

PROPERTY **E**ECONOMICS



VARIATION 1 AND PLAN CHANGE 19 QUALIFYING MATTERS ASSESSMENT

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SCHEDULE

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1. INTRODUCTION

Property Economics has been engaged by Porirua City Council (**Council**) to undertake an economic assessment of the Theoretical and Feasible capacity of Proposed Variation 1 to the Proposed District Plan (**PDP**) and Plan Change 19 (**PC19**) to the Operative District Plan (**ODP**)¹.

This report partially represents an extension of the work Property Economics previously undertook in assessing the Feasible Capacity for the Porirua Housing and Business Capacity Assessment (**HBA**) in 2021 under the PDP.

This report however also extends to provide economic advice on the Qualifying Matters (**QFM**) and Northern Growth Area.

Councils are required to give effect to the National Policy Statement on Urban Development (**NPS UD**) and the Resource Management Act (Enabling Housing Supply and Other Matters) Amendment Act 2021 (**Enabling Housing Supply Act**). This includes the introduction of the Medium Density Residential Standards (**MDRS**) under the Enabling Housing Supply Act where the government introduced a significant portion of residential capacity to residential zones in Tier 1 authorities across New Zealand. Variation 1 to the PDP represents the introduction of the MDRS into the PDP.

In addition to the MDRS being applied across the Medium Density Residential Zone (**MRZ**), Variation 1 includes:

- The introduction of the High-Density Residential Zone (**HRZ**) that has no limit on site coverage and allows for a building height of 22m;

¹ For ease of reference this will be referred to as 'Variation 1' in the report

- The Residential Intensification Precinct around centres that allows for a building height of 18m;
- Removal of the General Residential Zone (**GRZ**) and replacement with the MRZ, HRZ and Medium Density Residential Zone -Residential Intensification Precinct (**RIP**);
- Increased building height across each of the Commercial Zones; and
- The rezoning of part of the Porirua Northern Growth Area (**NGA**).

This report firstly assesses the impact of the Variation on Feasible and Realisable residential Capacity supply in Porirua. It then subsequently tests the impact of the various QFMs on capacity and provides an overview of the economic costs and benefits.

Finally, the economic assessment outlines some of the benefits of the upzoning of part of the NGA.

1.1. GLOSSARY & ACRONYMS

- **Theoretical Yield / Plan Enabled Capacity** – The total number of properties that could be developed according to the PDP provisions within the permitted building envelope, irrelevant of market conditions.
- **Comprehensive Development** – A development option that assumes the removal of all existing buildings for a comprehensive redevelopment of the entire site with fewer restrictions.
- **Infill Development** - A development option that assumes the existing building is retained, and new residential house(s) are developed on balance of the site (i.e., the backyard).
- **Standalone House** – Single detached dwelling.
- **Terraced** – Dwellings that are attached horizontally to other dwellings but not vertically. This typology is always built to the ground floor (i.e., does not include homes built above retail stores).
- **Apartments** – Dwellings that are attached vertically and potentially horizontally. Usually in multi-storey developments of higher density.
- **Total Yield**- The total number of dwellings developed.
- **Net Yield** – The total number of dwellings constructed net of any existing dwellings removed. For Infill development, the total yield is equal to the net yield, while for Comprehensive development the net yield is equal to the total yield less the existing dwellings.
- **PCC** – Porirua City Council

- PDP – (Porirua) Proposed District Plan
- ODP – (Porirua) Operative District Plan
- PC19 – Plan Change 19
- HBA – Housing and Business Capacity Assessment
- QFM – Qualifying Matter
- NPS UD – National Policy Statement – Urban Development
- **Enabling Housing Supply Act - Resource Management Act (Enabling Housing Supply and Other Matters) Amendment Act 2021**
- MDRS – Medium Density Residential Standards
- MRZ – Medium Density Residential Zone
- HRZ – High Density Residential Zone
- GRZ – General Residential Zone
- RIP – Medium Density Residential Zone – Residential Intensification Precinct
- NGA – Northern Growth Area
- MCZ – Metropolitan Centre Zone
- SNA – Significant Natural Area
- SAL – Special Amenity Landscape
- SASM – Sites and Areas of Significance to Māori
- FUZ – Future Urban Zone

2. THEORETICAL CAPACITY

2.1. METHODOLOGY AND ASSUMPTIONS

For the Porirua HBA, Eagle Technology ran the Theoretical Capacity Model. This model has not been made available to Property Economics and it is noted that the complexities in running this model led to unreasonably long lead times and the whole of the Wellington Region being late in publishing their HBA Report.

On this basis, Property Economics have assessed the changes to capacity under Variation 1 by proportionally adjusting the original HBA results in accordance with the proposed changes in provisions.

The key differences between Variation 1 and the original Proposed District Plan are as follows:

- Increases in building height across Commercial Zones from:
 - 30m to 50m in the Metropolitan Centre Zone
 - 15m to 22m in the Large Format Retail Zone
 - 12m to 18m in the Mixed Use and Local Centre Zone or up to 22m under the Height Increase A overlay.
 - 11m to 12m in Neighbourhood Centre Zone or 22m under the Height Increase A overlay or 18m in Height Increase B.
- The introduction of the **HRZ** allows for up to 22m apartments, no limits on-site coverage and a recession plane of 8mx60. In most instances, the HRZ covers what was previously the PDP's **MRZ** but there are instances of **GRZ** moving to HRZ.
- The introduction of the RIP over the MRZ allows for dwellings up to 18m in height.
- Applying the Government's directed MDRS across all Residential Zones. This means an:
 - Increase in site coverage from 40% or 45% in the former GRZ and MRZ respectively to 50% under the MDRS.
 - Increase in maximum height of 8m in the former GRZ (now rezoned MRZ) to 11m under the MDRS.
 - Removal of minimum site size.
 - Change to the Recession Planes from 3mx45° to 4mx60°

In order to assess capacity, Property Economics calculated the buildable area on the site under both the PDP provisions and the Variation 1 provisions as outlined above. The difference between these two calculations was then applied proportionally to the original HBA capacity results as calculated by the Eagle Technology Model to ensure a certain level of consistency for comparison. Note that for Standalone and Terraced development options, the increase in buildable space is limited to a maximum of 3 storeys in height. However, capacity has still increased with respect to the site coverage and steeper recession planes.

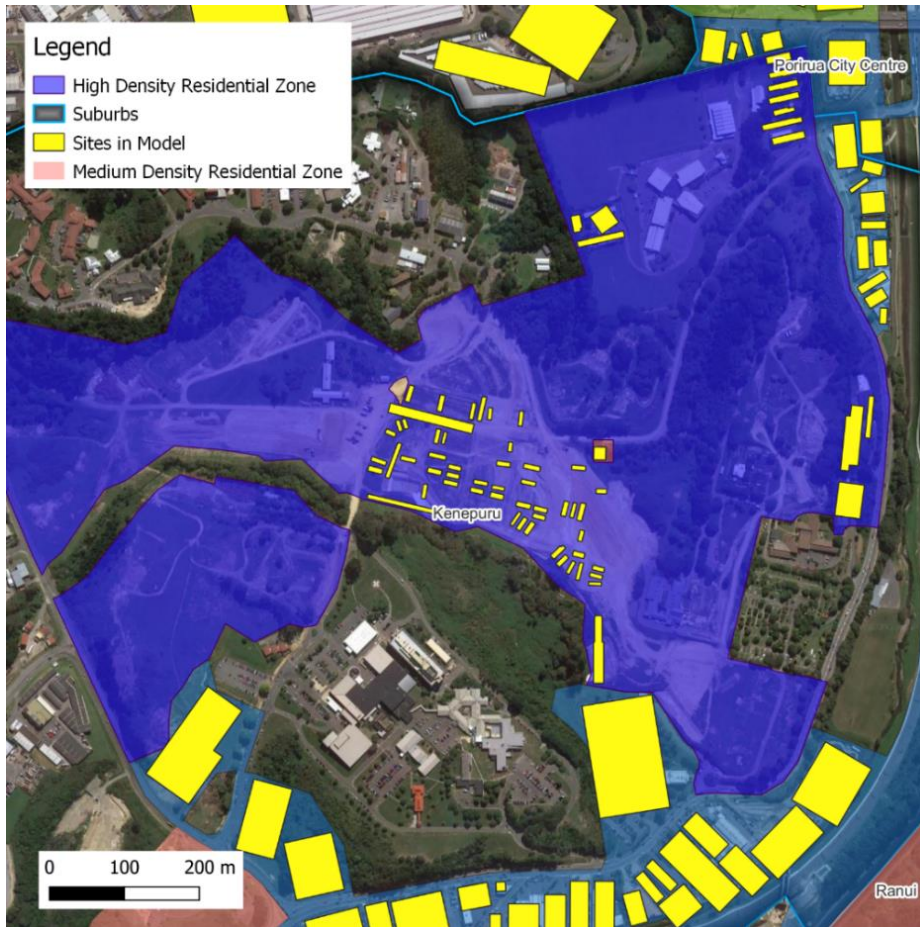
The aspects of Variation 1 that have not been modelled or included are as follows:

- The recession plane that allows for 6mx60° in the Residential Intensification Precinct where it is within 20m of boundary to a road or Open Space/ Active Recreation Zone.
- Outdoor Living Space – on the basis that this is taken care of in the site coverage.
- Any sites and areas that were not included in the original Eagle Technology outputs have not been included in this model. This is primarily of concern for the HRZ which covers large areas that are not currently urban or residential. Specifically, there is:
 - 12.2ha of land in Takapūwāhia north of the City Centre covering the Mahinawa Specialist School and Mana College. These are both state-owned schools and as such, less likely to be sold off and developed.
 - 6.68ha area of flat land in the northernmost area of Kenepuru covering Bishop Viard College – a private catholic school. Although schools are unlikely to relocate in place of residential activities, there is a precedent of it happening elsewhere in the country. This represents a potential theoretical capacity of around 2,400 100sqm apartments (based on a 60% coverage at six storeys).
 - Kenepuru Landing – In the greenfield capacity assessment it was estimated that this area had capacity for around 800 dwellings based on its zoning in the PDP. It is Property Economics' understanding that this number does not include the 100 or so units already built.

Based on the aerials, Property Economics estimates there is an additional 32.76ha of undeveloped land that is included within the High-Density Residential Zone. Even after removing half of this area for roading and other constraints, this area could yield around 6,000 apartments.
 - Summerset on the Landing Retirement Home. It is possible Summerset will add floors to any apartments they are building under the new HRZ.

Figure 1 shows the geospatial extent of this Kenepuru HRZ and highlights the areas that have been included in the model.

FIGURE 1: KENEPURU HIGH DENSITY RESIDENTIAL ZONE UNMODELLED AREA



Source: Property Economics

COMPETING LAND USES IN COMMERCIAL ZONES

In Property Economics' previous assessment of capacity in Porirua for the HBA, all of the capacity in the Commercial Zones was included in the realisable capacity. This capacity was distinguished from the capacity in the residential zone so that the results would be easily adjustable to differing assumptions on the likelihood and practicality of the Commercial Zones being used for residential purposes.

Ultimately, this is dependent on the relative balances in demand and supply for both business and residential activities. Given the estimates of realisable capacity in the Residential Zone at that time, the propensity for the Commercial Zones to be utilised for residential land uses was considered to be comparatively high.

In this updated capacity assessment, however, the capacity in the Residential Zones has been substantially increased (as a result of the MDRS), such that the Commercial Zones is less likely to be utilised for residential purposes. There has also been more of a consensus on the propensity for residential activities in commercial zones. Specifically, Council has agreed on settling a 20% proportional limit on residential activities in the Commercial Zones as a simplifying assumption.

2.2. THEORETICAL CAPACITY RESULTS

Table 1 shows the Theoretical Capacity of the PDP by Suburb in comparison to the Theoretical Capacity under Variation 1. This shows that Variation 1 produces an increase of over 100,000 dwellings with large increases in potential capacity across the board. In particular, there is a large increase in the Porirua Metropolitan Centre Zone (MCZ) where the height is increased from 30m to 50m.

There are however two suburbs where capacity has decreased. This is not the result of Variation 1 provisions but rather a difference in how the Theoretical Capacity is modelled. In this iteration, additional checks were put in place to ensure that the provisions were adhered to and development was practical. Hongoeka is home to the Māori purposes zone which was previously included in Porirua's HBA. PCC has requested however that the capacity in this special purpose zone be removed. Although it is available for papakāinga development, it is not designed to support urban capacity demand.

In Takapūwāhia, the HRZ has not been included in the model (covers school sites and Elsdon Park) and the remaining sites are all MRZ in the PDP. Hence the decrease in capacity resulting from the development checks put in place exceeds any increase in development capacity from Variation 1, i.e., the move from the original Medium Density Residential Zone to the new MDRS standards is small.

TABLE 1: THEORETICAL CAPACITY COMPARISON BEWTEEN PDP AND VARIATION 1

Theoretical Capacity (Net Yield)			
Suburbs	PDP	Variation 1	Difference
Aotea	5,257	6,039	+ 782
Ascot Park	3,157	7,162	+ 4,005
Camborne	1,795	2,360	+ 565
Cannons Creek	13,012	23,728	+ 10,716
Elsdon	6,826	11,022	+ 4,196
Hongoeka	965	7	(958)
Kenepuru	9,433	14,494	+ 5,061
Papakowhai	2,575	5,824	+ 3,249
Paremata	4,161	9,217	+ 5,056
Plymerton	6,660	13,837	+ 7,177
Porirua City Centre	25,682	47,781	+ 22,099
Pukerua Bay	3,656	3,900	+ 244
Ranui	7,993	17,774	+ 9,781
Takapūwāhia	3,560	3,336	(224)
Titahi Bay	12,090	22,250	+ 10,160
Waitangirua	7,173	15,278	+ 8,105
Whitby	13,751	20,758	+ 7,007
Grand Total	127,746	224,767	+ 97,021

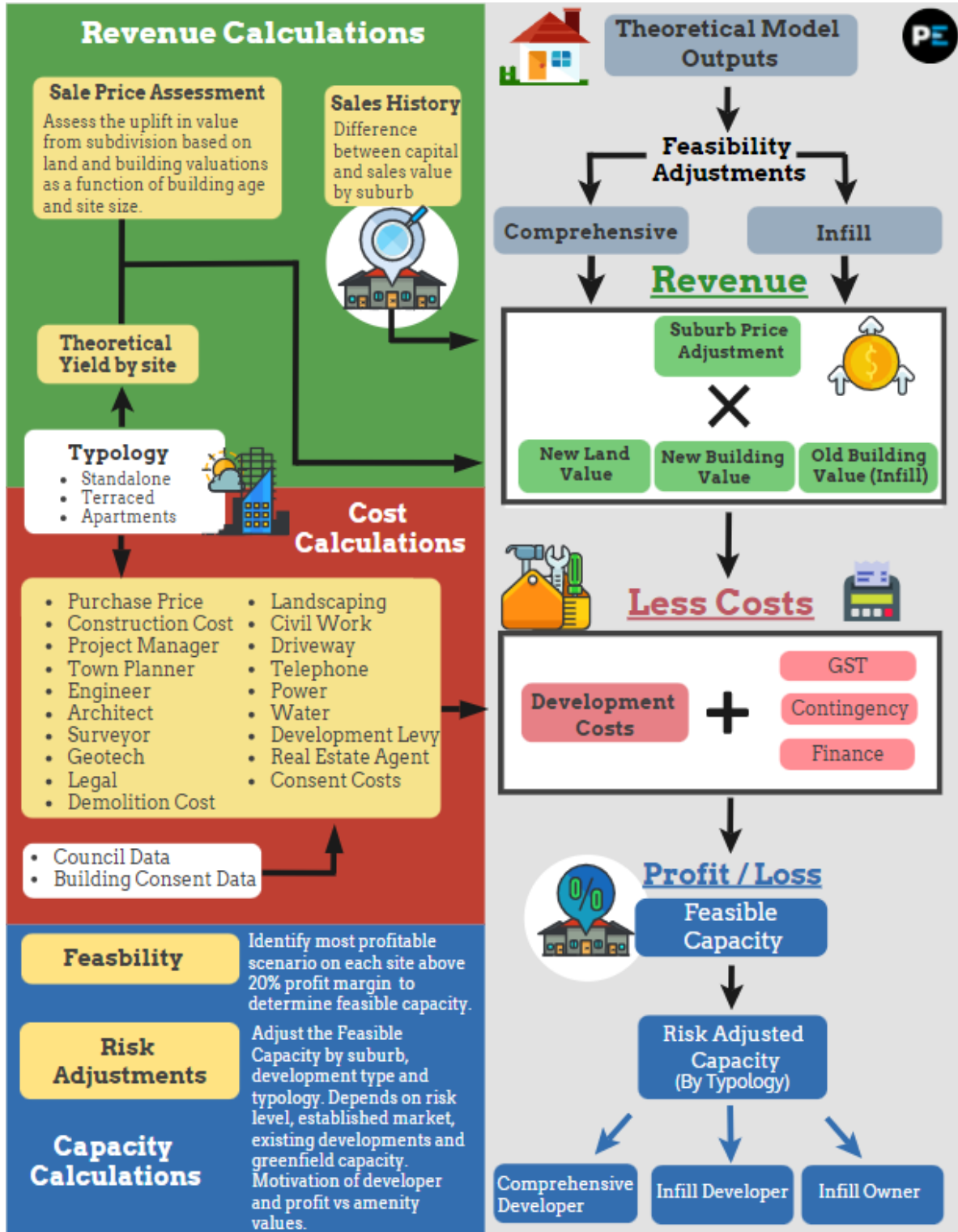
Source: Property Economics

NB: The 127,746 is the net yield and lower than 144,599. Total Yield shown in HBA

3. FEASIBLE CAPACITY MODELLING

A high-level overview of the model utilised by Property Economics in determining the feasible residential capacity for Porirua is outlined in the flow chart in Figure 2 below.

FIGURE 2: PROPERTY ECONOMICS RESIDENTIAL FEASIBILITY MODEL OVERVIEW



4.1. FEASIBLE CAPACITY

Property Economics has assessed the variables outlined above in the Porirua market and run feasible capacity models across the range of locations, land values, improvement values, and land value changes. A key component of the market's willingness to develop on existing urban sites is the relationship between a site's land value, fixed subdivision costs and the identifiable increase in value (sqm) through subdivision.

Table 2 shows the feasible capacity under the maximum profit option for the Commercial Zones, Residential Zones (MRZ) and Intensification Areas (RIP and HRZ). These figures have removed all 'double ups' i.e., where multiple instances were tested on a specific site and represent the most profitable / 'likely' scenario for that site. If we assume that every developer and landowner will objectively choose the most profitable option (out of the 18 development scenarios tested), then the model estimates that Porirua has a total feasible capacity of over 45,700 new dwellings.

Notably, almost 15,500 of these are apartment dwellings which represents a substantial increase in apartment feasibility over the PDP. Importantly these apartments are primarily feasible in the Residential Intensification Areas. In these areas, the height has increased to 18m or 22m from the 11m that was previously permitted in the PDP. It is this change that has enabled apartment options to push ahead of terrace options as the most profitable option within these sites.





However, the most profitable option when ranked against a static market is not always the most likely. In reality, different development options and typologies have differing levels of risk and by extension, differing profit expectations. Take for example a scenario where a developer could make a 24% profit margin by building five Standalone dwellings or a 28% profit margin by building fifteen Apartments. In this instance, although the apartments are more profitable, the standalone option will provide a better return relative to the level of risk and is therefore considered as the more likely development scenario.

Realisable Capacity in the Commercial Zone requires some additional considerations. As previously mentioned, capacity is calculated as 20% of the developable capacity. Additionally, however, residential activities are only permitted on the ground floor if they do not interfere with the commercial road frontage. That is, they are a Restricted Discretionary Activity in the MCZ on the ground floor and in the other centre zones where a site has an active road frontage (as defined by a spatial layer in the PDP mapping). On this basis, we have added an additional 40% profit margin requirement to Standalone and Terrace options where it would require a Restricted Discretionary Consent. This reflects the reality that in these areas, it is more likely that apartments will be built with commercial or retail activities on the ground floor.

By applying different profit margin requirements to each of the different development options based on their relative risk and location, Table 3 shows that the realisable capacity is a more balanced distribution of capacity in regard to the typologies delivered. Specifically, there is a reduction in the capacity estimate to the number of Apartments and Terraces, but an increase in the number of Standalone.

In total, there is expected to be capacity for just under 22,600 realisable dwellings within the Porirua market. It is important to note that this does not represent the number of dwellings that is likely to be built, but rather what could realistically be built in the market provided there was sufficient demand and no construction constraints.





TABLE 2: SUMMARY OF FEASIBLE CAPACITY BY TYPOLOGY AND AREA VARIATION 1

Feasible (Max Profit)	Theoretical	Apartment	Standalone	Terraced	Total	% of Theoretical
Commercial Zones	87,227	955	1,648	8,461	11,064	 13%
Residential	44,923	70	1,177	13,093	14,340	 32%
Intensification Areas	92,617	14,437	229	5,672	20,338	 22%
Total	224,767	15,462	3,054	27,226	45,742	 20%

Source: Property Economics

NB: Intensification Areas includes the RIP and HRZ

TABLE 3: SUMMARY OF REALISABLE CAPACITY BY TYPOLOGY AND AREA VARIATION 1

Realisable Capacity	Theoretical	Apartment	Standalone	Terraced	Total	% of Theoretical
Commercial Zones	17,445	931	465	450	1,846	 11%
Residential	44,923	15	3,594	7,751	11,360	 25%
Intensification Areas	92,617	1,520	2,922	4,941	9,383	 10%
Total	154,985	2,466	6,981	13,142	22,589	 15%

Source: Property Economics,

NB: Commercial Theoretical Capacity has also been updated to reflect the 20% assumption.

5. QUALIFYING MATTERS

Under the Resource Management (Enabling Housing Supply and Other Matters) Amendment Bill, a council can make the MDRS and district plan provisions less enabling to accommodate the following QFMs:

- a) Matters recognised under Section 6;
- b) Matters required to give effect to national policy statements (other than the NPS-UD or the New Zealand Coastal Policy Statement 2010);
- e) To ensure the safe or efficient operation of nationally significant infrastructure;
- f) Open space provided for public use;
- g) Give effect to a designation or heritage order;
- h) A matter necessary to implement, or to ensure consistency with, iwi participation legislation; and
- j) Other matters that make higher density inappropriate in an area, but only if section 77L is satisfied.

There are several provisions already in the PDP that restrict development or provide additional consenting requirements in:

- Coastal and Natural Hazard Areas
- Natural Character areas including Significant Natural Areas (**SNA**), Special Amenity Landscapes (**SAL**) and Coastal High Natural Character Areas.
- Heritage Sites;
- Sites and Areas of significance to Māori (**SASM**);
- Noise Contours - 100m buffer from Railway and State Highway; and
- The National Grid Corridor

The first four points are all recognised under Section 6 of the Resource Management Act while the latter two are required to ensure the safe and efficient operation of nationally significant infrastructure.

In addition to this, Porirua City Council has provided Property Economics with a height variation control layer that reduces building heights within the variation control overlay and / or height in relation to boundary standards for sites adjacent to specific overlays. There are several different variation control areas with differing provisions that are outlined in Section 5.4 of this report.

The purposes of these Height Variation Control overlays are to:

- Reduce the effects of shading on sites on steep, southern sloping sites,
- Reduce the effects of shading on the Mungavin Park Netball courts complex; and

- Limit the building heights on sites adjacent to heritage sites and features and SASM where these would harm the values of these sites.

Lastly, the Takapūwāhia Precinct is an area of undeveloped land that is zoned General Residential in the PDP but has overlays that apply a number of restrictions to ensure the protection of the natural landscape. The Council is intending to retain these restrictions from the PDP including having a reduced maximum height in the areas covered by the Special Amenity Landscape. The underlying zone will however now be MRZ.

Note that the overlays have been calculated on the buildable land area as defined by the Eagle Tech model outputs rather than the total land parcel. This buildable area is setback from the site boundaries to meet both the setback requirements and site coverage restrictions. By calculating overlay coverage on this buildable area, it avoids overestimating the impact of the QFM's that only affects the edges of the site and is unlikely to affect actual building development and will have no impact on the capacity of the site in our model.

Similarly, with all of the following overlays, a minimum coverage of 10% has been applied before it will have an effect. This assumes that in most instances the site coverage is the restricting rule on buildable area rather than setbacks (which have been reduced to only 1m of side and rear boundaries in the MRZ). We therefore assume that in these instances of less than 10% coverage, the buildable area is flexible enough to build closer to the other boundaries and avoid the overlay area.

5.1. NATURAL AND COASTAL HAZARDS

Table 4 summarises the Hazard definitions outlined in APP10- Table 3 and APP10-Table 4 of the PDP. The table details the Natural and Coastal Hazard Overlays and their respective Hazard levels (Low, Medium and High).

TABLE 4: NATURAL AND COASTAL HAZARD OVERLAYS IN THE PORIRUA PDP

Type	Name	Hazard Area
Coastal Hazard	Current Coastal Erosion Hazard	High
	Current Coastal Inundation Hazard	High
	Tsunami Hazard 1/100yr Inundation Extent	High
	Future Coastal Erosion Hazard	Medium
	Future Coastal Inundation Hazard	Medium
	Tsunami Hazard 1/500yr Inundation Extent	Medium
	Tsunami Hazard 1/1000yr Inundation Extent	Low
Natural Hazard	Flood Hazard Stream Corridor	High
	Ohariu Fault 20m or closer	High
	Flood Hazard Overland Flow	Medium
	Pukerua Fault 20m or closer	Medium
	Flood Hazard Ponding	Low
	Fault Rupture Zone (20m < from Fault)	Low
Moonshine 20m or closer	Low	

Source: Property Economics, Porirua City Council

In the PDP, construction of new Hazard Sensitive Activities (which includes Residential) in the Low Hazard Areas is a Restricted Discretionary Activity (non-notified) with the restriction limited to suitable mitigation methods being put in place. Specifically, Policy NH-P3 states:

Provide for Hazard-Sensitive Activities and Potentially-Hazard-Sensitive Activities within the Low Hazard Areas of the Natural Hazard Overlays where it can be demonstrated that:

1. *The activity incorporates mitigation measures that demonstrate that risk to people's lives and well-being and building damage is avoided; and*
2. *The risk to adjacent properties, activities and people is not increased as a result of the activity proceeding.*

The Coastal Environment chapter has a similar policy as it relates to the identified Coastal Hazards. In both the Medium Coastal and Natural Hazard areas, residential activities are a Discretionary Activity while in the High Hazard area it is a Non-Complying Activity.

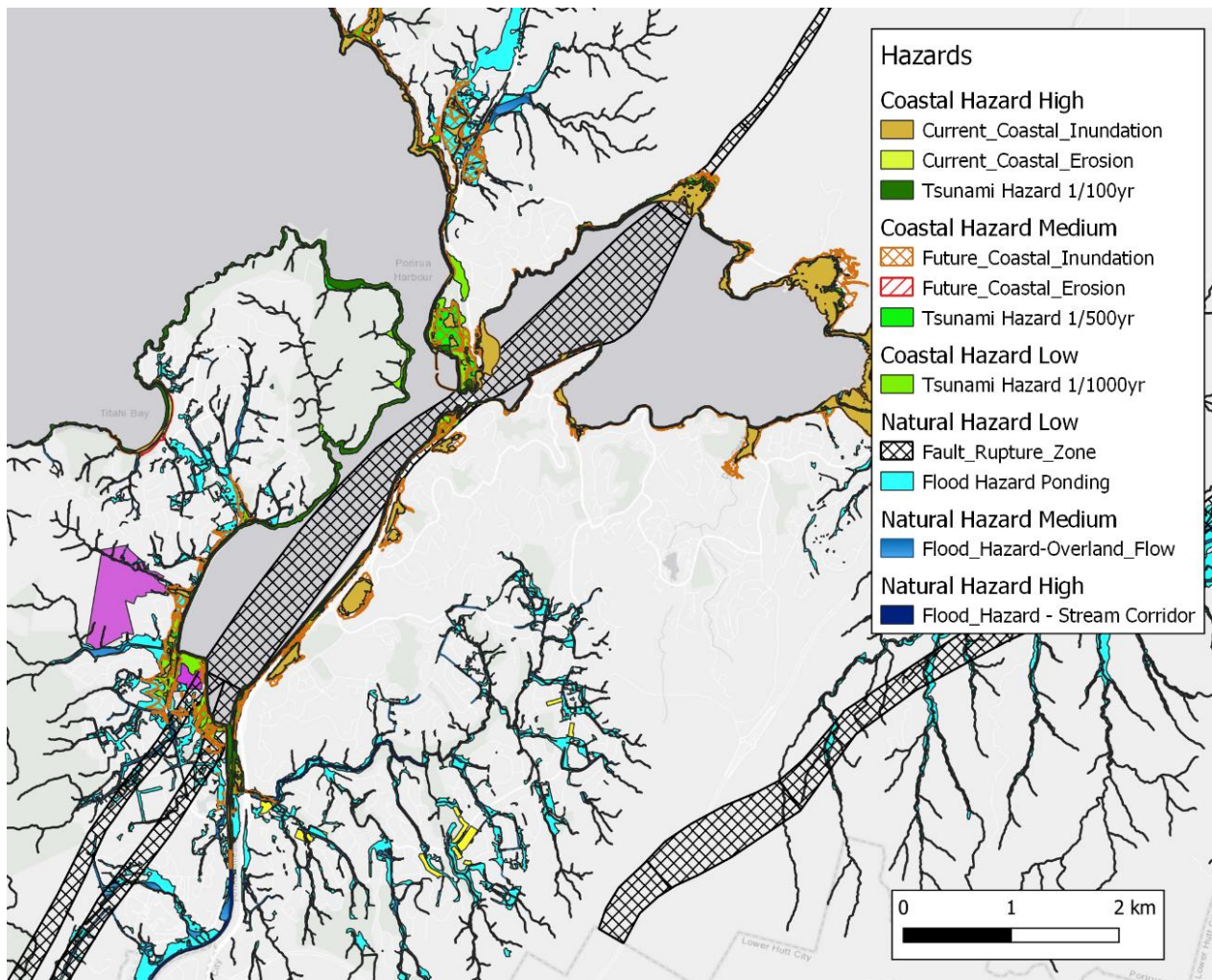
This model does not include any activity requiring a Discretionary or Non-Complying consent. Therefore, to ensure consistency, development within these overlays has been removed.

For the purpose of modelling the impact of these hazard overlays on capacity:

- In the Low hazard area, a hazard mitigation cost has been added.
- In Medium Hazard and High Hazard areas, capacity has been removed entirely by the proportion of the buildable area covered by the Hazard area (i.e., 100% coverage equates to 0 capacity).

Figure 3 shows a map of the Hazard areas as it has been obtained from Porirua City Council.

FIGURE 3: MAP OF HAZARD AREAS

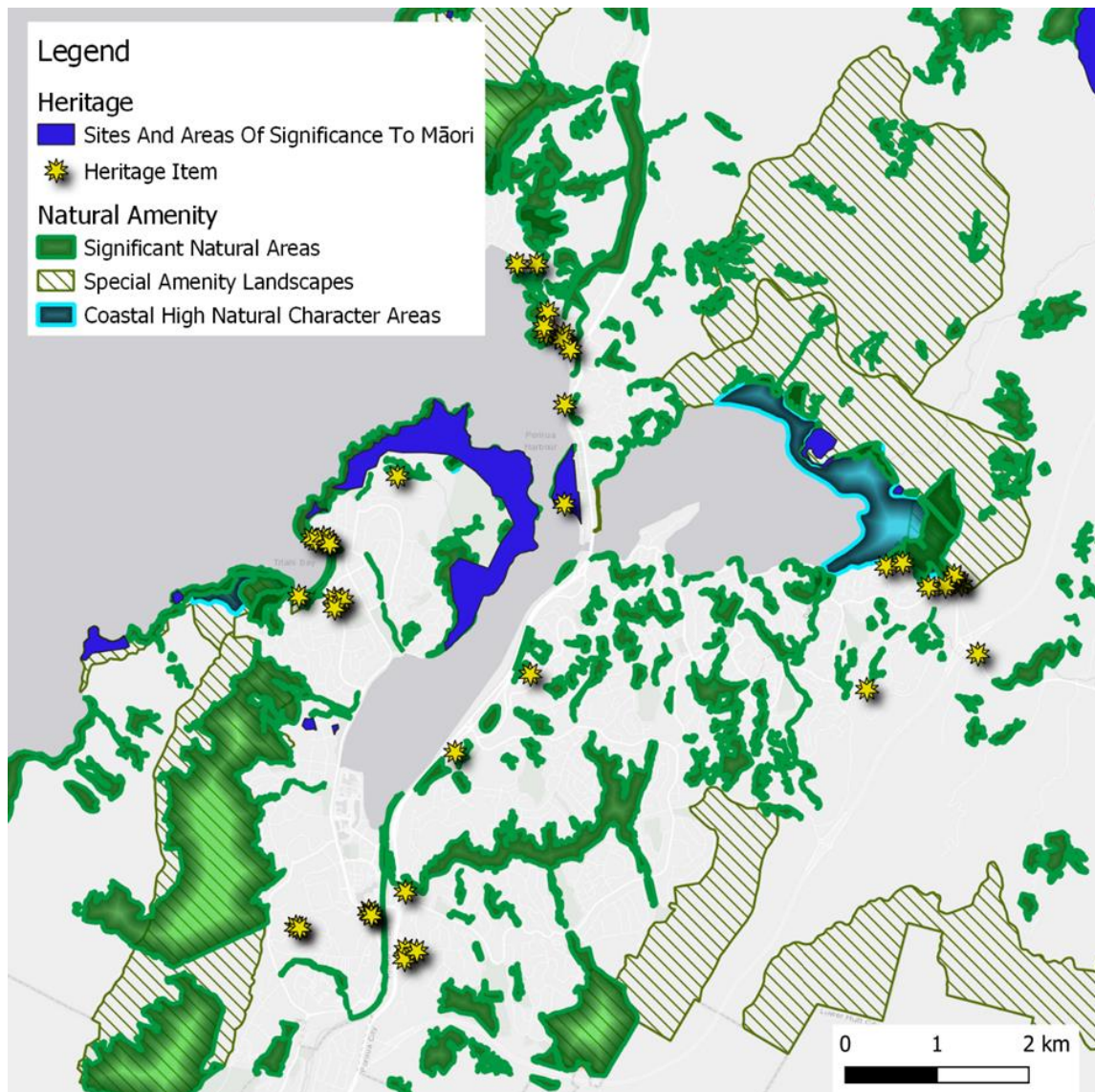


Source: Property Economics, PDC

5.2 HISTORIC HERITAGE, SITES AND AREAS OF SIGNIFICANCE TO MĀORI AND NATURAL CHARACTER AREAS

Figure 4 shows a map displaying Heritage Sites (Historic Heritage Items listed in SCHED2 and SCHED3 and associated Heritage settings), Sites and Areas of Significance to Māori, and Significant Natural Areas. There are all areas protected by Section 6 of the Resource Management Act. Development is restricted in these areas in the PDP by additional rules and limitations such as a maximum of 50sqm ground floor area for buildings within SNA or SAL's. For simplicity, the model assumes no capacity is enabled within these overlay areas.

FIGURE 4: MAP SHOWING HERITAGE SITES, SITES AND AREAS OF SIGNIFICANCE TO MĀORI, AND SIGNIFICANT NATURAL AREAS.

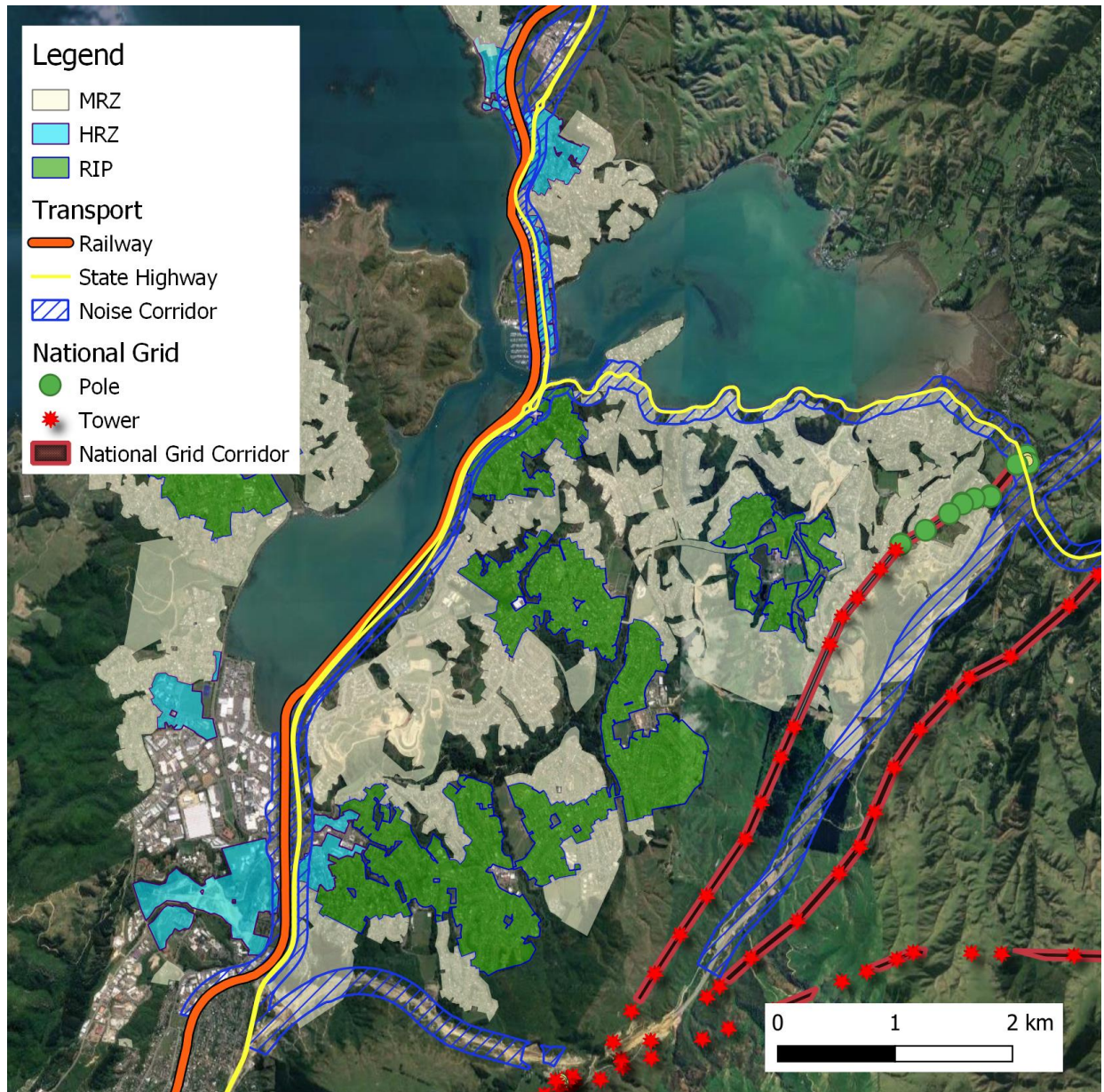


Source: Property Economics, PCC

5.3. INFRASTRUCTURE

Figure 5 shows the National Grid Corridor and the extent of the Noise Corridor buffer around the State Highway and Railway. Residential Activities are permitted in these zones however it is on the basis that internal noise levels are kept to specified guidelines. For simplicity, every site within the Noise Corridor incurs a 12% increase in Construction Costs to mitigate sound effects.

FIGURE 5: MAP OF RAILWAY, STATE HIGHWAY AND NATIONAL GRID YARD



Source: Property Economics, PCC

There is a 1.5m railway buffer around the Rail Corridor where building development is not permitted.

The effect of the National Grid Corridor on the capacity is minimal due to it being located predominantly away from the modelled sites. For sites within the National Grid Yard, subdivisions and development have to be done in consultation with Transpower as part of consenting requirements.

Additionally, development is non-complying within the National Grid Yard which is:

- a) the area located within 10m of either side of the centreline of an above ground 110kV electricity transmission line on single poles;
- b) the area located within 12m on either side of the centreline of an above ground transmission line on pi-poles or towers that is 110kV or greater;
- c) the area located within 12m in any direction from the outer visible edge of an electricity transmission pole or tower foundation, associated with a line which is 110kV or greater.

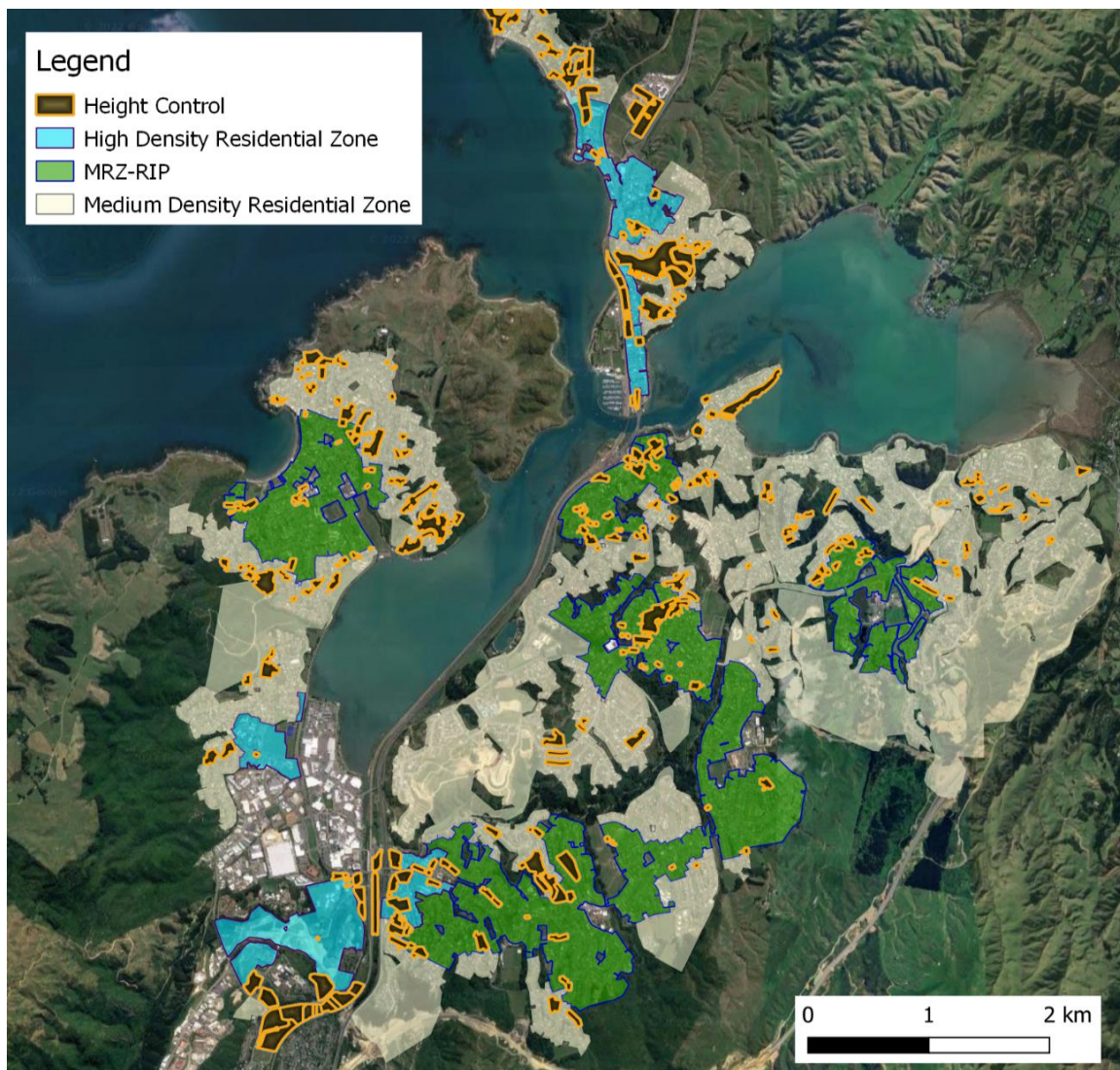
The realisable profit margins within the National Grid Corridor have been increased to account for the additional work and risks while capacity has been reduced in the few instances where it would cross into the National Grid Yard.

5.4. HEIGHT CONTROL AREAS

Porirua City Council has proposed to reduce the height of sites on southern facing slopes to reduce the impact of shading on the neighbouring properties. Additionally, Porirua City Council has proposed to decrease the height in relation to boundary and permitted heights around Heritage Sites and SASM to decrease the adverse effects of taller buildings on these sites.

Based on the analysis done by McIndoe Urban, Council has identified Height Control Areas which reduce the maximum permitted height². Figure 6 shows a map of the Height control areas while Table 4 following shows the maximum permitted height under each of the Height Management Control layers.

FIGURE 6: HEIGHT CONTROL AREAS ACROSS PORIRUA IN RELATION TO THE RESIDENTIAL ZONES



Source: Property Economics, PCC

² In the PDP these will be identified as site-specific Height Control- Shading controls

TABLE 5: HEIGHT MANAGEMENT CONTROL AREAS

Control Layer	Maximum Height	Recession Plane
Height Control - Heritage A, HIRB Control - Heritage A	11	3m x 45°
Height Control - Heritage A, HIRB Control - Heritage B	11	4m x 60°
Height Control - Heritage B	12	Zone Standard
Height Control - Heritage C	8	Zone Standard
Height Control - Heritage C, HIRB Control - Heritage A	8	3m x 45°
Height Control - SASM	8	Zone Standard
Height Control - SASM, HIRB Control - SASM	8	3m x 45°
Height control - Shading A	16	Zone Standard
Height control - Shading B	14	Zone Standard
Height control - Shading C	9	Zone Standard
Height control - Shading D	8	Zone Standard

Source: *Property Economics, PCC*

This maximum height is then translated into a maximum number of storeys using a 3.5m average stud height. On this basis, a 9m height limit and an 8m height limit have the same effective result of only allowing two storeys.

5.5. CAPACITY IMPACT OF QFM

Tables 6 and 7 summarises the impact on Feasible and Realisable Capacity for each of the QFM's identified. For clarity, Heritage Sites and SASM refer to the removal of capacity within the overlay, while the Heritage and SASM Height Controls is exclusively the impact of the Height Controls on the adjacent sites. Additionally, the table indicates which of the QFM impacts on the capacity to build and / or the Costs to develop in the area.

It is also important to note that Tables 6 and 7 show the mutually exclusive impacts of the QFM's on capacity (i.e., if only that set of controls is applied). Many sites are subject to multiple QFM's and therefore the total impact of the QFM's is not the sum of the impacts shown below.

TABLE 6: IMPACT ON FEASIBLE CAPACITY BY QFM

Feasible (Max Profit)	Impact Type	Theoretical	Apartment	Standalone	Terraced	Total
Coastal Hazard	Cost & Capacity	-7,400	-634	-422	-209	-1,265
Natural Hazard	Cost & Capacity	-10,049	+ 693	-661	-297	-265
Heritage Sites	Capacity	-948	-40	-23	-171	-234
SASM	Capacity	-82	-	-	-13	-13
National Grid	Risk & Capacity	-4	-	-	-1	-1
Noise Corridor	Cost	0	-953	+ 165	-1,368	-2,156
Natural Areas	Capacity	-845	+ 20	-32	-160	-172
Train Setbacks	Capacity	-49	-	-	-	-
Heritage Height Control	Capacity	-187	-5	-	-7	-12
Shading Height Control	Capacity	-893	-138	-3	-656	-797
SASM Height Control	Capacity	-115	-86	-	-10	-96

Source: Property Economics

TABLE 7: IMPACT ON REALISABLE CAPACITY BY QFM

Realisable Capacity	Impact Type	Apartment	Standalone	Terraced	Total
Coastal Hazard	Cost & Capacity	-383	-199	-220	-802
Natural Hazard	Cost & Capacity	+ 251	+ 42	-404	-111
Heritage	Capacity	-15	-34	-50	-99
SASM	Capacity	-	-13	-	-13
National Grid	Risk & Capacity	-	-	-16	-16
Noise Corridor	Cost	-332	+ 48	-538	-822
Natural Areas	Capacity	-14	-70	-64	-148
Train Setbacks	Capacity	-	-	-	-
Heritage Height Control	Capacity	-5	-16	+ 13	-8
Shading Height Control	Capacity	-	+ 91	-625	-534
SASM Height Control	Capacity	-51	-	-12	-63

Source: Property Economics

The QFM that has the largest impact on Feasible Capacity is the Natural Hazard Overlay. However, almost 90% of this capacity is in the Commercial Zones. Specifically, the City Centre and the Mixed-Use areas are subject to multiple fault lines and large tracks of flood hazards. Due to the assumption of including only 20% of the capacity in the Commercial Zones in the Realisable Capacity, the relative impact on the Realisable Capacity is reduced.

This relatively large decrease in impact between the Feasible and the Realisable Capacity is also exhibited in the Heritage Layer and the Noise Corridor layer. In the Heritage layer, 62% of the affected capacity is in the Commercial Zone, which is due to one large 8,500sqm heritage site in the Mixed-Use Zone being removed by this restriction.

Notably, the impact on Feasible and Realisable capacity of the Natural Hazards restrictions is offset by a shift from Terraces being the most profitable / realisable option being to apartments. The apartment typology has a greater potential yield meaning that on these sites, the expected Feasible Capacity increases as a result of the natural hazard provisions. This is due to the relatively lower costs of flood mitigation (on a per unit basis) for apartments compared to standalone and terrace properties.

Conversely, the Coastal Hazard layer affects a large number of sites in the HRZ with Feasible and Realisable Apartments. Specifically, those around Plimmerton and those within the Current and Future Coastal Inundation Hazard layer in Paremata. The difference between Coastal and Natural Hazards is that a greater proportion of affects sites come under Medium or High Hazard Layers which removes capacity from the model, rather than simply adding costs. Consequently, this QFM has a far greater impact on the Feasible and Realisable Capacity than the Natural Hazard Layer.

The QFM with the greatest impact on the total Feasible and Realisable Capacity is the Noise Corridor. As this has been modelled by simply assuming a 12% increase in costs to mitigate the effects of vibration and noise, this overlay has no impact on the Theoretical Capacity.

Height Control Areas

The majority of the impact of the Height Control Areas is those put in place to manage the effects of shading. In particular, it is the Height Control – Shading C layer that restricts the maximum building height to 9m that is responsible for the vast majority of these impacts. Based on a 3.5m average height, Property Economics has interpreted this Height Control to limit development to two storeys from three within the MRZ. This has a significant effect on the potential to build both terraces and standalone homes to the extent permitted by the MDRS.

In most other Height Control Areas, the impact of the lower height limits is limited by the recession planes. That is, in areas where the maximum height is reduced, the impact of the Height Control overlay only affects the model if buildings were able to be built up to and exceed said height. In cases where the recession planes limit the buildable height to less than the maximum height of the Control Layer, then the Control Layer will not affect the capacity potential.

What has not been assessed is the option for developers to agglomerate sites. Although two adjacent sites may not be able to reach the maximum height within the identified parcel area, combining these parcels reduces the effect of recession planes (as in, the agglomeration of sites reduces the number of boundaries projecting recession planes within the same area). It is in these cases that the Height Control Areas are likely to have a greater effect.

6. PORIRUA REALISABLE AND FEASIBLE CAPACITY RESULTS WITH SECTION 6 OVERLAYS AND HEIGHT CONTROL AREAS

Table 8 summarises and compares the total Theoretical, Feasible and Realisable Profit under the PDP, Variation 1 and the various impact of the Section 6 overlays and the QFMs (Height Control Areas). From the original HBA last year, the Realisable Capacity increased from 10,957 to 22,589 with the introduction of Variation 1.

Property Economics have then applied the overlays relating to both Section 6 matters and Infrastructure to the model and this has resulted in a reduction of around 8% of capacity across the board down to a Realisable Capacity of 20,891 dwellings. This is reduced by a further 540 dwellings by applying the Height Control's to the affected sites

TABLE 8: SUMMARY OF THEORETICAL, FEASIBLE AND REALISABLE CAPACITY





Capacity Overview	Theoretical	Feasible (Max Profit)	Realisable
2019 HBA	36,084	4,315	2,150
PDP from HBA	144,599	21,556	10,957
Variation 1	224,767	45,742	22,589
PDP -> Variation 1	+ 80,168	+ 24,186	+ 11,632
With S6 and Infrastructure overlays	206,518	42,097	20,891
Effect of Overlays	-18,249	-3,645	-1,699
Variation 1 with Overlays and HCA	205,388	41,264	20,351
Effect of Height Control Areas	-1,130	-833	-540

Source: Property Economics,

NB: The shown Theoretical Capacity is based on including 100% of commercial land.





Tables 9 and 10 provide a breakdown of the final Feasible and Realisable Capacity estimate by zone and typology. These are equivalent tables to Tables 2 and 3 earlier in the report.

TABLE 9: SUMMARY OF FEASIBLE CAPACITY BY TYPOLOGY AND AREA VARIATION 1 WITH QFM

Feasible (Max Profit)	Theoretical	Apartment	Standalone	Terraced	Total	% of Theoretical
Commercial Zones	76,173	1,782	1,136	7,508	10,426	 14%
Residential	43,428	59	1,109	11,442	12,610	 29%
Intensification Areas	85,787	12,790	271	5,167	18,228	 21%
Total	205,388	14,631	2,516	24,117	41,264	 20%

Source: Property Economics

TABLE 10: SUMMARY OF REALISABLE CAPACITY BY TYPOLOGY AND AREA VARIATION 1 WITH QFM

Realisable Capacity	Theoretical	Apartment	Standalone	Terraced	Total	% of Theoretical
Commercial Zones	15,235	1,174	515	319	2,009	 13%
Residential	43,428	16	3,557	6,409	9,982	 23%
Intensification Areas	85,787	1,012	2,733	4,615	8,360	 10%
Total	144,450	2,202	6,805	11,343	20,351	 14%

Source: Property Economics,

NB: Intensification Areas includes HRZ and RIP

6.1. DEMAND AND SUPPLY

Table 11 shows the Demand and Supply balance as published in the 2022 HBA against the updated capacity under the Variation 1 plan. This shows that under Variation 1, the Realisable Capacity estimate of what could be built if there is sufficient demand has almost doubled. The demand projection for 13,978 (including the NPS buffer) dwellings stated in the 2022 HBA was based on a 2021 population projection. Subsequently, Sense Partners have also since updated their demand projections, reducing their projected growth to 11,800 dwellings over the next 30 years.

TABLE 11: COMPARISON OF PORIRUA DEMAND UNDER THE PDP AND VARIATION 1

Demand and Supply	PDP	Variation 1
Realisable Capacity	10,957	20,351
Greenfield	5,554	6,604
Total	<u>16,511</u>	<u>26,955</u>
Demand + NPS Buffer	13,978	11,800
Difference	<u>2,533</u>	<u>15,155</u>

Source: Property Economics

In addition, the Greenfield capacity estimate has increased by 1,050 dwellings to reflect the increased capacity in the NGA under the higher density provisions of the plan. This increase in capacity has the potential to arise in each of the identified greenfield areas.

In particular, this report has already highlighted the potential impact of the HRZ across the undeveloped Kenepuru Landing area which could support an estimated 6,000 apartments. However, Property Economics considers it is unrealistic to expect these apartments could be delivered to the market due to a lack of demand and quantum of land available. Nevertheless, we may see higher density or more intensified townhouses given there is no maximum site coverage in this zone.

Council has also highlighted that the southern portion of the Plimmerton Farms development within a walkable catchment of the Plimmerton Train Station will be re-zoned HRZ. However, it

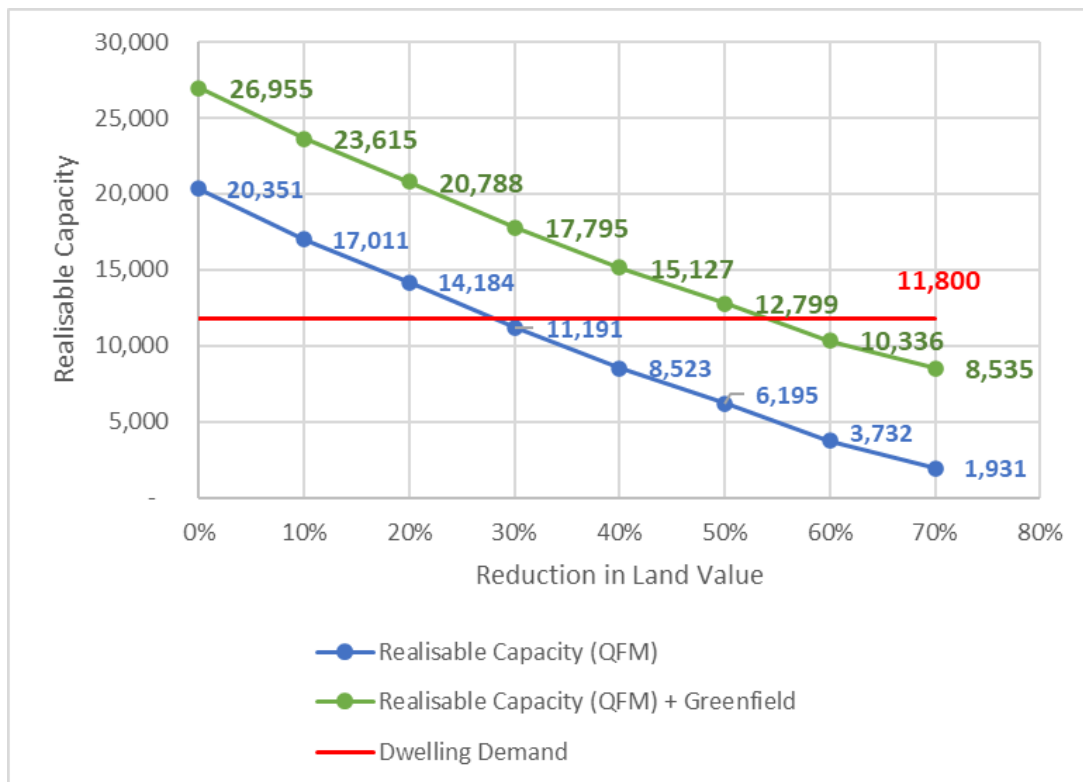
has been indicated by the landowners to Council that it is not believed the MDRS provisions will have a material impact on the total yield of the site. It is still their intention to deliver a variety of housing typologies and some of the more complex requirements of the site may limit further intensification.

The remaining zoned greenfield sites are smaller, with capacities of between 32 and 223 dwellings and totalling 733 dwellings. The extent to which this capacity could increase under the MDRS has not been assessed.

This greenfield capacity estimate, therefore, represents a conservative estimate with the understanding that there is a significant potential for far greater capacity in the existing greenfield areas.

Figure 7 shows how the ability of the existing urban area to meet projected demand is affected by changes to land value with and without the greenfield capacity. This shows that land value could be reduced by almost 30% before the existing urban area is unable to support the projected demand without the need for any of the existing or future greenfield areas. With the identified greenfield areas in the market, the land value is able to drop by more than 50% before Porirua will have insufficient supply.

FIGURE 7: GRAPH SHOWING HOW THE ABILITY OF THE EXISTING URBAN AREA TO MEET PROJECTED DEMAND IS AFFECTED BY CHANGES TO LAND VALUE

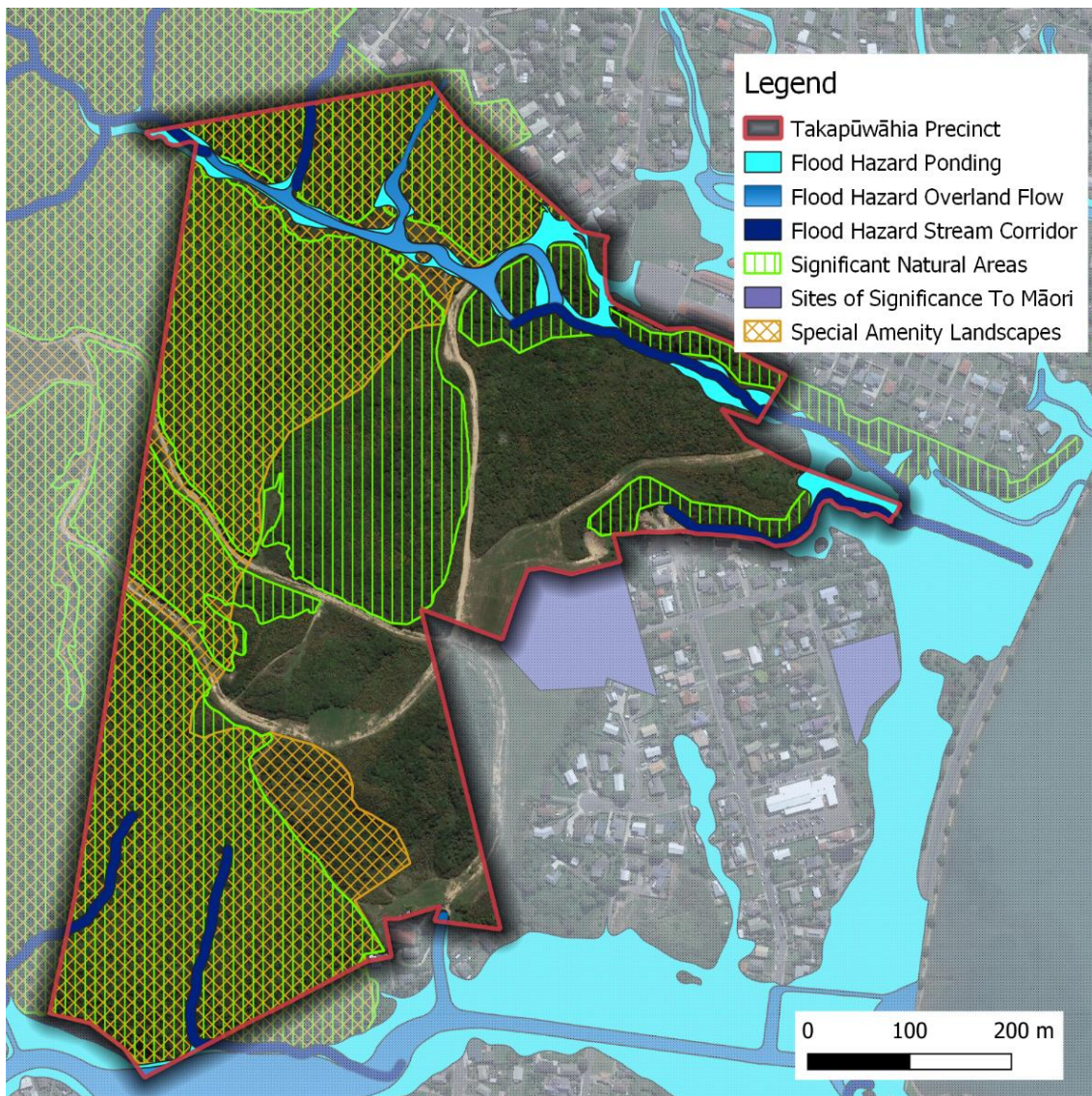


Source: Property Economics

7. TAKAPŪWĀHIA PRECINCT

Figure 8 shows the extent of the Takapūwāhia Precinct and the key overlays that affect development on this site.

FIGURE 8: MAP SHOWING THE EXTENT OF THE TAKAPŪWĀHIA PRECINCT



Source: Property Economics,

According to the PDP:

The Takapūwāhia Precinct applies to a limited number of sites located in the western part of Takapūwāhia. These consist of large lots which have remained undeveloped for some time and which are subject to the Significant Natural Area and Special Amenity Landscape overlays.

The presence of these overlays restricts the development potential of these sites. The Precinct recognises these constraints while providing for Ngāti Toa Rangatira whānau

and hapū to exercise their customary responsibilities as kaitiaki, and to undertake development that supports their cultural, social and economic wellbeing.

By this, Property Economics understands that the primary purpose of this precinct is to allow the Ngāti Toa Rangatira whānau to develop on their land as part of their commitments to the Treaty of Waitangi, but enforce a responsibility to the protection of the natural environment.

However, as the underlying zone in the PDP is General Residential and the precinct is simply an overlay, it comes under the requirements of the NPS-UD and is to be rezoned MRZ in Variation 1.

As is apparent in Figure 9, these Significant Natural Areas (SNA) and Special Amenity Landscapes (SAL) cover almost three-quarters of the total precinct area leaving only about 10.5ha of unconstrained land. Across this 10.5ha, the MDRS will still apply. Under the PDP, Council propose to reduce the maximum height of properties built within this SAL to be limited to only 5m (essentially single storey). At the time of writing, this approach is being retained in Variation 1.

From a purely economic perspective, this Precinct area is an efficient location for development as it is close to the City Centre. However, there are both economic and social costs to the removal of these SNA and SAL which make development in this location more costly to the community than areas not within these overlays.

Section 6 (c) of the RMA provides a clear direction to protect these areas:

(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

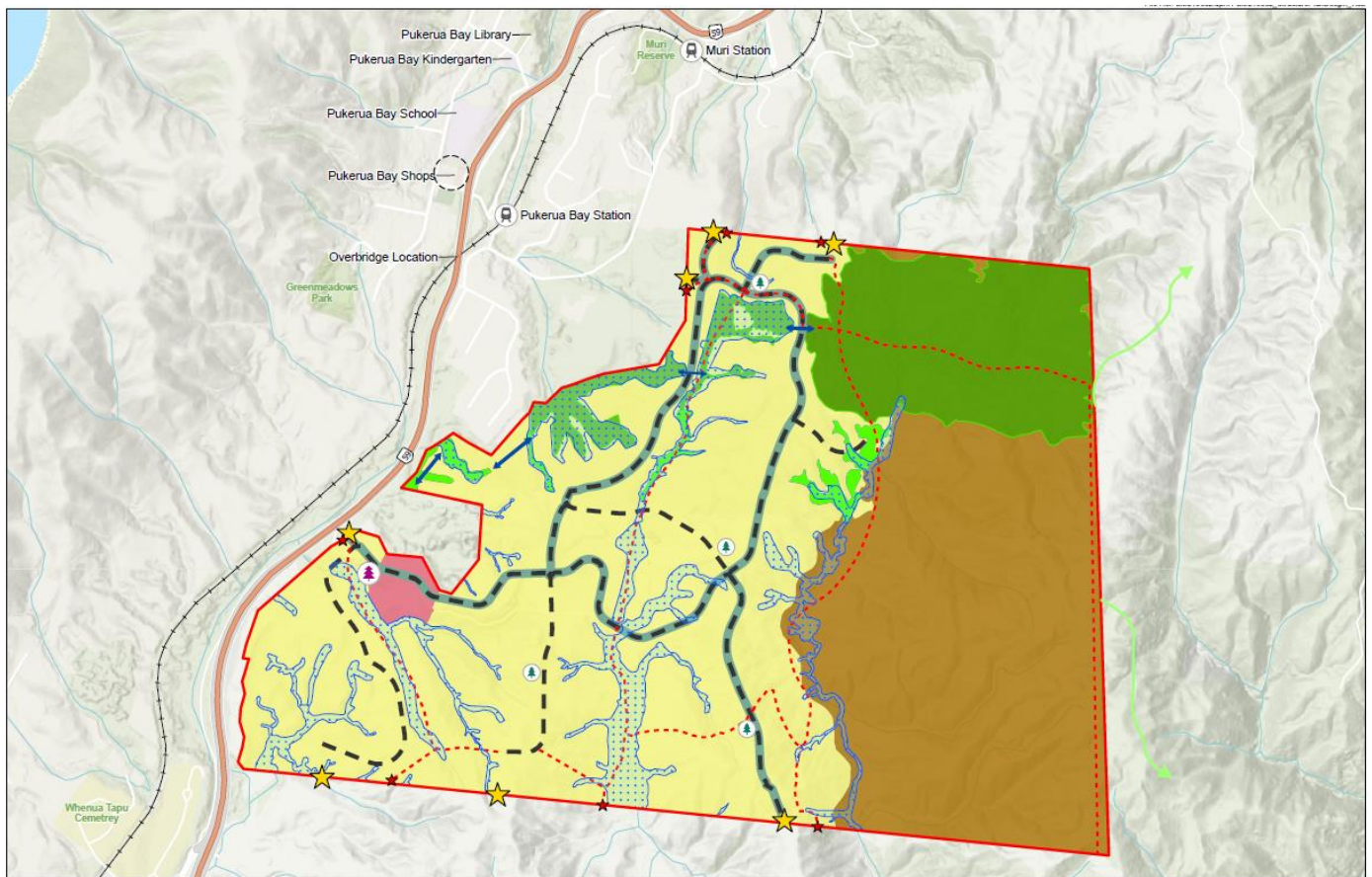
As with the other SNA and SAL areas, it is difficult to make a purely economic judgement on the suitability of restricting development in this precinct. On the whole, the economic cost is minimal given the high degree of sufficient capacity within the urban and greenfield market already, but so too are the economic benefits. Although Property Economics does not claim to be experts, it seems reasonable to assume that the Social and Environmental benefits of protecting these areas, outweigh any net economic cost associated with this QFM.

8. NORTHERN GROWTH AREA

Included within Variation 1 to the PDP is the up-zoning of part of the NGA greenfield area, as shown in Figure 9 below. The area proposed for up-zoning comprises the Muri Road Block and Mt Welcome Station.

In the PDP, around 105ha of this area has been identified as Future Urban Zone (FUZ) with the NGA estimated to deliver 450 dwellings. Since then, Property Economics understands PCC has developed a structure plan for this area which shows the NGA is subject to large tracts of waterways and SNAs that constrain development (estimated at around 37ha of the proposed residential area (coloured light yellow) in Figure 9).

FIGURE 913: NORTHERN GROWTH AREA STRUCTURE PLAN



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This plan has been prepared by Boffa Miskell Limited on the specific instructions of our Client. It is solely for our Client's use in accordance with the agreed scope of work. Any use or reliance by a third party is at that party's own risk. Where information has been supplied by the Client or obtained from other external sources, it has been assumed that it is accurate. We accept no responsibility to anyone in the event that they rely on inaccurate information provided by the Client or any external source.

Data Sources: LINZ, Eagle Technology, Portua City Council, BML, Envelope
Projection: NZGD 2000 New Zealand Transverse Mercator

0 200 m
1:10,000 @ A3

LEGEND

- Plan Variation Area
- Connection
- Walkway connection
- Proposed roads
- Proposed tracks
- Indicative bus route
- Proposed Landuse
- Residential
- Neighbourhood Centre
- Rural Lifestyle
- PDP Significant Natural Areas
- Proposed Significant Natural Area
- Destination Park
- Neighbourhood Reserve
- Freshwater Management Area
- Ecological Connections
- Skyline walkway

PUKERUA BAY PDP ZONE VARIATION
Structure Plan Design
Date: 26 July 2022 | Revision: 5
Plan prepared for Portua City Council by Boffa Miskell Limited
Project Manager: jeremy.garrett-walker@boffamiskell.co.nz | Drawn: KMA | Checklist: BGI

Source: Property Economics

As a result, Property Economics understand that enquiry was raised as to the viability and efficiency of the infrastructure if urban development was constrained to only the area identified as FUZ in the PDP. From an economic perspective, expanding the urban extent of the NGA by an additional 80ha would enable the area to deliver additional homes within the NGA lowering the marginal cost of public infrastructure investment to the community.

The NGA is a location serviced by the Kapiti Line commuter rail service, with a large proportion of the site being within a 1,200m walking distance of the existing Pukerua Bay Train Station. This includes a portion of the expanded urban area, therefore representing an increase in the number of dwellings than can be delivered within a walkable catchment of a major public transport station. Increased density within walking distance of a train station represents a more efficient urban form from an economic and strategic planning perspective and supports the efficiency of the current and future transportation infrastructure.

Based on this updated Structure Plan area and the introduction of the MDRS standards as part of Variation 1, Council now considers the NGA would have the potential to deliver up to 1,500 dwellings in the NGA structure plan area.

Property Economics understands the Council's Long-Term Plan 2021 - 2051 (LTP) and Infrastructure Strategy have already identified the bulk of funding required to provide the infrastructure in the NGA FUZ in the medium to long term. However, Property Economics also understands there is the opportunity to bring forward LTP funding for infrastructure with additional funding secured through Developer Agreements.

9. COST BENEFIT ANALYSIS OF PORIRUA QUALIFYING MATTERS

The following tables outline some of the high-level costs and benefits associated with the QFMs. Each one has been given a generalised estimate of its relative economic consequence from:

Critical -> Moderate -> Meaningful -> Fortunate

and Probability from

High -> Medium -> Low

9.1. HERITAGE BUILDINGS, STRUCTURES, AND AREAS

Economic Benefits	Economic Consequence / Probability	Comments/Notes
Higher intensification levels adjacent to Heritage Items may alter the existing structure and character of the buildings or properties	Critical / HIGH	If these areas are subject to a QFM, the current amenity and heritage value of these buildings and properties can be secured (relative to higher-density redevelopment in the areas).
A QFM would retain the existing living experience and place vitality of the heritage areas based on the current density and rise of the heritage buildings	Meaningful / MEDIUM	Existing international research indicates that heritage buildings and places contribute to determining where people choose to live, with 74% of respondents identifying it as an 'important' or 'very important factor'.
If the areas are subject to a QFM, the public's appreciation of the heritage values of these sites and areas would be enhanced. This would further lead to a more cautiously planned land use of the area	Meaningful / MEDIUM	
A QFM would safeguard the economy of industries that rely on the existing character and amenity of these heritage areas (e.g., the tourism and movie industries)	Moderate/ HIGH	A previous survey done by Tourism NZ indicated a very large number of visitors (one-third of international visitors) are not only coming to New Zealand for its landscape and wildlife, but also to participate in, and understand its cultural heritage.
Retaining the current character and heritage value of the areas through a QFM would secure the potential for increased property valuation where heritage is appreciated	Moderate / MEDIUM	Auckland Council's 2018 research found that properties located within 50m of a scheduled heritage place have a price premium of 2.3 per cent – around \$21k more than the average Auckland house price. Within 100m of a heritage place, properties have a 1.6 per cent premium – \$15k more than the average house price.

Secure the employment opportunities for specialist in heritage protection and promotion (relative to the demolition of heritage buildings for new development)	Fortunate / HIGH	
A QFM would allow PCC to reduce the amount of development in the heritage areas so that the infrastructure burden as a result of higher intensification levels could be controlled in the area	Critical / LOW	This is relevant only in cases where infrastructure issues
Without further intensification development, the heritage properties with the current offerings may facilitate the floorspace requirement of small businesses	Fortunate / MEDIUM	Start-up businesses are often not located in the office park or the shopping centre as they cannot afford the rents there. Heritage buildings with comparatively more affordable rents can be expected to better accommodate the office demand of these businesses
Economic Costs	Economic Consequence / Probability	Comments/Notes
A QFM may lead to fewer brownfield development capacity if further intensification is not enabled. As a result, more greenfield land may need to be rezoned to accommodate housing demand, consuming a proportion of the productive land in Porirua	Critical / LOW	Given the quantum of both greenfield capacity and brownfield capacity as estimated in this report relative to the demand, the likelihood that heritage protection will have a material impact on the development is minimal.
The property owners affected by these constraints incur a cost in the form of lost development potential.	Moderate / HIGH	This is an issue of fairness. Owners on whom these development restrictions are placed face an additional cost for the benefit of the wider community. However, these controls are already in play within the PDP and therefore should already be reflected in the market value.
The heritage features of some buildings would be able to incorporate higher-intensification development. Subjecting to a QFM may prevent these buildings and properties from further development opportunities	Moderate / MEDIUM	This cost depends on the locational characteristics and current structure of the heritage buildings and properties.
A cost would occur to the wider community through less efficient urban form through the decreased ability for intensification.	Moderate - Critical / LOW	Although the potential cost of this is high, the likelihood of it becoming an issue within the next 30 years is extremely low. This is based on the total supply and demand making it unlikely the loss of these sites will undermine intensification.

9.2. NATURAL AND COASTAL HAZARDS

Economic Benefits	Economic Consequence / Probability	Comments/Notes
A QFM would avoid accelerating or worsening the adverse effects of the natural hazard on the land or properties in these areas (relative to higher rise and higher density developments)	Critical / HIGH	Under the PDP, residential units are identified as <i>Hazard-Sensitive Activities</i> within the Porirua District. Focus 2019 report recommended the PCC that any intensification of existing development be avoided in current flood and erosion hazard areas unless a site-specific coastal hazard study demonstrates that there will be no increase in coastal hazard risk, and/or effective and sustainable management of the hazards is provided for in an agreed adaptive management strategy (that considers the full range of future sea level rise scenarios identified in national guidelines).
Retain the design and built form that have accounted for the potential risks of natural hazards in the area	Meaningful/ HIGH	
A QFM would recognise the risks in the existing natural hazard areas and articulate the outcomes for future development in these areas	Meaningful / MEDIUM	
Enhance public awareness of the potential risks posed by natural hazards in these areas and avoid potential investment losses	Fortunate / MEDIUM	
Lower intensification levels (or prohibiting development) in the area via a QFM would minimise the area's recovery costs in natural hazard events	Critical / HIGH	New Zealand is vulnerable to natural hazards due to its geographic characteristics. The Kaikoura 2016 earthquake and Canterbury 2010-2011 earthquakes cost over \$25b in damages
A QFM would ensure the efficiency of incorporating mitigation measures to reduce the consequences from natural hazards	Meaningful /HIGH	Under the PDP, potential mitigation measures that can be incorporated into developments to reduce the consequences of natural hazards include building design (e.g., minimum floor levels or the ability for buildings to be relocated over time)

Economic Costs	Economic Consequence / Probability	Comments/Notes
Increase the consent and development cost of areas with lower natural hazard risks in the district	Moderate / HIGH	
The economic potential and land use efficiency of areas with lower natural hazard risks may not be maximised	Moderate / HIGH	This cost depends on the existing land use or activities on the land; If the land has no existing activities due to high natural hazards, there is no such cost
Directly reduce the land that can be utilised for urban intensification in the district	Moderate / MEDIUM	This cost depends on the extent of the lands identified as significant natural hazards in Porirua
Natural hazard overlays are often extensive. There will be inherent inaccuracies so that some properties in the area will be incorrectly identified while others may be left out	Moderate / LOW	

9.3. SITES AND AREAS OF SIGNIFICANCE TO MĀORI, SIGNIFICANT NATURAL AREAS AND SPECIAL AMENITY LANDSCAPES

Economic Benefits	Economic Consequence / Probability	Comments/Notes
A QFM would recognise the importance of Māori properties and lands to Porirua economy and urban planning and	Critical / HIGH	According to Stats NZ 2018 Census data, Porirua City has the highest proportion of people identifying as Māori (20%) living in the Wellington region. The Māori labour force of Porirua City is particularly large, making up almost one fifth of the labour force of the city
The existing values, rights and interests of these Māori purposed areas are recognised and protected through a QFM	Critical / HIGH	
A QFM would ensure that local communities would benefit from the existing landscape and amenity in SASM, SAL and SNA	Moderate/ MEDIUM	
Porirua tourism economy would directly benefit from the preservation of the current character and amenity and cultural significance of the SASM, SAL and SNA sites via a QFM.	Moderate / MEDIUM	Māori are increasingly utilising tourism in a bid to preserve and promote their culture and create a more prosperous future for the next generation.
Economic Costs	Economic Consequence	Comments/Notes
Land and property owners of the properties in these sites and areas would be less likely to enhance their income from the existing lower intensification levels (relative to higher density multi-unit developments)	Moderate / MEDIUM	
Give rise to additional consent and time cost for development in the area	Moderate / HIGH	

9.4. HEIGHT CONTROLS TO REDUCE THE EFFECTS OF SHADING

The primary purpose of the Height Control Areas is to protect the amount of sunlight neighbouring houses receive that would be unfairly or disproportionately affected by intensification (specifically those located on southern facing slopes).

A report by Motu Economic and Public Policy Research³ on the market value of sunshine found that on average, “...each additional hour of direct sunlight exposure for a house per day adds 2.4% to a dwelling’s market value.”

These Height Control areas impose a cost to sites within the overlay in the form of development restrictions. However, if these overlays were not put in place, the potential development would impose a greater cost in the form of lost sunlight hours to the neighbouring property.

This loss of sunlight hours is an inevitable and unfortunate consequence of the intensification mandated by the Government’s policy. However, Council consider that it is appropriate to limit development height on sites that would impose a proportionately greater shading effect on neighbouring sites.

The results of Property Economics’ modelling suggest that in the Height Control Areas covering the Intensification Areas (RIP and HRZ), the impact on the Realisable Capacity is negligible (less than 10). It is, however, a different story in the MRZ as the Height Controls in this zone reduces the maximum storey height from three to two. This reduces the Realisable Capacity within this area by just over 500 or approximately 50% of the Realisable Capacity within this overlay. It is in these areas that the loss in development capacity shown in Table 5 arises.

At a district-wide level, the cost of this loss in development capacity is minimal. As shown in Table 8, Porirua has more than sufficient capacity even after taking all of the QFM’s into account. Therefore, it is unlikely that these Height Controls will materially affect the total quantum of development in Porirua.

Whether or not these Height Controls deliver a net economic benefit is, therefore, more a question of the relative cost imposed upon the individual property owners affected. This is, whether the additional market value loss in sunlight hours by virtue of them being located on southern-facing slopes, is greater than the cost (in regard to lost development potential) imposed upon sites within the Height Control Area.

Ultimately, further analysis on a site-by-site basis may be required to economically justify the height control provisions. The cost of this loss in sunlight hours will vary on a site-by-site basis depending on its current access to sunlight and the extent to which it would be affected over and above that which is already expected in the MRZ.

It is noted that the Valuing Sunshine (Motu) report proposes an alternative to managing the overshadowing effects of development. This suggested that a more socially equitable alternative to height restrictions is to require developers to compensate homes for their loss in market value arising from the shading effects of the development. This internalises the costs imposed by the development, ensuring homeowners are not unfairly affected by intensification but is also less restrictive of development.

³ *Valuing Sunshine (buildingbetter.nz)*