studio units of 35m<sup>2</sup>, and 45m<sup>2</sup> for 1-bedroom units.

Alignment with proximate territorial authorities is also considered beneficial as it provides a consistent standard across. This will provide greater certainty for the wider development community and an ability to deliver modular or standardised terraced and apartment typologies over a wider area. This avoids the need for bespoke internal designs depending on where development is occurring.

Whilst noting the that units lower than the recommended sizes can still provide appropriate living outcomes, as the internal area of a dwelling decreases greater care is required in terms of design and space planning to achieve a functional unit with sufficient amenity for occupants. As such, there is some merit in providing at least some minimum standards within the framework provided by a district plan.

### 3.3 Fencing

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Fencing, and to a lesser degree landscaping, can have a significant impact on the overall quality and functionality of development especially as viewed from the street or other public spaces. Ideally, fencing in front yards (if fencing is to be provided) needs to provide for both privacy for the front yard if it's a useable space and a visual connection to the street. Visual connections are important for enabling opportunities for passive surveillance. There is also a significant body of research in New Zealand and overseas which correlates lower fence heights along the street with real and perceived increases in personal safety. In order to support the mandatory Policy 3 which seeks to provide for passive surveillance it is considered that there would be a benefit in including fencing standards – particularly along the front boundary of a site – otherwise the primary purpose of the “windows facing street” standard is compromised. Figure 2 and 3 provide a comparison of the impacts of higher vs lower front fence heights and how they can contribute or detract from streetscape amenity and safety.

The following standards with relation to fences are recommended:

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- (a) Maximum height within front yard or adjacent to a boundary with a public open space:
- (i) 1.2m; or
  - (ii) 1.8m for no more than 50% of the site frontage and 1.2m for the remainder; or
  - (iii) 1.8m if the fence is at least 50% visually open.

The above standard recognises the diversity of contextual factors which may impact on preferred fencing arrangements as well as providing for individual resident preferences. It ensures an appropriate level of visual connection is maintained between the street and a dwelling while giving flexibility and choice as to how high a front fence might be designed. In particular it provides for situations where the private open space for a dwelling may be required to be at the front of the dwelling (e.g. to take advantage of northern sun or significant view) and greater levels of privacy or security may be warranted. By allowing, and to an extent promoting variation in fence height, this standard may also discourage monotony and the visual dominance of street edges by solid high front fences which is seen particularly when they are installed on most or all frontages along a street (refer to Figure 2 below).



**Figure 2 – High street fencing on a medium density development (Te Atatu, Auckland)**





**Figure 3 – Low street fencing on a medium density development (Hobsonville, Auckland)**

### 3.4 Windows facing street

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The MDRS includes a rule requiring residential unit facing the street must have a minimum of 20% of the street-facing façade in glazing. This can be in the form of windows or doors.

In urban design terms this is considered a generally positive rule that helps to address a real issue with more intensive development presenting a blank “side” to the street to achieve greater site efficiency within the constraints of New Zealand’s predominant cadastral pattern of sites which are longer than they are wide.

However, it is considered that inclusion of the standard as drafted has the potential to create unintended consequences in terms of privacy and the general quality of a development as viewed from the street.

The reference to doors to satisfy the standard may promote a situation where a ranch-slider is utilised as a “front door” to reduce the need to accommodate an additional opening for a more traditional opaque/ solid front door. This can create potential privacy and/ or security concerns with visibility into internal spaces. In urban design terms, fenestration is an important component of overall building articulation and attractive frontages. In addition, entranceways (including front doors) are also an important design technique to add interest to a building façade and aid in wayfinding. As such, there is value in enabling front doors (whether glazed or constructed from solid materials such as wood) to count towards meeting the 20% glazing requirement.

There should also be an additional explanation setting out that garage doors cannot be counted towards meeting this requirement. There are a number of modern plexi/ laminate glass garage door configurations available (refer to Figure 1 below) that due to their size could fulfill a large portion of the required 20% glazing.



**Figure 4 – Example of an opaque, plexi/ laminate glass garage door**

Secondly, the standard as drafted may encourage a proliferation of flat or hipped roofs fronting the street to reduce the area of façade fronting the street to reduce the extent of glazing required and associated costs. This could have impacts on the overall attractiveness of more intensive developments and from a neighbourhood perspective it provides for the potential for some roofscape diversity and avoid a visually monotony in built form outcomes. As the purpose of the standard relates primarily to promoting interaction with the street/ passive surveillance, it would be beneficial to exclude those portions of the façade associated with non-habitable roof space from the overall calculation requirements.

### 3.5 Design Guidance

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In addition to various changes to the development standards, a Residential Design Guide (**the Guidelines**) has been produced to provide more guidance on delivering quality intensification. This guide is intended to build on the Ministry for the Environment’s *National Medium Density Design Guide* which provides guidance on permitted levels of development under the MDRS. The focus of the Guidelines is on more intensive development (i.e. more than 4 dwellings) which are proposed to be required to go through a resource consent process.

The Guidelines have been developed as an educational tool for the community, applicants (and their design team) and Council officers around design principles and techniques which can be implemented to address common issues which can arise in the design of more intensive residential developments (e.g. on-site privacy or building bulk). Matters covered within the Guidelines are aligned with matters of discretion and assessment criteria within the District Plan.

## 4.0 Residential 2 Zone

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In addition to the application of the MDRS within the Residential 1 zone, accessibility and demand analysis undertaken has identified that some areas around the City Centre (e.g. Glenholme).

The proposed standards within the Residential 1 zone are generally well aligned with development within the Residential 2 zone as they support multi-unit development, including those configured in apartment type arrangements. However, there is a clear need to reconsider the heights and density of development enabled in this area due to its much higher levels of accessibility than can be measured across the wider Residential 1 zone. In my opinion, key issues to be considered relate to the height of development enabled.

#### 4.1 Maximum Height

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Generally speaking, the cost of construction greater than three storeys in New Zealand increases significantly due to structing engineering, circulation and fire standards. This also creates challenges with securing and servicing funding to enable more intensive development to occur.<sup>2</sup> With the application of the MDRS across the entire Residential 1 zone there is also likely to be significant competition in developable land. These factors, combined with higher levels of accessibility in and around Rotorua City Centre mean that a higher permitted building height would be appropriate. To address the above issues, a height limit of six storeys in the Residential 2 zone is considered appropriate. This will provide a transition in scale between the increased heights proposed in commercial zones with the Residential 1 zone and also provide an incentive for the development community to support greater levels of intensification.

In determining an appropriate height in metres equivalent to a six-storey residential building, a 19.5m height limit is proposed. This would enable six storeys with a floor-to-floor height of 3.1m (this would enable an internal floor-to-ceiling height of approximately 2.7m) and totaling 18.6m.<sup>3</sup> An additional allowance of 0.9m has also been included to accommodate sloping roof forms<sup>4</sup> and potential freeboard requirements in areas with some identified flooding issues.

The scale of a 19.5m high building is also proportionate to the scale of the street and the public realm that can be seen across the Residential 2 zone which features a typical width of 20.1m (one imperial chain). This could provide for a street enclosure ratio of 1:1 which is regard as a well-founded rule of thumb in urban design that balances spatial definition and a sense of openness. This difference with the Residential 1 zone could, over time, contribute to a more distinctive identity for central Rotorua and contribute to the overall legibility of the urban environment.

Additionally, matters of discretion signaling opportunities where increased height above and above permitted standards would be beneficial. This is particularly the case for large sites or those located on corners.

#### 4.2 Height in Relation to Boundary

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Compliance with HIRB standard of the MDRS is unlikely to deliver the expected higher intensity residential development anticipated in the Residential 2 zone. Sites within the proposed extent of the Residential 2 zone exhibit a historic subdivision pattern, whilst being relatively wide by New Zealand standards (over 20

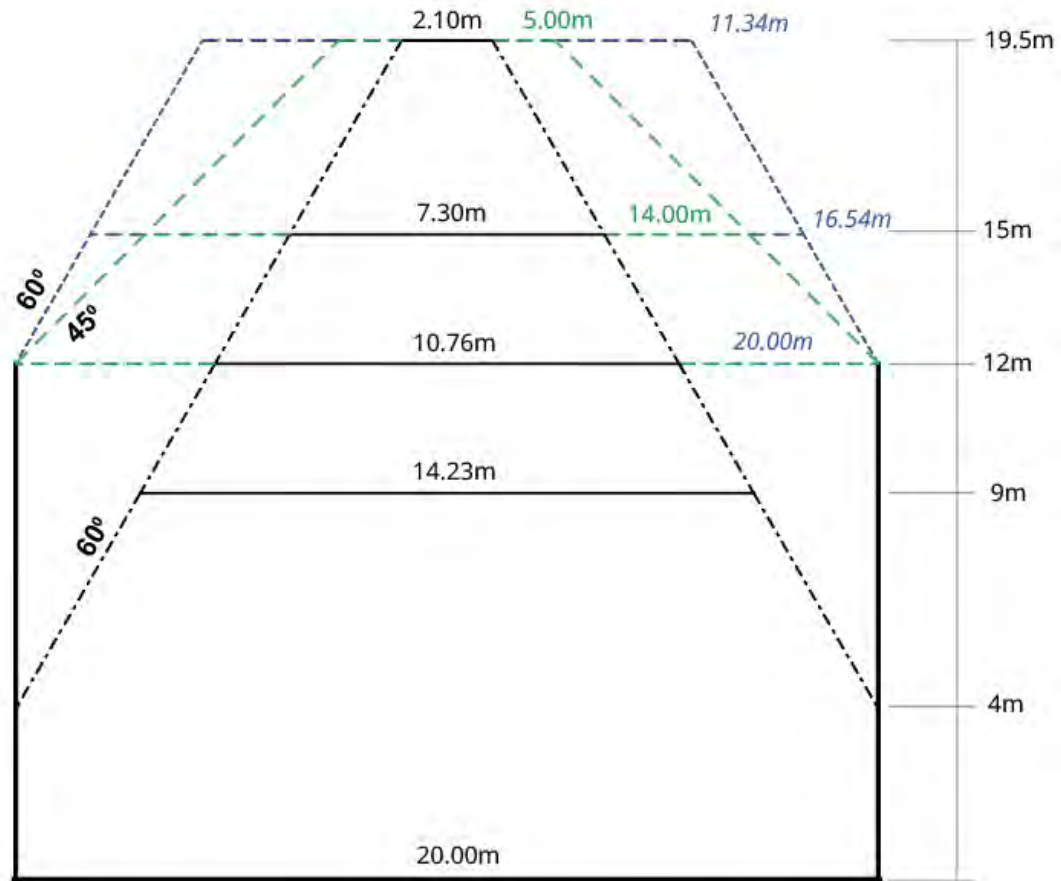
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<sup>2</sup> Alternative housing models such as build-to-rent or community housing, as well as emerging construction technologies like light-weight structural timber may improve the feasibility of more intensive housing developments.

<sup>3</sup> 3m is generally regarded as the absolute minimum required to ensure sufficient internal floor-to-ceiling heights. Apartment schemes typically feature floor-to-floor heights of 3.1-3.2m while higher end developments can include floor-to-floor heights of up to 3.4m.

<sup>4</sup> Flat roofs still require a pitch of 3% - across a 12m wide building this equates to additional roof height of 0.75m.

metres) and deep (40+ metres)<sup>5</sup>, where compliance with the HIRB standard will likely prevent development over 4-storeys/ 12m in height – well below the proposed height limit of 19.5m (refer to Figure 5). For these sites especially, in order to achieve a development of the size and scale generally anticipated for the Residential 2 zone, there is a need for a more enabling HIRB standard that works in concert with permitted height limits.



**Figure 5 - Alternative HIRB Scenarios**

Apartment buildings (and to a lesser degree terraced housing development) typically require a large, flat floor plate at each level so that multiple units at each level share a stair landing and potentially a lift lobby. Taking the minimum unit sizes (recommended above), it would not be unreasonable to assume a floor plate of at least 260m<sup>2</sup> (roughly 12m wide by 22m deep). If HIRB are set too restrictive it can limit the viability of achievable floorplates at upper levels, effectively acting as a de facto height limit.

To address the above, a number of alternative HIRB standards and permitted building heights were tested (refer to Attachment 2) for between 15 and 21m in height. In undertaking this modelling, two different building configurations were considered – firstly, a long perpendicular form with dwellings orientated over side boundaries and secondly, a form with dwellings primarily orientated over the street and rear of the site. This was assumed to occur on a typical site with a width of 20m.

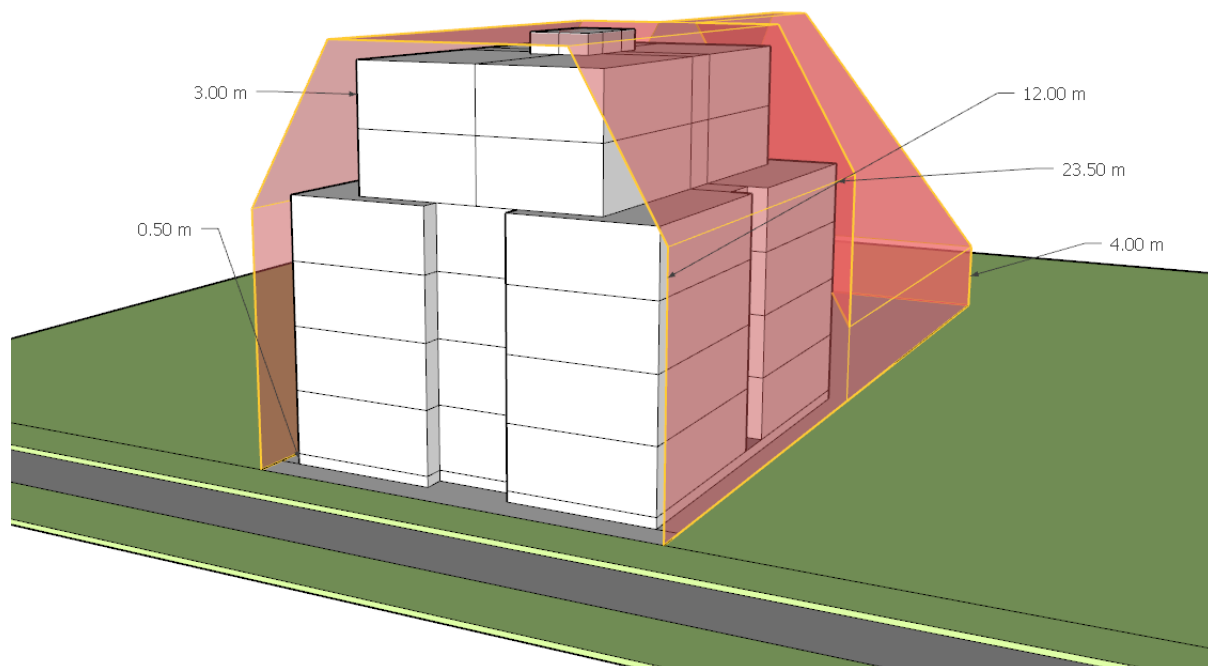
In order to accommodate viable floorplates at upper levels consistent with a planned urban character of apartment living in the Residential 2 zone, a HIRB control of 12m + 60° is recommended. On a typical 20m wide site this would enable the development of a six-storey apartment building where the only the upper

<sup>5</sup> Refer to attachment 1

two-storeys require a setback from the side boundaries. At the maximum permitted height limit this would enable a floor plate of approximately 11.3m in width which is considered sufficient to produce a viable floor plate for apartment type development. This would effectively create set-backs of just over 4m from the side boundaries.

A 4m setback is sufficient in most cases to make at the majority of the upper two storeys “disappear” from view behind the leading edge of the lower form when viewed from the ground level of adjacent properties helping to reduce the perceived height of the building. A 4m setback also means that the proposed HIRB control is well aligned to the outlook standard as it could apply to the upper levels of an apartment building.

In addition to the 12m + 60°, it is also recommended that this should only apply for the first 23.5m (1.5m front yard + 22m maximum building length) of the site from the street boundary. Beyond this, the 4m + 60° of the Residential 1 zone should apply. This is intended to facilitate the greatest level of development at the site frontage, provide better light and outlook between more intensive building forms and avoid excessive overlooking and dominance at side boundaries. This will also enable effects associated with the additional building bulk or larger apartment buildings enabled in the Residential 2 zone (e.g. dominance, loss of privacy) can be directed towards/ absorbed by the street (and any neighbouring front yards or roofs of existing buildings), rather than private open spaces at the rear of existing dwellings (refer to Figure 6). This will help support Policy 3 and Policy 5 by encouraging a built-form which can better promote passive surveillance of streets and supporting a high quality built-form which minimises effects on neighbouring properties.



**Figure 6 - Built-form enabled by bulk and massing related development standards**

### 4.3 Minimum balcony dimension

The Residential 2 zone is located in an area which performs well in the accessibility analysis undertaken for Rotorua. A key reason is the proximity to a range of amenities including hospitality and entertainment venues, open spaces and schools. Combined, these serve to reduce the requirement for on-site outdoor

living spaces and are an important ‘trade-off’ that distinguishes low-density suburban housing from more intensive housing in and around centres.

Given the accessibility to these amenities, the Residential 2 zone would also benefit from reduced outdoor living space requirements that form part of the MDRS – primarily associated with balconies. A reduction to 1.5m and 6m<sup>2</sup> is recommended.

A 1.5m dimension still enables the placement of a small table and chairs whilst preserving circulation space around one side. This, in combination with the minimum areas would also allow for outside clothes drying with a drying rack, a small barbeque and potentially some small pot plants.

## 5.0 Commercial Zones

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### 5.1 Maximum permitted heights

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Consistent with changes to building heights/ densities within the Residential 1 and Residential 2 zones, the NPS-UD also requires consideration of building heights within commercial zones in terms of enabling greater residential and commercial densities. The CCZ1 zone, along with parts of the CCZ2 and CCZ3 zones are identified as having the highest levels of accessibility within Rotorua.

There are a range of existing permitted building heights across commercial zones from 20m in the CCZ1, CCZ3, Com5 and Com6 zones, 12m in the Com1, Com2, and Com4 zones, and no height limit and in CCZ2 zone. Building heights in the Com3 zone must be aligned with the neighbouring zone.

It is recommended that the permitted heights in the various zones be amended to reflect higher levels of accessibility (relative to other areas) and contribute to overall legibility of urban form. In urban design terms, this seeks to enable greater heights in the centre to help signify its importance in the wider environment and transition building scale down towards the periphery. This is a traditional urban design approach that also generally reflects land development economics where land prices within a city centre are typically higher and can more feasibly support more intensive development.

A building height of 32m (which can facilitate 8-10 storey development depending on use/ floor-to-floor heights) is recommended for Rotorua within the City Centre. This height is approximately equivalent to the Hinemoa Tower (9-storeys with an architectural height of 36m). Heights would then transition down to 24m in the neighbouring CC2, CC3, Com4 and Com6 zones. These heights remain within what could be considered “mid-rise” typologies and would retain the feel of a human scaled environment, albeit at the upper end of this concept. Building heights above 8-10 storeys are increasingly complex in terms of their design and can give rise to a number of other external issues which can impact on the surrounding environment such as the downdraught effect or shading of important public open spaces which may require an additional suite of design standards. An alternative would be to consider these issues as part of an overall design assessment for new buildings.

The transition in building heights continues outside of the City Centre via the CC2 and CC3 zones (24m) down to the 19.5m proposed for the Residential 2 zone and 11m for the Residential 1 zone. Heights of 20m are recommended for the Com1 and Com2 zones. These zones relate to some of the larger secondary centres within Rotorua (e.g. Owhata, Ngongotaha and Westend) and would help signify these centres (assisting with wayfinding and legibility) within the wider urban environment should these development opportunities be realised. It is recommended that the existing height standards for the Com3 zone is retained.



In addition to generally enabling increased building heights, it is important to consider the impact larger buildings can have on public realm and wider impressions of an urban area. In this regard, there would be benefit in including additional matters of discretion and/ or assessment criteria relating to the design of new buildings – particularly the interface with the public realm.

## 5.2 Height in Relation to Boundary

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In addition to increased building heights, it is worthwhile considering complementary changes to HIRB standards, where the commercial zones adjoin a lower density residential zone. There is a risk that this may result in off-site amenity impacts on directly adjacent residential properties noting that development could include taller office buildings which do not require set-backs or outlook more commonly required for residential uses. In this instance, all commercial zones should meet the adjacent HIRB standards that apply to the Residential 1 or Residential 2 zone (whichever is applicable). This will aid in minimising adverse shading, privacy and dominance issues for neighbouring residential sites.

## 5.3 Yards

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Consistent with the approach to HIRB outlined above in 5.2, an amendment to the yard controls to 3m adjacent to the Residential 1 and 2 zones is also recommended. This would enable either a 1.8m high close boarded fence or a 2m deep landscaping strip that could enable vegetation up to 1.8m in height. In other words, there were no applicable yard standards in the Com1, Com2, Com3 and Com 6 zones. The existing 2.5m yard for the Com4 should also be increased to 3m to align with these zones.

The benefit of this control is that it would provide some physical separation of the higher commercial buildings proposed with an adjacent residential property whilst still supporting a functional dimension that could support alternative uses such as an accessway to on-site car-parking or alternatively increased landscaping depending on the specific needs of the building.

## 5.4 Residential Standards

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### 5.4.1 Minimum dwelling size

The existing minimum dwelling size controls within commercial zones (50m<sup>2</sup> for a studio/ 1-bed and 70m<sup>2</sup> for 2-beds or more) are, in my opinion, unnecessarily large and have been set at a level which can actively discourage the development of multi-unit residential schemes within commercial zones including the City Centre and are inconsistent with the overall policy intent of the NPS-UD.

Further, the application of the same area standard for both studio and 1-bedroom dwellings fails to recognise that these are fundamentally different unit typologies. Studio apartments are, by definition, defined by the use of a single multifunctional room where living/ sleeping and cooking spaces are consolidated (with a separate bathroom/ toilet).

In line with my comments in Section 3.2, I consider that there would be value in aligning minimum dwelling sizes to those with the residential zones. The reduction in minimum dwelling sizes will also have a benefit in reducing the overall cost to deliver.

### 5.4.2 Outdoor Living Space

As with the issues around minimum dwelling sizes, existing outdoor living space standards (10m<sup>2</sup>/ 2m deep) for residential dwellings within city centre and commercial zones are considered unnecessarily large and a potential deterrent to greater uptake of intensification opportunities.

It is recommended that the minimum standards are aligned with the Residential 2 zone (6m<sup>2</sup>/ 1.5m minimum dimension). In addition, there is a benefit for enabling dwellings to provide no external outdoor living space in exchange for increased internal space. This provides an applicant with the ability to deliver residential dwellings that can respond to the slightly different context of locating in a commercial environment (as opposed to a residential one). This includes the potential for increased noise (e.g. from being located in close proximity to food and beverage tenancies, or from servicing of commercial tenancies).

### 5.4.3 Outlook Space

Increased residential uses within commercial zones, coupled with increased building heights and limited setbacks creates a risk of adverse amenity outcomes in residential dwellings in these areas. This risk is primarily in the form of adjacent sites being built out to their maximum extent, reducing or removing access to sunlight, daylight or outlook of existing dwellings over side boundaries if this has previously been relied upon.

To address this, dwellings should generally be encouraged to orientate themselves over the street but where this is not possible the inclusion of an outlook space control would be beneficial as this provides some degree of guaranteed separation for residential units at upper levels in the event adjacent buildings are constructed. For simplicity, this should be aligned with the outlook standards of the Residential 2 zone noting that the majority of the building heights proposed within these zones are comparable to that of the Residential 2 zone. In addition to the above, this standard could be supported by specific matters of discretion/ assessment criteria related to on-site amenity issues to aid in the assessment of any application.

### 5.4.4 Storage

The District Plan currently requires a minimum storage area for all residential dwellings within commercial zones of 6m<sup>3</sup>, with a minimum dimension of 1.5m and height of 2.4m high. This is presumably independent of other typical storage areas found within a dwelling (e.g. kitchen cupboards). These standards apply regardless of dwelling size or intended occupancy.

Whilst storage can be an important amenity for some, for others it has less utility and may only result in increased housing costs for little benefit. Such a requirement also ignores alternative storage options available as part of furniture (e.g. in-built draws under beds) or via dedicated storage facilities. As such, I consider that it would be more appropriate for a specific standard around storage to be removed. Instead, this would be better addressed as part on overall design assessment of a development. This could be done through matters of discretion or assessment criteria relating to things such as cycle parking.

## 6.0 Subdivision

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### 6.1 Minimum Vacant Lot

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The Operative District Plan currently provides for a minimum vacant lot subdivision of 450m<sup>2</sup>. This is considered unnecessarily large and not well aligned with seeking to promote greater levels of intensification. In many historical urban areas in New Zealand, detached housing has been delivered on sites of 300m<sup>2</sup> and lower. Similarly, contemporary medium density developments which have been comprehensively



masterplanned have delivered quality detached housing on as little as 150m<sup>2</sup>, whilst terraced housing typologies are delivered on sites as small as 100m<sup>2</sup>. Smaller lot sizes would typically be achieved through a land use consent process where the design of a development can be assessed as part of the subdivision application.

In line with seeking a more enabling approach to housing, the minimum vacant lot subdivision standards could be reduced to 250m<sup>2</sup> with the requirement to accommodate an 8x15m building platform outside of yard requirements and other site constraints (e.g. flood affected areas or geothermal bore holes). A 250m<sup>2</sup> site area combined with an 8x15m building platform provides a degree of flexibility for future dwelling design. Design testing indicates that a typical stand-alone dwelling could be delivered on a smaller section than this. However, this relies on a perfectly flat site. As the standard needs to apply to residential areas more broadly it will capture sites which feature topographical constraints or geometric constraints from an irregularly shaped parent lot. Adopting a smaller site area and more constrained building platform therefore creates a risk that only a very specific building design can be accommodated which would not be consistent with seeking to enable a variety of building typologies. In my opinion, there needs to be sufficient flexibility in the minimum vacant lot standards to enable the development of a new dwelling with undue risk of infringing development standards and creating a notification risk which can act as a barrier to development and good urban design outcomes.

Attachment 1 – HDRZ Parcel Analysis

## Average Site Areas



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Typical Site Widths

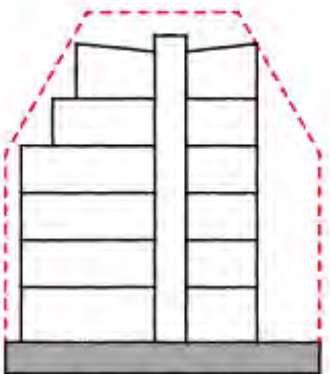
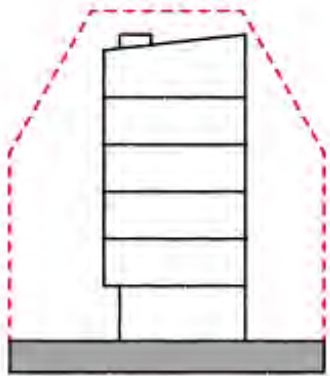
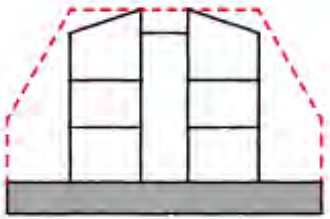
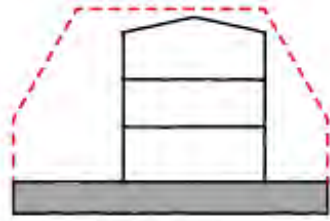


Attachment 2 – HiRB Testing Schematics



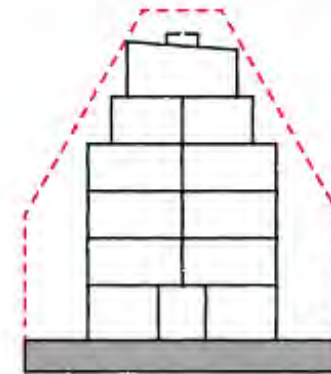
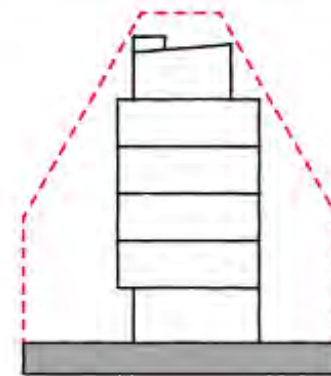
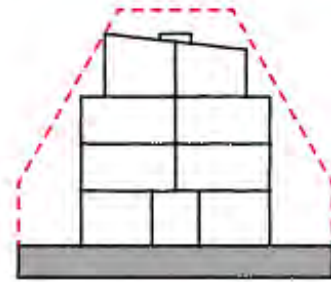
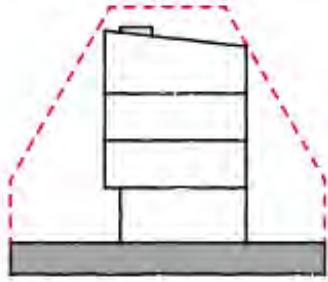
HIRB Controls Considered for Res 1 and Res2 zones

**11m (4m + 60°)**



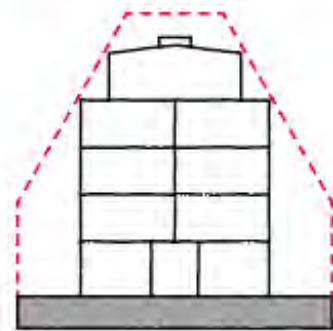
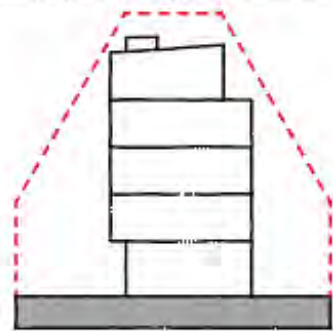
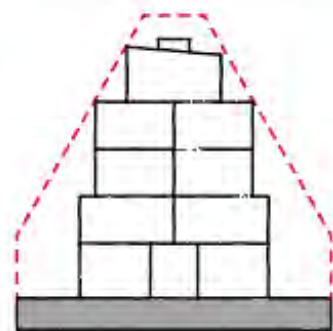
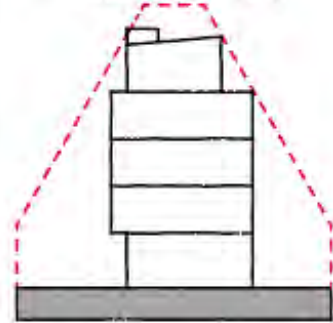
**21m (12m + 60°)**

**15m (4m + 60°)**



**21m (8m + 60°)**

**18m (4m + 60°)**



**18m (6m + 60°)**



# Memorandum

- |   |   |   |
|---|---|---|
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| <input type="checkbox"/> Wellington<br>PO Box 11340, 6142<br>+64 4 385 9315 | <input type="checkbox"/> Christchurch<br>PO Box 110, 8140<br>+64 3 366 8891 | <input type="checkbox"/> Dunedin<br>PO Box 657, 9054<br>+64 3 470 0460  |

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Attention: Kim Smith

Company: Rotorua Lakes Council

Date: 23<sup>rd</sup> June 2022

From: Rebecca Ryder

Message Ref: Pukehangi Development Area Structure Plan – Housing Amendment Bill

Project No: T17006

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Dear Kim

Following a request to undertake a review of the proposed outcomes of the Medium Density Residential Standards (MDRS) in the Pukehangi Development Area. The key area of investigation focuses to the proposed building heights of medium density standards on the residential 1 zone areas of the development area and the potential effects on the landscape values of the area including the Rotorua Caldera Rim.

## Background

The background landscape context, to this opinion, is found within the earlier Landscape and Visual Effects Assessment<sup>1</sup>. This assessment found:

- *The subject site contains both an upper terrace, at RL367 to RL380 that represents the 60,000-year-old shoreline, and a lower terrace below RL349 which represents the 36,000-year-old shoreline. These ancient shorelines contribute a distinct landform within the site.*
- *The Caldera Rim provides a defined backdrop to the Rotorua Lake area, encapsulating urban Rotorua, and other townships surrounding Lake Rotorua, including Ngongotaha, Hamurana, Mourea and Owhata.*
- *The broader landscape context provides the ability for this site to absorb the proposed land use change that the proposed development introduces. The proposal aligns development with existing surrounding development areas and focusses lower density development in the more sensitive mid-site escarpment area. Lower density development within the mid-site escarpment contributes an opportunity to align with broader vegetation patterns, providing a transition between the dense native planting within the Parkland Estate development and the pastoral landscape, more typical of the Caldera Rim landscape.*
- *Importantly, development is confined beneath RL385, identified as the contour representing the Caldera Rim, in the Caldera Rim Report. This ensures the protection of the recognised broader representation of the Caldera Rim landscape and feature.*
- *The Structure Plan takes account of these values, through measures such as placing lower-density development in the more sensitive areas and beneath RL385 to preserve the contiguous rural backdrop that the Caldera Rim provides, and aligning Primary Roads suitable distances away from existing, adjoining development boundaries, to ensure positive interfaces are achieved. Archaeological finds protocol will be applied and followed through the mechanisms of the Heritage*

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<sup>1</sup> Pukehangi Heights Development Area Structure Plan, Landscape and Visual Effects Assessment, Boffa Miskell Ltd, 6<sup>th</sup> March 2019.

*New Zealand Pouhere Taonga Act 2014, alongside the preliminary archaeological assessment, already undertaken.*

- The sensitivity of the landscape resource is considered to be moderate.*
- The planning provisions proposed address matters including size, scale, form, colour and density of built form and other elements contained within the development. This introduces an approach that responds to the landscape, which ensures the visual prominence of built form is mitigated, and elements such as earthworks are reduced.*
- The development would be phased over time, with built-form extending over the development extent. Vegetation would mature alongside these development phases, nestling built form into the visual landscape. The proposal is considered irreversible, but preserves the key features captured within the visual extent, being the Caldera Rim.*
- The magnitude of visual change is considered to be moderate-low as a result of the proposed development outlined in the Structure Plan and accompanying planning provisions. It is recognised that the proposal does introduce a defined change from the current visual outlook, particularly for the adjoining residential viewing audience.*

*Key outcomes of the provisions, sought from the preliminary assessment, development of the structure plan and from this assessment include:*

- Retention of the landform typology through the site, comprising the relationship between the escarpment features and plateau.*
- Retention of a rural residential character along the escarpment face with the placement of more intensive residential housing sited on the lower and upper plateau.*
- Retention of open space near to and on the RL385 contour.*
- Management of building form and design along sensitive interfaces between the escarpment and plateau areas.*
- Management of effects of mass and minor earthworks on the landscape patterns of the site and its interface with the wider landscape patterns.*
- Management of landscape character and the transition between existing rural, rural -residential (Parklands) and residential areas. This will include but is not limited to; lot density, building height and form, vegetation patterns and landform.*

## Proposed Changes to Part 3 – Area Specific Matters

The proposed changes to the rule framework for the Pukehangi Development Area that respond to providing for medium density housing are area specific to the lower and upper terrace areas of the site, being:

### *Lower Terrace*

- ~~1. Low density residential development;~~
2. Medium density residential development consistent with the Residential 1 Zone located on land of easy contour adjacent to local services and open space, ~~and sleeved with lower density residential development, commercial development or open space to provide a harmonious transition with existing low density residential development along Pukehāngi Road;~~

### *Upper Terrace*

1. ~~Low~~ Medium density residential development consistent with the Residential 1 Zone; and



2. *A transitional area along the front of the Upper Terrace where additional landscape and building controls apply (Escarpment Transition Area 2).*

Specifically, the changes are moving away from low density residential development sleeving medium density housing on the lower terrace, and the introduction of medium density housing development to the upper terrace area in place of low density.

The change in density more specifically includes an increase in building height to 11m as compared to the existing residential zone rules of 9m.

### Assessment

In order to determine the degree of effect of medium density housing analysis of the landform profile and the interface between building form and the dominant landform of the Rotorua Caldera Rim feature has been modelled (Refer to Attachment A).

Sensitive areas within the Pukehangi Plan change relate to the interface with Area B, shown as the Rural Zone mid escarpment, and the Caldera Rim, shown as the Upper Escarpment. Transition Areas 1 and 2 have been created at the toe and top of the mid site escarpment to manage built form density and height. These measures are key factors in the retention of the features legibility in the wider landscape and as part of the caldera.

The landform profile demonstrates that the integration of 11m building heights within the Transition Area 1 would reduce the legibility of the mid site escarpment, visually obscuring approximately the entire lower half of the escarpment. With the increased building height and density now proposed under the MDRS for this area, there is potential for this sensitive landscape feature to be visually dominated by urban development.

For the Escarpment Transition Area 2, at the top of the mid site escarpment, the design measures of the transition zone were to minimise density and manage building scale, form and colour to minimise a dominant urban building line at the rural zone interface. This measure remains important to avoidance of dominance built form along the rural edge.

For the Upper Escarpment, where the Caldera Rim is identified as being part of a Sensitive Rural Area<sup>2</sup> which features the upper edge of the Lake Rotorua Caldera Rim. This feature is protected from urban development through zoning and the built form interface is designed to remain subservient, in the wider viewing catchment, to the landform and rural backdrop.

The upper terrace, originally proposed as Residential 1 zone of 9m in height, is now proposed under the MDRS as 11m of medium density housing. The original design response to the structure plan to respond to landscape sensitivities considered the interface and building typology carefully. With the increase in density and building heights of 11m with the ability to increase to 12m for architectural outcomes, there will be a likely loss in visual legibility of the Caldera Rim feature within the Structure plan area. The cross section in Attachment A demonstrates that the proposed 11m building height, would visually obstruct views of approx. 50% of the Caldera Rim feature (Sensitive Rural Area - SRA) but retain views beyond the structure plan boundary to the ridgeline of the rim.

The original structure plan response did not identify the need to manage a transition zone at this interface due to the flat landform of the upper terrace and likely earthworks lowering the built form further down the Caldera Rim SRA slope. With this method likely to remain a development outcome and coupled with the continuation of the SRA beyond the site, the visibility of the southwestern most area of the proposed medium density area will be obscured by the middle sections of the zone. There remains enough elevation at the SRA beyond the site to maintain the dominant the physical and sensory characteristics of this feature in the wider landscape.

There are other areas where the SRA lowers in elevation and it is here that building height should be considered to respond avoiding the immediate edge of the upper terrace with the upper escarpment being elevated above the main terrace and creating a dominant linear edge of built form obscuring the caldera rim within the SRA.

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<sup>2</sup> Refer Page 25 - <https://www.rotorualakescouncil.nz/repository/libraries/id:2e3idno3317q9sihrv36/hierarchy/our-services/planningservices/districtplan/districtplanproposed/documents/Caldera%20rim%20report-design%20guidelines.pdf>

## Recommendations

Based on the proposed changes under the MDRS and the analysis of the SRA features and mid site escarpment the integration of 11m high, potentially 12m, medium density development has the potential to in parts increase the adverse effects on the landscape values of the Rural Zone and SRA. Therefore the following recommended approaches are considered methods to maintain these values whilst integrating the MDRS into less sensitive areas of the site.

### Transition Area 1 – Toe of Mid Site Escarpment

- Retain the building height and design controls for the interface, whilst enabling the increase in density along the toe of the escarpment. Avoidance of a linear wall of medium density housing should be avoided at this sensitive interface.

### Transition Area 2 – Top of Mid Site Escarpment

- Retain building height and design controls, including building density along the transition zone, creating opportunity for transition of private open residential space to rural open space. Avoidance of a linear wall of medium density housing should be avoided at this sensitive interface.
- Retain PHDA-D3 provisions.

### Toe of Upper Escarpment

- Consider lowering the RL building line restriction of PHDA-P7 to RL383 to account for the increase in building height across the zone and visual dominance upon the upper escarpment within the SRA, or
- Retain a medium density housing typology but retain a building restriction of 9m, to protect the legibility of the SRA.
- Integrate a requirement for spatial separation between medium density blocks within a subdivision to open views to the SRA and upper escarpment, avoiding a linear block of medium density housing. Avoidance of a linear wall of medium density housing should be avoided at this sensitive interface.

## Summary

There is suitable capacity within the Pukehangi Structure Plan to accommodate medium density housing under the MDRS whilst not occupying all of the sensitive areas of the site. The current structure plan has integrated open space and legibility of the sensitive landscape features based on an interface of suburban residential housing, in the main. The introduction of blanket 11m and up to 12m building heights across the residential 1 zone creates areas where adverse effects on the landscape features will be increased.

The above recommendations are responsive to the site for the zone and where possible integrate further open space within the subdivision design to connect and integrate the sensitive landform features. This includes extent of medium density housing on the upper terrace, not currently considered within the existing structure plan provisions.

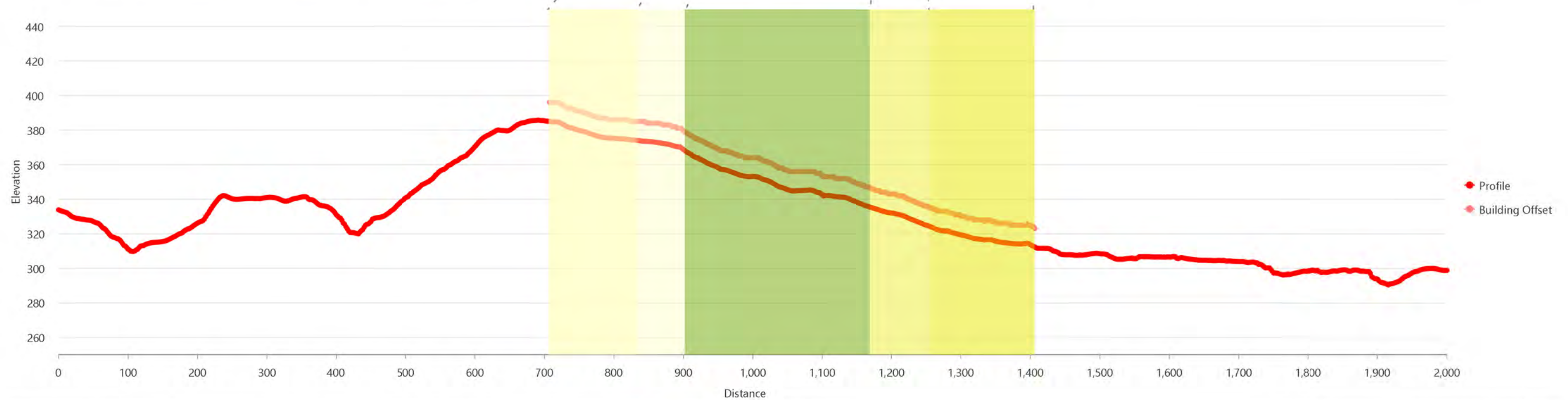
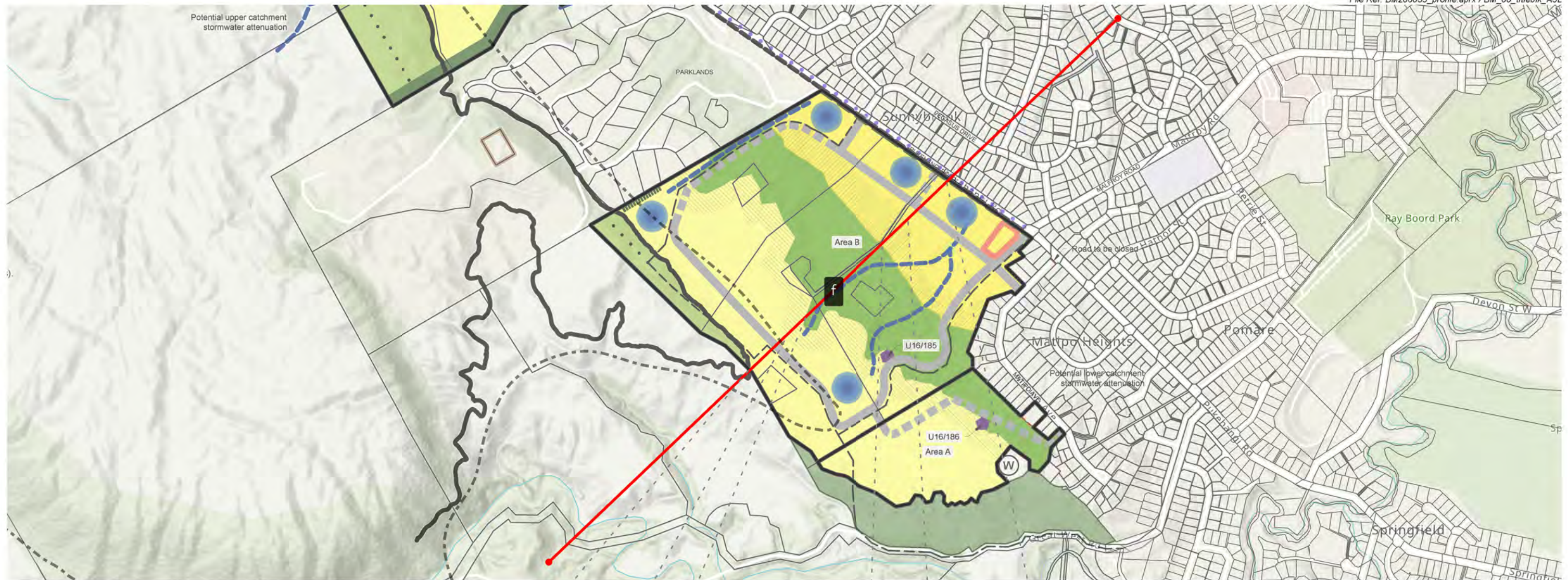
Rebecca Ryder

Partner | Landscape Architect

Boffa Miskell Ltd









Mr S Thurston  
Rotorua Lakes Council  
Private Bag 3029  
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**Rotorua 3046**

22 July 2022

**Copy via email:**      [simon.thurston@rotorualc.nz](mailto:simon.thurston@rotorualc.nz)

Dear Simon

### **MDRS TRANSPORT ADVICE**

Further to your instruction, we are pleased to provide our assessment of various transport matters in respect of the proposed Medium Density Residential Standards<sup>1</sup> which “*will need to be incorporated into all tier 1 (and specified tier 2) territorial authorities’ district plans*”. We understand that Rotorua Lakes Council has recently been included amongst the tier 1 territorial authorities.

#### **1 PURPOSE OF THE MDRS**

The intention of the MDRS is to remove planning barriers to residential development in relevant zones. It applies to several residential zones including:

- low density residential zones;
- general residential zones;
- medium density residential zones, and
- high density residential zones.

For the purposes of our review, we understand that our advice is related to how various District Plan rules, particularly trip generation, parking and access rules, could be modified to accommodate increased residential development, and at what thresholds, additional assessment such as an Integrated Transport Assessment (ITA) is likely to be required.

#### **2 SCOPE OF REVIEW**

As per our e-mail correspondence, and our meeting on Friday 10 June 2022, we understand you are seeking feedback on the following:

- At what dwelling or trip generation thresholds, an Integrated Transport Assessment (ITA) should be undertaken, and whether any other transport assessment thresholds should be considered;
- How the current access rules could be modified to accommodate increased residential density (noting the current rules require provision of a public road for any developments providing greater than 8 dwellings), and
- Commentary on traffic management that may be necessary on the public road network.

These matters are discussed in the following sections.

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<sup>1</sup> <https://environment.govt.nz/publications/medium-density-residential-standards/>

### 3 TRAFFIC ASSESSMENT THRESHOLDS

An Integrated Transport Assessment (ITA) is the highest tier transport assessment and includes an assessment of both local and wider network transport effects, as well as an assessment of how a development integrates with transport strategies and policies of a territorial authority.

We have reviewed some of the major territorial authority traffic assessment thresholds for residential activities. These provide some useful comparisons as to what level of residential activity could trigger the requirement for an ITA. These are summarised in Table 1.

**Table 1: Trip Generation Assessment Thresholds**

Territorial Authority	Assessment Threshold	Link
Auckland Council (Auckland Unitary Plan)	100 dwellings, or 100 vehicles per hour (vph) (wider transport assessment, not specifically an ITA)	<a href="#">Table E27.6.1.1</a>
Hamilton City Council (Operative District Plan)	Simple ITA: 500-1,499 vehicles per day (vpd) (roughly equivalent to 50-150 vph)  Broad ITA: 1,500 vpd (roughly equivalent to 150 vph)	<a href="#">Rule 25.14.4.3</a>
Waikato District Council (Proposed District Plan – Decisions Version)	50 Equivalent Car Movements (ECM) per day where a site gains access from arterial road or regional arterial road (including State Highways)  100 ECM per day for any other residential site	<a href="#">TRPT-R4</a>
Tauranga City Council (Tauranga City Plan)	Various levels of transport assessment required when proposing activities with greater than 25 parking spaces.	<a href="#">Appendix 4K</a>
Wellington City Council (ePlan)	A traffic report must be provided for any proposal to provide more than 70 parking spaces.	<a href="#">3.2.2.16</a>
Christchurch City Council	Basic ITA – More than 60 residential units  Full ITA – more than 120 residential units	<a href="#">7.4.3.10</a> <a href="#">7.4.4.18</a>

As shown above, there are a wide range of thresholds for transport assessment. For your specific case, we **recommend** retaining your current residential ITA requirement i.e. 100 dwellings as per Appendix 1, Section 4 of the Rotorua District Plan.

It should be noted that we also agree with the current reference to ‘100 dwellings’ in the threshold rather than the alternative of 100 vph which some territorial authorities use (as it is not open to interpretation).

In addition to the ITA requirements, it is also recommended to establish a lower threshold where a simpler traffic assessment focussing on local effects only is required. In particular, our concern is focussed on on-street parking and the potential displacement of parking demands from higher density residential sites (which no longer require a minimum parking provision) to the public road network. Our concern is not the effects on neighbours with regards to increased competition for on-street parking (it is a public resource and available to anyone), instead, it is ensuring that the road network can still operate safely and efficiently (e.g. can rubbish trucks and emergency vehicles still use the road with potentially increased on-street parking demands).

This lower level assessment threshold is simply required for the off-site effects of the development to be assessed, and whether as a result of that assessment, mitigation may be required to ensure the road network can continue to operate safely and efficiently (for instance, the applicant may have to install No Stopping lines or other parking controls as part of their development). We consider this important to ensure applicants contribute to the cost of measures required to mitigate their effects rather than relying on the Council to resolve these effects reactively. It is important to note that we anticipate these mitigation measures would be minor and not a means for Council to seek major road improvements such as road widening, or major intersection upgrades.

The threshold for this simpler traffic assessment (assuming all other transport rules are satisfied) is in the order of 10-20 dwellings and generally would be based on the risks the Council is willing to accept with regard to enabling development. For instance even with a threshold of 20 dwellings, there is potential for significant parking demands to occur on-street.

#### 4 RESIDENTIAL ACCESS RULE RESZ-S5

We understand the key concern from Council is the shared access width rules and their ability to accommodate increased residential activity. The current rule is summarised in Figure 1.

**Figure 1: RESZ-S5 Rule**

4. Shared access driveways shall comply with the following table:

Number of Household Units Served by the Access	Width	
	Overall	Formed
1-2 household units	3m	2.7m
3-4 household units	4m	3m
5-8 household units	6.5m	5m

5. Shared access driveways shall not serve more than eight household units.

We understand that a public road is required to service developments of more than 8 dwellings. The genesis of this rule is unknown but from a transport perspective a two-way access can accommodate a significantly higher number of residential dwellings.

However, there are other transport effects that need to be considered, including:

- Pedestrian access (pedestrians could safely share the access with vehicles in the 2-8 dwelling range but beyond that, a dedicated (i.e. separate) pedestrian path is recommended;
- Rubbish collection (generally there is a reluctance for Council contractors to use 'private' accessways for rubbish collection generally due to maintenance liability etc). Development sites, beyond the circa 8 dwelling size, would likely require private rubbish collection and that brings about the need to assess larger vehicles turning to and from the site, also turning areas on-site;
- Emergency vehicles and delivery trucks (as per rubbish trucks above, there are also similar effects generated by the need to accommodate emergency vehicles, furniture trucks etc).

In summary, we consider that existing rules are appropriate however **recommend** an additional row, detailing the following:

- 8-20 household units – 8 m overall width, 5.5 m formed width, 1.5m wide pedestrian path and 1.0m services berm, and
- Requirement for on-site rubbish collection, emergency vehicle access and delivery truck access (RTS-18 8 m MRT), and on-site manoeuvring to prevent reverse manoeuvres to/from the road network.

This would enable a greater number of dwellings to be accommodated by a private access, but still require 20 or more dwellings to be serviced by a public road. It would also require developments in the 8-20 dwelling range to be assessed if they could not provide the required 8 m overall width (we note at our meeting it was mentioned there are a number of rear sites in Rotorua with only 6 m wide accesses).

In addition to the above, we understand Council development engineers would, instead of an 8 m overall width, prefer the E11 cross-section (9 m width) in NZS4404 below:

PLACE CONTEXT			DESIGN ENVIRONMENT				LINK CONTEXT				TYPICAL PLAN AND CROSS SECTION	FIGURE NUMBER	
Area	Land use	Local attributes	Locality served	Target operating speed (km/h)	Min. road width (m)	Max. grade	Pedestrians	Passing, parking, loading, and shoulder	Cyclists	Movement lane (excluding shoulder)			Classification
<b>Notes</b>		See 3.2.4, table 3.1 & 3.3.1.5	See table 3.1	See table 3.1	See 3.3.5	See 1.2.2, 3.3.1.3, & 3.4.16	See 3.3.11	See 3.3.6 & 3.3.1.4	See 3.3.1.5, 3.3.7, & 3.3.11.2	See 1.2.2, 3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.1.10, 3.3.11.3	See 3.2.4.2 & 3.3.16 (Typical max. volumes)	SEE APPENDIX E FOR LARGER VERSION OF FIGURES	
Suburban	Live and play	Side or rear service access	Up to 100 m in length between streets, 1 to 20 lots	10	6	16%	Shared (in movement lane)	Allow for passing up to every 50 m	Shared (in movement lane)	2.75 - 3.00	Lane (~ 200 vpd)		E10
	Live and play	Access to houses/townhouses	1 to 20 du	20	9	16%	Shared (in movement lane)	Shared (in movement lane)	Shared (in movement lane)	5.5 - 5.7	Lane (~ 200 vpd)		E11
	Live and play	Primary access to housing	1 to 200 du	40	15	12.5%	1.5 m on one side or 1.5 m each side where more than 20 du or more than 100 m in length	Shared parking in the movement lane up to 100 du, separate parking required over 100 du	Shared (in movement lane)	5.5 - 5.7	Local road (~ 2,000 vpd)		E12

The only concern we have with that requirement is that it does not specify a separated pedestrian path (rather it is shared within the movement lane). If the NZS4404 standard is preferred by Council, I recommend it specifies a separate 1.5 m wide pedestrian path within the overall 9 m width. It should also be noted that the need for the additional width beyond 8 m is unclear (as per my recommendation, the vehicle carriageway is the same at circa 5.5 m so the additional width needs to be justified if this was challenged in a hearing etc).

## 5 OTHER MATTERS

### 5.1 TRAVEL PLAN

In Auckland, as a result of the removal of parking minimums from the Unitary Plan, [PC71](#) has introduced new rules, the most significant one being the requirement for a travel plan. The assessment threshold for residential activity is 10 dwellings. We consider this particularly onerous and there has recently been large scale opposition by developers to these travel plan requirements for residential activity.

In our view, travel plans are useful instruments for schools, tertiary education facilities, hospitals and offices/ industrial/warehouse developments where there are workplace or educational entities with the financial means and time to co-ordinate travel planning. With separate residential owners/ tenants co-ordinating, funding and updating a travel plan is well-meaning but unlikely to be workable in practice. As a result, we do not recommend consideration of travel plans for independent residential activity (however, a travel plan for a retirement village could work for instance).

### 5.2 BICYCLE PARKING

Bicycle parking is not currently required in the District Plan for residential activities. We recommend that in the absence of minimum vehicle parking requirements, provision and support of other transport modes is required to offer transport choice for residents. We **recommend** that 1 bicycle parking space per residential dwelling is an appropriate requirement for development of 20 dwellings or more.

We have generally found that at-grade 'shared' bicycle facilities in standalone and terraced housing developments are not well used (residents prefer accommodating bicycles within their own property). For that reason, garages, secure yards, secure bike racks (affixed to the house) are preferred over standalone bicycle sheds. The only exception to this finding is for apartment typologies where shared bicycle storage areas within a basement car park work well.

## 6 CONCLUSION

Based on review, we conclude the following:

- Retain the existing ITA threshold of 100 dwellings (this is a comprehensive traffic report to cover wider and local transport effects);
- Introduce a lower threshold which triggers a simpler traffic assessment covering local effects only i.e. in the immediate area of the development. We recommend this threshold is 20 dwellings. The purpose of this trigger is to primarily assess the effects of the development on safety and efficiency of the road network e.g. parking overspill onto local streets and whether parking controls, or other measures are needed to mitigate the off-site effects of the development;
- Maintain existing access rules, but allow up to 20 dwellings to be serviced by a private accessway. For developments with 8-20 dwellings, introduce a new table item requiring an overall access width of 8 m to accommodate a separate footpath and services berm and the need to assess private rubbish collection, emergency vehicle access and delivery trucks;



- In regards to travel plans, we do not recommend implementing them for standalone dwelling and terrace housing developments (if they are being considered at all). Our view on this is they are likely to be unwieldy and not achieve the desired outcomes, and
- Incorporate bicycle parking rules into the District Plan if possible.

We trust this is sufficient initially, and we are happy to discuss this with you on an ongoing basis if necessary.

Yours sincerely

**Commute Transportation Consultants**



Mike Nixon

**Principal Transport Consultant**

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## Appendix 12 – Flood Map – New Qualifying Matter

The process for evaluating new qualifying matters is set out in section 77J of the RMA (inserted by the Enabling Housing Supply and Other Matters Amendment Act).

Map to be populated.

# Memo

<b>To:</b>	<b>Kim Smith</b>	<b>Job No:</b>	<b>1018677</b>
<b>From:</b>	<b>Mark Pennington</b>	<b>Date:</b>	<b>24 May 2022</b>
<b>Subject:</b>	<b>Flood hazard provisions</b>		

## 1 Introduction

This memorandum has been prepared to assist Rotorua Lakes Council (RLC) with flooding elements of Plan Change 11 to the Rotorua District Plan, this being the Housing Plan Change. This memorandum covers two topics, these being:

- Impervious surfaces, in particular how control of these can assist in management of the impact of housing intensification on flooding
- Setting a flood depth threshold above which control (resource consent or other) of development in flood-prone areas is necessary.

In a separate document, prepared by Tonkin + Taylor (T+T), the results of a flood risk assessment covering urban Rotorua are set out.

## 2 Impervious areas

### 2.1 Definition

An impervious surface is one through which infiltration of surface wetness to the ground is unable to occur due to the surface covering being impermeable. Examples include roads, roofs and hardstand areas which are typically associated with urban land use. When an otherwise pervious area is developed to include an increase in impervious surfaces, the rainfall-runoff response from that area is changed. These changes can result in adverse flood effects.

### 2.2 Effect of increased impervious areas on runoff response

The formation of impervious area over previously pervious area generally involves several changes to the way surface runoff is generated in response to rainfall. Often these changes involve removal of vegetation to create slopes of uniform grade (no puddles) from smooth impervious material (asphalt, concrete, etc). With impervious surfaces covering underlying material, rainfall no longer has the ability to infiltrate into the soil and must either pond or flow off the surface. This will generally increase the total amount of rainfall that is able to become runoff (by reducing infiltration) and will often speed up the response of the catchment (i.e. flow from the catchment will rise more quickly if covered in impervious surface when compared to pervious surface). In Figure 1 a schematised response from an example catchment to increases in impervious cover is shown. Generally, the following effects are expected given a higher the percentage of impervious cover for a given catchment:

- Higher peak runoff rate;
- Larger total runoff volume;

- Shorter time from the start of rainfall to the peak runoff.

The above factors are often contributors to surface flooding. In most cases, increasing percentage impervious in a catchment increases the likelihood of downstream flooding.

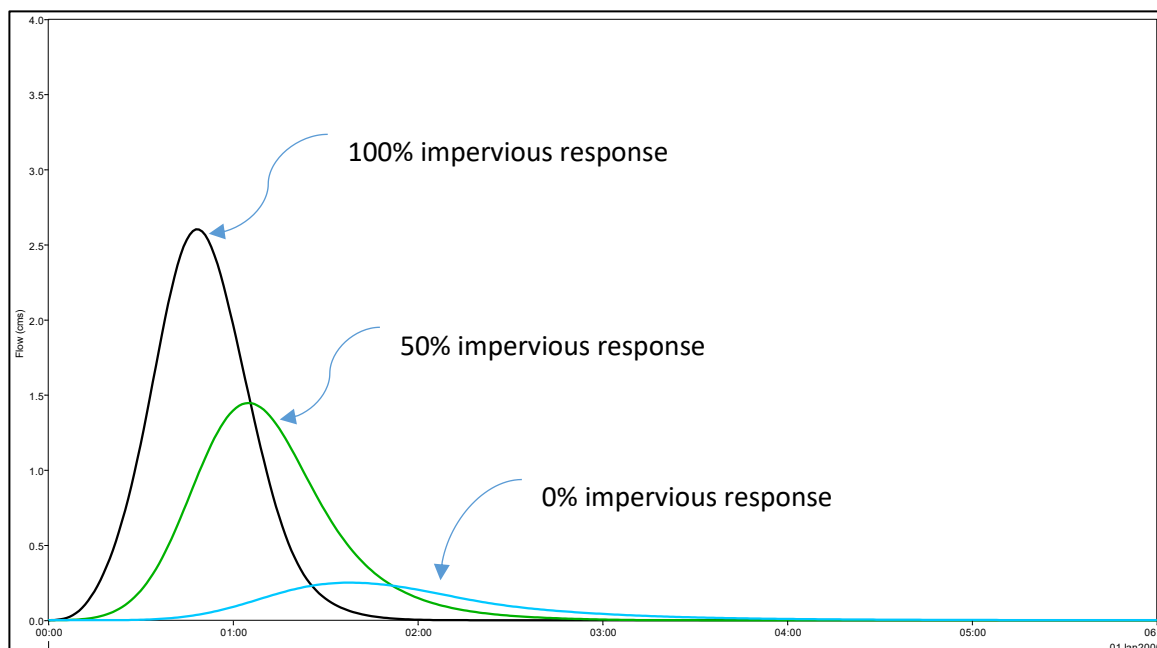


Figure 1: Typical response from a catchment with differing impervious coverage

The effect that changing from pervious to impervious has on catchment response is not uniform across Rotorua. In areas where the undisturbed ground is of high permeability, there would need to be a large rainfall event for surface runoff to occur. Conversely, in areas where surface soils are relatively impermeable, these areas act as impervious surfaces following saturation.

Thus, the surface soil type has an influence on the magnitude of effect caused by an increase in impervious surface coverage. The increase in runoff as a result of an increase in impervious area is based on the difference in rainfall/runoff response between the unmodified and modified surfaces.

### 2.3 Percentage of impervious cover

In undeveloped areas the percentage of impervious area is usually close to zero, with the only impervious areas being roads and buildings at low density coverage. Once areas have become developed (urbanised), a greater portion of the total area becomes covered in impervious surfaces. For example, CBD areas, comprised largely of roads, car parks and buildings, are comprised of higher percentages of impervious area than residential areas.

Impervious coverage in a catchment is often referenced as a percentage of total area that is covered in impervious surface. By definition this takes account of lot size, as opposed to seeking an impervious area measurement. For example, a 1,000 m<sup>2</sup> lot with 500 m<sup>2</sup> of impervious area is shown to be 50% impervious, whereas a 500 m<sup>2</sup> lot with 500 m<sup>2</sup> of impervious coverage (i.e. the same impervious area) is shown to be 100% impervious.

Typical percentage impervious in urban areas is around 50-60%. In Figure 2 accurately measured impervious area of 5 different areas are shown alongside aerial photographs of each area. Type 1, shown as 84.2% impervious, is a heavily urbanised area with little “green” surface coverage. Type 3 shows a developing area, with a mix of developed and undeveloped areas and an overall average percentage impervious of 25.7%.

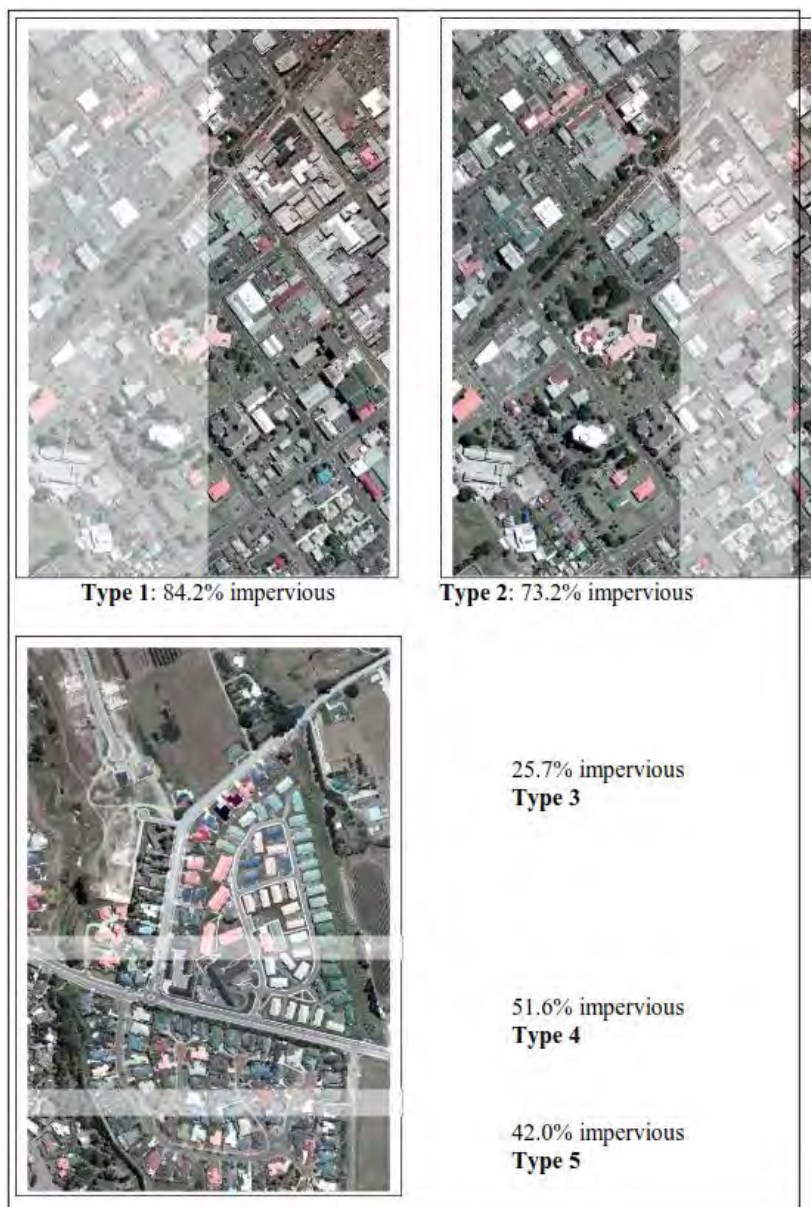


Figure 2: Measured impervious area percentages

## 2.4 Existing impervious area controls in Rotorua

Under the existing District Plan rules, it is possible to develop Residential 1 zones to a maximum of 80% impervious, and Residential 2 zones to a maximum of 100% impervious. In most cases, the existing development is to lesser degrees than these maxima. The current flood situation in Rotorua has been analysed based on the maximum allowable development.

It is understood that, in facilitation of urban growth initiatives, intensification of urban zones in Rotorua is being considered. On its own, intensification may worsen the existing flood situation. However, if the permitted maxima for impervious surface coverage are able to be reduced from the 80% / 100% allowances described above, then this would somewhat offset the increases that would accompany intensification.

To demonstrate this, consider an existing area where the percentage impervious is currently 50%. Under the existing District Plan rules, this area could develop to a maximum of 80% impervious.

## 2.5 The need for impervious surface control

Given demands for housing, future increased density of development is required. While flooding areas can be identified under current District Plan zone rules, potential flood impact as a result of development can be reduced if maximum development thresholds are reduced while still allowing for increased development.

In Figure 3 a schematic section of an urban catchment is shown. In this it can be seen that land use outside of existing flooding areas can contribute to flooding within flooding areas. Should additional surface runoff be generated (through increased impervious coverage) and conveyed (downhill) to existing flooding areas, it is possible that increases in flood hazard will be experienced.

Furthermore, conveyance of increased volumes of surface runoff can lead to exacerbated flood safety issues, related to flow rates, velocities and flood depths.

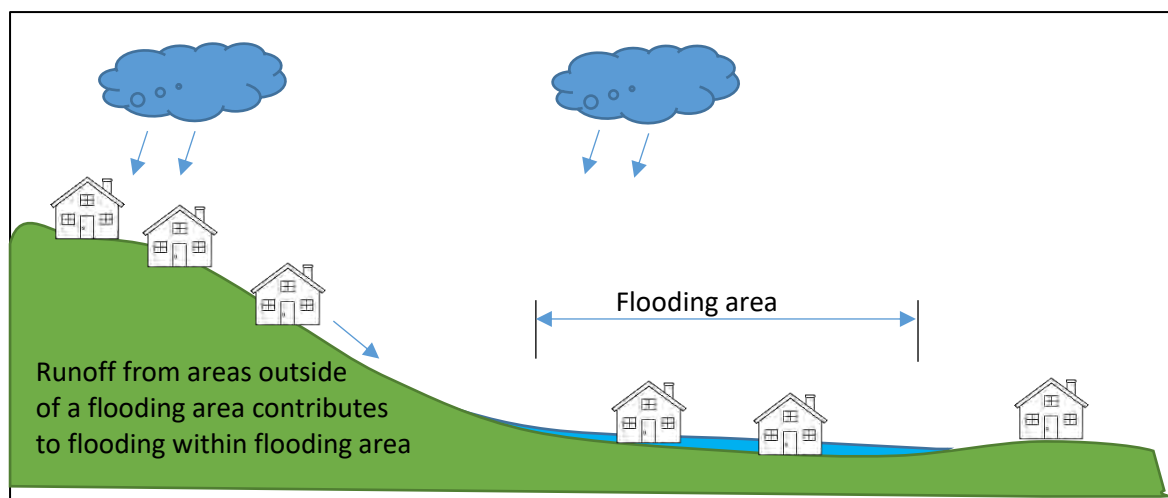


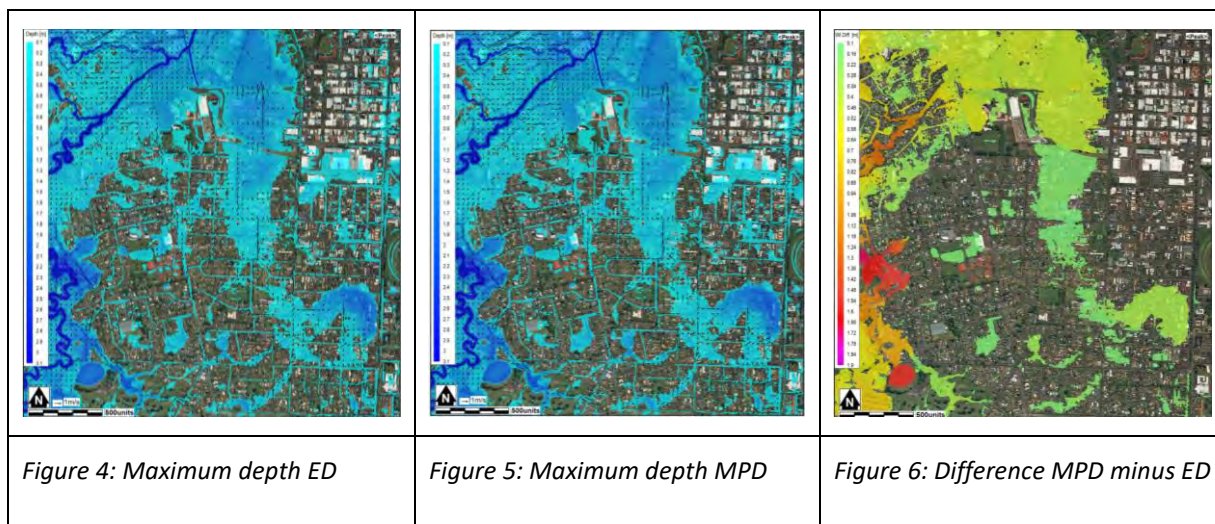
Figure 3: Catchment section – schematic

The effects identified above have been shown to be real through application of city-wide flood modelling and mapping undertaken by RLC. Ways to reduce the potential for exacerbated downstream flooding resulting from development include placing limits on the amount of impervious area that can be developed in the urban areas. This will have the effect of ensuring that there is a limit on total runoff volume likely to be conveyed to downstream flooding areas.

In Figure 4 the maximum modelled flood depths for a specified event (in this case, 100-year ARI 2130 design rainfall event) using an estimate of the existing percentage impervious (ED) have been plotted for a sample area in Rotorua. In Figure 5 the maximum depths resulting from simulation of the same event, but using Maximum Probable Development (MPD) percentages of impervious area consistent with the current rules are shown. The effect of the change in percentage of impervious is shown in Figure 6, which shows the difference in peak flood level between the two scenarios (MPD minus ED).

While the exact ED and MPD spatial variation of flooding is likely to vary spatially, the above demonstrates the type of effect that can be incurred purely from a change (in this case an increase) in impervious area. Figure 6 shows peak flood level increases in a future climate 100-year ARI event as being a possible consequence of unmitigated increases in impervious area.





## 2.6 Maximum permitted impervious cover

Reducing the maximum impervious cover is one method that the Council can use to reduce the impact of intensification on flood hazard and on flood risk. This can be used alongside other stormwater interventions to reduce the impact on flood levels, as well as methods to reduce the consequences of flooding on developments (restrictions in areas prone to flooding) and will assist to reduce the scale of these other interventions.

Flood modelling for Rotorua should include an allowance for residential site imperviousness to increase to the levels permitted in the District Plan. In this way the future expected flooded areas can be mapped, enabling implementation of associated District Plan rules to manage risk and activities within areas predicted to be prone to flooding.

## 3 Flood depth thresholds

A key consideration with intensification is the protection of property while allowing development to occur.

### 3.1 Accuracy and uncertainty

In most cases, urban flood predictions are made using hydrological and hydraulic models. These models generally have computation precision of tens of millimetres in terms of flood level prediction. That is, such models generally cannot be considered accurate to millimetre precision.

A typical input to a hydraulic model is a Digital Elevation Model (DEM), which represents the bare ground surface in a way that can be read by the hydraulic computation engine. In CGD (2014) reference is made to the accuracy of LiDAR datasets, and of the resulting accuracy of Digital Elevation Models (DEM's) that are derived from LiDAR surveys. This report indicates that, for many LiDAR surveys carried out, resulting DEM's have a stated vertical accuracy of about +/- 150mm.

Using the DEM as an input to the hydraulic model, the modelled flood level results carry a similar degree of vertical accuracy. Thus any flooding predicted by a model that is less than 150mm in depth may be a DEM artefact instead of being necessarily "real".

Because of the above, it is generally not possible to predict flooding (in terms of depth and extent) to millimetre precision. Therefore, a depth threshold is required above which flooding is considered to be "real" (it should not be a zero depth threshold).



In many flood hazard guidance documents the concept of “freeboard” is employed, to deal with uncertainty in matching predicted flooding with actual flooding.

### 3.2 Default Building Offsets

Most buildings are constructed with floor that is raised somewhat above surrounding ground level. This vertical offset is usually no less than 150 mm to meet requirements of the NZBC . That is, in most cases the floor level of a building is at least 150mm above the level of the surrounding ground.

### 3.3 Impact of floodplain filling

Syme (2011) demonstrated that there are thresholds below which development in the form of filling of the floodplain can have minimal effect. This threshold can be driven by flood level/depth or by some other parameter, such as the depth-velocity product. For example, if an area is filled where there is 1 mm of predicted flooding, the effect is likely to be negligible. The same is unlikely to be true if the areas to be filled would otherwise be prone to 1 m of flooding. The threshold at which the effect changes from insignificant to significant is of relevance.

### 3.4 Safety considerations

Urban floodplain management frequently involves consideration of overland flow paths. These overland flow paths are often defined by considering safety to people, and for this maximum depth x velocity product of flood model results has relevance. An example is shown below, taken from Australian Rainfall and Runoff. In this it is shown that  $DxV < 0.4 \text{ m}^2/\text{s}$  presents low hazard to adults and children.

$DV \cdot (\text{m}^2\text{s}^{-1})$	Infants, small children (H.M. $\leq 25$ ) and frail/older persons	Children (H.M. = 25 to 50)	Adults (H.M. $> 50$ )
0	Safe	Safe	Safe
0 – 0.4	Extreme Hazard; Dangerous to all	Low Hazard <sup>1</sup>	Low Hazard <sup>1</sup>
0.4 – 0.6		Significant Hazard; Dangerous to most	
0.6 – 0.8		Extreme Hazard; Dangerous to all	Moderate Hazard; Dangerous to some <sup>2</sup>
0.8 – 1.2			Significant Hazard; Dangerous to most <sup>3</sup>
$> 1.2$			Extreme Hazard; Dangerous to all

Figure 7: Safety criteria (from Australian Rainfall and Runoff)

Instead of the above, safety concerns can also be addressed through consideration of depth or velocity as stand-alone variables. This is shown in Figure 8. For example, from this figure it can be seen that flood depth in excess of 1.2 m is considered high hazard for all people, regardless of velocity. Similarly, velocity in excess of 3 m/s is considered unsafe regardless of depth.

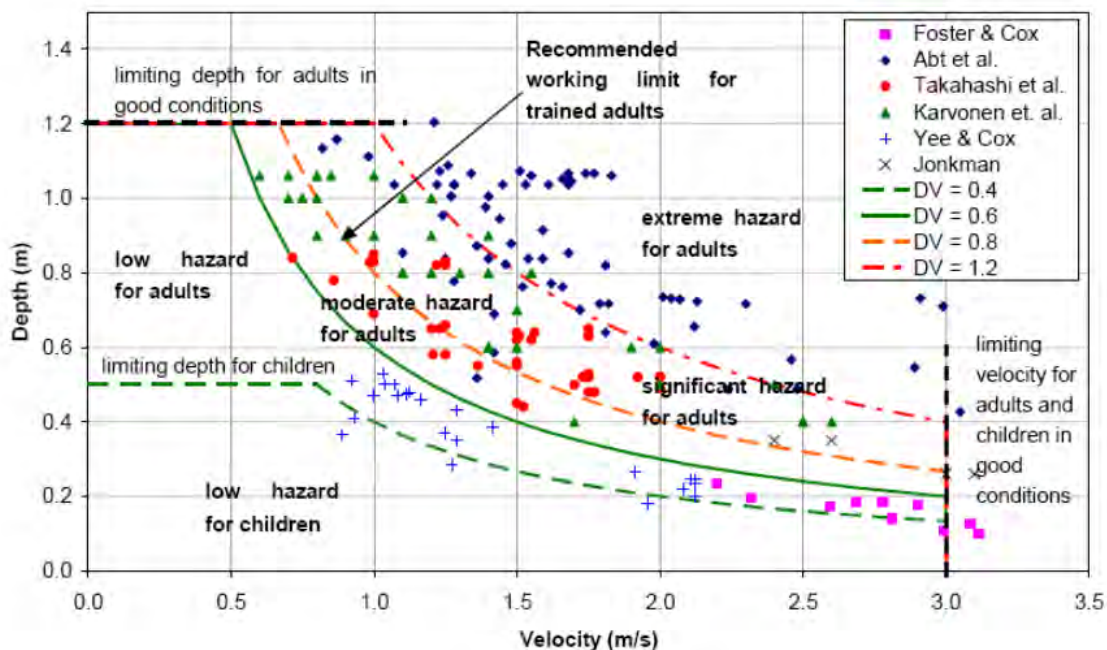


Figure 8: Safety criteria in urban flooding (Australian Rainfall and Runoff)

A flood depth of 300 mm is generally of low hazard, until velocity exceeds about 1.4 m/s based on the guidance given in Australian Rainfall and Runoff.

### 3.5 Protection of property from flooding effects

As indicated above, it is difficult to predict flood levels to millimetre precision and a pragmatic threshold is required to control this effect. Selection of this threshold is arbitrary. For example, flood extents have been plotted in Figure 9 to two different depth thresholds: 100 mm and 300 mm. In most cases, flood extents from direct rainfall models are not plotted with depth threshold of less than 100 mm (i.e. only areas that are modelled to flood to a depth of at least 100 mm are shown to be subject to the flood hazard). What can be seen in Figure 9 is that there is relatively small difference in flood extent between these two thresholds.

In Figure 9 the areas coloured orange show flood depth >300 mm, while areas in green show areas where maximum depth is between 100 mm and 300 mm.



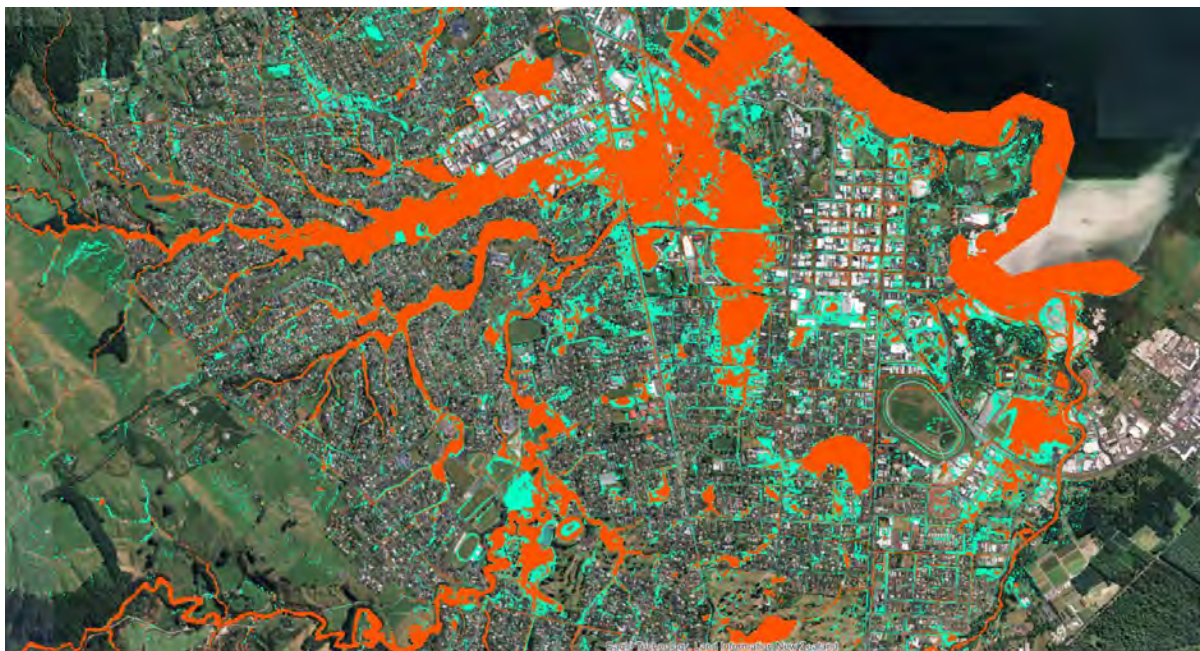


Figure 9: Mapped flood extent >100 mm depth in green, >300 mm depth in orange

### 3.6 Protection of the conveyance function of the urban drainage network

In Figure 10 the same flood extents as shown in Figure 9 are shown, but overlaid with an overland flow path threshold of  $0.4 \text{ m}^2/\text{s}$ . What this shows is if the flood hazard is mapped to a 300 mm threshold depth, this includes all overland flow paths (shown as areas where  $dxv > 0.4 \text{ m}^2/\text{s}$ ) in the mapped area. Stating this the other way around, if development were to be unconstrained by rules where maximum mapped depth is 300 mm or greater, then overland flow paths will generally not be compromised if rules only apply to areas where mapped flood depth exceeds 300 mm.

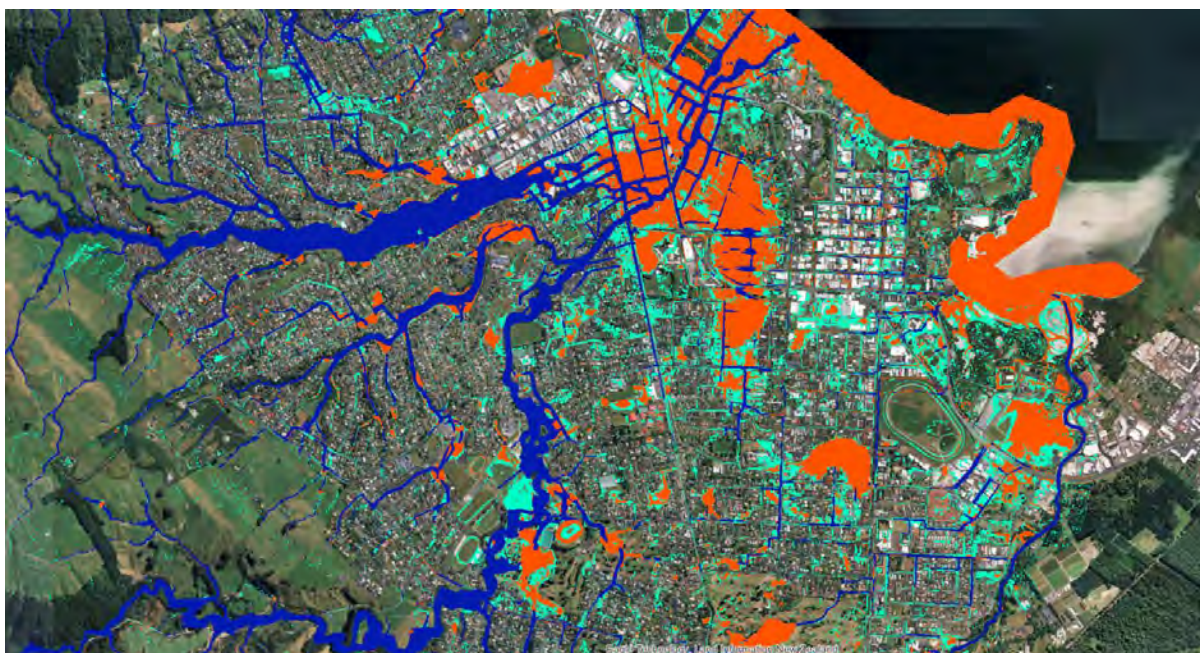


Figure 10: Mapped flood extent >100 mm depth in blue, >300 mm depth in orange and  $dxv > 0.4 \text{ m}^2/\text{s}$  in dark blue

### 3.7 Summary

The arguments presented above have indicated the need for some non-zero flood depth threshold below which a lesser degree of building control is warranted. Control (such as a requirement for resource consent) is needed for areas where flood hazard is deemed significant either to the subject site or to adjacent or hydraulically connected sites. A threshold of 300mm has been suggested (and has been adopted elsewhere in NZ).

The discussion above has shown that a 300mm flood depth threshold (in a 1%AEP event with climate change) provides a reasonable trigger for requiring resource consent for buildings.

A schematic section for the proposed rule framework is shown in Figure 11 **Error! Reference source not found.**

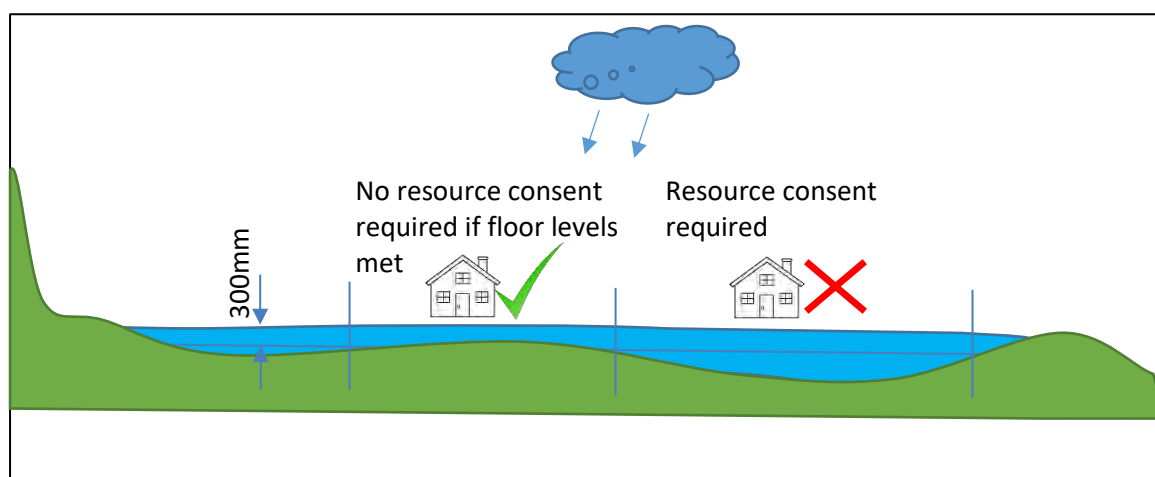


Figure 11: Catchment section – schematic rule framework

Adoption of the 300 mm depth threshold for resource consent effectively relieves the requirement for resource consent in areas where maximum flood depth is less than 300 mm is predicted, provided minimum floor level standards are met. Whereas buildings in areas with flood depths greater than 300mm would be assessed against policies and objectives with respect to:

- Considering whether the location is suitable and whether options available to mitigate the hazard
- Avoiding impacts on other property and infrastructure
- Assessing whether safe evacuation routes or refuge during flood events is provided
- Maintaining the function and storage capacity of overland flowpaths and river corridors.

This rule framework is explained as a first step in the improvement of the provisions for managing flooding, focusing on the protection of buildings with the intensification of an urban area subject to flooding. A further flooding plan change alongside mapping of overland flowpaths and river corridors is expected to further address:

- The protection of overland flowpaths from structures and earthworks
- Potentially, providing additional provisions to address social and cultural buildings in areas that flood.

## 4 Conclusion

This memorandum has covered two specific topics, these being the percentage of impervious coverage allowed in urban residential catchments in Rotorua and the flood depth threshold for

application of rules in the District Plan. Conclusions resulting are summarised in the bullet points below.

- Reducing maximum impervious standards would assist to manage the impact of intensification on flood risk.
- A flood depth threshold is required for application of the proposed rule framework. The absolute threshold is somewhat arbitrary, and a depth of 300mm in a 1%AEP event with climate change provides a reasonable threshold for requiring resource consent for buildings.

## 5 References

CGD (2014), Canterbury Geotechnical Database Technical Specification 03, "*Verification of LiDAR acquired before and after the Canterbury Earthquake Sequence*", April 2014.

Syme (2011), *Mapping of floodways and floodplain development zones using 2D models*, Water New Zealand 7<sup>th</sup> South Pacific Stormwater Conference, 2011.

29-Jul-22

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# Geothermal hazard risk review for residential dwellings and their occupants in Rotorua City

Prepared for  
Rotorua Lakes Council

Prepared by  
Tonkin & Taylor Ltd

Date  
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# 1 Introduction

Tonkin & Taylor Limited (T+T) was engaged by Rotorua Lakes Council (RLC) to undertake a geotechnical assessment of the geothermal hazards and risks to residential buildings and their occupants, which is intended to support a plan change to the Rotorua District Plan (District Plan) to allow for intensification of residential development within Rotorua City. As part of this assessment T+T would provide advice regarding possible methods to manage the identified risks. The study area is defined as the Rotorua Geothermal System as shown on District Plan Map 212 – Geothermal Systems of the Rotorua District.

## 1.1 Purpose of review

The purpose of the review as set out in the Request for Proposal (RFP) provided by RLC is to:

- Summarise the geothermal hazards within Rotorua City that may affect residential buildings and their occupants.
- Summarise the risks to residential buildings and their occupants in the context of expected changes in residential building typologies and density.
- Provide summary maps.
- Summarise the existing methods to manage the risk as contained in the District Plan, bylaws and administration of the Building Act.
- Advise on potential gaps in the District Plan and possible changes.

This work is being done to support a plan change to allow for intensification of residential development within Rotorua City and in particular, whether:

- geothermal hazards should be considered a 'qualifying matter' in accordance with the 'Enabling Housing' amendment to the Resource Management Act 1991 (RMA),
- existing impervious standards are appropriate, and
- the District Plan provisions are appropriate for managing the hazard.

## 1.2 Summary of plan change

A summary of the plan change has been provided in the Barker & Associates memorandum to T+T dated 24 March 2022<sup>1</sup>, which is outlined below.

RLC is drafting a plan change (Rotorua Housing Plan Change or "PC9") to the District Plan in response to the National Policy Statement for Urban Development (NPS-UD) and the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 (Amendment Act). Both the NPS-UD and Amendment Act have the purpose of enabling development within urban environments.

The District Plan divides the city into various residential (zones 1 to 5), commercial, industrial and rural zones, each with different development requirements/rules.

The NPS-UD guides RLC to enable greater urban form via increasing building heights and densities in areas serviced by existing and planned active and public transport routes. The Amendment Act requires RLC to adopt Medium Density Residential Standards (MDRS) for relevant residential zones which, in Rotorua, have been identified as Residential Zones 1 and 2. A comparison of the existing provisions and changes for Residential Zones 1 and 2 is provided in Table 1.1.

<sup>1</sup> Barker & Associates Limited (24 March 2022) Overview of Rotorua Housing Plan Change (PC9). Memorandum issued to Tonkin + Taylor

Table 1.1: Comparison of key MDRS against the existing performance standards in the Residential 1 and 2 zones<sup>2</sup>

Standard	Existing Residential 1	Existing Residential 2	MDRS - new Residential 1	New Residential 2
Permitted density (no resource consent required)	One household unit per 350 m <sup>2</sup>	One household unit per 350 m <sup>2</sup> unless a comprehensive residential development plan has been approved	Three household units per site	Three household units per site
Max. height	7.5 m	7.5 m	11 m	18 m
Daylight envelope	3 m + 45°	3 m + 45°	4 m + 60°	8 m + 60°
Min. yard setback	Front: 5 m Side and rear: 2.5 m	Front yard: 3m Side and rear: 2.5 m	Front: 1.5m Side and rear: 1 m	Front: 1.5m Side and rear: 1 m
Max. site coverage	40% site area	No maximum	50% net site area	50% net site area
Max. impermeable surfaces (at discretion of Council)	80% site area	No maximum	70%	80%

### 1.3 Review methodology

Rotorua City is globally unique as it has been built over an active geothermal system creating particular hazards which require methods to control the actual or potential effects of the use, development or protection of land to avoid or mitigate natural hazards (section 31(1)(b)(i) of the RMA). This includes residential buildings and their occupants. To evaluate the geothermal hazards, T+T has undertaken a process comprising four key steps within several different settings and with a team of collaborating consultants and client representatives. The key stages follow Risk Management guidelines outlined in ISO 3100 and are:

- Step 1: Risk Identification – Summary of the geothermal hazards in Rotorua City.
- Step 2: Risk Analysis – Summary of the geothermal risks associated with residential buildings and their occupants in Rotorua City.
- Step 3: Risk Evaluation – Review of the existing methods to manage geothermal risk and Project team discussion of known geothermal hazards, associated risks and existing risk treatments.
- Step 4: Risk Treatment – Advise on potential gaps and suggestions for the management of geothermal hazards within the District Plan.

The outcomes of these steps are provided in the following sections of this report. The work has followed a collaborative approach with experts from RLC and GNS Science including:

- Interviews with experts and affected parties to identify risks and gaps.
- A workshop (held on 31 May 2022) to discuss the findings of the work and establish commonality with respect to treatment of the geothermal hazards for residential development.

<sup>2</sup> Barker & Associates Limited (24 March 2022) Overview of Rotorua Housing Plan Change (PC9). Memorandum issued to Tonkin + Taylor

- Production of a risk register identifying current geothermal risks/hazards, their treatment, future mitigation measures and gaps.
- Review of this document and the associated risk register.

## 2 Geothermal hazard and risk identification

### 2.1 Context

The Rotorua Geothermal System underlies a large portion of downtown Rotorua. The geothermal system extends from Whakarewarewa in the south to beneath Lake Rotorua in the north. It presents a number of hazards that are required to be addressed when considering residential development within the urban city centre. Sections 2.2 to 2.4 outline the data sources, the geothermal hazards identified and how the information was treated/assessed.

### 2.2 Literature review

As part of this assessment T+T reviewed available scientific papers, journal articles and website information that relate to the occurrence of geothermal hazards (both around the world and within other areas of New Zealand), with a particular focus on studies that focus on Rotorua City. We have also reviewed local and regional council geospatial information pertaining to geothermal features within Rotorua. The collation of the geothermal hazards identified within this literature review are summarised within the Risk Register (Appendix A). The locations of the geothermal hazards identified as part of this study are provided on plans included in Appendix B. The key hazards relating specifically to the PC9 are outlined in Section 2.3.

### 2.3 Geothermal hazards and risks - description

The following sections provide a summary of the geothermal hazards identified within the Rotorua Residential Zones 1 and 2. The definitions of each hazard have been drafted following advice provided by GNS Science<sup>3</sup> and following a workshop held at RLC on 31 May 2022.

#### 2.3.1 Geothermal surface features

##### 2.3.1.1 Hot water / mud / steam

Fumaroles, hot springs, mud pools and pots can be close to or at boiling temperatures. The high temperatures exist in the feature and in any associated outflow channel. Some features (for example mud pools) may also have a stratified temperature structure where the surface of the feature may be cooler than deeper parts.

##### 2.3.1.2 Explosive hydrothermal jetting, splashing and bubbling from surface features

Surface features that, as part of their normal style, display cyclicity that can culminate in minor explosive activity. Small spouting springs and geysers jet and splash water out of the immediate vent area. This can also occur for hot pools that experience irregular vigorous boiling. Jetting and splashing also occurs from mud pools and mud pots at times and can eject mud to small distances outside the feature.

This scale and style of activity is not considered hydrothermal eruption, and the impacted area is usually within 3-5 m of the feature.

<sup>3</sup> Brad Scott (2 June 2022 @ 1:38pm) Email from Brad Scott to David Milner.: RE: Spatial Data

### 2.3.1.3 Hydrothermal eruptions

There are two key eruption types at geothermal systems, hydrothermal and phreatic, both being steam driven. The most typical eruption type is hydrothermal where the energy is obtained from the geothermal system.

Hydrothermal eruptions typically fall into three sizes: small, with ejecta out to 10 m; moderate, with ejecta 10-100 m; and large, with ejecta >100 m from feature.

Phreatic eruptions, although steam driven have a direct magmatic heat or fluid involvement. Phreatic eruptions are not considered further here as the Rotorua Geothermal System does not have a direct magmatic source, and there has been no magmatic activity within Rotorua Caldera in the last 100,000 years<sup>4</sup>.

### 2.3.2 Geothermal gas

Geothermal fluids contain dissolved gases that are released into the atmosphere. Water (H<sub>2</sub>O) vapour is the most common geothermal gas constituent, however, there are several other gas species that, in sufficient quantities, can pose a hazard to people. After steam, carbon dioxide (CO<sub>2</sub>) is the most common constituent of volcanic gas, though hydrogen sulphide (H<sub>2</sub>S) and radon (Rn) are also toxic gases that are often emitted at geothermal areas. Methane (CH<sub>4</sub>) is also recorded in Rotorua.

Gas is not solely emitted from a point source, such as a spring or fumarole, but is also diffusely emitted through soil within a geothermal system. As such, gas is a constant and always present hazard in geothermal areas.

### 2.3.3 Warm-hot ground

In addition to heat being transmitted from depth through steam, gas and water, the ground itself can also transmit and radiate heat by conduction. This is variable and can range from areas where temperatures are only slightly above ambient to boiling conditions at shallow depths. The weak and unstable ground hazards can be present in these areas.

### 2.3.4 Weak / unstable ground

#### 2.3.4.1 Acidic and/or corrosive ground

In geothermal areas the local ground and soils can be susceptible to hydrothermal alteration. Circulation of chemically aggressive fluid and gas condensates result in dissolution and alteration of host-rock and soil material. All material in contact with these condensates is susceptible to hydrothermal alteration. Alteration weakens the soil and/or rock and can decrease its ability to support loads (i.e., people or structures).

#### 2.3.4.2 Ground collapse

Collapse of ground occurs frequently in geothermal areas. Subsurface material can be eroded through chemical and/or physical processes (e.g., dissolution of material by acidic steam and condensates; downward percolating groundwater), causing the overlying surface to lose stability and collapse into a void. Sinter sheets, hardened bare ground surfaces and concrete paths/driveways often conceal developing collapse holes, which may be filled with steam or hot water.

<sup>4</sup> B. Scott review comments received 15 June 2022

### 2.3.5 Geothermal bores

Geothermal bores are located across the city within the geothermal system and were drilled to exploit the geothermal resource. The key hazard in this category that affects residential buildings and their occupants pertains to bore deterioration. These are extraction and disposal bores, and also those used for heat exchangers and technical equipment. Deterioration of bores can lead to warm-hot ground, elevated emission of geothermal gases and surface features.

Similar deterioration also occurs with infrastructure such as those related to visitor access and safety such as trails, fences and viewing platforms.

## 2.4 Geothermal hazard and risk information

The Rotorua Geothermal System is noted along with the other Systems of the Rotorua District on District Plan Map 212. These mark the location of the geothermal systems in the district as defined by resistivity survey. As part of the risk identification process, T+T has created GIS maps that compile the existing geothermal hazards and features identified above and their intersection with the proposed PC9 development zones (Residential Zones 1 and 2). Refer to Figures 1 and 2 within Appendix B. The intention of this exercise was to assess if the Rotorua Geothermal System extent is an appropriate area to use as a hazard zone.

Figure 1 depicts areas where elevated ground temperatures and gas concentrations were identified within 1 m of the ground surface by the work of Finlayson (1992)<sup>5</sup>. Figure 2 represents the mapped surface features and geothermal vegetation (associated with surface features) that have been provided by Bay of Plenty Regional Council (BOPRC)

There are large overlaps in the distributions of these two categories and for simplicity they have been combined here. Utilising the contour plans provided in Finlayson (1992) we have used the following limits as defining elevated temperature and gas (all within 1 m of the ground surface):

- Warm-hot ground – in situ temperature  $\geq 20^{\circ}\text{C}$
- Hydrogen Sulphide – 1 mole percent
- Carbon dioxide – 10 mole percent
- Methane – 0.25 mole percent

With respect to the elevated ground temperatures and gas concentrations map it is acknowledged that Finlayson (1992) is one data set and that others could have been chosen (e.g., Horwell et al. (2005)<sup>6</sup>, Werner and Cardellini (2006)<sup>7</sup>, and Hollingworth (2016)<sup>8</sup>. However, Finlayson's work has been utilised as it appeared to have a more even distribution across Rotorua City than some other studies and temperature and gas measurements were taken from 1 m below ground level. Hollingworth (2016) and Werner and Cardellini (2006) both present more recent data from a greater number of points, however temperature readings were made within 100 mm of the ground surface (which is considered shallow and more likely to be affected by atmospheric conditions) and most collection points were centred around the active surface areas Arikikapakapa, Kuirau Park, Sulphur Point and Whakarewarewa. Hollingworth also comments that gas flux distributions across the city

<sup>5</sup> Finlayson, J.B. (1992) A soil gas survey over Rotorua geothermal field, Rotorua, New Zealand. *Geothermics* 21, p181-195

<sup>6</sup> Horwell, C.J., Patterson, J.E., Gamble, J.A. and A.G. Allen (2005) Monitoring and mapping of hydrogen sulphide emissions across an active geothermal field: Rotorua, New Zealand. *Journal of Volcanology and Geothermal Research*, 139, p259 - 269

<sup>7</sup> Werner, C., and C. Cardellini (2006) Comparison of carbon dioxide emissions with fluid upflow, chemistry and geologic structures at Rotorua geothermal system, New Zealand. *Geothermics* 35, p221-238.

<sup>8</sup> Hollingworth (2016) A Soil Gas Survey Quantifying Emissions of Carbon Dioxide and Hydrogen Sulphide in the Rotorua Geothermal Field and Discussing the Results in Relation to Underlying Geology and Hazardous Output. Master's Thesis, University of Birmingham



are similar to previous studies, and reports errors in gas flux contours in her work that are attributed to the contouring software package. Horwell et al. (2005) studied mainly atmospheric rather than in-ground H<sub>2</sub>S.

Mapped surface features and geothermal vegetation (associated with surface features) have been provided by Bay of Plenty Regional Council (BOPRC) (Figure 2). Most are located within the area delineated in Planning map 213 and in the area identified as subject to elevated temperature or gas flux (Figure 1), but many are not. We have included a 5 m buffer in our recommendations to align with the existing provisions within the District Plan and the Rotorua Geothermal Bylaw 2016 (refer to section 4 below). For visual purposes, the points used to show surface features on Figure 2 are larger than the 5 m buffer. The actual locations of each feature will need to be obtained from the relevant RLC or BOPRC dataset and the relevant setback applied. The mapped features do not include sites of large hydrothermal eruptions as they are generally sporadic 'one off' events.

An inventory of geothermal bore locations (both extraction and disposal) is currently being compiled by RLC and BOPRC and the complete dataset was not available at the time of writing this report. Geothermal bores are located across the city and are not necessarily within areas of elevated shallow ground temperature.

Areas of weak and unstable ground have not been located as part of this work but are expected to be mostly coincident with surface features, areas of elevated temperature and gas, and within proximity of geothermal bores.

### 3 Geothermal hazard and risk analysis

#### 3.1 Geothermal hazards and risks for residential buildings and their occupants

The geothermal hazards that exist within Rotorua City present a number of risks to residential buildings and their occupants. These are summarised below within Table 3.1 together with methods for mitigation.

Table 3.1: Summary of geothermal hazards within Rotorua City

Risk type	Risks to residential buildings and their occupants	Possible mitigation methods
Geothermal surface features	<p>Geothermal surface features can pose a danger to people due to high water temperatures and the potential for ejections of steam, water, debris and gas.</p> <p>Interference with geothermal surface features can potentially increase the hazard risk via re-emerging fumaroles, gas emission and hydrothermal eruption.<sup>9</sup></p>	<p>Buildings need to be sufficiently set back from geothermal surface features to minimise disturbance of the feature and the potential for damage to building foundations. In some instances, safety fences may need to be installed around surface features.</p> <p>Control regarding interference with geothermal surface features.</p>

<sup>9</sup> Bay of Plenty Rotorua Geothermal Plan section 13.4.2



Risk type	Risks to residential buildings and their occupants	Possible mitigation methods
Geothermal gas	<p>Geothermal gas provides one of the greatest hazards in the context of residential land development. Gas can infiltrate through tight joints in building frames, service lines and foundations and will fill up the allowable space. Gas also has the potential to accumulate within small outdoor spaces such as small building setbacks.</p> <p>Geothermal gas is difficult to detect without specialist sensors and can cause death or serious respiratory failure within minutes.</p>	<p>Construction of impervious surfaces can lead to concentrated gas venting in unsealed areas; therefore, the extent and location of impervious surfaces needs to be controlled in areas of high gas output.</p> <p>Specific building design is needed to prevent the ingress of gas and ensure adequate ventilation. Gas protection measures should also consider the potential for exacerbating the gas hazard to neighbouring properties</p>
Warm-hot ground	<p>Heated ground has the potential to cause damage to building foundations and can lead to uncomfortably warm living spaces.</p>	<p>Construction of impervious surfaces can reduce rainwater percolation which can reduce the cooling effect rainwater provides to heated ground and can create a barrier reducing heat radiation to the air.</p> <p>Specific engineering design of buildings is required in areas of warm-hot ground.</p>
Acid and corrosive ground	<p>Acid and corrosive ground can affect building foundations.</p>	<p>Specific engineering design of buildings is required in areas of acid and corrosive ground.</p>
Potential for ground collapse	<p>Ground collapse has the potential to affect building foundations and can cause disruption to services.</p>	<p>Ground collapse generally occurs near surface features or bores. Buildings need to have sufficient setbacks from these areas.</p>
Bores	<p>Bores have the potential to vent geothermal gas and undermine building foundations.</p> <p>Unmaintained bores have the potential to become hazardous.</p>	<p>Buildings and bores should be sufficiently spaced to enable bore access for maintenance purposes and to reduce the potential for damage to building foundations. Sufficient space must also be allowed to maintain access to bores (e.g., along accessways from roads, etc).</p>

### 3.2 Development scenarios

Residential intensification in accordance with the MDRS may increase the risk from geothermal hazards due to:

- A general increase to impervious surfaces from buildings and building access areas (driveways and paths) due to intensification across the zone, however it should be noted that current District Plan standards enable a greater extent of impermeable surfaces per site than those currently being considered by RLC as part of PC9.

- The side and rear setback areas between the building and the boundary will decrease from 2.5 m to 1 m. Smaller setbacks may be vulnerable to the accumulation of geothermal gas.
- Greater potential for interference with geothermal surface features including from site establishment (earthworks), construction works, creation of impervious surfaces and general increased population density.

## 4 Geothermal hazard and risk evaluation

The following section contains a summary of the existing methods to manage geothermal risk to buildings and their occupants contained within the District Plan, the Rotorua Geothermal Bylaw 2016 and the Building Act 2004 requirements and evaluates these methods against the risk analysis in section 3 of this report. It includes consideration of how other councils manage geothermal hazards and risks.

### 4.1 Rotorua District Plan

The rules to manage geothermal hazards are contained within the District Plan, Hazards and Risks chapter (geothermal) and the Subdivision chapter (subdivision of sites and buildings susceptible to natural hazards). A number of geothermal terms are also defined. Table 4.1 contains a summary of the relevant definitions and rules.

Table 4.1: Rotorua District Plan geothermal hazard definitions and rules

Term	Definition
Geothermal activity	<i>Geothermal and hydrothermal processes or discharges, actively altering or depositing rocks, minerals soils and waters (including steam) at or near to the ground surface. It includes geothermal gas, hot ground and acid ground.</i>
Geothermal feature	<i>Any natural landform, heated or chemically altered waters, rocks and soils created by a geothermal system. Features may be cold and inactive, extinct or dormant, or actively altering or depositing rocks, minerals soils and waters at or near to the ground surface. Features are created by hot water or steam and/or gases given off from an underlying geothermal system or tectonic fault zone.</i>
Geothermal surface feature	<i>Geothermal surface features include active and dormant structures formed by surface manifestation of geothermal processes or discharges and includes any resulting earth forms, any geothermally activated geysers, fumaroles, sinter cones, tomos, mud pools, hot and cold water pools, springs, steam vents, pressure domes or fissures. A geothermal surface feature excludes geothermal gas, hot ground and acid ground, where it occurs in isolation from the surface feature.</i>
Geothermal system	<i>A 'geothermal system' is an individual body of geothermal energy and water, not believed to be hydrologically connected to any other body. Such a system includes material containing heat or energy surrounding any geothermal water, and all plants, animals and other characteristics and geothermal features dependent on the body of geothermal energy and water.</i>
Significant geothermal features	<i>Geothermal features assessed as being significant in accordance with the method, descriptions and criteria of the Bay of Plenty Regional Policy Statement; or within the Waikato Region: Significant Geothermal Features that are assessed in accordance with section 9B of the Waikato Regional Policy Statement, except that within Development or Limited Development geothermal systems, Significant Geothermal Features shall be those identified and mapped in the Waikato Regional Plan in accordance with method 9.2.2 of the Regional Policy Statement.</i>

Rule	Rule Summary
Natural Features and Landscapes	
NFL-R19 Development and earthworks adjacent to a Significant Geothermal Feature	Buildings to be set back 5 m from the edge of any Significant Geothermal Feature unless resource consent has been granted by a Regional Council. Any earthworks to be at least 5 m from the edge of any Significant Geothermal Feature. Earthworks shall not divert water into or out of a Significant Geothermal Feature. Assessment criteria for non-compliance includes the adverse impacts on any geothermal vegetation viability and its ecosystem present onsite and the extent to which adverse effects on any Significant Geothermal Feature can be avoided, remedied or mitigated, as determined by a suitably qualified and experienced expert, in accordance with the regional geothermal classification system.
NFL-R20 Development and earthworks that will affect a Significant Geothermal Feature	Development and earthworks that will affect a Significant Geothermal Feature is a discretionary activity. Assessment criteria is as for Rule NFL-R19.
Natural Hazards	
NH-R6 Buildings erected within 5 m of the edge of a geothermal surface feature or bore.	A building within 5 m of the edge of a geothermal surface feature or bore that is not associated with electricity generation requires resource consent as a restricted discretionary activity. In residential zones discretion is restricted to the management of adverse effects from natural hazards or the worsening of any hazard on the planning maps.
NH-R7 Site coverage in the geothermal systems overlay	Buildings and hard surface coverage of more than 90% of the site are permitted provided an assessment by a suitably qualified and experienced person is provided at the building consent stage showing a low level of risk from geothermal gas, hot ground and acid ground.
SUB-R42 The subdivision of sites or buildings on land affected by a geothermal feature, geothermal activity or bore	Subdivision on affected land requires resource consent as a discretionary activity. The performance standards in SUB-S8(3) require that: <ul style="list-style-type: none"> <li>i. Areas of the site with visible geothermal features or disused bores shall be excluded from the location of buildings and structures.</li> <li>ii. An assessment is required covering the effects of the geothermal activity on the subdivision and any subsequent use of land or buildings. The effects on the geothermal surface features also need to be assessed.</li> <li>iii. Proposed mitigation measures shall be documented including consideration of the subsequent location and use of either habitable or non-habitable buildings on the site.</li> </ul>

## 4.2 Rotorua Geothermal Bylaw 2016

The Rotorua Geothermal Bylaw 2016 (the bylaw) is centred on the geothermal gas hazard and the management of bores. It has the following objectives:

- The safety of the general public from the effects of hydrogen sulphide gas so far as is practically possible.
- The safe operation and proper maintenance of the headworks and associated pipework and plant of shallow geothermal production and reinjection bores.

Of relevance to the intensification of residential development within Rotorua City, Table 4.2 summarises the key requirements.

Table 4.2: Relevant clauses in Rotorua Geothermal Bylaw 2016

Bylaw clause	Requirement
Pools	
4.1	Adequate fencing of any natural geothermal pool, spring, geyser or other feature of geothermal activity, or any artificially created pool which may be dangerous or injurious to health.
Bores	
5.1 - 5.10	Bores to be regularly inspected and kept in sound working order.
5.12	Site access to any well shall be maintained in such a condition as to allow access to the well by a drilling rig at all times.
5.18	No person shall erect a structure or building within 5 m of either an existing well, or a closed well except with the express written approval of the council, and subject to any conditions it may impose.
Dangerous geothermal features	
6.1	Where there is any land or premises containing a natural or artificially created geothermal feature or activity which is likely to be dangerous or injurious to health, a written notice may be issued requiring the owner or occupier of the land or premises shall take steps including adequate fencing of the land or closing of the premises so as to protect any person from the danger/threat.
6.2	Any land or premises subject to a written notice under clause 6.1 shall remain fenced off or closed until the danger/threat has been made safe.
Buildings	
7.3	The developer, owner or occupier of every building shall take all reasonably practical steps to incorporate acceptable barriers to the ingress or egress of hydrogen sulphide, into or from, new or upgraded building developments.

### 4.3 Building Act 2004

The Building Act 2004 provides an overarching set of rules for building practitioners, developers and regulatory bodies and must be adhered to along with any planning regulations and bylaws. As defined in the Building Act 2004, its purpose is as follows:

- (a) to provide for the regulation of building work, the establishment of a licensing regime for building practitioners, and the setting of performance standards for buildings to ensure that—
  - (i) people who use buildings can do so safely and without endangering their health; and
  - (ii) buildings have attributes that contribute appropriately to the health, physical independence, and well-being of the people who use them; and
  - (iii) people who use a building can escape from the building if it is on fire; and
  - (iv) buildings are designed, constructed, and able to be used in ways that promote sustainable development;
- (b) to promote the accountability of owners, designers, builders, and building consent authorities who have responsibilities for ensuring that building work complies with the building code.

Several clauses within the Building Act 2004, refer to restrictions relevant to building works within areas where geothermal hazards may be present. Summaries of these clauses are outlined in the following sub-sections. All new builds must comply with these clauses irrespective of their location.

#### 4.3.1 New Zealand Building Code Clause F1 (Hazardous agents on site)

The objective of Clause F1 is to provide restrictions that safeguard for people from injury or illness caused by hazardous agents or contaminants on a site. Clause F1 sets out assessment and performance requirements that account for the intended use of the building, the nature, potency and toxicity of hazards (including geothermal) and contaminants, and any protection afforded by the building envelope and building systems. It describes reasonable standards for the identification of hazards and the relevance of investigations when considering a development proposal within an area that is known to contain a hazardous substance or substances.

Flow charts describing the investigation, and hazard and risk assessment processes for a site (including geothermal) are provided in F1/VM1. This should be consulted when designing the appropriate investigations to identify the presence and extent of geothermal hazards within a development site.

#### 4.3.2 New Zealand Building Code Clause B1

The objective of Clause B1 is to safeguard people from injury and to protect amenities and other property from physical damage that would be caused by structural failure. While this does not specifically refer to geothermal hazards, all foundation and structural designs must be compliant with the various clauses outlined within Clause B1 to ensure that the appropriate building materials and foundations are selected to mitigate any potential impacts relevant to a particular site.

#### 4.3.3 New Zealand Building Code Clause B2

Under Clause B2, building materials, components and construction methods are required to be sufficiently durable. They must ensure that the building, without reconstruction or major renovation, continues to satisfy the other functional requirements of the Building Code throughout its life. Clause B2 specifies minimum durability periods building elements must meet with only normal maintenance, being not less than 50, 15 or 5 years (depending on their function).

B2 Durability must always be considered when demonstrating compliance with each of the clauses of the Building Code. In other words, it ensures that a building will continue to satisfy the performance of the Building Code throughout its specified intended life (normally 50 years for structural components of a residential building). Construction materials must be selected that are appropriate for the conditions encountered at the development site in order that they meet the durability and design life requirements set out in Clause B2.

#### 4.3.4 NZS 3604:2011

NZS 3604:2011 provides information to ensure timber framed buildings of up to three-storeys comply with the NZ Building Code<sup>10</sup>. Of relevance to this work, it discusses local environmental effects (microclimates) that can cause corrosion of structural fasteners and fixings. This includes geothermal hot spots which are defined as being within 50 m of a bore, mud pool, steam vent or other source. NZS 3604:2011-type buildings within 50 m of these locations require specific engineering design.

<sup>10</sup> Schedule 1 of the Building Regulations 1992

## 4.4 Other councils

### 4.4.1 Bay of Plenty Regional Council

#### 4.4.1.1 Bay of Plenty Regional Policy Statement

The District Plan must give effect to the Bay of Plenty Regional Policy Statement (BoPRPS) in accordance with section 75(3)(c) of the RMA. The BoPRPS contains the following objective for natural hazards:

*Objective 31 Avoidance or mitigation of natural hazards by managing risk for people's safety and the protection of property and lifeline utilities.*

There are a number of associated policies for natural hazard risk management and outcomes. Of particular relevance is the following policy:

*Policy NH 4B: Managing natural hazard risk on land subject to urban development.*

Policy NH 4B requires a Low<sup>11</sup> natural hazard risk to be achieved on development sites after completion of the development by controlling the form, density and design of any urban activity within the existing urban area that involves the construction of new and/or additional buildings or reconstruction of or addition to existing buildings (including associated subdivision).

#### 4.4.1.2 Bay of Plenty Regional Plan

The District Plan must not be inconsistent with a regional plan in accordance with section 75(4)(b)) of the RMA. The relevant regional plan is the Rotorua Geothermal Regional Plan. The regional plan seeks to control interference with geothermal surface features<sup>12</sup> as this may increase the hazard risk from re-emerging fumaroles, gas emission and hydrothermal eruption. Any interference with a geothermal surface feature requires resource consent as a discretionary activity.

There are also a number of provisions controlling geothermal bores, although none are of particular relevance to urban development.

### 4.4.2 Waikato Regional Council

The jurisdictional area of the Waikato Region contains geothermal areas therefore this council has been selected to review their relevant regional plan provisions. The relevant Waikato Regional Plan provisions are contained in the Geothermal Module which contains a number of provisions relevant to a 20 m buffer. Of particular relevance is Rule 7.6.6.3 which states (with a few exceptions) that vegetation clearance and soil disturbance within 20 m of a Significant Geothermal Feature require resource consent as a discretionary activity. Significant Geothermal Features are listed and mapped<sup>13</sup>. However, it is important to note that these provisions are designed to protect geothermal features from adverse effects<sup>14</sup> rather than to mitigate against hazards from these features.

### 4.4.3 Taupō District Council

The jurisdictional area of Taupō District contains geothermal areas therefore this council has been selected to review their relevant district plan provisions. The Taupō District Plan contains maps of geothermal system areas and areas of hot ground where specific provisions apply.

<sup>11</sup> Policy NH 2B: Low natural hazard risk being the level of risk generally acceptable.

<sup>12</sup> Objective 13.5.1; Policies 13.5.2(c), 13.5.2(d); Rule 13.5.3(b)(i)

<sup>13</sup> Tables 7-5 and 7-6 and mapped in section 7.10.

<sup>14</sup> Rule 7.6.6.3 Assessment criteria



## Hot Ground Hazard Area

In accordance with Rule 4e.12, within the Hot Ground Hazard Area, soil temperature at a depth of 1 m below the ground surface needs to be measured to determine whether it exceeds the ambient temperature<sup>15</sup> and by how much, which will then determine the activity status for new structures. The activity status is also determined by compliance with the site coverage standard. The most relevant rules are described in Table 4.3.

Table 4.3: Hot Ground Hazard Area rules

Soil Temperature at 1 m below ground surface	Other notable requirements	Activity status
Does not exceed 10° C above ambient temperature	None	Permitted
Between 10° C and 40° C above the ambient temperature	Does not exceed 75% of total coverage of the allotment (which is determined by soil temperature)	Controlled
Between 40° C and 60° C above the ambient temperature	Meets the total coverage rule	Restricted Discretionary
Exceeds 60°C above the ambient temperature	None	Discretionary

Assessment criteria includes design and construction of the building to avoid or mitigate adverse geothermal effects, the extent of building and site coverage, the extent and risk of gas emissions, health and safety risks and increased risk from geothermal effects.

## Geothermal System Areas

In accordance with Rule 4e.15 any residential activities (apart from one dwelling house per lot) which are located in the mapped geothermal system areas, or any subdivision of land, requires resource consent as a discretionary activity. However, this rule appears to be aimed at protecting the use of the geothermal resource and to consider reverse sensitivity effects associated with the use and development of the geothermal resource.

## 4.5 Effectiveness of current risk management method

Table 4.4 outlines the existing mitigation measures for each type of geothermal hazard and provides a comment regarding their effectiveness.

<sup>15</sup> Ambient temperature is defined as the temperature taken on the same day, using the same method, in a similar piece of ground to that of the Hot Ground (having regard to soil, sun, and weather conditions) in an area known to be unaffected by geothermal heating. Soil Temperature shall be measured at 10m intervals on a grid basis over the allotment. The highest temperature within the allotment shall determine which rule applies.



Table 4.4: Effectiveness of current risk management measures

Hazard type	Existing mitigation measures		Comment
Geothermal surface features	District Plan	5 m setback for buildings from geothermal surface features or resource consent. Restriction on earthworks within 5 m of a Significant Geothermal Feature. Subdivision is a discretionary activity.	<p>The 5 m setback for buildings is considered adequate however there is no setback requirement for other site areas people frequently use such as paths and service areas.</p> <p>There are limited protections for geothermal features, for instance there are no requirements relating to impervious surfaces in geothermal surface feature locations and earthworks rules only protect Significant Geothermal Features rather than all geothermal surface features.</p> <p>Geothermal feature and geothermal activity are not defined within the bylaw.</p> <p>These provisions are considered to be reasonably effective but could be strengthened particularly with respect to the control of interference with geothermal surface features.</p>
	Bylaw	Adequate fencing or closing of premises where dangerous geothermal features and activity are identified.	
	Building Act	NZ Building Code Clause F1 investigation, and hazard and risk assessment processes. Specific engineering design of some buildings if within 50 m of a bore, mud pool, steam vent or other source.	
Geothermal gas	District Plan	Sites with more than 90% coverage require an assessment at building consent stage. Subdivision is a discretionary activity.	<p>The management of the geothermal gas hazard will only be triggered by the District Plan if sites have more than 90% coverage. The hazard may still be present with reduced levels of site coverage.</p> <p>The installation of new hard surface areas such as driveways may not require a building consent and it is therefore unclear when the assessment would be provided in this situation.</p> <p>Geothermal gas within buildings will be addressed through Building Act provisions, however these provisions do not address site layouts which could create gas accumulation areas (such as within small building setbacks adjacent to low permeability masonry boundary walls).</p> <p>These provisions are not considered to be sufficiently effective at managing the geothermal gas hazard.</p>
	Bylaw	Incorporation of barriers to the ingress or egress of hydrogen sulphide within buildings.	
	Building Act	NZ Building Code Clause F1 investigation, and hazard and risk assessment processes. Specific engineering design of some buildings if within 50 m of a bore, mud pool, steam vent or other source.	
Warm-hot ground	District Plan	Sites with more than 90% coverage require an assessment at building consent stage.	The management of the geothermal warm-hot ground hazard will only be triggered by the District Plan if sites have more than

Hazard type	Existing mitigation measures		Comment
		Subdivision is a discretionary activity.	90% coverage. The hazard may still be present with reduced levels of site coverage.
	Bylaw	Adequate fencing or closing of premises where dangerous geothermal features and activity are identified.	The installation of new hard surface areas such as driveways will not necessarily require a building consent and it is therefore unclear when the assessment would be provided in this situation.
	Building Act	NZ Building Code Clause F1 investigation, and hazard and risk assessment processes. Specific engineering design of some buildings if within 50 m of a bore, mud pool, steam vent or other source.	Geothermal feature and geothermal activity are not defined within the bylaw. Warm-hot ground hazards to buildings and their occupants are likely to be addressed through Clause F1 of the Building Code. These provisions are considered to be reasonably effective at managing the geothermal warm-hot ground hazard, however site coverage on sites subject to this hazard may need to be reduced so as not to exacerbate the hazard.
Acid and corrosive ground	District Plan	Sites with more than 90% coverage require an assessment at building consent stage. Subdivision is a discretionary activity.	The management of the geothermal acid and corrosive ground hazard will only be triggered by the District Plan if sites have more than 90% coverage.
	Bylaw	Adequate fencing or closing of premises where dangerous geothermal features and activity are identified.	The installation of new hard surface areas such as driveways will not necessarily require a building consent and it is therefore unclear when the assessment would be provided in this situation.
	Building Act	NZ Building Code Clause F1 investigation, and hazard and risk assessment processes. NZ Building Code Clause B2 durability of materials must be such that required design life is met for site conditions. Specific engineering design of some buildings if within 50 m of a bore, mud pool, steam vent or other source.	Geothermal feature and geothermal activity are not defined within the bylaw. Acid and corrosive ground hazards to buildings are likely to be addressed through clauses B2 and F1 of the Building Code. These provisions are considered to be reasonably effective at managing geothermal acid and corrosive ground hazards for buildings, however, they are less effective at managing risks to impervious surfaces such as driveways and paths.
Potential for ground collapse	Bylaw	Adequate fencing or closing of premises where dangerous geothermal features and activity are identified.	The potential for ground collapse is often associated with a surface feature. The Building Act requires specific engineering

Hazard type	Existing mitigation measures		Comment
	Building Act	Specific engineering design if within 50 m of a bore, mud pool, steam vent or other source.	design for buildings close to these areas. Other areas of potential ground collapse cannot generally be foreseen. These provisions are considered to be as effective as is practical.
Bores	District Plan	5 m setback for buildings from bores or resource consent.	The purpose of the 5 m setback is for bore access rather than hazard mitigation, however it does provide a level of geothermal hazard protection for buildings and their occupants. The bylaw is unclear as to whether it concerns the access itself as well as the condition of the access. In the absence of any district plan provisions requiring bore access, only the bylaw clauses can be relied on as an 'other matter' to ensure site layouts and building setbacks do not restrict access (and only where matters of control or discretion allow it). The district plan on its own will potentially enable development that is contrary to the bylaw requirement which could create uncertainty for applicants. The setback requirements are considered to be effective however the access provisions could be aligned.
	Bylaw	5 m setback unless permission from council obtained. Bores to be regularly inspected and kept in sound working order. Access to the bore/well is to be maintained in such a condition as to allow access by a drilling rig at all times.	
	Building Act	Specific engineering design if within 50 m of a bore, mud pool, steam vent or other source.	

## 5 Geothermal hazard and risk treatment

This section outlines the potential gaps within the current District Plan with regards to the management of geothermal hazards within Rotorua City and suggestions for changes to existing plan provisions. We are of the view that geothermal hazards (where mapped) should be a qualifying matter for residential intensification in the forthcoming plan change.

### 5.1 Rotorua Geothermal System

The risk identification process described in section 2.4 shows that the current Rotorua Geothermal System as shown on Planning Map 213 encompasses the majority of the areas noted on Figure 1 (combined gas and temperature hazard) and Figure 2 (Surface Geothermal Features), exceptions to this are:

- a small area towards the southwest of Kuirau Park; and
- areas to the east of Whakarewarewa.

The Kuirau Park area is currently zoned Residential 1 and is within an area proposed for High Density. The Whakarewarewa area is currently zoned Rural 1 or Business and Innovation Zone 1.

We recommend that the current Rotorua Geothermal System plan is extended to encompass these areas and that any development within the Rotorua Geothermal System is subject to the assessment of geothermal hazards by a suitably qualified person.

According to District Plan Rule NH-R7 (Site coverage in the geothermal systems overlay) - Buildings and hard surface coverage of more than 90% of the site are permitted provided an assessment by a suitably qualified and experienced person is provided at the building consent stage showing a low level of risk from geothermal hazards. It is recommended that a practice note is developed to guide practitioners in how to reasonably establish the risk from geothermal hazards and acceptable ways in which to manage them. Relevant matters to be considered include the following:

- Author to be a suitably qualified person.
- The extent to which the site is affected by geothermal surface feature, gas, warm-hot ground and/or acid and corrosive ground geothermal hazards. Note that for warm-hot ground, measurements against the ambient ground temperature must be undertaken.
- Building setbacks from geothermal surface features.
- Whether the proposed site coverage, including buildings and impervious surfaces, will exacerbate the geothermal hazard risk on the site or to neighbouring sites.
- Whether the site layout, building height and building and fencing materials/form will create areas where geothermal gas could accumulate.
- The extent to which building specific design can mitigate the potential geothermal hazard/s affecting the building
- Whether the geothermal hazard can be mitigated to a sufficient level to enable the proposed development.
- Specific intrusive investigations to measure ground temperature and geothermal gas concentrations, see section 5.5 for details on geothermal site investigations.

### 5.2 Geothermal surface features (outside of the Rotorua Geothermal System)

Many of the geothermal surface features are located within the identified areas of elevated temperature and gas emission (Figure 1), however they can also occur in other locations (Appendix B, Figure 2). Buildings within 5 m of a geothermal surface feature should continue to require

resource consent and applications should be accompanied by a site-specific assessment of geothermal hazards prepared by a suitably qualified person. Consideration could also be given to restricting other areas that people may frequently use such as paths and service areas within this 5 m setback.

We note there are no District Plan provisions that protect geothermal surface features themselves from interference such as through construction works, or the creation of impervious surfaces such as driveways. Rules for earthworks only protect 'Significant Geothermal Features' rather than all geothermal surface features. There should be limitations on these types of works near or within a geothermal surface feature such as requiring a 5 m setback as per the requirement for buildings.

An additional rule requiring resource consent for any interference with a geothermal surface feature could be considered and would align with the provisions of the regional plan, however RLC should be mindful that it would create double ups in assessment and resource consent conditions, which may frustrate applicants and consent holders.

### 5.3 Geothermal bores

Geothermal bores are located throughout Rotorua City and are not confined to the identified areas of elevated temperature and gas emission (Figure 1). Residential site layouts need to allow for access to bores and it is recommended that the 5 m building setback be retained. While this specifically relates to maintenance rigs for borehole extraction/injection, it also provides a reasonable setback from a potential geothermal hazard. We also recommend that an additional rule be introduced that requires a 5 m wide access corridor to bores which is free from permanent buildings (i.e., removable buildings and structures such as garden sheds and fences would not be captured) to enable maintenance to be undertaken. This would align with clause 5.12 of the bylaw as detailed in

Table 4.4. Adequate maintenance of bores is required to ensure they do not become hazardous.

Buildings within 5 m of a geothermal bore should continue to require resource consent and applications should be accompanied by a site-specific assessment of geothermal hazards prepared by a suitably qualified person.

#### 5.4 Definitions

A number of terms would benefit from being defined within the District Plan including 'geothermal gas', 'warm-hot ground' and 'acid and corrosive ground'.

#### 5.5 Assessment of geothermal hazard investigation requirements

A simple flow chart has been provided in Appendix C which provides an option for investigation requirements with regards the assessment of geothermal hazards. Due to possible time constraints and the potential for a lack of appropriate expertise and favourable atmospheric conditions for the monitoring of geothermal gases, two options are presented.

- Option A: Undertake site specific measurements of temperature and geothermal gas in boreholes. Measurements should take into account the effects of temporal fluctuations, and changes and trends in atmospheric pressure (i.e., three or four gas measurements should be taken over a minimum of one month). If adequate gas measurements cannot be taken then the practitioner may determine the temperature in relation to the ambient ground temperature, assume high gas readings and design lot layout and building details accordingly.
- Option B: No specific measurement of temperature or in-ground geothermal gases. This option would require the suitably qualified person to assume high temperatures and high gas levels in their assessment and design lot layout and building details accordingly.

Table 5.1: Geothermal hazard indicator threshold values

Investigation Criteria	Threshold	Comment
Ground Temperature	>10°C above ambient ground temperature	Adopting the Taupo District Council (TDC) minimum temperature threshold would be a reasonable approach. This will require a method for determining ambient ground temperature.
Hydrogen Sulphide	0.5ppm	Based on the NZ Workplace Exposure Standard Time Weighted Average (WES-TWA) limit, multiplied by a safety factor of 0.1 to allow for potential accumulation over time. It is recommended that further studies of background and in-ground concentration in the geothermal overlay area are undertaken to verify these thresholds
Carbon dioxide	500ppm	

It is recommended that a practice note is developed by the Council that provides an acceptable method of undertaking a geothermal investigation. As a general overview, depending on the option selected, site specific investigations should include but not be limited to the following:

- A walkover by an experienced geotechnical engineer / engineering geologist, who is familiar with the geothermal setting of the site at the design stage and during foundation preparation.
- Hand or machine auger boreholes to at least 2.0 metres below ground level (m bgl). A minimum of four per site or 1 per 200m<sup>2</sup>, whichever is greater.
- Presence or absence of geothermal alteration evidence should be noted in the logs of the augers

- A minimum of one temperature and three gas monitoring visits undertaken within the auger boreholes over a period of one month.
- Recording of atmospheric pressure conditions and trends during the time of testing. Falling atmospheric conditions should be targeted to determine a worst case-scenario for geothermal gases.
- Gas readings should be taken using a gas analyser capable of measuring the threshold concentrations. Gas flow should also be recorded.
- Temperature readings taken at depths of 0.2 m, 1m (minimum) and up to 2m bgl and at least three days after last rainfall event.
- Determination of ambient ground gas temperature should be established from a site known to not be affected by hot ground. Temperature should be established by tests undertaken at least three days after last rainfall event. RLC could consider installing a permanent inground thermometer in an area known to be unaffected by the geothermal system to help establish the ambient ground temperature within the city.

## 5.6 Uncertainties/limitations and ongoing monitoring

This report has been drafted based on data published for the Rotorua Geothermal System. In particular, the elevated gas and temperature map (geothermal hazard overlay) was based on Finlayson (1992). We note Finlayson (1992) is one dataset and there are a number of others (see Section 2.4). Subsequent studies (see Section 2.4) have yielded similar results with respect to gas and temperature distribution, however geothermal conditions change with time.

RLC may find benefit in undertaking regular geothermal assessments and mandating the upload of investigation data to the existing New Zealand Geotechnical Database. It is important that the results of uploaded data are reviewed periodically to update the existing data sets that were used to support this review (including the overlays depicted in Figures 1 and 2 - Appendix B).

Surface feature location points shown on Figure 2 have been sized for readability. They do not represent 5 m setback distances. The point/area locations of these features should be taken from the relevant dataset and the 5 m offset applied. Surface features have recently been mapped by BOPRC and GNS. We understand that the mapping is as complete as possible for a dynamic dataset. There will likely be features that haven't been identified and these may be uncovered by developments. If encountered during development, they will need to be treated the same way as all other surface features.

This report has focussed on the Rotorua Geothermal System, and residential buildings and their occupants. We note that there are a number of geothermal systems within the Rotorua District. We also note that the Rotorua Geothermal System affects areas that are zoned for land-uses other than 'residential' within the District Plan. The general findings in this report are applicable to other geothermal systems within the district and to other land-use zones within the District Plan.



## 6 Applicability

This report has been prepared for the exclusive use of our client Rotorua Lakes Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

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## Appendix B    Figures

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- Figure 1 – Areas of elevated heat and gas concentrations within 1 m of the ground surface
- Figure 2 – Surface geothermal features

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# Medium Density Residential Standard and Heritage Report

## 1. Introduction and Purpose

I understand that Rotorua Lakes Council is currently preparing a Housing Plan Change to amend the Residential zones to introduce the Medium Density Residential Standards (“MDRS”). The Plan Change will also address building heights and densities in the commercial zones.

I have been asked to assess the impact of the proposed changes on the historic structures listed in the Rotorua District Plan, particularly in the Residential 1 & 2, and Commercial 4 zones, including whether the new rules would give rise to adverse effects on historic heritage that need to be managed.

This report firstly sets out the relevant operative District Plan provisions and analyses the heritage issues arising from the MDRS and additional height changes. I have also undertaken a site-by-site assessment of the historic structures within the Residential 1 & 2 and Commercial 4 zones - the results of which are included in Appendix which supports my recommendation of how to treat future development on sites which contain Heritage Structures. Furthermore, I have also made recommendation on the new rule and supporting assessment criteria proposed by Rotorua Lakes Council to determine if it is appropriate.

## 2. Scope of the Housing Plan Change

As part of the Housing Plan Change, Rotorua Lakes Council is proposing changes to both the Residential Zone and the Commercial Zone. These changes include the alignment in the Residential Zones with the MDRS as found in the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act (Amendment Act), as well as amendments to the Commercial Zones to become more enabling of housing in these zones. These provisions are summarized below.

<b>Standards</b>	<b>Residential 1 Zone (Medium Density Residential Zone)</b>	<b>Residential 2 Zone (High Density Residential Zone)</b>	<b>Commercial 4 Zone</b>
<b>Building Height</b>	11m (+1m for the roof)	19.5m	20m
<b>Height in Relation to Boundary</b>	4m+60°	12m+60°	Adjoining RESZ1 – 4m+60°  Adjoining RESZ2 – 12m+60°
<b>Building Coverage</b>	Maximum 50%	Maximum 50%	No building coverage requirements
<b>Impervious Surfaces</b>	Maximum 70%	Maximum 80%	No impervious surfaces requirements

<b>Landscaping</b>	Minimum 20%	Minimum 20%	Minimum 20%
<b>Outlook Space</b>	4mx4m/1mx1m	4mx4m/1mx1m	4mx4m/1mx1m
<b>Outdoor Living Space</b>	3m-20m <sup>2</sup> at ground floor  1.8m - 8m <sup>2</sup> above ground floor	3m-20m <sup>2</sup> at ground flood.  1.5m - 6m <sup>2</sup> above ground floor	3m-20m <sup>2</sup> at ground flood  1.5m - 6m <sup>2</sup> above ground floor
<b>Windows to Street</b>	Minimum 20% glazing	Minimum 20% glazing	No glazing requirements
<b>Maximum Building Length</b>	22m	22m	No maximum building length
<b>Yards</b> Front	Minimum 1.5m	Minimum 1.5m	No yard requirements
Rear and Side	Minimum 1m	Minimum 1m	No yard requirements unless it adjoins a RESZ1 or RESZ 2 and it therefore 3m
<b>Minimum dwelling size</b>	32m – Studio 45m <sup>2</sup> - 1 bedroom +	35m <sup>2</sup> – Studio 45m <sup>2</sup> - 1 Bedroom +	35m <sup>2</sup> – Studio 45m <sup>2</sup> - 1 Bedroom +

### 3. Operative District Plan approach & Issues

The District Plan currently requires a resource consent for external alterations, re-siting or demolition of listed historic structures, in order to assess effects on heritage values. The matters to assess are listed in 1-3 and are as follows:

1. *A Conservation Plan shall be submitted with an application for resource consent. The Conservation Plan will be assessed in accordance with the extent to which it makes provision for the following:*
  - i. *A statement of the significance of the historic heritage structure;*
  - ii. *The physical condition and structural integrity of the historic heritage structure;*
  - iii. *The physical conservation, action and care necessary for returning or revealing the historic heritage significance of the structure (this may include maintenance, reconstruction or restoration);*
  - iv. *The associated significance (if any) of the land surrounding the historic heritage structure;*
  - v. *Activities which may be compatible and incompatible with the protection of the historic heritage structure;*
  - vi. *Measures to enable the cultural significance of a place to be retained;*
  - vii. *Any listing with Heritage New Zealand Pouhere Taonga and the reasons for the listing of the historic heritage structure under the Heritage New Zealand Pouhere Taonga Act 2014; and*
  - viii. *Any recommendations made by Heritage New Zealand Pouhere Taonga and any other professionally recognised party in historic heritage conservation issues, where relating to listed Heritage New Zealand items or others, which, in Council's opinion might benefit from the recommendations.*



2. Any consultation and feedback undertaken with Iwi regarding the cultural values and importance of the historic heritage structure; and
3. Detail on how alterations and additions will be carried out in a way that is in keeping with and does not detract from those features for which the historic heritage item has been listed and protects the following elements;
  - i. Style and character of the building;
  - ii. Scale, form and detailing, including roof form, roof angle and eaves;
  - iii. Minimisation of the loss of historic fabric, original materials and original craftsmanship;
  - iv. Use of original materials, including cladding profiles, colour and texture;
  - v. Original setting, including protection and maintenance of surrounding trees and gardens;
  - vi. Original floor plan; and
  - vii. Cultural significance of the historic heritage item.

Resource consent is not currently required for any new buildings on the same site as a historic structure.

### **New development design controls recommended**

PC9 will permit greater heights and densities on the same sites as scheduled built heritage structures. Such new development has the potential to reduce existing heritage values of scheduled built heritage structures as follows:

- new development located in close proximity to the scheduled built heritage structure
- new development may not be sympathetic in building scale
- new development may not be sympathetic in building form
- new development may not be sympathetic in architectural proportions
- new development may not be sympathetic in building materials

The removal of the density standards and the increase in height allowed in the Residential 1 Zone, Residential 2 Zone, and Commercial 4 Zone, will enable a greater level of development to occur on sites containing historic structures, including development near the scheduled built heritage structure. In my experience, this gives rise to a range of issues from a built heritage perspective:

- Potential development that is out of scale with, or unsympathetic to, heritage values of a scheduled built heritage structure – some territorial authorities impose design controls that set out for new buildings to match, or even replicate, existing heritage buildings. The results can be poorly executed, even illiterate, design outcomes that only serve to compromise and dilute the heritage values of the heritage building. While replication should not be completely excluded, it requires specialist and experienced designers to achieve an outcome that does not dilute or compromise subject heritage building. Replica building designs require specific attention to building proportions, scale, massing, materials selection and architectural and construction detailing in order not to be pastiche and thereby reducing heritage values of scheduled built structures. Generally, it is recommended that new buildings should *not* attempt to mimic existing scheduled heritage buildings;
- Potential for high quality design development – the heritage values of a heritage building can be maintained, if not enhanced, by the presence of a new adjacent building with a design that *complements by contrast* in its design. New development should be based on good design principles delivered by suitably qualified and experienced design teams - led by architects and architectural designers. Any successful built environment outcome lies in the procurement, management and control of quality design of the new development.

To understand these issues in a Rotorua context, I have reviewed the historic structures listed in the Residential 1 Zone, Residential 2 Zone and Commercial 4 Zone. This evaluation has assisted me in forming a view on whether the approach in the operative District Plan is sufficient or whether additional measures may be necessary to protect their heritage values.

## 4. Potentially Impacted Structures

### 5.1 Residential Zones Historic Structures

#### 5.1.1 Table 1 – Residential 1 Zone Structure

Unique ID	Map #	Item	Location	Legal Description	NZHPT
H1.8	335	“Glenholme” Dwelling Edwardian Villa (whole building)	63 Miller Street	Pt Lot 5 DPS4366	2
H1.30	367	St Peter's Anglican (whole building)	Hinemoa Point	Owhata 1Q5	2
H1.27	332	Cottage on Pukehangi Road	Pukehangi Road	Kaitao Rotohokahoka 1T	Not listed

#### 5.1.2 Table 2 – Residential 2 Zone

Unique ID	Map #	Item	Location	Legal Description	NZHPT
H1.22	335	Robertson House (whole building)	70 Pererika Street	Lot 16 DP 3016	2

### 5.2 Commercial Zone Historic Structures

#### 5.2.1 Table 3 – Commercial 4 Zone

Unique ID	Map #	Item	Location	Legal Description	NZHPT
H1.9	345	Guide Rangī's House (whole building)	Corner of Froude and Fenton Streets	Section 4 Blk LII TN of Rotorua	Not listed
H1.25	345	Landmark Restaurant (exterior)	1 Meade Street	Section 1 Blk XLIX TN of Rotorua	2

## 5. Analysis

This evaluation has assisted me in forming a view that the approach in the operative District Plan is insufficient in providing protection to the heritage values of the subject buildings. In my opinion, the following additional measures are necessary to protect heritage values:

- a. Setting - the requirement to maintain curtilage or Extent of Place *open space* setting around each building, the extent of which differs with each building example;
- b. Contemporary design not replication –contemporary design outcomes for new buildings adjacent to heritage buildings is recommended and considered as *complementary by contrast*, encouraging creative or innovative ways to reference a heritage building without replication. Replica building designs require specific attention to building proportions, scale, massing, architectural and construction detailing and, while replication should not be completely excluded, it requires specialist and experienced designers to achieve an outcome that does not dilute or compromise the subject heritage building.

## 6. Recommendations

Based on my site analyses of the subject heritage buildings, I make the following recommendations:

### 6.1 “Glenholme” Dwelling Edwardian Villa

With the MDRS operative, there is the potential for considerable new building development on *Glenholme* site around the scheduled heritage building. In such a case/s, maintaining (and thereby not reducing) the heritage values of *Glenholme* can be achieved with considered and sympathetic new building designs.

Extent of Place (EoP) - curtilage should be established around the heritage building, (as a minimum) extending to: the west and east boundaries in full; to the tennis court to the north and; to nominally 8-10m from the south wall of the house to the south.

### 6.2 St Peter’s Anglican Church

With the MDRS operative, although there may be potential for new building development around the scheduled heritage building, the fact that it is a church located adjacent to a cemetery should exclude most, if not all, MDRS development. Planning controls should not, however, exclude the prospect of additions or alterations to the Church for purposes directly related to its use.

In order to protect the curtilage of open space, maintaining clear sight lines of the Church is recommended, particularly from the established public approaches from southwest and southeast.

There is risk to the heritage values of *St Peter’s Anglican Church* of unsympathetic or non-complementary new building designs to the land south of the Church (to Iri Irikapua Parade) and the vegetation to the north of the Church. It is recommended that new building designs be *complementary by contrast* to the

Church heritage building, for example, using similar materials, forms or proportions. Replication of the Church building is not recommended.

### 6.3 Cottage on Pukehangī Road

The Pukehangī Road Cottage is at high risk of being dwarfed by MDRS development around it. The desired outcome is to maintain visibility of the Cottage from several vantage points along Pukehangī Road. To achieve this, new building development should include for vistas between, and/or above, new buildings.

In terms of an EoP curtilage around the Cottage, a radius of 10m around the centre of the Cottage - within which development controls limit new building height to nominally 6m (+ roof) will provide a degree of balance and scale between the single storey Cottage and 3-storey new development.

In addition, a cone of nominally 75 degrees emanating from the building northwards and southwards to Pukehangī Road within which maximum building height control is placed on new development will retain some visibility of the Cottage from Pukehangī Road.

The potential to relocate the Cottage closer to Pukehangī Road, perhaps as a *gateway building* to the surrounding housing development, should not be discounted. With relocation, the heritage building as a landmark for the precinct is preserved, offering the potential for remedial works also, if and as required.

### 6.4 Robertson House

With the MDRS operative, there is the potential for new building development on *the Robertson House* site in front of (north) and to the rear (south) of the heritage building. Development in the front yard and in front of *Robertson House* is not recommended. In my opinion, the existing double garage building in the northwest corner maximises any development in the front yard. In the case of development in the rear yard, maintaining (and thereby not reducing) the heritage values of *Robertson House* can only be achieved with carefully considered and sympathetic new building design. Due to a small site area, the potential for new MDRS development immediately behind *Robertson House* is limited and should therefore not necessarily result in a building which bears no relationship in scale or proportions to *Robertson House*.

### 6.5 Guide Rangī's House

Detrimental effects of the MDRS on *Guide Rangī's House* are reasonably limited to building development elsewhere on the same site. Maintaining (and thereby not reducing) the heritage values of *Guide Rangī's House* can be achieved with considered and sympathetic new building design. Maintaining physical setback - breathing spaces - around *Guide Rangī's House* is key to maintaining heritage values. In fact, replication of the traditional Maori *whare* architecture style in new building developments is not recommended, as such developments can miss the mark in proportions and detailing, resulting in diminished heritage values of the heritage place.

Maintaining (and thereby not reducing) the heritage values of *Guide Rangī's House* can be achieved with considered and sympathetic new building design.

A key public viewpoint of *Guide Rangī's House* is on approach from the north along Fenton Street. This view is of the front of *Guide Rangī's House* can be preserved by limiting new development to the eastern half of the site only, where there currently exists a residential dwelling.

#### 6.6 Landmark Restaurant

Detrimental effects of the increased height in the Commercial 4 zone on *Landmark Restaurant* are reasonably limited, given the relatively small site footprint available for additions or new development. In considering such development on the site, maintaining (and thereby not reducing) the heritage values of *Landmark Restaurant* can only be achieved with considered and sympathetic new building design. Such design does not necessarily have to replicate the existing building, but rather, draw design references from it and potentially be modern in aesthetic and in contrast to the villa style of Landmark Restaurant.

Regarding neighbouring properties, detrimental effects of the increased height in the Commercial 4 zone on *Landmark Restaurant* are reasonably limited - only to the neighbouring property at 3 Meade Street and, to a lesser extent, the property opposite at 2 Meade Street. In both instances, maintaining (and thereby not reducing) the heritage values of *Landmark Restaurant* can be achieved with considered and sympathetic new building designs. In my opinion, new developments at 2 or 3 Meade Street can be modern in aesthetic and in contrast to the villa style of Landmark Restaurant. In fact, replication of the villa style in new building developments is not recommended, as often such developments only miss the mark in proportions and detailing and only serve to diminish the heritage value of the heritage place.

With all heritage buildings an Extent of Place curtilage should be established. This is an area immediately around the exterior of a heritage building that cannot be developed on unless through a resource consent application process with input from a recognized heritage specialist. An Extent of Place effectively permits clear sightlines to, and visibility of, a heritage building. It also provides a practical buffer zone around the building for future maintenance, preservation of landscaping, potential future building alterations or landscaping improvements. Each heritage site will have a specific Extent of Place relating to building and site scale, aspect and setting.

Contemporary design outcomes for new buildings adjacent to heritage buildings is recommended, considered as *complementary by contrast*. This design approach encourages creative and innovative building design that may reference a heritage building without replication. Replica building designs requires specific attention to building proportions, scale, massing, architectural and construction detailing. While heritage building design replication should not be completely excluded, it requires specialist and experienced designers to achieve outcomes that do not dilute or compromise the heritage values of the subject heritage building.

Lloyd Macomber

**SALMOND REED ARCHITECTS LTD**

July 2022

## Appendix 1 – Site Analyses

### 6.1 “Glenholme” Dwelling Edwardian Villa

As the building is Scheduled Category 2 listed with HNZPT, I understand this comes with a level of statutory protection from unsympathetic development to the subject building.

Neighbouring sites - the site is zoned Residential 1, and the current District Plan restricts the protection of historic structures to just the structure or building itself and not the entire site. Applying the MDRS to sites such as 63 Miller Street would allow typical building controls including: maximum building heights, densities, yard distances, building envelopes and site coverage - which are considered more permissive than currently provided for in the District Plan. With the MDRS in operation there is, therefore, potential for *Glenholme* to be boxed-in by new development at adjacent property sites. The north (Rimu Street) boundary should ideally remain as planted out with mature trees. In the future and the potential for increased density to the west, south and east boundaries, a similar level of dense planting on all three boundaries might be considered, in order to screen and visually limit the detrimental effects of the MDRS on the west, south and east boundaries to 63 Miller Street. RLC might consider including planning controls that require neighbouring MDRS development to plant on boundaries. Specific plant species, density and minimum specimen heights might be imposed.

There is risk (to *Glenholme*) of unsympathetic or non-complementary new building designs to the west, south and east boundaries of 63 Miller Street. Interestingly, the *Church of Jesus Christ of Latter-day Saints* (10 Rimu Street) is an immediate neighbour to *Glenholme*.

It is recommended that all new building developments proposed for neighbouring sites on Miller Street, Rimu Street and High Street be designed by suitably qualified or experienced architects and vetted by HNZPT. Submission of such an architect’s credentials could be vetted by RLC and/or HNZPT.

#### *Recommendation*

The site - with the MDRS operative, there is the potential for considerable new building development on *Glenholme* site around the scheduled heritage building. In such a case/s, maintaining (and thereby not reducing) the heritage values of *Glenholme* can be achieved with considered and sympathetic new building designs undertaken by suitably qualified or experienced architects and vetted by HNZPT.

Extent of Place (EoP) - curtilage should be established around the heritage building, extending to: the west and east boundaries in full; to the tennis court to the north and; to 8-10m from the south wall of the house to the south.

Neighbouring sites - in addition, detrimental effects on the MDRS on *Glenholme* by adjacent new building developments exist – to the west, south and east boundaries. Key to maintaining (and thereby not reducing) the heritage values of *Glenholme* can be achieved with considered and sympathetic new building designs undertaken by suitably qualified or experienced architects and vetted by HNZPT. In my opinion, all new developments can be modern in aesthetic and possibly even in contrast to the villa style of *Glenholme*. New developments could also include design references to *Glenholme* villa, however, care should be taken so as not to replicate the villa style, as more often than not such developments only miss the mark in proportions and detailing and only serve to diminish the heritage value of the heritage place.





**Figure 1** Glenholme 63 Miller Street (arrow) from Glenholme Reserve, looking southwest. Note, Church of Jesus Christ of Latter-day Saints (10 Rimu Street) upper left and centre. SRA 2022



**Figure 2** 63 Miller Street from top end of driveway, looking northwest. SRA 2022





*Figure 3 63 Miller Street from street end of driveway, looking west. SRA 2022*



*Figure 4 63 Miller Street original front elevation, looking south. SRA 2022*





**Figure 5** Glenholme 63 Miller Street from north. SRA 2022



## 6.2 St Peter's Anglican Church



## RESIDENTIAL ZONE HISTORIC STRUCTURES

### Residential 1 Zone

#### *St Peter's Anglican Church, 51 Iri Irakapua Parade, Hinemoa Point, Rotorua*



*Figure 1 St Peter's Anglican Church, highlighted. Google Earth 2022*

#### *Legal Description & Heritage Listing or Scheduling*

Owhata 1Q5

Scheduled Category 2 listing with Heritage New Zealand *Pouhere Taonga*

#### *Description*

*St Peter's Anglican Church* is a single-storey timber structure located at 51 Iri Irakapua Parade, Hinemoa Point. Construction materials include weatherboard cladding, corrugated steel roofing and timber door and window joinery. Building form is a central rectangular floor plan with entry porch at the eastern end and a small annex off the south elevation. Features include a belfry located at the western (altar) end rising centrally from the ridge. Other characteristics including the relatively steep 40 deg roof pitch and exposed rafter ends, typical of small church buildings dating from, in this case, 1933.

To the west on the same site is an urupa (cemetery). The Church serves the adjacent Owhata Marae to the south.



## Observations

The following observations refer to:

*Memorandum by Anna Bindon, RLC Graduate Policy Planner, date 29 April 2022*

*Subject: Housing Plan Change Memorandum on Historic Heritage Items*

### Clause 3.1.5.2 Assessment Criteria

#### Residential Zones:

- a. The extent to which the proposal will avoid, remedy or mitigate the effects on the character and amenity of the zone;
- b. The extent to which the proposal will avoid, remedy, or mitigate effects on the amenity of neighbouring residents, including protection of privacy and outlook and protection from adverse effects from any source of disturbance;
- c. The extent to which the proposal will avoid, remedy or mitigate the effects on the streetscape and on-site landscaping, where buildings intrude into the front yards; and
- d. The extent to which the proposal will avoid, remedy or mitigate the effects on the natural, physical, spiritual or cultural qualities and characteristics of a site identified in the schedules for Historical and Cultural Values or Natural Environmental Values.

As the building is Scheduled Category 2 listed with HNZPT, I understand this comes with a level of statutory protection from unsympathetic development to, and around, the subject building.

The site is zoned Residential 1, and the current District Plan restricts the protection of historic structures to just the structure or building itself and not the entire site. Applying the MDRS to the *St Peter's Anglican Church* site would allow typical building controls including maximum building heights, densities, yard distances, building envelopes and site coverage - which are considered more permissive than currently provided for in the District Plan. With the MDRS in operation there is, therefore, potential for *St Peter's Anglican Church* to be boxed-in by new development at adjacent property sites.

## Recommendation

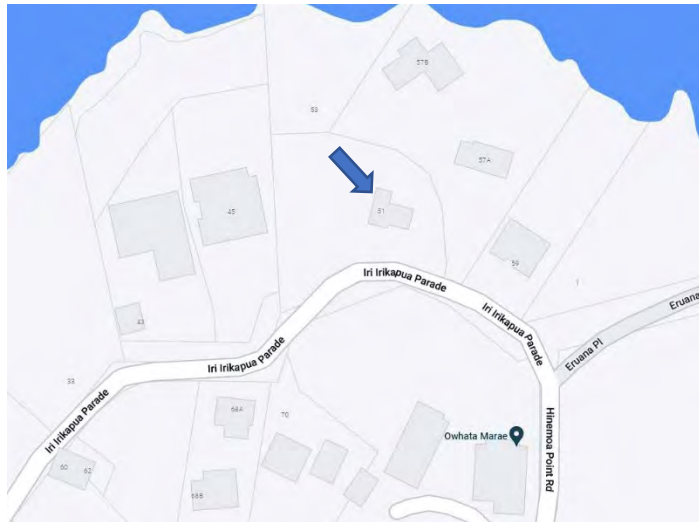
The site - although there may be potential for new building development (with the MDRS operative) around the scheduled heritage building, the fact that it is a church located adjacent to a cemetery should exclude most, if not all, MDRS development. Planning controls should not, however, exclude the prospect of additions or alterations to the Church.

In order to protect the curtilage of open space, grounds and planting around the heritage building, RLC might consider including planning controls that require neighbouring MDRS development to plant on boundaries, including specifying plant species, density and minimum specimen heights might be imposed. Maintaining clear sight lines of the Church is also recommended, particularly from the established public approaches from southwest and southeast.

There is risk to the heritage values of *St Peter's Anglican Church* from unsympathetic or non-complementary new building designs to neighbouring properties. New building development proposed for neighbouring sites should be designed by suitably qualified or experienced architects and vetted by HNZPT. Submission of such an architect's credentials could be vetted by RLC and/or HNZPT. It is

recommended that new building designs be *complementary by contrast* to the Church heritage building, for example, using similar materials, forms or proportions. Replication of the Church building is not recommended.

With any planned development on the site or in the vicinity, a formal consultation process with Owkata Marae is recommended.



**Figure 2** Hinemoa Point, Rotorua. St Peter's Anglican Church site (arrow). Google Maps 2022



**Figure 3** St Peter's Anglican Church, across urupa (cemetery), looking northeast. SRA 2022



**Figure 4** St Peter's Anglican Church, looking north. SRA 2022



### 6.3 Cottage on Pukehangi Road





## RESIDENTIAL ZONE HISTORIC STRUCTURES

### Residential 1 Zone

#### *Cottage, 153 Pukehangi Road, Pukehangi, Rotorua*



*Figure 3 Cottage, 153 Pukehangi Road, highlighted. Google Earth 2022*

#### *Legal Description & Heritage Listing or Scheduling*

Kaitao Rotohokaho ka 1T

#### *Description*

The cottage at 153 Pukehangi Road is sited some 150m west of Pukehangi Road surrounded by farmland. The building itself is a typical one or two-room, single-storey, gable end roofed structure, constructed of timber weatherboards, timber joinery and corrugated steel roofing. Based on the form of the original rectangular box-form with a lean-to it is assumed the building was constructed in the mid-1800s. Additions have occurred over time including a long lean-to to the rear (west) and verandah to the front (east).

#### *Observations*

The following observations refer to:

*Memorandum by Anna Bindon, RLC Graduate Policy Planner, date 29 April 2022*

*Subject: Housing Plan Change Memorandum on Historic Heritage Items*

Clause 3.1.5.2 Assessment Criteria

Residential Zones:

- a. The extent to which the proposal will avoid, remedy or mitigate the effects on the character and amenity of the zone;
- b. The extent to which the proposal will avoid, remedy, or mitigate effects on the amenity of neighbouring residents, including protection of privacy and outlook and protection from adverse effects from any source of disturbance;
- c. The extent to which the proposal will avoid, remedy or mitigate the effects on the streetscape and on-site landscaping, in particular where buildings intrude into the front yards; and
- d. The extent to which the proposal will avoid, remedy or mitigate the effects on the natural, physical, spiritual or cultural qualities and characteristics of a site identified in the schedules for Historical and Cultural Values or Natural Environmental Values.

The building is not listed with HNZPT.

Neighbouring sites - the site is zoned Residential 1, and the current District Plan restricts the protection of historic structures to just the structure or building itself and not the entire site. Applying the MDRS to sites such as the *Cottage* on Pukehangi Road would allow typical building controls including maximum building heights, densities, yard distances, building envelopes and site coverage - which are considered more permissive than currently provided for in the District Plan. With the MDRS in operation there is, therefore, potential for the *Cottage* on Pukehangi Road to be boxed-in by new development at adjacent property sites, to an extent that the heritage building is no longer visible to the public from Pukehangi Road. RLC might consider including planning controls that permit view corridors of the Cottage from specific vantage points along Pukehangi Road.

Also, for consideration by RLC is *softening* the visual impact that new MDRS development immediately around the Cottage may have on the heritage values. New planting, specifying plant species, density and minimum specimen heights might be imposed to mitigate such visual effects.

It is recommended that all new building developments proposed for neighbouring sites be designed by suitably qualified or experienced architects and vetted by HNZPT. Submission of such an architect's credentials could be vetted by RLC and/or HNZPT.

*Recommendation*

The Pukehangi Road Cottage is at high risk of being dwarfed by MDRS development around it. The desired outcome is to maintain visibility of the Cottage from several vantage points along Pukehangi Road. To achieve this, new building development should include for vistas between, and/or above, new buildings.

In terms of an EoP curtilage around the Cottage, a radius of 10m around the centre of the Cottage - within which development controls limit new building height to nominally 6m (+ roof) will provide a degree of balance and scale between the single storey Cottage and 3-storey new development. In addition, a cone of nominally 75 degrees emanating from the building northwards and southwards to Pukehangi Road within which maximum building height control is placed on new development will retain some visibility of the Cottage from Pukehangi Road.

The potential to relocate the Cottage closer to Pukehangi Road, perhaps as a *gateway building* to the surrounding housing development, should not be discounted. With relocation, the heritage building as a



landmark for the precinct is preserved, offering the potential for remedial works also, if and as required. Refer **Figure 3**.



Figure 4 Cottage, 153 Pukehangi Road. SRA 2022



Figure 5 Cottage (yellow) with EoP circle and potential building control cone (blue). SRA 2022



## 6.4 Robertson House



## RESIDENTIAL ZONE HISTORIC STRUCTURES

### Residential 2 Zone

#### *Robertson House, 70 Pererika Street, Victoria, Rotorua*



*Figure 6 70 Pererika Street (Robertson House) highlighted. Google Earth 2022*

#### *Legal Description & Heritage Listing or Scheduling*

Lot 16 DP 3016

Scheduled Category 2 listing with Heritage New Zealand *Pouhere Taonga*.

#### *Description*

*Robertson House* is a Victorian bay villa, built c. 1905 currently used as guesthouse accommodation. The front of the building is approx. 12m from the Pererika St (north) boundary, within 1m of the east boundary, approx. 6m from the west boundary and, approx. 16m to the rear south boundary. In the northwest corner is a modern garage building.

#### *Observations*

The following observations refer to:

*Memorandum by Anna Bindon, RLC Graduate Policy Planner, date 29 April 2022*

*Subject: Housing Plan Change Memorandum on Historic Heritage Items*



### Clause 3.1.5.2 Assessment Criteria

#### Residential Zones:

- a. The extent to which the proposal will avoid, remedy or mitigate the effects on the character and amenity of the zone;
- b. The extent to which the proposal will avoid, remedy, or mitigate effects on the amenity of neighbouring residents, including protection of privacy and outlook and protection from adverse effects from any source of disturbance;
- c. The extent to which the proposal will avoid, remedy or mitigate the effects on the streetscape and on-site landscaping, where buildings intrude into the front yards; and
- d. The extent to which the proposal will avoid, remedy or mitigate the effects on the natural, physical, spiritual or cultural qualities and characteristics of a site identified in the schedules for Historical and Cultural Values or Natural Environmental Values.

As the building is Scheduled Category 2 listed with HNZPT, I understand this comes with a level of statutory protection from unsympathetic development to the subject building.

Neighbouring sites - the site is zoned Residential 2, and the current District Plan restricts the protection of historic structures to just the structure or building itself and not the entire site. Applying the MDRS to sites such as 70 Pererika Street would allow typical building controls including: maximum building heights, densities, yard distances, building envelopes and site coverage - which are considered more permissive than currently provided for in the District Plan. With the MDRS in operation there is, therefore, potential for *Robertson House* to be boxed-in on both sides by new development at adjacent property sites. In the future and the potential for increased density to the west, south and east boundaries, dense planting on all three boundaries should be considered, in order to screen and visually limit the detrimental effects of the MDRS on the west, south and east boundaries to *Robertson House*. RLC might consider including planning controls that require neighbouring MDRS development to plant on boundaries. Specific plant species, density and minimum specimen heights might be imposed.

#### *Recommendation*

The site - with the MDRS operative, there is the potential for new building development on *the Robertson House* site in front of (north) and to the rear (south) of the heritage building. Development in the front yard and in front of *Robertson House* is not recommended and should be a prohibited activity. The existing double garage building in the northwest corner, in my opinion, has maximised development in the front yard. In the case of development in the rear yard, maintaining (and thereby not reducing) the heritage values of *Robertson House* can only be achieved with carefully considered and sympathetic new building designs undertaken by suitably qualified or experienced architects and vetted by HNZPT. The potential for new MDRS development immediately behind *Robertson House* is limited and should therefore not necessarily result in a proportionally slender building which bears no relationship in scale or proportion to *Robertson House*.

Neighbouring sites - it is recommended that all new building developments proposed for neighbouring sites on Ann Street and Pererika Street be designed by suitably qualified or experienced architects and vetted by HNZPT. Submission of such an architect's credentials could be vetted by RLC and/or HNZPT.

New developments could also include clear and thoughtful design references to *Robertson House* villa. An addition to the rear of *Robertson house* should be undertaken only by suitably experienced

architects as, often, such developments only miss the mark in proportions and detailing and only serve to diminish the heritage value of the heritage place.



*Figure 2 Robertson House, 70 Pererika Street looking southeast. SRA 2022*



*Figure 3 Robertson House, 70 Pererika Street (centre), looking south. SRA 2022*



*Figure 4 Robertson House, from corner of Pererika and Ann Streets, looking east. SRA 2022*



## 6.5 Guide Rangī's House

The site (408 Fenton Street & 4 Froude Street) - zoned Commercial 4 with potential to be developed to a maximum building height of 24m (proposed district plan – Plan Change). There is potential risk to the heritage values of the building from an unsympathetic addition or free-standing building development elsewhere on the site - the design of which might be undertaken by a suitably qualified or experienced heritage architect and vetted by RLC (including a built-heritage specialist review). Submission of such an architect's credentials could be vetted by RLC. A key public viewpoint of *Guide Rangī's House* is on approach from the north along Fenton Street. This view is of the front of *Guide Rangī's House* and it is recommended that this view be protected from being obscured by development immediately to the north on the site. Should an increase in intensity (building development) occur on the subject site, it is recommended this be limited only to the eastern half of the site where there currently exists a residential dwelling (4 Froude Street).

406 Fenton Street adjacent property – with the potential greater density development at 406 Fenton Street (to the north), the detrimental effects of such on the *Guide Rangī's House* property can be managed by: retaining planting on the common boundary; and imposing a generous building setback and HIRB control to the southern boundary of 406 Fenton Street - to ensure new building development is not a 3-storey castle wall close to *Guide Rangī's House* property boundary.

6 Froude Street adjacent property – the neighbouring property to the east is zoned Commercial 4 – with the proposed standards for Commercial 4 zone applied, including a maximum building height of 24m. Detrimental effects of such on the *Guide Rangī's House* property can be managed by: retaining planting on the common boundary; and imposing a generous building setback and HIRB control to the southern boundary of 406 Fenton Street - to ensure new building development is not a 3-storey castle wall close to *Guide Rangī's House* property boundary.

414 Fenton Street opposite property – the opposite property to the south is a petrol station zoned Commercial 4 – with the proposed standards for Commercial 4 zone applied, including a maximum building height of 24m. While it cannot be ruled out, it is difficult to anticipate any other use on the opposite corner site than a petrol station. This being the case, the potential risk to *Guide Rangī's House* is no greater or worse than the existing use. While neither petrol station nor *Guide Rangī's House* relate to each other in any architectural way, the petrol station is a relatively generous physical distance away from *Guide Rangī's House* (the width of Froude Street), with an open, single-storey forecourt, in front of a taller single-storey retail operations building. For potential future development and/or re-zoning of 414 Fenton Street, RLC planning objectives and policies that maintain the relative openness and setback of the existing use are encouraged.

### *Recommendation*

Detrimental effects of the MDRS on *Guide Rangī's House* are reasonably limited to building development on the site, and the neighbouring properties at 406 Fenton Street and 6 Froude Street. In all cases, maintaining (and thereby not reducing) the heritage values of *Guide Rangī's House* can be achieved with considered and sympathetic new building designs undertaken by suitably qualified or experienced architects and vetted by RLC and a built-heritage specialist. Submission of such an architect's credentials could be vetted by RLC. In all instances, maintaining physical setback *breathing space* around *Guide Rangī's House* is key to maintaining heritage values. New developments at 406 Fenton Street and 6 Froude

Street may directly reference the architectural characteristics, proportions, scale, materials of *Guide Rangi's House*, or be modern in aesthetic and in contrast to the traditional Maori *whare* architecture style of *Guide Rangi's House*. Replication of the traditional Maori *whare* architecture style in new building developments is not recommended, as, such developments can miss the mark in proportions and detailing, only serving to diminish the heritage value of the heritage place.

## 6.6 Landmark Restaurant





## COMMERCIAL ZONE HISTORIC STRUCTURES

### Commercial 4 Zone

#### Landmark House, 1 Meade Street, Whakarewarewa, Rotorua



Figure 7 1 Meade Street (Landmark Restaurant) highlighted. Google Earth 2022

#### *Legal Description & Heritage Listing or Scheduling*

Section 1 Blk XLIX TN of Rotorua

Category B listing with Heritage New Zealand *Pouhere Taonga*

#### *Description*

The former Kusabs House, Landmark Restaurant is located on a prominent corner site at the southern end of Fenton Street. It is a highly visible two-storey return verandah 1906 Victorian villa, renovated in 2020-21.

#### *Observations*

The following observations refer to:

Memorandum by Anna Bindon, RLC Graduate Policy Planner, date 29 April 2022

Subject: Housing Plan Change Memorandum on Historic Heritage Items

### Clause 3.1.5.3 Assessment Criteria

#### Commercial Zones:

- a. The extent to which the proposal will avoid, remedy or mitigate the effects on the streetscape and on-site landscaping;
- b. The extent to which the proposal will avoid, remedy, or mitigate effects on the amenity of adjacent lots, including protection of privacy and outlook and protection from adverse effects from any source of disturbance or nuisance, including noise, glare, illumination and light levels;
- c. The extent to which the proposal will avoid, remedy or mitigate the effects on the amenity and vitality of the city centre zone, and the character and amenity of the City Entranceways; and
- d. The extent to which the proposal will avoid, remedy or mitigate the effects on the natural, physical, spiritual or cultural qualities and characteristics of a site identified in the schedules for Historical and Cultural Values or Natural Environmental Values.

As the building is Cat 2 listed with HNZPT, I understand this comes with a level of statutory protection from unsympathetic development to, or around, the subject building.

The site - as the site is zoned Commercial 4, it has the potential to be developed to a maximum building height of 24m (proposed district plan – Plan Change). There is also risk of an unsympathetic addition to the rear of the building, the design of which might be undertaken by a suitably qualified or experienced heritage architect and vetted by HNZPT. Submission of such an architect's credentials could be vetted by RLC and/or HNZPT.

3 Meade Street adjacent property – the adjacent neighbouring property to the east is zoned Commercial 4 – with the proposed standards for Commercial 4 zone applied, including a maximum building height of 24m. The potential risk to *Landmark Restaurant* is a development at 3 Meade St that is: 3-storeys, with an unmodulated plain/flat castle-wall side facing the street and *Landmark Restaurant*.

2 Meade Street opposite property – the opposite property to the north is zoned Commercial 4 – with the proposed standards for Commercial 4 zone applied, including a maximum building height of 24m. The potential risk to *Landmark Restaurant* is a development at 2 Meade St that lacks in architectural appeal and/or design detailing and, thereby, cumulative effects diminishing the heritage values of the heritage place by (neighbouring) association.

Fenton Street adjacent property – the immediate neighbouring property to the south of *Landmark Restaurant* is zoned Commercial 5 and therefore could have the potential to be developed up to a maximum building height of 20m.

Fenton Street streetscape and wider aspect – the current generous viewpoints of *Landmark Restaurant* from along Fenton Street (a City Entranceway) and from Rotorua Golf Club (across Fenton St) is zoned reserve and therefore is not subject to the MDRS.

#### **Recommendation**

Detrimental effects of the MDRS on *Landmark Restaurant* are reasonably limited, given the relatively small site footprint available for additions or new development. In considering such development on the site, maintaining (and thereby not reducing) the heritage values of *Landmark Restaurant* can only be



achieved with considered and sympathetic new building design undertaken by suitably qualified or experienced architects and vetted by HNZPT. Such design does not necessarily have to replicate the existing building, but rather, draw design references from it and potentially be modern in aesthetic and in contrast to the villa style of Landmark Restaurant. Should replication of the villa style be considered, it is critical that such design be reviewed by a suitably qualified and experienced heritage architect to ensure the proposal does not miss the mark in proportions and detailing, all in order to avoid a pastiche design that diminishes the heritage value of the heritage place.

Regarding neighbouring properties, detrimental effects of the MDRS on *Landmark Restaurant* are reasonably limited - only to the neighbouring property at 3 Meade Street and, to a lesser extent, the property opposite at 2 Meade Street. In both instances, maintaining (and thereby not reducing) the heritage values of *Landmark Restaurant* can be achieved with considered and sympathetic new building designs undertaken by suitably qualified or experienced architects and vetted by HNZPT. In my opinion, new developments at 2 or 3 Meade Street can be modern in aesthetic and in contrast to the villa style of Landmark Restaurant. In fact, replication of the villa style in new building developments is not recommended, as often such developments only miss the mark in proportions and detailing and only serve to diminish the heritage value of the heritage place.



**Figure 8 1** Meade Street (*Landmark Restaurant*) from cnr of Fenton & Meade Streets. SRA 2022



*Figure 9 1 Meade Street (Landmark Restaurant) from southwest to rear of property. SRA 2022*





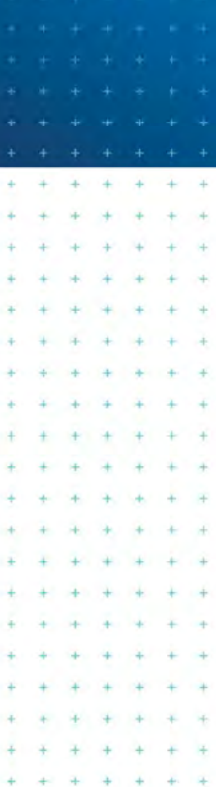
**Assessment of potential  
reverse sensitivity effects on  
air**

**Prepared for**  
Rotorua District Council

**Prepared by**  
Tonkin & Taylor Ltd

**Date**  
June 2022

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## Document control

Title: Assessment of potential reverse sensitivity effects on air					
Date	Version	Description	Prepared by:	Reviewed by:	Authorised by:
9 June 2022	1	Draft for client review	Michele Dyer	Richard Chilton	Rob Van de Munckhof
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## 1 Introduction

The Rotorua District Council (RDC) is currently preparing the Rotorua Housing Plan Change. As part of the plan change RDC is seeking to understand the potential reverse sensitivity air quality effects on existing industrial zoned land and industries by incorporating the government's Medium Density Residential Standards (MDRS) into the plan change.

The MDRS enable the construction of up to three units of up to three storeys per site within existing residential areas without the requirement for a resource consent.

A number of established industries exist within the industrial zones (Industrial 1 Zone and Industrial 1E Zone) in Rotorua.

Tonkin & Taylor Limited (T+T) has been engaged<sup>1</sup> by RDC to prepare an assessment of the potential reverse sensitivity air quality effects of the proposed housing density changes on established surrounding industries and future activities that may be located on Industrial zoned land in Fairy Springs, Ngāpuna and Ngongotahā.

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<sup>1</sup> In accordance with T+T's letter of engagement dated 13 April 2022.

## 2 Understanding and approach

Reverse sensitivity occurs when sensitive activities, such as residential properties or places of education or worship, locate where they may be adversely affected by industrial or noxious activities. Allowing sensitive activities to establish close to industry can have adverse effects on the health, safety or amenity values of people. Furthermore, it limits the ability of the existing legally established industry or noxious activity to operate efficiently and with long-term certainty. It also has the potential to affect the economic and safe operations of such activities.<sup>2</sup>

The definition of reverse sensitivity in the Rotorua District Plan, 2016 (District Plan) is:

*The potential for the operation of an existing lawfully established activity to be constrained or curtailed by the more recent establishment of other activities which are sensitive to the adverse environmental effects being generated by the pre-existing activity.*

In the context of this assessment, a 'reverse sensitivity effect' could occur if discharges to air from a legally established industry result in:

- Complaints relating to established industry due to the increase in housing density; or
- The industry being required to restrict its operation or implement more extensive mitigation of effects due to increasing cumulative effects of discharges to air (for example due to a greater level of emissions from domestic heating as a result of increased housing density).

The potential environmental effects of discharges to air principally relate to:

- Health effects from hazardous air pollutants; and
- Amenity effects from odour, dust or visible emissions.

Reverse sensitivity air quality effects are most commonly related to amenity effects from dust or odour as the nature of these effects are readily observable and linked to the sensitivity of the receiving environment (i.e., the same level of dust or odour emissions may have differing levels of effects depending on the nature of the receiving environment).

Residential zones are sensitive to amenity effects because residents can spend a significant portion of the day at home, and because of the high amenity expectations of residents while at home.

Reverse sensitivity effects can also arise in relation to contaminants with health effects in particular circumstances.

This assessment considers the potential for reverse sensitivity air quality effects as a result of the proposed increase in residential density on established nearby discharges to air and potential future discharge to air activities from nearby Industrial 1 (Light industrial) and Industrial 1E (City entranceway mixed use) zoned land.

The approach to assessing the reverse sensitivity has involved consideration of the following:

- Evaluation distances for established and potential discharges to air in the area.
- Details of resource consents granted for local discharges to air.
- Changes to the housing density and heights.

---

<sup>2</sup> Ministry for the Environment. Good Practice Guide for Assessing Discharges to Air from Industry. 2016.

## 3 Existing context

### 3.1 Overview

The potential for reverse sensitivity effects includes potential effects to existing industries (through changing the sensitivity of the existing environment) and constraint on future industrial land use.

The following section outlines:

- The nature of activities permitted that may discharge contaminants into air (including odour and dust) under the current Industrial Zone rules.
- Existing industries that hold consent from Bay of Plenty Regional Council for discharges to air.

### 3.2 District Plan

Industrial zoned land of interest for this reverse sensitivity study are:

- Industrial 1 Zone (Light Industrial), and
- Industrial 1E Zone (City Entranceway Mixed Use).

Industrial 2 Zone (Heavy Industrial) land is not located in the study area.

Industrial 1 Zone is within the Rotorua and Ngongotahā urban areas and contains a range of services and general industrial activities. Industrial 1 Zone provides for:

*“a mix of light industrial activities including food processing, mechanical servicing, selling of farm machinery, car sale yards, building depots and lunch bars. The features that distinguish this zone from others include larger bulky buildings, high levels of noise, odour, signage and heavy vehicle and car movements. High levels of lighting and use and storage of hazardous substances are also common features of this environment.”*

Industrial 1E zoned land follows the city entranceways and provides for a range of commercial activities that are not suited for commercial or city centre zones<sup>3</sup>. Industrial 1E Zone provides for:

*“a mix of light industrial and commercial activities that are dependent on high traffic flows, larger sections and are compatible with industrial activities. The Industrial 1E Zone follows the city entranceways and intends to provide an amenity buffer between the entranceways and general industrial activity, helping to enhance the amenity of these routes through the presence of more aesthetically pleasing buildings than those expected and provided for within the Industrial 1 Zone.”*

Activities that may give rise to amenity effects on air including odour, visible plumes (e.g., smoke) and dust and that can occur in the Industrial 1 and 1E zones (as described in the District Plan) are shown in Table 3.1.

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<sup>3</sup> Rotorua Lakes Council - Te Kaunihera o ngā Roto o Rotorua. Rotorua District Plan – Te Mahere Matua o Te Kaunihera o Rotorua. Operative 2016 – Reformatted 2021

Table 3.1: Description of activity status within industrial zones

District Plan Rule	Activity status	
	Industrial 1	Industrial 1E
INZ-R1 Activities accessory to a permitted activity carried out on site	Permitted	Permitted
INZ-R8 Motor vehicle repair garages	Permitted	Permitted
INZ-R10 Wood or timber storage on Lot 1 DPS 70760 (Owhatiura South)	Permitted	Restricted Discretionary
INZ-R11 Sawmilling	Permitted Where the activity does not adjoin a Residential or Transitional Zone	Restricted Discretionary Where the activity does not adjoin a Residential or Transitional Zone
INZ-R12 Prospecting and exploration	Permitted	Non-Complying
INZ-R14 Recycling facilities	Permitted Where the activity is not adjacent to a Transitional Zone.	Controlled
INZ-R15 Dairy manufacturing and associated activities	Discretionary	Non-Complying
INZ-R17 Biomass processing	Non-Complying	Non-Complying
INZ-R18 Offensive trades	Controlled Where the activity does not adjoin a Residential or Transitional Zone	Non-Complying
INZ-R20 Agricultural production activities	Non-Complying	Non-Complying
INZ-R52 Fire training facilities	Permitted Where the activity is not otherwise specified	Restricted Discretionary

The current rule framework includes restrictions of offensive trades, recycling facilities and sawmilling on the zone boundaries. In terms of offensive trades, this is defined as:

*Offensive trades – "a trade listed in the Health Act 1956, Schedule 3, which includes blood or offal treating, fish cleaning and curing, flax pulping, refuse collection and disposal, slaughtering of animals for any purpose other than human consumption, storage, drying, or preserving of bones, hides, hoofs, or skins and wood pulping."*

In addition to the requirements under the District Plan, activities may require a resource consent for discharge to air from the regional council (Bay of Plenty Regional Council (BOPRC)).



### 3.3 Regional Air Plan

The BOPRC Proposed Plan Change 13 (Air Quality) (the “Regional Air Plan”) provides policies and rules to manage the discharge of contaminants to air. Activities that may occur in the industrial zoned land and the associated rules are summarised in Table 3.2.

Discretionary activities will require resource consent to establish. Existing discretionary activities generally have conditions for discharges to air. Future discretionary activities cannot establish as of right and will need to consider the sensitivity of the surrounding environment. Future discretionary activities therefore are not expected to be subject to reverse sensitivity effects from the implementation of the MDRS. However, future permitted activities that establish as of right may find their operation constrained by the establishment of the MDRS.

Table 3.2: Summary of permitted and controlled rules that may apply to industrial zones in the study areas

Activity	Activity status	Rule conditions that may be affected by establishment of the MDRS
AIR-R2 Roasting of coffee beans	Permitted	N/A
AIR-R2 Fully enclosed in-vessel composting (up to 200 t/y)	Permitted	N/A
AIR-R5 Spray-painting	Permitted	3 m above the highest ridgeline within 30 m of any building
AIR-R6 Abrasive blasting	Permitted	N/A
AIR-R8 Fuel burning equipment (Boilers) (up to 10 MW depending on fuel and installation date)	Permitted	3 m above the highest ridgeline within 20 m of any building
AIR-R9 Flaring of natural gas	Permitted	N/A
AIR-R10 Cement storage and handling	Permitted	N/A
AIR-R11 Crematoria	Controlled	N/A

The Regional Air Plan sets rules around the discharges from solid fuel burners at domestic dwellings in the Rotorua airshed. For new housing development, the rules of the Regional Air Plan allow for installation of pellet burners as a permitted activity.

An increase in the housing density, could cause an increase in particulate emissions due to a higher density of building and the permitted status of new pellet burners being installed. However, while this is a possibility, T+T consider it to have a low probability of occurring as it is our experience that wood burning heating devices are not typically associated with multi-storey high density housing units. Therefore, reverse sensitivity effects from the installation of new pallet burners in medium density housing established by the MDRS are not likely. Further discussion is in Appendix A.

### 3.4 Existing activities

#### 3.4.1 Ngāpuna

We have reviewed the BOPRC<sup>4</sup> consents register to identify existing industrial activities that hold a resource consent for discharges to air in the Ngāpuna industrial zones which are summarised in Table 3.3 and shown in Figure 3.1.

Table 3.3: Summary of consented discharges to air in Ngāpuna

Consent number	Consent holder / business name	Address	Activity
17-0030	McAlpines (Rotorua) Limited	48 - 60 Vaughans Road	Sawmill Discharge of combustion gases, volatile organic compounds (VOCs) and particulate matter (PM) from wood and coal combustion boilers (5.7 MW); VOCs from timber drying kilns; and PM from the cyclones, yard and roads within the site.
19-0355	Rotorua Lakes Council	160 Sala Street	Crematorium Discharge of particulate matter (PM <sub>10</sub> ), organic compounds, acid gases and combustion gases to air from a Crematorium.
21-0463 BEING PROCESSED	Rotorua Lakes Council	60E Te Ngae Road	Wastewater treatment plant Discharge contaminant to air (including odours).
61106	GS Ralph & PA Francis T/A Vaughans Rd Spraypainters & Autobody Repairs	51 Vaughans Road	Panelbeaters Discharge of PM and VOCs associated with spray painting and painting preparation operations.
61242	PG Lock T/A Te Ngae Panelbeaters & Colourtone Car Painters	44 White Street	Panelbeaters Discharge of PM and VOCs associated with spray painting and painting preparation operations.
67049	Waste Management New Zealand Ltd	228 - 230 Te Ngae Road	Waste transfer station Discharge to air for activities associated with the operation of a refuse transfer station.
67630	Rotorua District Council	60E Te Ngae Road	Compost facility Discharge contaminant to air (including odours).

<sup>4</sup> Gis.boprc.govt.nz. 2022. ArcGIS Web Application. [online] Available at: <<https://gis.boprc.govt.nz/ConsentViewer/?appid=bbe761dd9e2f4e9da41ed9789220e8bc>> [Accessed 24 May 2022].

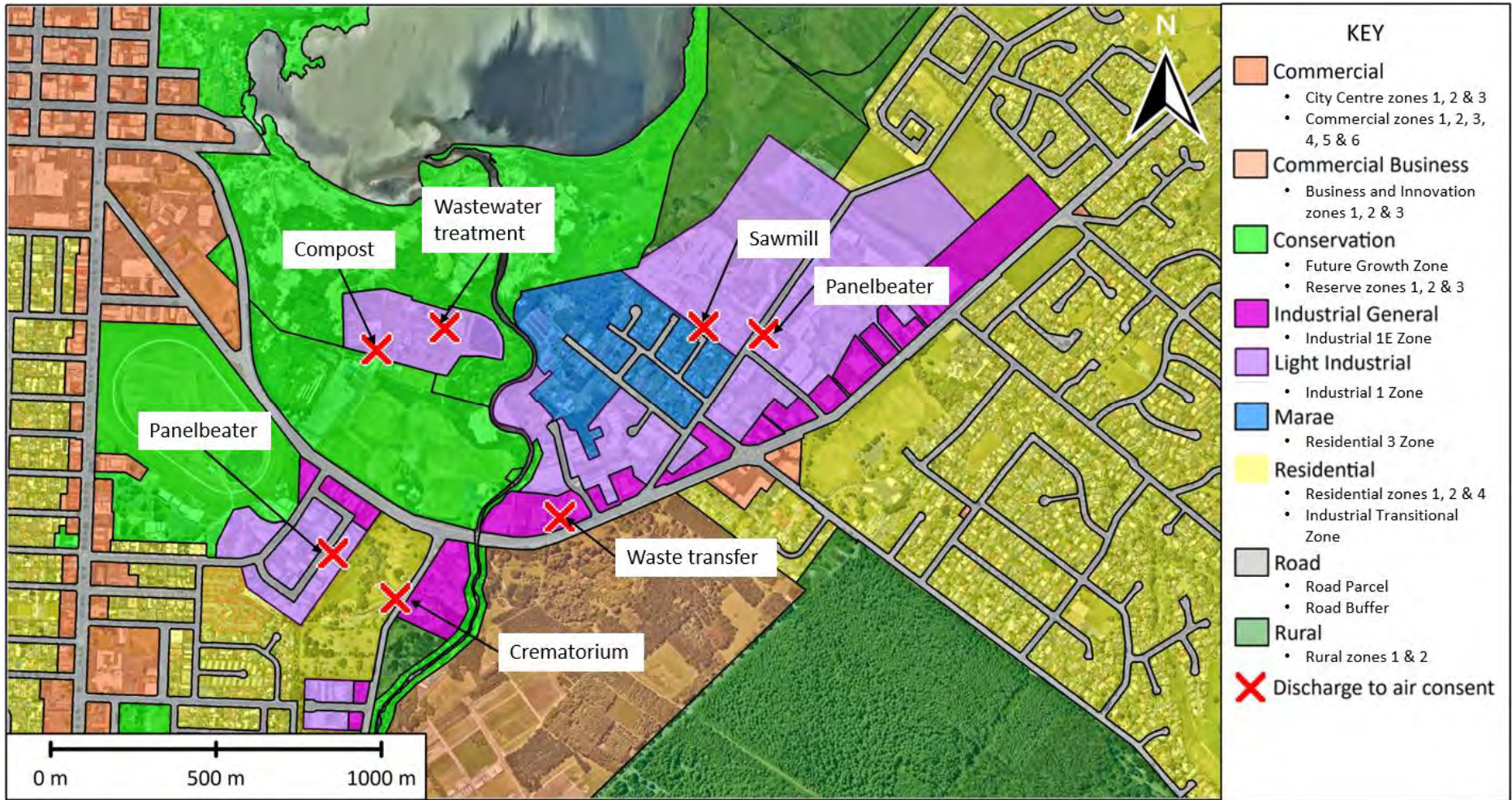


Figure 3.1: Existing activities and zones in Ngāpuna

### 3.4.2 Fairy Springs

Industrial activities that hold a resource consent for discharges to air from BOPRC in the Fairy Springs industrial zones are listed in Table 3.4 and shown in Figure 3.2.

Table 3.4: Summary of consented discharges to air in Fairy Springs

Consent number	Consent holder / business name	Address	Activity
16-0360	Waste Management New Zealand Ltd	13 Hyland Crescent	Industrial waste treatment facility Discharge of odorous gases, VOCs and PM associated with the liquid waste transport, storage and treatment facility.
18-0548	AFOS Investments Ltd	44 Tallyho Street	Aluminium recycling Discharge of PM <sub>10</sub> , odorous gases, VOCs, acid gases, combustion gases and dioxins and furans.
61190	Tregilgas Limited t/a Chris Panel & Paint	21 Maisey Place	Panelbeater Discharge of PM and VOCs associated with spray painting and painting preparation operation.
61237	PSY Slater Panelbeaters Ltd	31 Tallyho Street	Panelbeater Discharge of PM and VOCs associated with spray painting and painting preparation operation.
63494	Roadmaster Trailers Limited	45 Geddes Road	Spray-paint and abrasive blasting Discharge of PM and VOCs associated with abrasive blasting and spray-painting.
65303	Brokers Panel & Paint Ltd	40 - 42 Geddes Road	Panelbeater Discharge of PM and VOCs associated with spray painting and painting preparation operation.
68459	Rob's Auto Spray Ltd	87 Riri Street	Panelbeater Discharge of PM and VOCs associated with spray painting operation.

### 3.4.3 Ngongotahā

There are no industrial activities that hold a resource consent for discharges to air from BOPRC in the Ngongotahā area. Zoning information is shown in Figure 3.3.



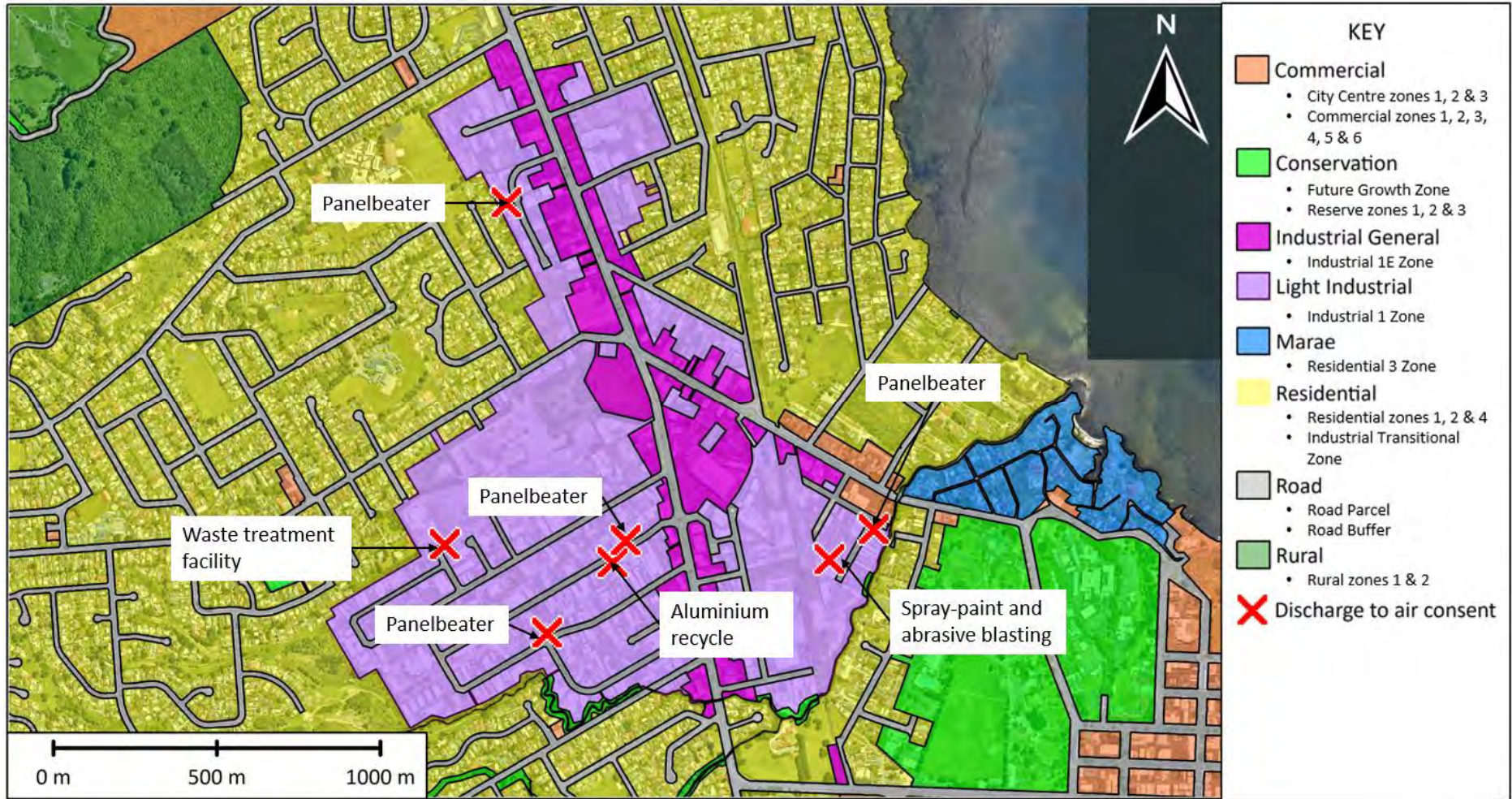


Figure 3.2: Existing activities and zones in Fairy Springs



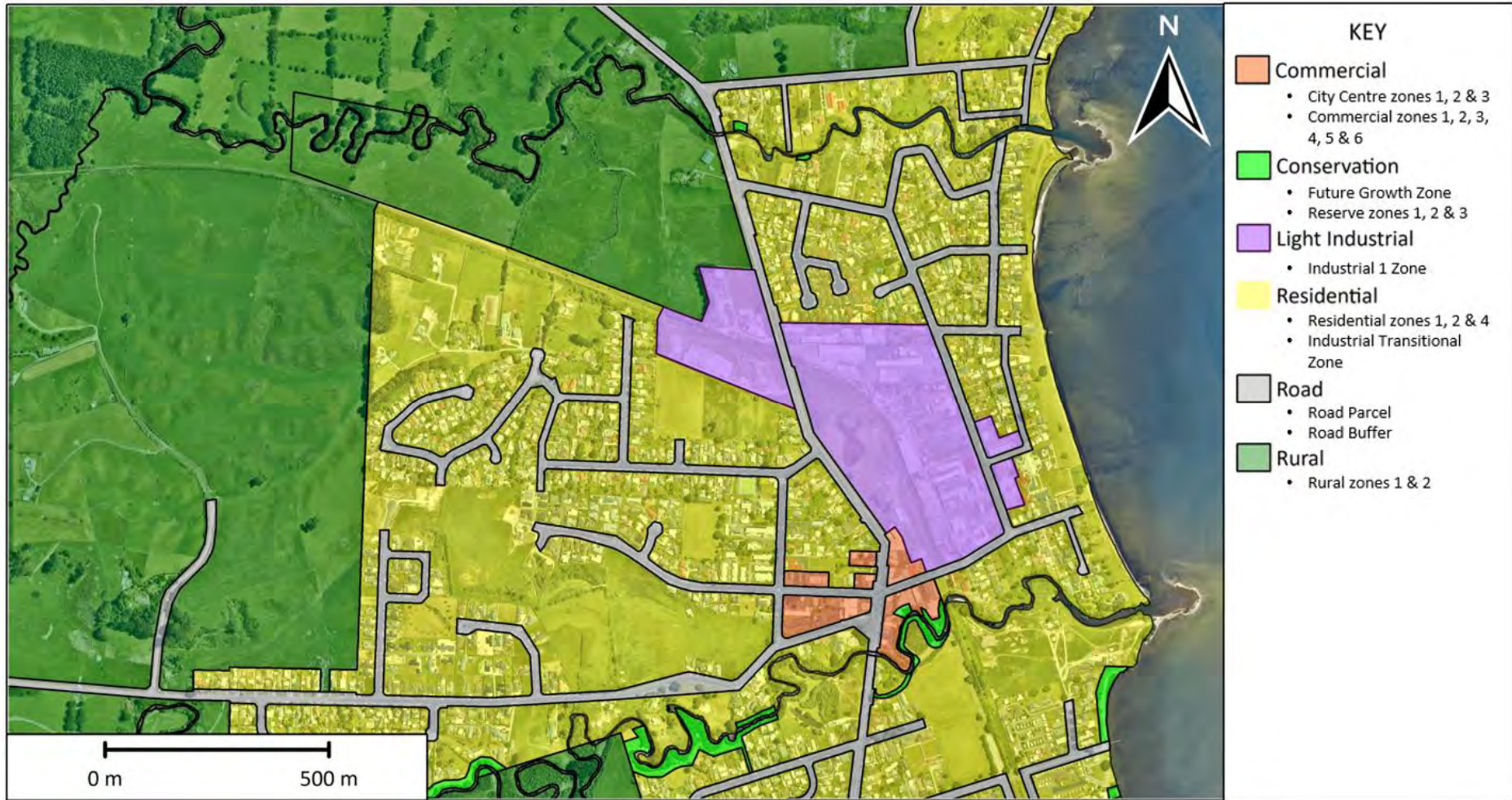


Figure 3.3: Existing zones in Ngongotahā

## 4 Separation distance guidance

Provision of appropriate separation distances is an important mitigation measure to avoid adverse effects of unintended odour and dust emissions from industrial facilities. Separation distances do not replace the need for good on-site controls of air discharges. Instead, they are intended to minimise the effects of unintended or “residual” air emissions, which can occur from unplanned events, such as equipment failure, or particularly adverse weather conditions.

The separation distances are intended for land use planning purposes or can be used in a screening evaluation for new activities. They also help to identify where a more detailed air quality assessment (such as a FIDOL<sup>5</sup> or modelling assessment) may be required.

There are no relevant New Zealand formal guidelines for separation distances between industrial facilities and sensitive activities with regard to air quality effects. However, the Auckland Council commissioned a ‘discussion document’ on separation distances for industry that was published in July 2012. This discussion document was largely based on a review of Australian guidance that was available at the time. Current Australian separation distance guidelines are:

- Victoria State Government, Victoria Planning Provisions Scheme – 53.10 Uses and activities with potential adverse impacts (2020) (Victoria PP).
- Victorian EPA, Recommended Separation Distances for Industrial Residual Air Emissions – Guideline (March 2013) (Victoria EPA).
- Australian Capital Territory EPA, Separation Distance Guidelines for Air Emissions (November 2018) (ACT EPA).
- South Australia EPA, Evaluation distances for effective air quality and noise management (2019) (SA EPA) and
- Western Australia EPA, Draft Environmental Assessment Guideline – Separation Distances between Industrial and Sensitive Land Uses (September 2015) (WA EPA).

Sensitive land uses are described in the Victoria EPA guidance as any land uses that require a particular focus on protecting the beneficial uses of the air environment. For example, residential premises, childcare centres, education centres of informal outdoor recreation sites.

The separation distances for established industrial odour and dust sources have been considered in this assessment.

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<sup>5</sup> Frequency, Intensity, Duration, Offensiveness, Location assessment



Table 4.1: Recommended separation distances for identified existing activities or those that can establish as permitted activities

Activity	Note	Separation distance (m)				
		Victoria PP (2020)	Victoria EPA (2013)	ACT EPA (2018)	SA EPA (2019)	WA EPA (2015)
Sawmill including timber drying kilns and coal/wood fired boiler						
• Wood preservation	a	100 - 300	100	100	200 - 500	500
• Milling and drying	a	-	250	100	500	500 - 1,000
Crematorium	a	-	-	150	150	200 - 300
Wastewater treatment plant	a	Not specified	420 <sup>c</sup>	Plant size dependant	Plant size dependant	-
Waste transfer station	a	200 - 500	250	300	300	200
Industrial waste treatment facility	a	200 - 1,000	500	300	300	-
Aluminium recycling	a	Not specified	Case by case	300	-	300 - 500
Automotive spray painting	a,b	100	-	100 - 300	100 - 300	200
Abrasive blasting	a,b	-	-	100	50 - 500	Case by case
Compost facility (12,000 tonnes/year)	b	Not specified	1,000 - 2,000	1,000	1,000	850 - 1,300
Fully enclosed in-vessel composting (< 200 t/y)	b	Not specified	1,000 (up to 50,000 t/y)	300 (20 - 200 t/y)	300 (20 - 200 t/y)	300 (< 2000 t/y)
Roasting of coffee beans	b	-	250 (> 200 t/y)	250 (> 200 t/y)	-	-
Flaring of natural gas	b	-	-	-	-	-
Cement storage and handling	b	-	-	-	-	-

a Currently consented activities

b Permitted activity according to the Regional Air Plan and District Plan

c Based on a population equivalent of 75,000<sup>6</sup>

<sup>6</sup> Stantec New Zealand. (2018). Rotorua Wastewater Treatment Plant - Applications for Resource Consents and Assessment of Environmental Effects. Retrieved from <https://cdn.boprc.govt.nz/media/782147/rotorua-lakes-council-aee-final.pdf>

## 5 Potential reverse sensitivity effects

### 5.1 Introduction

The potential for reverse sensitivity effects to occur due to increasing housing density as proposed by the MDRS could be affected by a number of factors as follows:

- Increase in population in existing residential zones, giving rise to an increased 'cumulative' community expectation on industry to control air discharges.
- Obligations of industry.
- Changes to dispersion properties due to increased height and density of housing.

### 5.2 Sensitivity of residential zoned land

Residential zoned land and culturally significant land is classified as having a high sensitivity to air quality amenity effects, including smoke, dust and odour. People in residential zoned and culturally significant areas typically have a high sensitivity to air quality effects due to the following factors:

- People expect a high level of amenity in their home and immediate environment.
- People of high sensitivity to air quality impacts, including elderly, infirm and children, may be exposed.
- People may be present all times of the day and night, both indoors and outdoors.
- High population densities are present in residential zones.
- Visitors to a residential area who are unfamiliar with a discharge are more likely to be sensitive to any odours and may raise awareness.

The proposed housing density changes from the MDRS will not change the sensitivity of the residential zoned land. However, the proposed changes will increase the density of people within those areas and therefore the number of persons that may be impacted by industrial discharges.

### 5.3 Obligations of industrial activity

Industrial activities that are currently established or that can be established as permitted or controlled activities are subject to general activity rules in the Regional Air Plan as follows:

*The discharge must not be noxious or dangerous, offensive or objectionable beyond the boundary of the subject property.*

Industrial activities that require a resource consent for discharges to air, typically have a condition which is similar to the general activity rule above.

Air quality impacts associated with permitted industrial activities are generally of a small scale and could include activities such as:

- Commercial bakery.
- Dry-cleaner.
- Spray-painting (subject to Regional Air Plan rule AIR-R5).
- Abrasive blasting (subject to Regional Air Plan rule AIR-R6).
- Landscape supplies yard (e.g. outside storage of bulk soil, bark, etc).

Separation distances are intended to minimise "residual" air emissions, which can occur from unplanned events, such as equipment failure, or particularly adverse weather conditions. Given the recommended separation distances (refer to section 4), discharges to air for permitted activities are

unlikely to have significant reverse sensitivity effects beyond 100 - 150 m from the industrial zone boundary. The recommended separation distances for existing industry are also described in Section 4.

#### 5.4 Changes to dispersion due to in increased residential density

Increasing the housing density has the potential to reduce the ability for pollutants to disperse from ground level sources. Furthermore, taller buildings could result in direct impaction of stack emissions onto higher levels of new buildings close to the residential/industrial zone boundary.

## 6 Reverse sensitivity effect assessment

### 6.1 General

The potential for reverse sensitivity effects to occur due to increasing housing density as proposed by the MDRS could be affected by a number of factors as follows:

- Increase in population in existing residential zones, giving rise to an increased 'cumulative' community expectation on industry to control air discharges.
- Changes to the airshed due to new pellet fired domestic burners.
- Changes to dispersion properties due to increased height and density of housing.

The expectation for control of emissions to air from industry is unchanged from the existing situation, given that the overall amenity expectation of the residential/cultural receiving environment is unlikely to change. However, due to the increased population density associated with the introduction of the MDRS, there is a corresponding increase that a complaint may be received against legally established industry. This in turn increases the risk of reverse sensitivity effects close to the industrial zone boundary with the introduction of the MDRS.

The introduction of the MDRS may in of itself result in an increase in the pollutant emissions into the Rotorua Airshed, with the potential to increase the cumulative effects that a residual industrial discharge may have due to an increased background PM<sub>10</sub> concentrations. This could occur as a result of the installation of new pellet burners, which are a permitted activity for new residential dwellings. As noted in Section 3.3, although installation of a pellet burner in a new three-storey building may occur, large scale installation of pellet burners is not expected.

Increased housing density and taller three-storey buildings that would occur as a result of the proposed MDRS will affect the local meteorology. This could worsen dispersion of discharge from industry, giving rise to higher pollutant concentrations in the residential area. Furthermore, plume impaction into the upper storey of a three-storey building has the potential to give rise to higher concentrations than might be experienced in for single or double storey houses due to changes in dispersion. These effects are likely to be most pronounced in the initial 100 m of the zone.

### 6.2 Permitted and controlled activities

For existing sources, dispersion effects from the establishment of three-storey buildings close to the residential/industrial zone boundary could result in reverse sensitivity effects. For industries that can establish as permitted activities, introduction of the MDRS could result in constraint of the industrial zone. Of note, are the Regional Air Plan rules around permitted activities and separation distances as discussed in section 3.3 and 4 respectively.

Spray-painting activities and fuel burning equipment (boilers) established under permitted activity rules are required to have the discharge stack at least 3 m above the height of any current building within 30 m and 20 m of the stack outlet respectively, as shown in Table 3.2. Establishment of three-storey buildings within 30 m of the industrial zone boundary could result in previously legally established industry no longer being able to meet the conditions of the relevant permitted activity rule.

Separation distances are intended to minimise "residual" air emissions, which can occur from unplanned events, such as equipment failure, or particularly adverse weather conditions.

Air quality impacts associated with permitted or controlled activities in the Industrial 1 and 1E zones are generally of a small scale. For these sorts of activities where separation distances are recommended, the separation distances are generally small (of the order of 100 m). Therefore, the reverse sensitivity effects from the proposed MDRS on the existing industrial zoned land is expected

to be limited to approximately 100 m. For future permitted activities, the establishment of the proposed MDRS within 100 m of the industrial boundary may constrain the ability of industry to operate efficiently.

### 6.3 Ngāpuna

The existing activities and current separation distances are summarised in Table 6.1.

Table 6.1: Industry specific separation distances from Australian guidance for consented activities in Ngāpuna

Activity	Closest sensitive receptor or zone	Separation distance (m)				
		Victoria PP (2020)	Victoria EPA (2013)	ACT EPA (2018)	SA EPA (2019)	WA EPA (2015)
Sawmill including timber drying kilns and coal/wood fired boiler						
• Wood preservation	Boundaries adjacent	100 - 300	100	100	200 - 500	500
• Milling and drying		-	250	100	500	500 - 1,000
Crematorium	160	-	-	150	150	200 - 300
Wastewater treatment plant	140	Not specified	420 <sup>a</sup>	Plant size dependant	Plant size dependant	-
Waste transfer station	340	200 - 500	250	300	300	200
Automotive spray painting	110 and 250	100	-	100 - 300	100 - 300	200
Compost facility (12,000 tonnes/year)	500	Not specified	1,000 - 2,000	1,000	1,000	850 - 1,300

a Based on a population equivalent of 75,000<sup>6</sup>

Table 6.1 shows that some of the established industries are closer to sensitive receptors or zones than the recommended separation distances. Therefore, it is likely that these activities are already constrained by the existing residential land uses, but the establishment of higher housing density by the proposed MDRS could result in further constraint of the established industries due to an increase in population.

At the sawmill, the kilns are approximately 100 m from the boundary of the Residential 3 zone. Sawmilling occurs adjacent to the Residential 3 zone boundary. The sawmill is likely to be further constrained by the establishment of the MDRS. Based on T+T experience and the size of the sawmill, the reverse sensitivity effects from the establishment of the MDRS is likely to extend approximately 250 m beyond the boundary of the sawmill site.

The separation of the crematorium from the closest sensitive receptor in a Residential 1 zone is approximately equal to the recommended separation distance, therefore, the crematorium is unlikely to be further constrained by the establishment of the MDRS.

The separation distance from the Wastewater Treatment Plant (WWTP) to the nearest sensitive receptor in a Residential 3 zone is much smaller than the recommended separation distance and therefore the WWTP is likely to be further constrained by the establishment of the MDRS.

The waste transfer station is considered to have adequate separation from the nearest sensitive receptor in a Residential 3 zone as the distance to the zone is generally larger than the separation distance range listed. The waste transfer station is unlikely to be further constrained with the establishment of the MDRS.

There are two automotive spray-painters in Ngāpuna. Both are separated by at least the lower end of the range of recommended separation distances. The spray-painters are unlikely to be further constrained by the establishment of the MDRS.

The compost facility is approximately 500 m from the nearest sensitive receptor in the Residential 3 zone and 700 - 850 m from the nearest Residential 1 zone to the south and west. The compost is made up of biosolids from the treatment plant, greenwaste, grass, bark and wood waste<sup>7</sup>. The compost facility is closer to sensitive receptors than the recommended separation distances and therefore may be further constrained by the introduction of the MDRS.

Overall, there are a number of existing activities which are already constrained, and the proposed re-zoning would potentially further constrain these activities. We consider, the potential for increased reverse sensitivity effects to the existing industry is high.

In terms of new activities that could be established under permitted activity rules, there is potential reverse sensitivity effects at the boundary between the zone, with effects potentially up to 100 m from the zone boundary.

## 6.4 Fairy Springs

The existing activities and current separation distances are summarised in Table 6.2.

Table 6.2: Industry specific separation distances from Australian guidance for consented activities in Fairy Springs

Activity	Closest sensitive receptor or zone	Separation distance (m)				
		Victoria PP (2020)	Victoria EPA (2013)	ACT EPA (2018)	SA EPA (2019)	WA EPA (2015)
Industrial waste treatment facility	70	200 - 1,000	500	300	300	-
Aluminium recycling	360	Not specified	Case by case	300	-	300 - 500
Automotive spray painting	0, 35, 110, 130 and 500	100	-	100 - 300	100 - 300	200
Abrasive blasting	110	-	-	100	50 - 500	Case by case

Table 6.2 shows that some of the established industries are closer to sensitive receptors or zones than the recommended separation distances.

<sup>7</sup> Gardeners' Gold is back. (2010). Retrieved 30 May 2022, from <https://www.nzherald.co.nz/rotorua-daily-post/news/gardeners-gold-is-back/LADBT44A2ZZLA7VXW2XS2J2JCY/>



The industrial waste treatment facility is approximately 70 m from the nearest Residential 1 zone. There is potential that the industrial treatment facility will be further constrained as the separation distance is smaller than the shortest recommended separation distance, although this is likely to already be constrained by the existing residential land use.

The separation of the aluminium recycling facility from the closest sensitive receptor in a Residential 1 zone is at least the lower end of the range of recommended separation distances, therefore, the aluminium recycling facility is unlikely to be further constrained by the establishment of the MDRS.

There are five automotive spray-painting facilities in the Fairy Springs industrial area. Two are located closer to the Residential 1 zone than recommended separation distances (less than 100 m). Three are separated by at least the lower end of the range of recommended separation distances. The two spray-painters closer than the recommended separation distances may be further constrained by the establishment of the MDRS although one is currently on the zone boundary and is likely to already be constrained.

In terms of new activities that could be established under permitted activity rules, there is potential reverse sensitivity effects at the boundary between the zones, with effects potentially up to 100 m from the zone boundary. We note that the size of lots is predominantly small, and therefore the nature of activities would be constrained to those suitable for smaller sites such as panel beaters and coffee roasters. Reverse sensitivity effects, for these industries that have been established under permitted activity rules, are expected to be limited to approximately 100 m with the biggest impact at immediately adjacent neighbours.

We consider there is potential for reverse sensitivity effects to a number of existing activities, as well as implications for potential new activities to establish within 100 m of the zone boundary. These effects are limited on the basis that existing activities will already be constrained by the existing residential land use, and effects for new activities would be restricted to those seeking to establish within 50 m to 100 m of the zone boundary and they would be required to consider the existing residential land use in terms of the controls at the site.

## 6.5 Ngongotahā

No consented activities are currently established in the Ngongotahā industrial zone. The number of permitted activities established in the area is unknown. Based on the previous discussion, the reverse sensitivity effects from the proposed MDRS on the existing industrial zoned land is expected to be limited to approximately 100 m. For future permitted activities, the establishment of the proposed MDRS within 100 m of the industrial boundary may constrain the ability of industry to operate efficiently but any effects would be restricted to new activities seeking to establish within the area. Therefore reverse sensitivity effects for industries that have been established under permitted activity rules, are expected to be limited to approximately 100 m with the biggest impact at immediately adjacent neighbours. Any new activities would need to consider the existing residential land use in terms of the controls at the site.

## 6.6 Discussion

Based on the reverse sensitivity assessment at each area, we consider the potential reverse sensitivity effects to existing land use at the Ngāpuna industrial area are likely to be constrain the existing industries present and the effects are likely to be more than minor.

In terms of the Fairy Springs industrial area, there are limited existing activities located sufficiently close that there would be reverse sensitivity effects. A number of panel beaters/ spray painters are located close to the existing zone boundaries and there may be potential effects on these activities due to the requirements in terms of stack heights and increased population, although these activities are likely to be already constrained.

There are no existing consented industrial land uses which are likely to be impacted at Ngongotahā.

Permitted activities are likely to be established in all of the industrial zones. For permitted activities (both existing and new), reverse sensitivity effects are likely to occur on a small scale, directly adjacent the industrial zone boundary due to the changes to building heights and the increase in risk due to increased population. These areas are already constrained due to the existing residential land use, but the increase in population and height of the buildings may have some effects on existing and new activities on the boundary.

Of particular note are spray-painting activities and fuel burning equipment (boilers) established under permitted activity rules. These activities are required to have the discharge stack at least 3 m above the height of any current building within 30 m and 20 m of the stack outlet respectively. Establishment of three-storey buildings within 30 m of the industrial zone boundary could result in previously legally established industry no longer being able to meet the conditions of the relevant permitted activity rule.

The potential for increases reverse sensitivity effects could be managed by either avoiding intensification on properties adjoining the industrial zones (i.e. maintaining status quo through a buffer) or seeking changes to the industrial provisions to restrict activities likely to generate discharges from establishing on properties adjoining the residential zones (internal buffer).

## 7 Conclusion

The overall conclusion of this assessment are as follows:

- The review has identified that the proposed introduction of the MDRS could result in reverse sensitivity effects due to the increase in population and change in building height which would impact on the ability for industry to manage discharges through stack height and permitted.
- The potential for reverse sensitivity effects to existing activities in each area are as follows:
  - High in the Ngāpuna industrial zones.
  - Low in the Fairy Springs with some effects to a small number of existing consented and permitted industries.
  - Low in Ngongotahā with some effects on existing permitted industries.
- Spray-painting activities and fuel burning equipment (boilers) established under permitted activity rules are required to have the discharge stack at least 3 m above the height of any current building within 30 m and 20 m of the stack outlet respectively. Establishment of three-storey buildings within 30 m of the industrial zone boundary could result in previously legally established industry no longer being able to meet the conditions of the relevant permitted activity rule.
- The proposed MDRS may constrain the industrial zones with regard to potential future industries with discharges to air that could establish as permitted activities, although this would be limited as any new activities would be expected to consider the existing and future land uses.
- Methods to minimise the potential effects associated with permitted activities could include avoiding intensification or restricting industrial activities with discharges to air on the zone boundary.

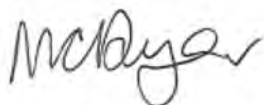
## 8 Applicability

This report has been prepared for the exclusive use of our client Rotorua District Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We understand and agree that this report will be used by Rotorua District Council in undertaking its regulatory functions in connection with understanding the potential reverse sensitivity effects on established industry and industrial zones with the implementation of national Medium Density Residential Standards.

Tonkin & Taylor Ltd

Report prepared by:



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Michele Dyer

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Authorised for Tonkin & Taylor Ltd by:



.....  
Rob Van de Munckhof

Project Director

MIDY

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# Appendix A Domestic solid fuel burners

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## A1 Regional Air Plan

The Regional Air Plan sets rules around the discharges from solid fuel burners at domestic dwellings in the Rotorua airshed that are summarised in Table 8.1. Table 8.1 is specifically related to the installation of new domestic burners that may occur due to the increase in housing density due to the proposed introduction of the MDRS.

Table 8.1: Summary of rules relating to domestic solid fuel burners

Activity	Activity status	Notes
AREA1-R1(2) New pellet burner	Permitted	<ul style="list-style-type: none"><li>• Provided the pellet burner only burns approved fuel specified for the device.</li></ul>
AREA1-R1(4) New wood burner or ultra-low emission burner	Permitted	<ul style="list-style-type: none"><li>• Replaces an existing wood burner, coal burner or multifuel burner that was primarily used as a space heater in the same dwelling house or building.</li><li>• Restrictions on burner emissions, efficiency and model.</li></ul>
AREA1-R2 New wood burner or ultra-low emission burner	Discretionary	<ul style="list-style-type: none"><li>• Is offset by replacing an existing wood burner, coal burner or multifuel burner with an emission rate of 0.60 or greater in a dwelling house or building within the Rotorua Airshed.</li><li>• Restrictions on burner emissions, efficiency and model.</li></ul>

## A2 Background air quality

Rotorua airshed is currently considered to be “polluted” with regard to fine particulate matter (PM<sub>10</sub>) under Regulation 17(4) of the National Environmental Standards (NESAQ) for Air Quality. Currently, the biggest source of Rotorua's urban air pollution (58%) is from solid-fuel burners for home heating. Ngāpuna and Fairy Springs are within the Rotorua airshed boundary. Ngongotahā is outside of the Rotorua airshed boundary. Regulation 17 sets specific restrictions on the granting of consent for PM<sub>10</sub> discharges in polluted airsheds, which therefore applies to Ngāpuna and Fairy Springs.

The BOPRC and RDC have been working with the community to raise awareness about the air quality issue for Rotorua and encourage a shift to clean heating solutions to reduce PM<sub>10</sub> concentrations within the Rotorua airshed with the aim of not having exceedances of the PM<sub>10</sub> standard. These include the following:

- RDC Rotorua Air Quality Control Bylaw, introduced in 2010 and updated in 2017.
- BOPRC “free fire swap” scheme.
- BOPRC “Hot Swap” scheme.
- BOPRC rules in Proposed Plan Change 13 (Air Quality) as shown in Table 8.1.

### A3 Changes to Rotorua Airshed due to increased residential density

The Rotorua Airshed is a “polluted” airshed. The BOPRC expects the removal and/or replacement of inefficient wood burners will improve the air quality in the Rotorua Airshed<sup>8</sup>.

For new housing development, the rules of the Regional Air Plan allow for installation of pellet burners as a permitted activity. Existing industry could be constrained if there is an increase of the background PM<sub>10</sub> concentrations due to new solid fuel combustion burners being introduced into the airshed. It is not known what the expected uptake of new pellet burners will be in new buildings that are built as part of the MDRS and therefore what the potential increase in emissions into the airshed will be.

An increase in the housing density, could cause an increase in particulate emissions due to a higher density of building and the permitted status of new pellet burners being installed. However, while this is a possibility, T+T consider it to have a low probability of occurring as it is our experience that wood burning heating devices are not typically associated with multi-storey high density housing units.

Therefore, reverse sensitivity effects from the installation of new pellet burners in medium density housing established by the MDRS are not likely.

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<sup>8</sup> Cleanairrotorua.co.nz. 2022. Solid Fuel Burner Regulations - Clean Air Rotorua. [online] Available at: <<https://cleanairrotorua.co.nz/solid-fuel-burner-regulations/>> [Accessed 24 May 2022].





4 July 2022

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Dear Simon,

## Review of medium density residential standards- noise effects at Industrial Zone interface

### 1.0 Introduction

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Styles Group have been engaged by Rotorua Lakes District Council to review the proposed Medium Density Residential Standards (**MDRS**). The MDRS will introduce new development controls affecting the permitted density, height and location of residential development in Residential Zones.

The purpose of our review is to identify whether the additional development capacity enabled by the MDRS will give rise to noise-related effects at the interface of the Residential and Industrial Zones. Our review focusses on the Industrial- Residential interfaces in the three 'areas of interest' provided to us below.



**Ngapuna**



**Fairy Springs**



**Ngongotoha**

The three areas of interest are occupied by established residential and industrial activities. We understand that much of the development has not reached the intensification (in terms of height of building and minimum setbacks) that the ODP provides for. This advice assumes that:

- The existing residential activities have generally not been developed to the maximum permitted bulk and location controls authorised by the Operative District Plan (ODP) standards. We understand that most of the residential dwellings are single-storey and have not been developed to the maximum permitted height (two-

storey) enabled by the ODP. We refer to this as the physically existing environment.

- That the residential land could be developed to the maximum in terms of bulk and location permitted by the ODP, as of right. We refer to this as the legal existing environment. This forms the official ‘starting point’ for the evaluation of the change in effect that the MDRS could authorise.
- The activities in the Industrial Zone operate in accordance with the ODP maximum permitted noise levels for noise generated within an Industrial Zone and received in a Residential Zone.

We understand that the MDRS does not affect the existing zoning pattern or seek to rezone land at the industrial interface. This advice does not consider any potential noise constraint arising from a new zoning pattern near to the Industrial Zones.

This advice focusses on the net change to the noise environment arising from the MDRS. Table 1 below compares the Operative District Plan (**ODP**) standards to the MDRS.

**Table 1 Comparison of ODP and MDRS standards**

Standard	ODP Standard	MDRS
Dwellings per site	One per 350m <sup>2</sup> or average of 450m <sup>2</sup> (Residential 1)	Up to three dwellings
Building height	7.5m	11m plus roof
Yards	5m front, 2.5m for all others	1.5m front, 1m for all others.
<i>Interface noise standards (Industrial to Residential)</i>	Noise levels from an activity in an Industrial Zone shall not exceed the noise limits specified for the adjoining Residential Zone “when measured at any point within the receiving site”:	
<i>No change</i>	<ul style="list-style-type: none"> <li>• 7am to 7pm: 50 dB L<sub>Aeq(15min)</sub></li> <li>• 7pm to 10pm any day except public holidays: 45 dB L<sub>Aeq(15min)</sub></li> <li>• Night time and public holidays: 40 dB L<sub>Aeq(15min)</sub> and 70 dB L<sub>AFmax</sub></li> </ul>	

## 2.0 The net change in noise environment from the MDRS

Table 1 identifies that the ODP interface noise rule requires industrial activities to meet the residential noise limits “*at any point within the receiving site*”. This requirement will continue to control the noise generating potential of the industrial operators that are located on or near to the residential interface.

Industrial sites that are well separated from the residential interface (i.e. by distances greater than 150m) will typically be able to operate without significant constraint and meet the maximum permitted noise levels in the Industrial Zones (75 dB L<sub>Aeq(15min)</sub> daytime and 70 dB L<sub>Aeq(15min)</sub> nighttime at their industrial neighbours).

The potential changes arising from adopting the MDRS are:

1. The MDRS will authorise a greater density of residential development. Additional residential receivers may be established in Residential Zones via infill development or redevelopment of land. This could enable more residential activity at or near the interface with the Industrial Zones.
2. The MDRS will enable higher residential development. The MDRS will authorise an additional storey of vertical residential development (to a height of 11m). We understand that in simple terms, the changes in permitted height are to allow dwellings to go from two storey (ODP) to three storey (MDRS). This is likely to result in residential receivers 'over-looking' industrial activity to a greater degree than in the physical and legal existing environments.
3. Residential development may be established closer to site boundaries as a result of the reduced yard setbacks enabled under the MDRS. The changes in yard setbacks are a very minor feature of the potential changes from an acoustics perspective.

Overall, we consider the key noise effects on the Industrial Zone relate to the more intensive vertical residential development authorised by the MDRS. These effects and practical implications for the industrial operators are discussed below.

### 3.0 New noise non-compliance arising from the MDRS

---

The noise standards at the residential / industrial zone interface requires noise makers in the Industrial Zone to comply with the noise limits when measured and assessed at "*any point within the receiving site*".

In practical terms, and following the procedures set out in NZS 6802:2008 *Environmental Noise*, this results in noise compliance locations that are typically:

- a) 1.5m above the ground level and ground floor deck or floor height on the residential site; and
- b) 1.5m above the finished floor level of any dwelling. This includes multi-storey dwellings. This would lift the assessment position to typically 4m to 4.5m above the ground for a two-storey dwelling and approximately 7.5m above the ground for a three-storey dwelling.

Figures 1, 2 and 3 below represent the following three scenarios:

- 1) Scenario 1: the physically existing single-storey development that we understand is common in the areas of interest.
- 2) Scenario 2: legally existing two-storey development that has been constructed to the minimum rear or side-yard setback and the maximum height permitted by the ODP. We understand that this forms the current legal 'existing environment' in the residential zones.
- 3) Scenario 3: Three storey development that has been constructed to the minimum rear or side-yard setback and the maximum height permitted by the MDRS.

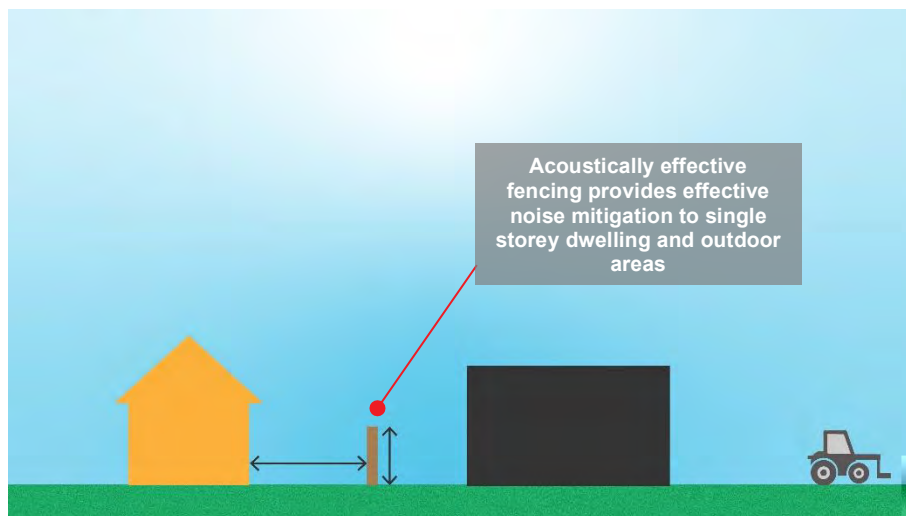
### 3.1 Scenario 1 → the physically existing environment- predominantly single-story dwellings

Figure 1 depicts the scenario that we understand is typical for the typical physically existing environment at the interface with the Residential and Industrial Zone. Figure 1 shows a single storey dwelling adjacent to an industrial activity at the zoning interface.

The presence of a single-storey dwelling requires the industrial activity to meet the residential zone noise limits when measured and assessed “*any point within the receiving site*”. The presence of a single storey dwelling requires noise levels to be measured and assessed 1.5m above the immediate ground level or finished floor level of the dwelling.

Figure 1 demonstrates that the presence of a 2m high acoustically effective fence provides effective screening from the industrial noise. The residential activity does not have line of sight to the industrial building or outdoor yard where noise sources would typically be operating.

In this case, the industrial activity is located at the immediate zoning interface and is required to conduct their operations to achieve compliance with the residential noise limits. This tension forms part of the existing environment and will typically require the noise maker to take care to schedule noisy activities (inside the building or in the yard) to the daytime period when higher noise limits apply.



**Figure 1 Single story residential development (physical existing environment)**

### 3.2 Scenario 2 → the legal existing environment- two story dwellings

The legal existing environment in the ODP anticipates and provides for two-storey dwellings at the Industrial Zone interface.

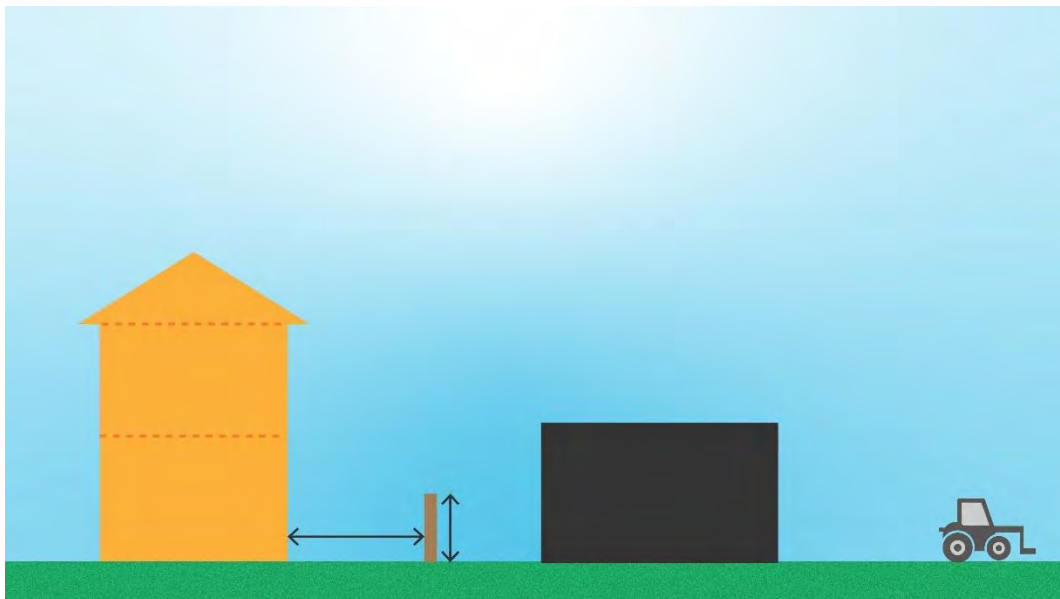
Figure 2 depicts the existing legal environment under the ODP whereby a two-storey dwelling is adjacent to an industrial activity at the zoning interface.

The presence of a two-storey dwelling requires noise levels to be measured and assessed 1.5m above the immediate ground level, and at 1.5m above each floor level of interest (i.e. at heights of 1.5m and 4m - 4.5m above ground).

Figure 2 demonstrates that the presence of a 2m high acoustically effective fence provides effective screening at ground level, however no screening is provided to the second level. Many two-storey developments will partially or wholly overlook industrial yards and low industrial buildings.

In this scenario, the industrial noise maker is still subject to the same constraints as in Scenario 1 however additional steps will be required to operate in compliance with the residential noise limits when measured and assessed at the second floor of the dwelling. These potential constraints on the noise maker form part of the existing environment, and may require the activity to:

- Schedule noisy activities such as loading trucks, moving goods around with a forklift or more than a small number of truck movements to the daytime period, when higher noise limits apply
- Screen the upper floor from noisy vehicles/ machinery in the yard (i.e. inside or behind industrial buildings)
- Limit noisy activities to within the buildings on the site, ensuring that no openings (such as roller doors) face the residential interface.



**Figure 2 Two-storey residential development (legal existing environment)**



### 3.3 Scenario 3 → the MDRS environment- three story dwellings

Figure 3 depicts the MDRS scenario where a three-storey dwelling is established next to an industrial activity at the zoning interface.

The MDRS elevates the highest potential assessment location in the legal existing noise environment from 4m-4.5m above the ground to 7.5m above the ground.

Figure 3 demonstrates that the presence of a 2m high acoustically effective fence provides effective screening at ground level, however no screening is provided to the second and third levels. The top floors of a three-storey development will overlook industrial yards and low industrial buildings<sup>1</sup> in most cases.

In this scenario, the industrial noise maker is still subject to similar constraints as in Scenario 1 and 2. However new non-compliances may arise at the third floor because this assessment location would be difficult or impossible to effectively screen by acoustic fencing or buildings. The addition of a third floor in the residential zone is likely to increase the number of industrial activities facing compliance challenges.

The noise maker will need to apply additional noise mitigation measures to operate in compliance with the residential noise limits when measured and assessed at the second and third floors of the dwelling. These steps may take the form of:

- Controlling the location and limiting the extent of activity in outdoor yard areas to ensure that particularly noisy activities are either conducted inside a building or in a location that is well screened from the third floor residential receiver;
- Limiting noisier activities (such as loading or moving trucks) to the daytime hours only when higher noise limits apply;
- Implementing acoustic treatment to the building envelope to screen rooftop mechanical plant, improve roof insulation to reduce noise breakout or to change the orientation of doors and openings to ensure they face away from the residential interface.

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<sup>1</sup> We understand the ODP provides for 15m high buildings in the Industrial 1 and 1E zone.

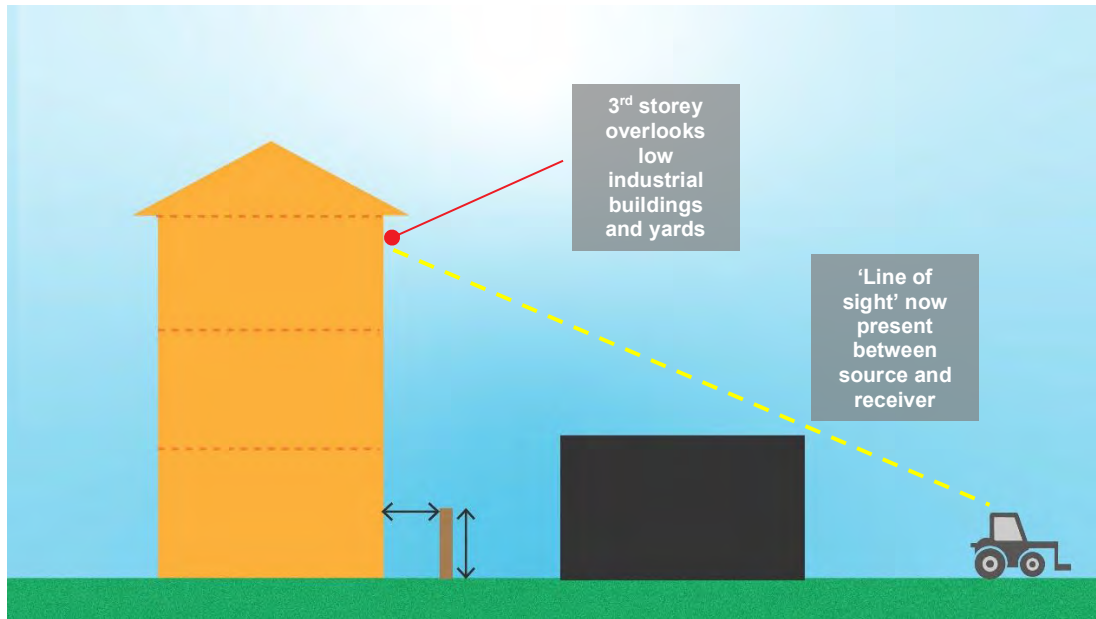


Figure 3 Three-story residential development (MDRS)

#### 4.0 Change in the level of “new non-compliance”

As set out above, if a single-storey residential receiver is screened from most or all of the industrial activity by acoustically effective fencing, bunds or buildings, the industrial operator may not be particularly constrained by compliance with the noise limits at the residential interface.

If a residential receiver overlooks the industrial activity, the noise will not be effectively screened and the industrial activity may need to resort to other noise mitigation options to maintain compliance with the noise limits, such as those outlined in the previous section.

We expect that the transition from single-storey dwellings to two-storey dwellings will yield a considerable number of new non-compliances. These changes are permitted by the ODP.

The change in noise effects arising from moving from the legal existing environment in the ODP (two-storey development) to the MDRS proposal (three-storey development) is likely to increase the degree of overlooking and new non-compliances. We expect that this change will only increase the new non-compliances by a modest amount, as most will have occurred during the change from single-storey to two-storey development.

#### 5.0 Conclusion

Many of the Industrial Zones of the Rotorua Lakes District Plan operate in proximity to residential zones containing established residential development. The requirement for the industrial activities operating to meet the residential noise limits applying in the Residential Zone forms part of the existing environment. This requirement will continue to control the noise generating potential of the industrial activities that operate near to the residential interface. The MDRS does



not seek to change the permitted noise levels or rezone land previously set aside as an industrial buffer.

We consider the key potential noise effects on the Industrial Zone operators of introducing the MDRS is the increase in residential development height authorised by the MDRS.

If a three-storey residential development is established on or near to the Industrial Zone, the industrial activity will be required to meet the residential noise limits when assessed at the second and third floors of the residential dwelling. These assessment locations will be difficult to screen effectively by acoustic fencing or buildings, and therefore the MDRS may give rise to new non-compliance issues at the zoning interface.

The practical implications for the industrial noise makers are described generally in this advice.

The change in noise effects arising from moving from the legal existing environment in the ODP (two-storey development) to the MDRS proposal (three-storey development) is likely to increase the degree of overlooking and new non-compliances. We expect that this change will only increase the new non-compliances by a modest amount, as most will have occurred during the change from single-storey to two-storey development that is already authorised by the ODP.

Please contact me if you require any further information.

Yours sincerely,



Jon Styles, MASNZ  
Director and Principal

# Appendix 18 – Qualifying Matters Map



Figure 1: Map of Qualifying Matters for PC9 – Western

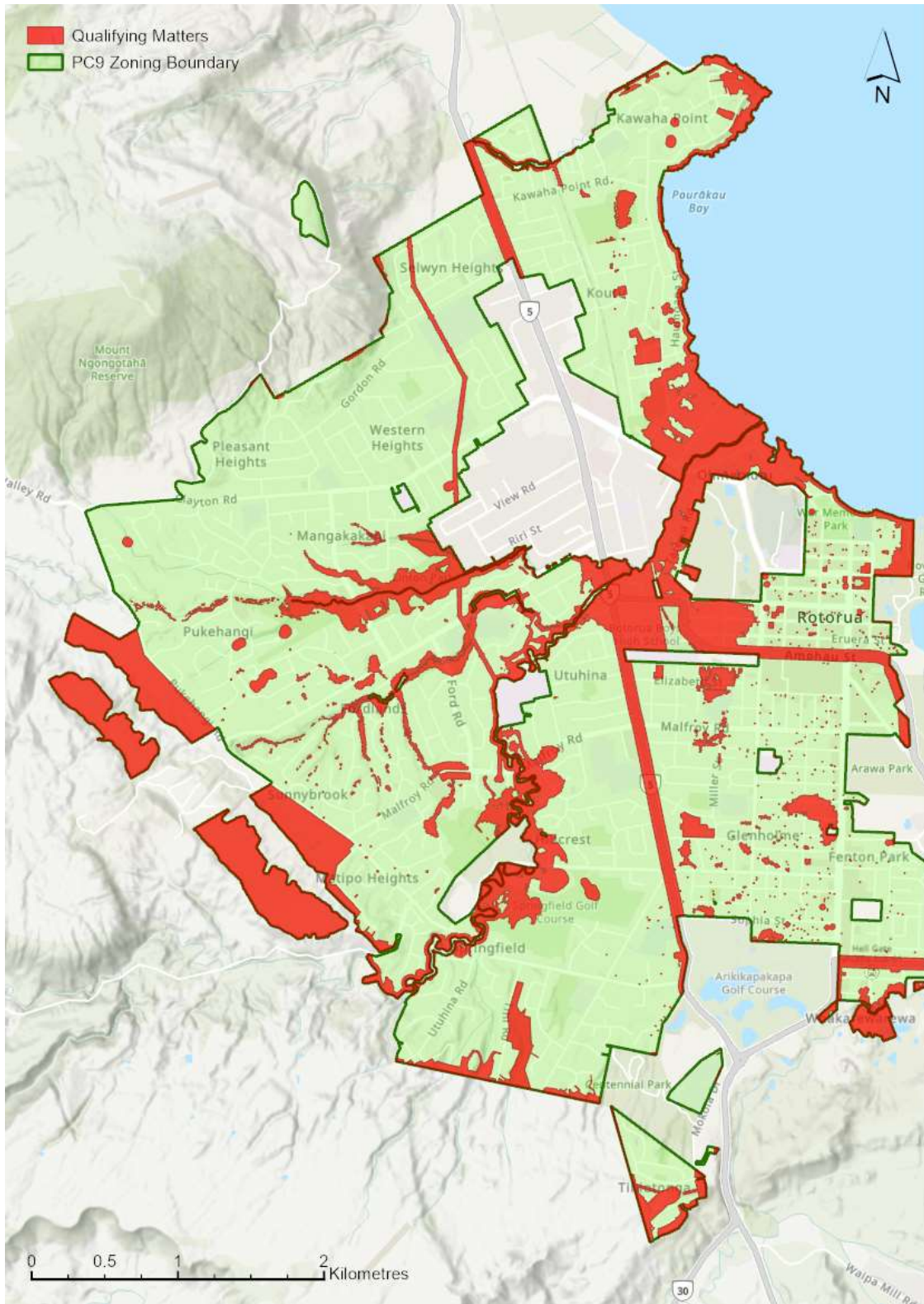


Figure 2: Map of Qualifying Matters for PC9 – Central



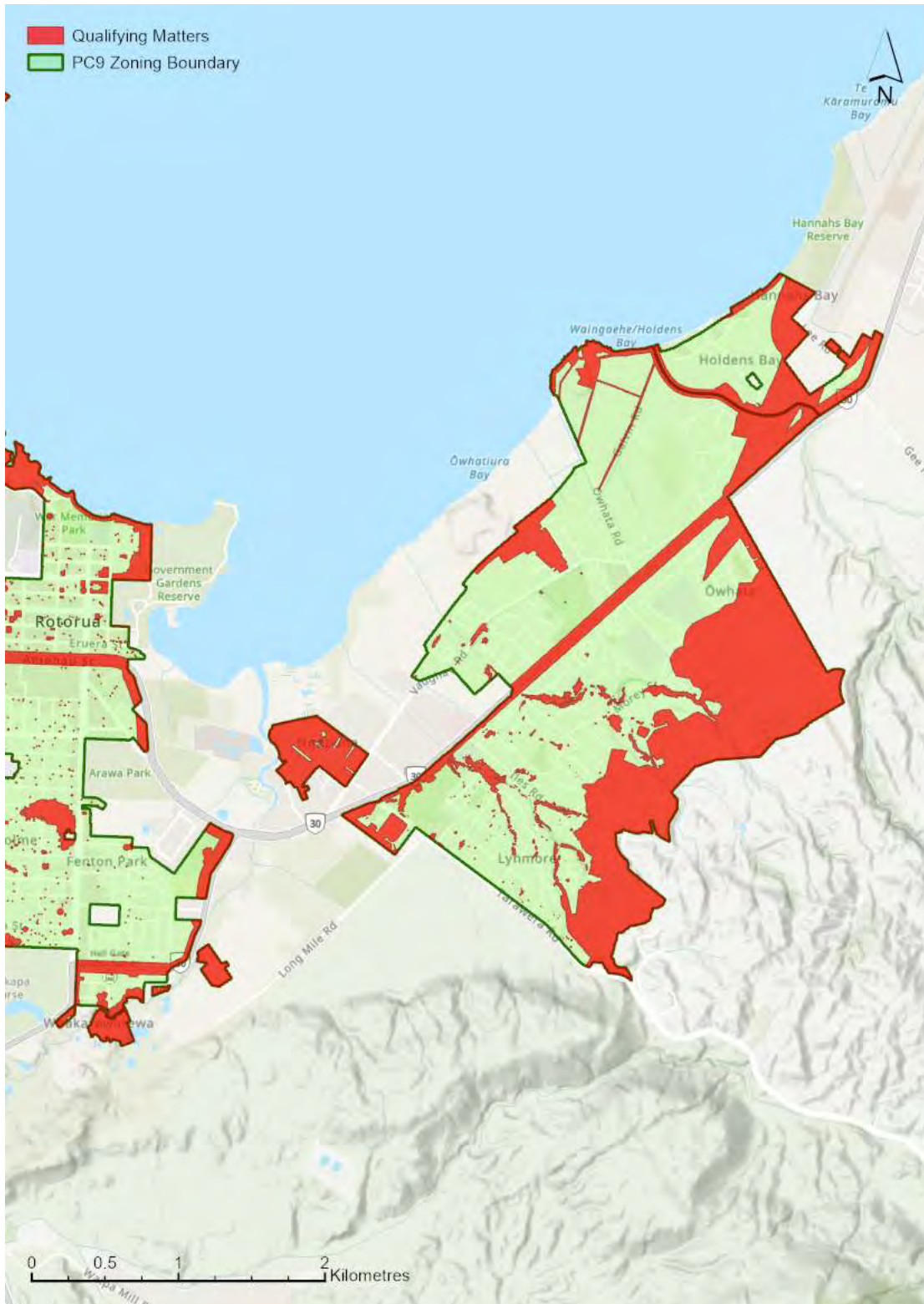


Figure 3: Map of Qualifying Matters for PC9 – Eastern

# Appendix 19 – Consultation Report

## Specific Consultation Process

Below is a summary of the consultation and engagement undertaken with Mana Whenua, Government agencies and other stakeholders, which informed the preparation of PC9.

The Council has legal obligations under the RMA to consult with a range of parties prior to notification of PC9. These obligations are summarised as follows:

### **Schedule 1**

*Clause 3(1) During the preparation of a proposed policy statement or plan, **the local authority concerned shall consult—***

- (a) the Minister for the Environment; and*
- (b) those other Ministers of the Crown who may be affected by the policy statement or plan; and*
- (c) local authorities who may be so affected; and*
- (d) the tangata whenua of the area who may be so affected, through iwi authorities; and*
- (e) any customary marine title group in the area.*

*Clause 3B For the purposes of **clause 3(1)(d)**, a local authority is to be treated as having consulted with iwi authorities in relation to those whose details are entered in the record kept under **section 35A**, if the local authority—*

- (a) considers ways in which it may foster the development of their capacity to respond to an invitation to consult; and*
- (b) establishes and maintains processes to provide opportunities for those iwi authorities to consult it; and*
- (c) consults with those iwi authorities; and*
- (d) enables those iwi authorities to identify resource management issues of concern to them; and*
- (e) indicates how those issues have been or are to be addressed.*

*Clause 4A Before notifying a proposed policy statement or plan, a local authority must—*

- (a) provide a copy of the relevant draft proposed policy statement or plan to the iwi authorities consulted under clause 3(1)(d); and*
  - (b) have particular regard to any advice received on a draft proposed policy statement or plan from those iwi authorities.*
- (2) When a local authority provides a copy of the relevant draft proposed policy statement or plan in accordance with subclause (1), it must allow adequate time and opportunity for the iwi authorities to consider the draft and provide advice on it.*

Throughout the preparation of PC9, the Council has consulted extensively with the Ministry for the Environment, other Ministers of the Crown (incl, Kāinga Ora, Waka Kotahi), neighbouring local authorities including the Bay of Plenty Regional Council, relevant iwi authorities, other Mana Whenua groups, the development

sector and the community generally. Summaries and working versions of PC9 have been provided to the parties in clause 3(1) progressively, with a range of feedback being received. Feedback from Mana Whenua was directly relevant to the approach taken to the Residential 3 zone, papakāinga, and the other provisions as it related to specific feedback received from various Māori Land Trusts. Most recently, a full copy of PC9 and the supporting Section 32 report was provided to all of the parties in clause 3(1) on 11 July 2022.

Date	Group	Format	Subject Matter	Feedback
14 Feb 22	Mana Whenua	Zoom workshop	Discuss and agree on objectives and high-level aspirations for urban growth and housing in Rotorua. Including advantages and disadvantages of medium density.	<ul style="list-style-type: none"> <li>• Medium density housing allows for better access to affordable housing, utilizes land, infrastructure is existing, supports businesses, provides employment opportunities and enables more choice.</li> <li>• Medium density housing can undermine tikanga values, i.e. there should be no houses above the height of the meeting house, there are large consequences if done wrong, can place pressure on infrastructure and transport and could inhibit community wellbeing.</li> <li>• Important that council understands the challenges.</li> <li>• Significant challenges to papakāinga, the current District Plan is one of the issues.</li> </ul>
22 Feb 22	Technical Advisory Group- Kāinga Ora, Ministry of Housing and Urban Development, Bay of Plenty Regional Council, Waka Kotahi, Ministry for Education	Zoom workshop	Discuss work programs going on within the TAG group and how they tie into the FDS and PC9. Inform TAG group with the scope of the FDS.	<ul style="list-style-type: none"> <li>• Members wanted to use the TAG Forum provide input on PC9.</li> <li>• BOPRC asked if we will be getting Iwi representation on our Programme Steering Group.</li> <li>• The proposed scope of PC9 was supported by the TAG members.</li> <li>• KO emphasised the need for high density residential zone in the central part of the city.</li> </ul>
7 Mar 22	Pukeroa Ōruawhata Trust	Zoom workshop	Overview of the development of the changes to the District Plan and Future Development	<ul style="list-style-type: none"> <li>• Ngāti Whakaue are mana whenua in the 'caldera'.</li> <li>• A clear and known mandate in terms of acting in a formal capacity.</li> <li>• Need to bring agencies together, it KO, MHUD and Waka Kotahi.</li> <li>• Resourcing sites with capital funding to build homes.</li> <li>• Can resource its own projects and act quickly.</li> </ul>

			Strategy and get feedback.	<ul style="list-style-type: none"> <li>• Need to acknowledge the volume of land that can be released across brownfield opportunities.</li> <li>• Understand aspirations that Pukeroa Ōruawhata Trust have to ensure that supply management is understood.</li> <li>• Medium density housing takes the pressure of Māori owned land which surrounds the city.</li> <li>• Has a future focus.</li> </ul>
10 Mar 22	Developers	Zoom workshop and Email / Kōrero Mai (18 Mar 22)	<p>Update on Infrastructure Acceleration fund and development contributions policy. Overview of change to the district plan and Future Development Strategy and general discussion.</p> <p>Following the workshop, the presentation was emailed, and another opportunity was given to provide feedback.</p>	<ul style="list-style-type: none"> <li>• With an increasing population, there will need to be more commercial centres outside of main CBD.</li> <li>• Terraced housing not overly desirable way to live in Rotorua, however see the need to stop long term fringe sprawling.</li> <li>• Need to understand housing typology – what people are looking for, who is looking for them and where they need to be across the city.</li> <li>• Concerns were raised regarding affordability - for developers and buyers.</li> <li>• Important to set city up so there is flexibility for providing housing options and to have enabling rules.</li> </ul> <p>Kōrero Mai Feedback:</p> <ul style="list-style-type: none"> <li>• No further feedback was recorded.</li> </ul>
14 Mar 22	Mana Whenua	Zoom workshop and Email / Kōrero Mai (17 Mar 22)	Overview of the development of the changes to the District Plan and Future Development Strategy and get feedback.	<ul style="list-style-type: none"> <li>• Many felt they would like to consult their wider iwi and hapū before providing feedback.</li> <li>• Communities need to be protected from commercial development.</li> <li>• Focus on restoration, protection and growth of traditional areas.</li> <li>• Concern was raised as to the height of buildings and noted that Marae should never be in the shadow of another building.</li> <li>• Concerns of impact of mass development and how it may influence affordability.</li> <li>• Concerns over natural hazards were raised.</li> </ul>



			<p>Following the workshop, the presentation was emailed, and another opportunity was given to provide feedback.</p>	<ul style="list-style-type: none"> <li>• Redevelop larger buildings already in the inner city.</li> <li>• Consider financial viability of higher story buildings with regards to geotech.</li> <li>• Interested in seeing the market for city centre apartments.</li> <li>• Inner-city apartments would be good for CBD revitalization.</li> <li>• Questions were raised regarding the types of housing being built and if they would effectively be creating project housing to get people out of motels.</li> <li>• Views around smaller housing typologies (1 –2 bedroom) not being suitable for Māori families.</li> <li>• Iwi management plans and policies relating to papakāinga could be refreshed to update to the plan changes – look at toolkits already available.</li> </ul> <p>Kōrero Mai Feedback:</p> <ul style="list-style-type: none"> <li>• No further feedback was received.</li> </ul>
15 Mar 22	Consultants	Zoom workshop and Email / Kōreo Mai (16 Mar 22)	<p>Overview of the development of the changes to the District Plan and Future Development Strategy and get feedback.</p> <p>Following workshop, the presentation was emailed and another opportunity was given to provide feedback.</p>	<ul style="list-style-type: none"> <li>• Infrastructure constraints are concerning.</li> <li>• Need to consider how to manage parking, to avoid unsafe parking practices.</li> <li>• Concerns were raised over natural hazard restraints within CBD (geothermal and flooding).</li> <li>• Encourage and drive comprehensive residential infill.</li> <li>• Industrial development constrained by supply.</li> <li>• Consider mixed-use development within CBD – will lead to town having more vibrancy.</li> <li>• Higher density should only be around established shopping and commercial areas</li> <li>• Limited greenfield land.</li> <li>• Need public transport to be reliable to service increase in demand.</li> <li>• It was noted that there is currently high demand for medium density.</li> <li>• It was noted that there needs to be a good range of typologies – as a good mix should negate any issues.</li> <li>• Peoples’ wellbeing needs to be taken into consideration with regards to apartment sizes – outdoor living areas are a key amenity.</li> <li>• Would ex-farming development have to adhere to BOPRC nutrient rules?</li> <li>• Need to move away from “big backyard” ideal – many people are struggling to buy a home, need for intensification with good rules in place to ensure good design.</li> <li>• Maintain Ngongotahā and Hamurana as a “village”.</li> </ul>

				<ul style="list-style-type: none"> <li>• Growth projections need to be substantiated by solid data.</li> <li>• Do not feel that tier 1 standards should be applicable to Rotorua and that it should develop based on market demand instead.</li> <li>• Support for comprehensive larger scale medium density developments where outdoor space can be planned and managed including infrastructure.</li> <li>• Developments are increasing stormwater issues.</li> <li>• Racecourse offers immense opportunity for a comprehensively planned area.</li> <li>• Covenants could be used to control the quality of terrace housing to maintain standards.</li> <li>• Market prefers freehold title rather than unit titles with fewer restrictions.</li> <li>• “Mum and Dad” developer is more likely to stay with status quo (low level) – as multi-level construction costs higher.</li> <li>• It will take a long time to see change with small pockets of developments and with these not necessarily in the most accessible locations.</li> <li>• Likely outcome of MDRS is that it will make it easier to build large single dwellings on a site which is not the intention of MDRS.</li> <li>• Consider providing stormwater disposal guidelines (in the way that Matamata-Piako District and Hamilton City Councils provide).</li> <li>• Re-visit stormwater options.</li> <li>• It would be good to see incentives on density – for developers.</li> </ul> <p>Kōrero Mai Feedback:</p> <ul style="list-style-type: none"> <li>• No further feedback was received</li> </ul>
15 Mar 22	Community Stakeholders	Zoom workshop and Email / Kōrero Mai (16 March 22)	<p>Overview of the development of the changes to the District Plan and Future Development Strategy, and get feedback.</p> <p>Following workshop, the presentation was emailed and another opportunity</p>	<ul style="list-style-type: none"> <li>• Support housing above commercial premises that look good and are maintained.</li> <li>• Consideration needs to be made regarding accessibility.</li> <li>• Needs to be a good mix of housing options to suit various people's needs.</li> <li>• Consider alternative ways to get people into housing (eg Tiny House, Papakāinga).</li> <li>• Area between Kawaha Point and Ngongotahā for high density greenfield development.</li> <li>• Concerns were raised over enabling more houses within Lakes A Zone.</li> <li>• Council needs to ensure the community is informed – “bring the community with you”.</li> <li>• School capacity and transport need to be taken into account.</li> </ul>

			was given to provide feedback.	<ul style="list-style-type: none"> <li>• It was noted that there needs to be a plan for community spaces/hubs.</li> <li>• Design guide needs to be put in place and suggestions of what good design is.</li> <li>• Ensure links to Eastside Community Wellness plan remain open.</li> <li>• Questions around whether council is engaging KO/HUD.</li> <li>• How to bring this all together to make it coherent, and ensure healthy living is incorporated to make it a pleasant place to live.</li> <li>• Ensure accessibility to good design at the beginning of the process.</li> </ul> <p>Kōrero Mai Feedback:</p> <ul style="list-style-type: none"> <li>• No further feedback was received.</li> </ul>
24 Mar 22	Airport	Zoom meeting	Provide an update of the work to date, including an introduction to PC9 and the FDS. Including gathering any feedback or upcoming work programmes of the airport.	<ul style="list-style-type: none"> <li>• Current air noise contours are adequate.</li> <li>• Aspiration for the air noise contours to be retained as a qualifying matter.</li> <li>• Future aspirations for business park/commercial activities supporting the airport.</li> </ul>
29 Mar 22	Whakatane District Council	Zoom meeting	Introduction to PC9 and the FDS. Discussion to see if any workstreams align between councils.	<ul style="list-style-type: none"> <li>• Whakatane District Council has conducted an HBA.</li> <li>• Aspiration for growth of Eastern Bay of Plenty and transport connections strengthened.</li> </ul>
1 Apr 22	Taupō District Council	Zoom meeting	Introduction to PC9 and the FDS. Discussion to see if any workstreams align between councils.	<ul style="list-style-type: none"> <li>• Demographics in Taupō have shifted recently.</li> <li>• Surplus industrial land.</li> <li>• Working from a market responsive approach.</li> <li>• Have noted some tensions between the outcomes of the NPS-UD and other National Policy Statements.</li> </ul>
7 Apr 22	Tauranga City Council	Zoom meeting	Introduction to PC9 and the FDS. Discussion to see if	<ul style="list-style-type: none"> <li>• Discussed approach to PC9 and the equivalent in Tauranga.</li> <li>• Starting to see developments in Tauranga without carparking.</li> </ul>

			any workstreams align between councils/if we can share information and insights.	<ul style="list-style-type: none"> <li>• Agrees there is benefit in aligning approaches where possible.</li> </ul>
11 Apr 22	Te Manatōpū Hau Kāinga o Ōhinemutu	Workshop	Introduction to PC9. Discussions around the appropriateness of the MDRS being applied in Ōhinemutu and further reaching implications for Rotorua.	<ul style="list-style-type: none"> <li>• Ōhinemutu represents a culturally and spiritually unique and outstanding place in Rotorua.</li> <li>• Rich history of the area.</li> <li>• Community is built around whānau and connection to whenua.</li> <li>• The building form and characteristics of the village form a part of the identity of the people and place.</li> <li>• The villages values should be protected, and there should be no changes to the provisions within Ōhinemutu without thoughtful consultation with the iwi members.</li> <li>• Do not want to see the MDRS applied to Ōhinemutu as it would undermine the cultural values of the villages.</li> </ul>
12 Apr 22	Technical Advisory Group - Kāinga Ora, Ministry of Housing and Urban Development, Bay of Plenty Regional Council, Waka Kotahi, Ministry for Education	Zoom workshop	Discussion around progress with the FDS, including evidence base, opportunities and constraints and next steps. Further discussions around PC9 including the zoning extents, draft provisions and seeking feedback.	<ul style="list-style-type: none"> <li>• Is there any thought to the accessibility mapping as to what the future accessibility may be, i.e. with more public transport. Would have to consider in the future.</li> <li>• Why would we regulate height in the city centre, i.e. have no height limit. If you are going to commercial construction, is there a reason? To give it prominence?</li> <li>• Worth drawing out what the issues are, and what are the toolkits used to deal with that.</li> <li>• Could everything be permitted, we need to justify why we are regulating it.</li> <li>• Impervious surfaces, maximum building sizes, minimum dwelling size, pathway to justify those rules as additional rules.</li> <li>• Question around amenity and the trade off.</li> <li>• Impervious surfaces, what is it managing, flooding or amenity, different approach.</li> <li>• Interplay between building length, etc.</li> </ul>
14 Apr 22	South Waikato District Council	Zoom meeting	Introduction to PC9 and the FDS.	<ul style="list-style-type: none"> <li>• Discussion around progress with South Waikato growth areas.</li> <li>• Currently underway with housing and business assessment.</li> </ul>

			Discussion to see if any workstreams align between councils.	
26 Apr 22	Mana Whenua	Papakāinga Workshop	Discuss feedback from previous hui and review issues and options paper and current provisions.	<ul style="list-style-type: none"> <li>• There was consensus that amendments to the current district plan framework would help to enable papakāinga development, both in the urban areas and the rural zones.</li> <li>• Agreement that development of a Rotorua specific toolkit that would sit outside the district plan would assist iwi when embarking on their development journey.</li> <li>• Discussion in respect of the removal of the requirement for papakāinga to be located adjacent to or adjoining a Marae.</li> </ul>
28 Apr 22	Bay of Plenty Regional Council	Zoom workshop	Update around PC9 and getting further feedback to incorporate into work. Discussions around Bay of Plenty Regional Councils Plan Change 6.	<ul style="list-style-type: none"> <li>• Is there a centres hierarchy? Have you signalled out any other areas? Don't have significant centres here in Rotorua like you do in other areas.</li> <li>• Massive change across the Residential 1 and 2. Shifting from a low density to a medium density from an enabling.</li> <li>• Would be interested to know the support for the higher density zone, considering the significant increase from the MDRS.</li> <li>• The high density would need to be really market driven.</li> <li>• Concentrate on investment in the CBD, focus there.</li> <li>• 800m radius walkable catchment seems conservative.</li> <li>• Proposed building heights - Is there an urban design rationale for 3 different heights within the walkable catchment of the CBD. So then what is the rationale for the different?</li> <li>• Heights are very emotive, unintended outcomes, very contentious. Need to have an RD activity, to have the conversation and get a good outcome.</li> <li>• Maximum building length rule – outcomes on the ground, didn't make too much of a difference. Rule ends up being so long, outcomes to get that across the line. Height to boundaries and setbacks are so generous, feel that it might be conflicting with each other. Can't see the value add.</li> <li>• Minimum dwelling size – is that in the MDRS? Who are we to say that someone shouldn't live in that.</li> <li>• Do you really need a whole separate set of provisions for the HDRZ?</li> </ul>

April 22	Ohinemutu Residential 3 Zone residents, ratepayers and landowners	Survey		<ul style="list-style-type: none"> <li>• A survey was mailed to ratepayers and owners and dropped to letterboxes</li> <li>• 32 responses were received</li> <li>• Main themes in the responses were: <ol style="list-style-type: none"> <li>1. There is an intimate connection with whenua and whakapapa. Ōhinemutu represents a traditional cultural village, which has been passed down the generations and is a place for whanau to connect. There are clear linkages between tupuna and the current generation.</li> <li>2. The importance of the wairua of the whenua and geothermal features, which are throughout the village.</li> <li>3. Ōhinemutu is characteristically and culturally different from the remainder of the Rotorua District.</li> <li>4. Many thought that the current style of the built form, and character do contribute to the cultural heritage of Ōhinemutu, but some also commented on the need to allow for modern materials and technology</li> </ol> </li> <li>• Most respondents favoured the provisions of the current Residential 3 Zone over the MDRS, others favoured more choice.</li> </ul>
April 22	Whakarewarewa Residential 3 Zone residents, ratepayers and landowners	Survey		<ul style="list-style-type: none"> <li>• A survey was mailed to ratepayers and owners and dropped to letterboxes</li> <li>• 4 responses were received</li> <li>• Main themes in the responses were: <ol style="list-style-type: none"> <li>1. Whakarewarewa represents a unique village in Rotorua with significant cultural values.</li> <li>2. There is variety in the style of buildings throughout the village.</li> <li>3. There are also significant ground condition constraints, that both from a physical and cultural perspective, would not support the application of the MDRS to Whakarewarewa.</li> <li>4. The importance of buildings no overshadowing / detracting from the marae.</li> </ol> </li> <li>• Most respondents favoured the provisions of the current Residential 3 Zone over the MDRS.</li> </ul>
April 22	Ngapuna Residential 3 Zone residents,	Survey		<ul style="list-style-type: none"> <li>• A survey was mailed to ratepayers and owners and dropped to letterboxes</li> <li>• 27 responses were received</li> </ul>

	ratepayers and landowners			<ul style="list-style-type: none"> <li>• Main themes in the responses were: <ol style="list-style-type: none"> <li>1. Ngāpuna is a place with a strong connection to whanau, whakapapa and whenua.</li> <li>2. Past decisions have had a negative impact on both the community and the environment. It was clear that the industrial activities on adjacent land has in the past, and continues to, impact negatively on the cultural and historical values of Ngāpuna village.</li> <li>3. The Ngāpuna community is uniquely Māori and generally aspires to have a built form which reflects Maori cultural values. In this regard, survey feedback indicated that it should continue to be developed in a way that reflects its connections to its whakapapa.</li> </ol> </li> <li>• Most respondents responses favoured the current provisions over the MDRS provisions but there was also some feedback about the need for opportunities for whanau to develop their land.</li> </ul>
4 May 22	Mana Whenua	Workshop	Focus on the development of Rotorua's FDS – show where Council expects new housing and business growth to be located and what kind of development and infrastructure will be needed to support growth. Discussion of aspirations are concerning growth and development in the district.	<ul style="list-style-type: none"> <li>• Would like to see the city entranceway expanded.</li> <li>• There are challenges for Māori to develop as they are up against large developers.</li> <li>• Papakāinga should be supported on Māori owned land, the definition should be wider than 'adjacent to Marae', enable flexibility and introduce permitted standards.</li> <li>• Concerns were raised over heights and densities – too enabling.</li> <li>• Communal living is what keeps people strong, proposed housing types would break down the foundation of iwi.</li> <li>• This is a wellbeing issue not just a housing issue.</li> <li>• There needs to be a green infrastructure plan alongside the economic plan.</li> <li>• Need to consider how to fix the issues we have now while at the same time looking forward.</li> <li>• What is the vision for the city?</li> <li>• Needs to be a strategy for commercial and business growth.</li> <li>• Infrastructure constraints.</li> <li>• Like to see heavy industry moving outside of the city, want industry and commercial away from Māori villages - this breaks down the foundation of iwi.</li> </ul>



				<ul style="list-style-type: none"> <li>• Consider having buffers around Marae and residential activities.</li> <li>• Long term plan is too restrictive.</li> <li>• In the future need to consider options for Mamakū.</li> <li>• Extend infrastructure north-east to support development of whenua Māori.</li> <li>• More people living in city would bring back life – maximise people in central city.</li> </ul>
5 May 22	Developers	Workshop	Discuss what has been developed to date. Take through opportunities, constraints, issues and options in relation to FDS. Take through approach to zoning and plan provisions regarding the housing plan change and Councils thinking in relation to a design guide.	No attendance at the workshop and therefore no feedback was collected. A follow up email was sent calling for any feedback, however, no further feedback was received.
5 May 22	Consultants	Workshop	Discuss what has been developed to date. Take through opportunities, constraints, issues and options in relation to FDS. Take through approach to zoning and plan provisions regarding the housing plan change and Councils thinking in relation to a design guide.	<ul style="list-style-type: none"> <li>• Concerns over flooding issues in Residential 2 Zone.</li> <li>• Feasibility of high density.</li> <li>• Would insurance companies insure buildings in flooding areas.</li> <li>• More parks are needed in Glenholme.</li> <li>• Unsure if the best opportunity to get height in the City Centre 3 Zone, need to consider the landscape impacts.</li> <li>• Can we encourage staging of developments and how to create certainty for those developments that involve more units.</li> <li>• Concerns were raised that sporadic high rises will be put in areas with inadequate parking and an uncoordinated demand for localised infrastructure.</li> <li>• Modern cohesive planned terrace housing looks good in comprehensive larger group, however in isolated one-off development amongst existing low density one level housing, may not look good – leading to visual and infrastructure effects and cost implications.</li> <li>• Look at wide berms being utilised for developed recessed road parking.</li> </ul>

				<ul style="list-style-type: none"> <li>• There is already a parking issue in high occupation housing and this will worsen unless mitigated.</li> <li>• Concerns were raised over increased density within the geothermal field.</li> </ul>
5 May 22	Community Stakeholders	Workshop	Discuss what has been developed to date. Take through opportunities, constraints, issues and options in relation to FDS. Take through approach to zoning and plan provisions regarding the housing plan change	<ul style="list-style-type: none"> <li>• Would like the focus to be on a holistic approach with the plan change, there is no point in having a housing plan change if you are not going to address other areas of the plan to enable community wellbeing</li> <li>• Real focus moving forward on climate change adaptation and there needs to be a stronger consideration of the effects climate change will have.</li> <li>• Design guidance wanted around creating communities.</li> <li>• Like the idea of creating greater densities in the city, as it encourages connection in space/walkability within higher density areas.</li> <li>• Would like to see the effects of these changes rebalance connection between retail/residential.</li> </ul>
11 May 22	Ministry of Education	Meeting	Introduction of PC9 and discussions on how it may impact the education system in Rotorua.	<ul style="list-style-type: none"> <li>• Wanted to meet to see if we could discuss the impacts that the Housing Plan Change may have on the school network in Rotorua.</li> <li>• Generally there are some very full parts of the network.</li> <li>• Would be interested in a timeline and where the growth will occur and likely how much it will be.</li> <li>• 3-5 year lead time for schools, ie from when they are acknowledged as being needed to when they are built on the ground and operative.</li> <li>• Ngongotaha, Ōwhata, and Lynmore Schools are at capacity.</li> <li>• Primary school size ideal 650 for Rotorua.</li> <li>• Ministry is starting to move towards purchasing lease hold land.</li> <li>• They do consider people moving within the network.</li> <li>• Interested in seeing how many students mixed use will create</li> </ul>
11 May 22	Hurungaterangi Marae	Presentation and workshop	Introduction of PC9 and explanation of what the MDRS and how it may apply. Discussions around	<ul style="list-style-type: none"> <li>• Council have a long history of allowing incompatible development in and around Ngāpuna</li> <li>• Move pumphouse and wastewater treatment plant – too close to residential area.</li> <li>• Do not want more houses in Ngāpuna as it creates more paru.</li> </ul>

			<p>whether it is appropriate in Ngāpuna.</p>	<ul style="list-style-type: none"> <li>• Want warm dry homes.</li> <li>• Want to see a buffer zone like there is around the marae, extended to around the residential area, as the Residential 3 Zone village is a living cultural village.</li> <li>• Wāhi tupuna at the Ngāpuna bath – it is surrounded by industry.</li> <li>• What can be done to enable marae development?</li> <li>• General desire for the relationship to strengthen the relationship between Council and the residents on Ngāpuna.</li> <li>• Would like to see the conversation continue with Ngāpuna around what rules are appropriate given the cultural values.</li> <li>• Papakāinga guide would be helpful.</li> <li>• Geothermal features/bores should be kept for the benefit of our people.</li> <li>• The village status, ie the village being separate from the rest of the residential zone is very important.</li> <li>• Industrial and waste pollution is a massive problem.</li> <li>• Desire for the industrial land to be rezoned to residential.</li> <li>• Can Ngāpuna have their own framework, that isn't linked to Ōhinemutu and Whakarewarewa. Not all villages are the same/have the same values and therefore should not be managed in the same way.</li> <li>• To be enabling means to support the people through the housing process.</li> </ul>
20 May 22	Primary Schools	Workshop	<p>Presentation and workshop around the work happening with regards to PC9 and the FDS.</p> <p>Discussion and activity around where students think growth is/is not appropriate and what they would like to see Rotorua look like in the future.</p>	<ul style="list-style-type: none"> <li>• General acceptance and understanding that medium density living is needed within Rotorua.</li> <li>• Strong desire to address climate change through the way that we plan our city.</li> <li>• Would like to see an increase in parks, and activities within the parks.</li> <li>• Connection of people to a healthy environment.</li> <li>• Would like the public transport connections strengthened, including bus network, bike paths, and accessible and safe walking paths.</li> </ul>

20 May 22	High Schools	Workshop	<p>Presentation and workshop around the work happening with regards to PC9 and the FDS.</p> <p>Discussion and activity around where students think growth is/is not appropriate and what they would like to see Rotorua look like in the future.</p>	<ul style="list-style-type: none"> <li>• Focus on creating a community.</li> <li>• Would like to be able to walk/bike everywhere.</li> <li>• Strengthen the public transport system.</li> <li>• Emphasis on climate change resilience.</li> <li>• Greenspaces mixed in with the residential land.</li> <li>• Tiered system of housing heights moving back from the city centre.</li> <li>• Important that there is a variety of housing types to fit everyone needs.</li> <li>• Interest in having smaller houses for the next generation.</li> <li>• Emphasis on affordable, dry and healthy homes.</li> </ul>
26 May 22	Technical Advisory Group- Kāinga Ora, Ministry of Housing and Urban Development, Bay of Plenty Regional Council, Waka Kotahi, Ministry for Education	Zoom workshop	<p>Update on where we are at with PC9 and discussions around the qualifying matters.</p>	<ul style="list-style-type: none"> <li>• Would like the provisions to be more lenient.</li> <li>• How do you assess applications for high density effects? Being greater than the MDRS limit.</li> <li>• Consider the unit number limitation in the high-density zone, every development would trigger consents.</li> <li>• When you create a 300m2 lot size, are you able to create 3 units with the standards, realistically?</li> <li>• Would probably want to create a greater vacant lot, otherwise you are going to get single story.</li> <li>• Don't think you would get many 100 units in a development with regards to the transport provisions.</li> </ul>
7 Jun 22	Transpower	Workshop	<p>Introduction into the work happening with PC9 and what it will mean for the infrastructure moving into the future. Discussions</p>	<ul style="list-style-type: none"> <li>• Want the current provisions relating to the national grid to be pulled over as a qualifying matter.</li> <li>• Would be able to provide reasoning/justification for this being the case.</li> <li>• At this stage there are no further plans to expand the network.</li> </ul>

			around the qualifying matters.	
8 Jun 22	General Community	Presentation	Presentation on the future of urban housing in Rotorua and the general provisions for PC9. Opportunity for questions and discussion at the end.	<ul style="list-style-type: none"> <li>• Ensure that the community is serviced with open spaces and reserves.</li> <li>• General understanding for the need to have medium density housing.</li> <li>• Concerns around the geotechnical constraints of the areas.</li> <li>• Timeframes seem very short and concern that council is not able to consider everything holistically.</li> <li>• Would like to see the infrastructure strategy at the same time as the housing strategy to show that the houses are going to be serviced and not cause more infrastructure stress.</li> </ul>
8 Jun 22	General Community	Community Drop in Session	Opportunity for members of the public to ask questions about the upcoming PC9 and share feedback. Activity organised to help facilitate conversations around the changes that may be experienced in Rotorua.	<ul style="list-style-type: none"> <li>• Racecourse would be a great location for high density housing.</li> <li>• Want to see support for the communities, i.e. communal gardens.</li> <li>• Mixing housing typologies and those who live inside of the housing.</li> <li>• Would like to see an increase in the number of apartments in the city centre, with shops underneath.</li> <li>• Communities need to be supported by the open space available.</li> <li>• Do not allow commercial interests to dictate our courses of actions.</li> <li>• A lot of the land within the city is not commercially feasible to build high density housing on as the geotechnical conditions are poor.</li> <li>• Issues with flooding and how flooding is currently being managed.</li> </ul>
14 Jun	Tatau Pounamu	Presentation and Meeting	Introduction to the Housing Plan Change and what it may mean for the east side. Further discussions around how other issues may be addressed in the FDS.	<ul style="list-style-type: none"> <li>• Feedback from attendees was positive and there was consensus that the proposed changes could significantly benefit residents of Eastside.</li> <li>• Tatou Pounamu also reiterated that the plan change must align with and support the direction set out in the Eastside Wellness Plan.</li> <li>• Some attendees liked the idea of mixed use development i.e. residential development above commercial centres</li> <li>• Candidates were supportive of Council providing more housing choice</li> <li>• Tatou Pounamu expressed interest in further conversations on housing in the context of their wellness plan</li> </ul>

14 Jul 22	Ministry for the Environment	Meeting	Discuss progress to date with Plan Change.	<ul style="list-style-type: none"> <li>• Request from Ministry for the Environment (MFE) and Ministry for Housing and Urban Development (MHUD) to update on progress of the Housing Plan Change.</li> <li>• Discussion in regards qualifying matters and how other tier 1 Councils are approaching these matters in the lead up to notification.</li> <li>• MFE provided RLC with contact who has been working with other Councils on qualifying matters.</li> </ul>
21 Jul 22	Ministry for the Environment	Meeting	Discuss qualifying matters and legal effect	<ul style="list-style-type: none"> <li>• Discussion in regards our existing and new qualifying matters and understanding of legal effect of each.</li> <li>• Appreciate that RLC was seeking to be as enabling as possible from when the MDRS has legal effect on 20 August</li> <li>• In relation to qualifying matters, needs to carefully consider where it is appropriate to modify or reduce building height I.e. as in the case of OLS</li> </ul>