

## Appendix 3A: Assessment of Intensification Study Areas – summary table

# Urban Intensification Study Areas Assessment Summary

				Potential qualifying matters												Qualitative assessment																Yield			
Ref.	Location	Key Constraints	Key Opportunities	Natural character in the coastal environment	Wetlands, lakes, rivers and their margins	ONFL	Significant indigenous vegetation/fauna	Relationship of Māori with ancestral land, water, sites and wāhi tapu	Historic heritage	Significant risk from flood hazard	Significant risk from earthquake hazard	Significant risk from coastal hazard	Nationally significant infrastructure	Public open space	Designations	Business land for low density uses	Urban form	Local neighbourhoods	Activity centres	Residential development	Business land	Transport networks	Infrastructure & servicing	Natural ecosystems	Waterbodies	Landscape and open space	Heritage	Topography	Natural hazards & land risks	Land use compatibility	Climate change (low-carbon futures)	Additional theoretical dwelling capacity (residential zones only)	Additional theoretical dwelling capacity (residential, centres and mixed use zones)	Overall assessment	
UI-ŌT-1	Ōtaki Main Street/Mill Road	<ul style="list-style-type: none"><li>Infrastructure, particularly a constrained water supply.</li><li>Extensive flood hazard.</li><li>Historic heritage.</li><li>Wāhi tapu.</li><li>Poor access to public transport.</li><li>Discharges to Haruātai stream.</li></ul>	<ul style="list-style-type: none"><li>Good access to local services.</li><li>Intensification could support existing and new activities and services on Main Street/Mill Road.</li><li>Relatively flat.</li></ul>		•			•	•	•				•	•																	1,843	2,122	2B	
UT-ŌT-1	Ōtaki Railway	<ul style="list-style-type: none"><li>Infrastructure, particularly a constrained water supply.</li><li>Extensive flood hazard.</li><li>Earthquake hazard and liquefaction.</li><li>Poor access to public transport.</li><li>Discharges to Haruātai stream.</li></ul>	<ul style="list-style-type: none"><li>Good access to local services.</li><li>Intensification could support existing and new activities and services around old SH1.</li><li>Improve existing neighbourhood character, particularly the pedestrian environment around old SH1.</li></ul>		•			•	•	•	•		•	•	•																	854	1,142	2A	
UI-WB	Waikanae Beach Local Centre	<ul style="list-style-type: none"><li>Poor access to a range of commercial activities and community services.</li><li>Extensive flood hazard.</li><li>High liquefaction potential.</li><li>Proximity to the Takamore wāhi tapu area.</li></ul>	<ul style="list-style-type: none"><li>Opportunity to improve the legibility and vibrancy of the Waikanae Beach local centre through intensification.</li><li>Area is relatively flat.</li></ul>					•		•																						404	408	2A	
UI-WA	Waikanae Town Centre	<ul style="list-style-type: none"><li>Coordinating intensification with low-density industrial land.</li><li>Flood hazard.</li><li>Steeper topography in the eastern extent of the area.</li></ul>	<ul style="list-style-type: none"><li>Opportunity to improve the legibility and vibrancy of the Waikanae town centre through intensification.</li><li>Proximity to rapid transit.</li><li>Good access to a range of commercial activities, community services, employment and public open spaces.</li></ul>		•	•	•	•	•	•	•		•	•	•	•																	4,095	4,403	2A
UI-PA-1	Kena Kena Local Centre	<ul style="list-style-type: none"><li>Low lying land near the coast.</li><li>Flood hazard.</li><li>Distance from Papararamu station and metropolitan centre.</li><li>High liquefaction potential.</li></ul>	<ul style="list-style-type: none"><li>Opportunity to improve the legibility and vibrancy of the Kena Kena local centre through intensification.</li><li>Excellent access to public and coastal open space.</li><li>The area is flat.</li></ul>				•		•	•		•		•	•																		98	109	2A
UI-PA-2	Mazengarb Local Centre	<ul style="list-style-type: none"><li>Poor access to a range of community services and commercial activities (except Papararamu college).</li><li>Flood hazard.</li><li>Distance from Papararamu station and metropolitan centre.</li><li>High liquefaction potential.</li></ul>	<ul style="list-style-type: none"><li>The area is flat.</li></ul>		•		•			•				•	•																		27	45	2B
UI-PA-3	Paraparamu Beach Town Centre	<ul style="list-style-type: none"><li>Coastal hazard and effects of climate change.</li><li>Congestion on Kāpiti Road.</li><li>High liquefaction potential.</li></ul>	<ul style="list-style-type: none"><li>Excellent access to a range of commercial services and community activities, as well as coastal amenity and open space.</li><li>Intensification could further support a well established town centre.</li><li>The area is flat.</li></ul>	•	•		•	•	•			•		•	•																		575	828	1
UI-PA-4	Meadows Local Centre	<ul style="list-style-type: none"><li>Poor access to a range of community services and commercial activities.</li><li>Liquefaction potential.</li></ul>	<ul style="list-style-type: none"><li>Development opportunity associated with undeveloped parts of the area.</li><li>The area is relatively flat.</li></ul>		•								•	•	•																		132	264	2B



				Potential qualifying matters												Qualitative assessment													Yield						
Ref.	Location	Key Constraints	Key Opportunities	Natural character in the coastal environment	Wetlands, lakes, rivers and their margins	ONFL	Significant indigenous vegetation/fauna	Relationship of Māori with ancestral land, water, sites and wāhi tapu	Historic heritage	Significant risk from flood hazard	Significant risk from earthquake hazard	Significant risk from coastal hazard	Nationally significant infrastructure	Public open space	Designations	Business land for low density uses	Urban form	Local neighbourhoods	Activity centres	Residential development	Business land	Transport networks	Infrastructure & servicing	Natural ecosystems	Waterbodies	Landscape and open space	Heritage	Topography	Natural hazards & land risks	Land use compatibility	Climate change (low-carbon futures)	Additional theoretical dwelling capacity (residential zones only)	Additional theoretical dwelling capacity (residential, centres and mixed use zones)	Overall assessment	
UI-PA-5	Paaparaumu Metropolitan Centre	<ul style="list-style-type: none"><li>Coordinating intensification with low-density industrial land.</li><li>Flood hazard and liquefaction potential.</li><li>Management of a range of potential reverse sensitivity issues.</li></ul>	<ul style="list-style-type: none"><li>Intensification of the area within the district that has the greatest access to a range of commercial activities, community services, public transport and centres of employment.</li><li>Increased height and density commensurate with the role of the area as the primary centre within the district.</li></ul>		•		•	•	•	•	•		•	•	•	•																6,190	12,543	2B	
UI-RB	Raumati Beach Town Centre	<ul style="list-style-type: none"><li>Coastal hazard and effects of climate change.</li><li>High liquefaction potential.</li></ul>	<ul style="list-style-type: none"><li>Excellent access to a range of commercial services and community activities, as well as coastal amenity and open space.</li><li>Intensification could further support a well established town centre.</li></ul>	•	•		•	•	•	•		•		•	•																	693	812	2A	
UI-RS	Raumati South Local Centre	<ul style="list-style-type: none"><li>High liquefaction potential.</li><li>Relative distance to Paraparaumu metropolitan centre and railway station.</li></ul>	<ul style="list-style-type: none"><li>Good access to local commercial activity, amenity and coastal open space.</li><li>Intensification could further support a well established local centre.</li></ul>						•					•																		139	149	1	
UI-PK	Paekakariki Local Centre and Railway Station	<ul style="list-style-type: none"><li>Distance from commercial activities and community services at Paraparaumu.</li><li>High liquefaction potential and areas of combined earthquake hazard.</li><li>Lack of reticulated stormwater and wastewater infrastructure.</li><li>Safety issues with the Beach Road intersection.</li><li>Significant alteration of existing neighbourhood character.</li><li>Complex topography.</li><li>Increased coastal hazard associated with climate change.</li></ul>	<ul style="list-style-type: none"><li>Good access to local shops, amenity and coastal open space.</li><li>Good access to public transport.</li></ul>	•	•			•	•	•	•	•	•	•	•																		1,311	1,385	2B

## Appendix 3B: Detailed Assessment of Intensification Study Areas

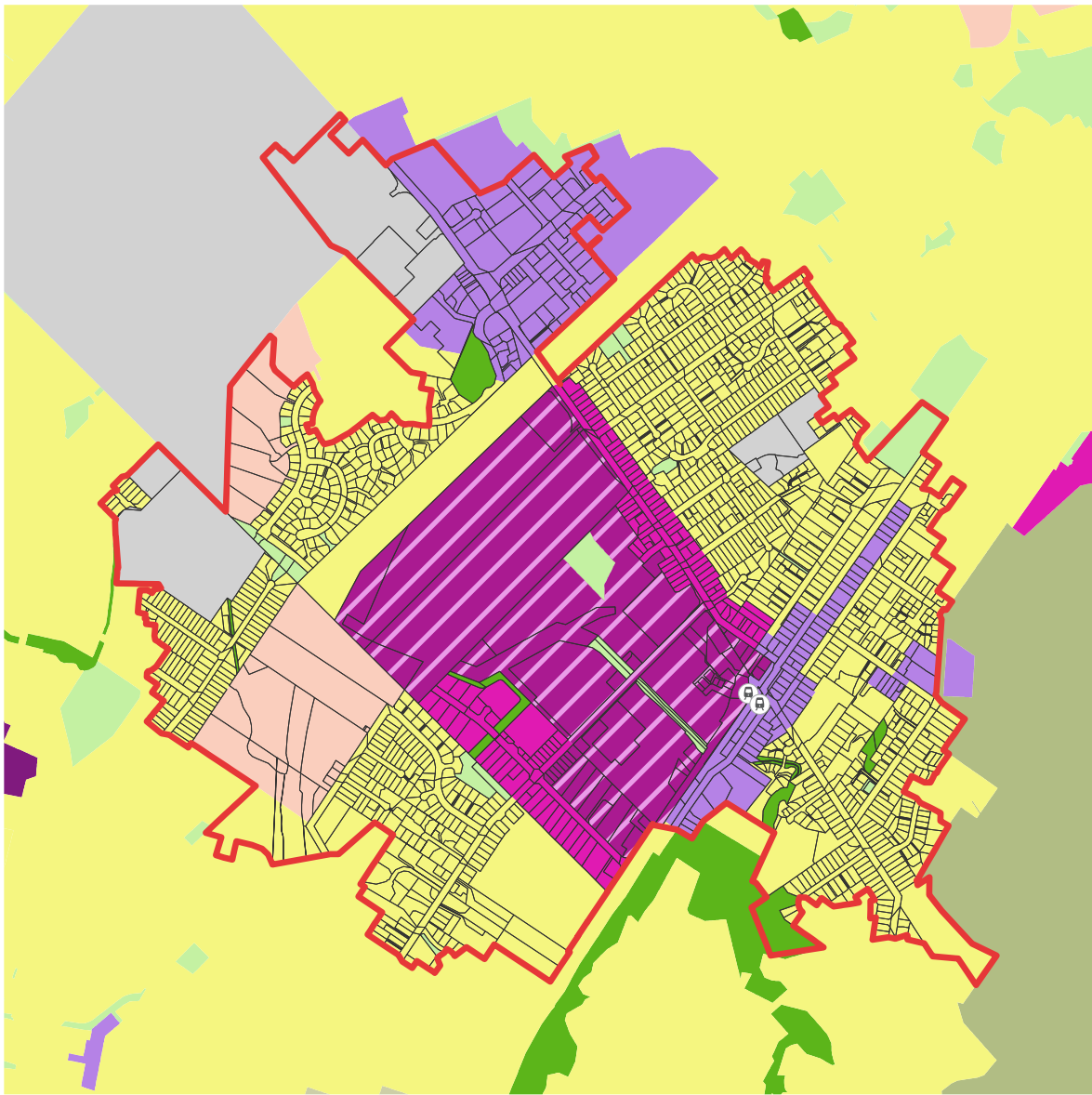
# KAPITI COAST INTENSIFICATION ANALYSIS

# PARAPARAUMU METROPOLITAN CENTRE

AERIAL



ZONING



- |                                   |                          |
|-----------------------------------|--------------------------|
| Railway Station                   | Town Centre Zone         |
| Urban Intensification Study Areas | Metropolitan Centre Zone |
| General Residential Zone          | General Industrial Zone  |
| General Rural Zone                | Natural Open Space Zone  |
| Rural Production Zone             | Open Space Zone          |
| Rural Lifestyle Zone              | Airport Zone             |
| Mixed Use Zone                    | Hospital Zone            |

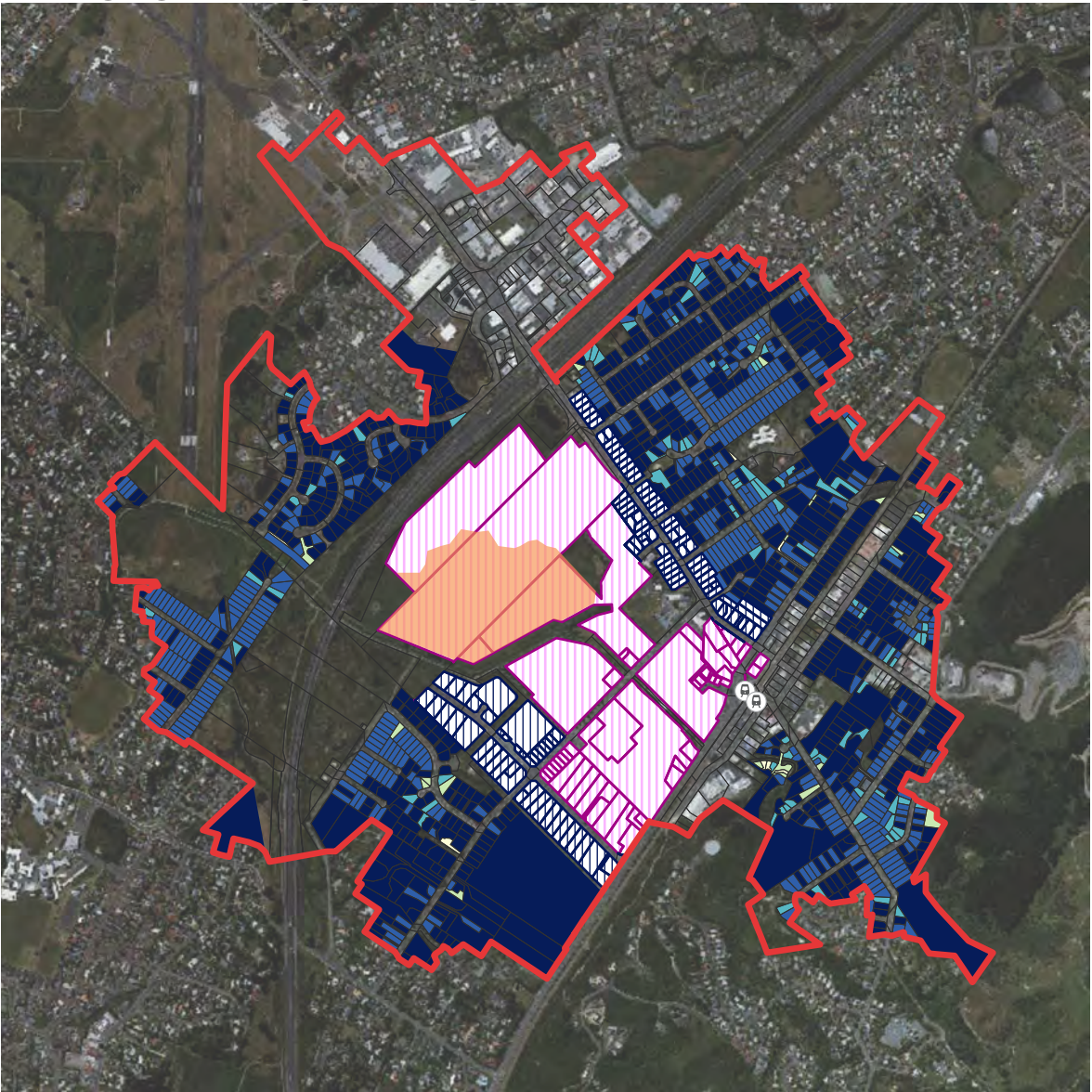


YIELD IN RESIDENTIAL AREA



	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
<div>&lt; 6.5m</div>		up to 2	0.38	20	8
<div>6.5m - 11m</div>		3	1.29	30	39
<div>11m - 14.5m</div>		4	5.64	40	226
<div>14.5m - 18m</div>		5	34.88	50	1,744
<div>18m &lt;</div>		6	91.84	60	5,510
	1,336		134.03		7,526
Additional dwellings (yield minus existing residential units)					6,190

YIELD IN RESIDENTIAL + MIXED USE +  
METROPOLITAN CENTRE ZONE



	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
<div>&lt; 6.5m</div>		up to 2	0.38	20	8
<div>6.5m - 11m</div>		3	1.29	30	39
<div>11m - 14.5m</div>		4	5.64	40	226
<div>14.5m - 18m</div>		5	34.88	50	1,744
<div>18m &lt;</div>		6	91.84	60	5,510
<div>Mixed use zone</div>	6		14.70	60	882
<div>Metropolitan zone</div>	12		54.71	100	5,471*
	1,336		203.44		13,879
Additional dwellings (yield minus existing residential units)					12,543

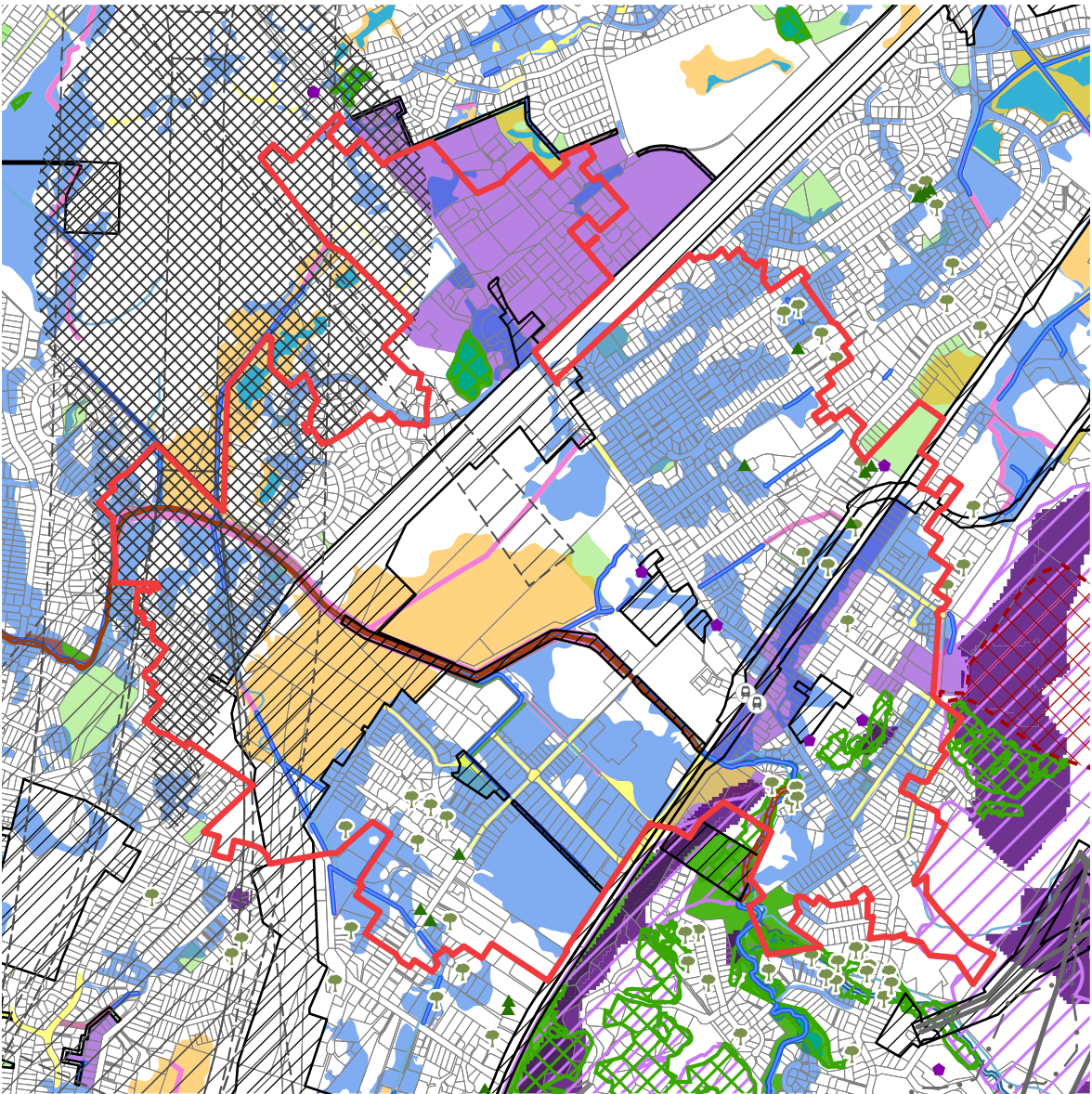
Flood storage area  
(approx. 14 ha).

\*Note: the flood storage area within the Metropolitan Centre Zone accounts for 1,400 of the approximate yield.



# PARAPARAUMU METROPOLITAN CENTRE

## POTENTIAL QUALIFYING MATTERS



Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

- Urban Intensification Study Areas

Notable Trees (KCDC)

Historic Heritage Places (KCDC)

NZ Heritage (NZHPT)

Key Indigenous Trees (KCDC)

Natural Gas (KCDC)

National Grid Lines (KCDC)

Designation (KCDC)

Designation (KCDC)

Designation (KCDC)

Designation (KCDC)

Designation (KCDC)

Designation (KCDC)

Designation (KCDC)

Designation (KCDC)

Quarry (KCDC)

Site of Significance Te Ātiawa ki Whakarongotai (GWRC)
- Rivers Streams and Drains (KCDC)
- Ecological Sites (KCDC)
- Special Amenity Landscapes (KCDC)
- Significant Natural Wetlands (GWRC)
- Rivers (LINZ)
- Lakes and Ponds (LINZ)
- Schedule B - Ngā Taonga Nui a Kiwa (GWRC)
- High Combined Earthquake Hazard (GWRC)
- Flood Hazard Stream Corridor (KCDC)
- Flood Hazard Overflow Path (KCDC)
- Flood Hazard Fill Control Area (KCDC)
- Flood Hazard Flood Storage Area (KCDC)
- Flood Hazard Ponding Area (KCDC)
- General Industrial Zone (KCDC)
- Natural Open Space Zone (KCDC)
- Open Space Zone (KCDC)
- Airport OLS (KCDC)
- Airport Noise Polygons (KCDC)

UI-PA-5 (Paraparaumu Metropolitan Centre)	
Locality	Paraparaumu
Location	The area around the Paraparaumu Metropolitan Centre and Paraparaumu railway station.
Extent	Approximate 800m walking distance from the Metropolitan Centre zone Paraparaumu railway station. Excludes the extents of the area that are located within Future Urban Study Areas PA-01, PA-02 and RB-01.

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Coordinating intensification with low-density industrial land.</li><li>Flood hazard and liquefaction potential.</li><li>Management of a range of potential reverse sensitivity issues.</li></ul>	<ul style="list-style-type: none"><li>Intensification of the area within the district that has the greatest access to a range of commercial activities, community services, public transport and centres of employment.</li><li>Increased height and density commensurate with the role of the area as the primary centre within the district.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment		
Wetlands, lakes, rivers and their margins	•	The Wharemauku stream, wetlands and other waterbodies.
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna	•	Ecological sites located within the area.
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga	•	The Wharemauku Stream is a site of significance of Te Ātiawa ki Whakarongotai.
Historic heritage	•	A small number of listed heritage buildings located throughout the area.
Significant risk from flood hazard	•	Flood hazard in the central and southern extent of the area.
Significant risk from earthquake hazard	•	Small extents of earthquake hazard located in the south-eastern extent of the area.
Significant risk from coastal hazard		
Nationally significant infrastructure	•	The Expressway and rail corridor pass through the area.
Public open space	•	Several public open spaces located throughout the area.
Designations	•	Designations associated with the Expressway, schools, drainage and open space, telecommunications and the railway corridor.
Business land for low density uses	•	General industrial land located in the northern and south-eastern extents of the area.

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>The Wharemauku stream is identified as a site of significance to Te Ātiawa ki Whakarongotai.</li><li>There are a number of archaeological sites (associated with middens) located in the area around where the Expressway passes over the Wharemauku stream.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>Increased height and building density could be appropriate within and around the Metropolitan Centre Zone.</li><li>Increased density of urban form will improve the legibility of the area as the primary urban centre within the Kāpiti Coast.</li><li>A cohesive response to density around the town centre may be challenged by the low density uses associated with the General Industrial zoned land around the railway station.</li><li>The presence of Coastlands mall may challenge the development of height and density in the short to medium term.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>Coastlands Mall defines the majority of the established extent of the Metropolitan Centre zone. Increased height and density could have little impact on established qualities of this area.</li><li>The Mixed use zone on Ihakara Street is predominantly defined by low density commercial activity. Increased height and density could have little impact on established qualities of this area.</li><li>The residential area to the north-west of the Expressway (around Milne Drive) is primarily defined by large single or two storey detached dwellings on larger lots. Intensification of up to 6 stories could alter the existing character of this area.</li><li>The residential area to the west and south of the metropolitan centre (around Kiwi Road, Raumati Road and Rimu Road) is primarily defined by single and two storey detached dwellings. Intensification of up to 6 stories could alter the existing character of this area.</li><li>The residential area to the north of the metropolitan centre (around Arawhata Road) is primarily defined by single storey detached dwellings. Intensification of up to 6 stories could alter the existing character of this area.</li><li>The area to the south-east of the railway line is defined by a mix of residential and industrial activity. Residential activity is predominantly single storey, with views of the hills to the east. Intensification of up to 6 stories could alter the existing character of this area.</li></ul>	

Criteria	Observations	Rating
Activity centres	<ul style="list-style-type: none"><li>The area has excellent access to range of commercial activities and community services, including shops, cafes and entertainment, supermarkets, schools, and other community facilities.</li><li>There are significant areas of employment located within the area, particularly within General Industrial areas to the north-west of the Expressway and to the south-east of the railway station.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area in the could contribute significant to dwelling supply.</li><li>High levels of access to commercial activities, community services and public transport could encourage the development of higher density typologies.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There are significant areas of General Industrial zoned land located within the area. Residential intensification may put pressure on these uses to relocate elsewhere.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>The area has direct access to the Expressway.</li><li>Kāpiti Road is the most congested road in the district, and development in the area could exacerbate this.</li><li>The area has good access to public transport and is within a walkable catchment of Paraparaumu railway station.</li><li>The area has good access to active modes along the Expressway.</li></ul>	
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water and wastewater reticulation is generally integrated into the existing street network.</li><li>The area of greenfield land in the northern extent of the Metropolitan Centre zone would require the development of an internal reticulation network.</li><li>Stormwater reticulation is generally integrated into the street network. The majority of stormwater in the area discharges at various points in to the Wharemauku stream.</li><li>Depending on scale, development in the area may trigger upgrades to the existing waste water plant, and/or pipes and pump stations between the area and the plant.</li></ul>	
Natural ecosystem values	<ul style="list-style-type: none"><li>There is an ecological site associated with a wetland located to the north-west of the interchange between the Expressway and Kāpiti Road.</li><li>There are a number of ecological sites and key indigenous trees located in the area to the south-east of the railway line.</li></ul>	
Water bodies	<ul style="list-style-type: none"><li>The Wharemauku stream and a number of tributary drains flow through the area. Intensification in the area could increase discharges to the Wharemauku stream.</li><li>There is a wetland located to the north-west of the interchange between the Expressway and Kāpiti Road.</li><li>There is a stormwater pond located to the south-west of the interchange between the Expressway and Kāpiti Road.</li><li>There are areas of stormwater retention identified within the Metropolitan Centre structure plan that could be associated with wetlands.</li></ul>	
Landscape and open space values	<ul style="list-style-type: none"><li>While there are a number of smaller open spaces, the area has a relatively low provision of public space for its size. Paraparaumu Domain is the largest open space, located on the north-eastern edge of the area.</li><li>There are areas of sand dune protection identified within the Metropolitan Centre structure plan.</li><li>There are special amenity landscapes associated with the hills along the south-eastern edge of the area.</li><li>There are a small number of notable trees located throughout the area.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There are a small number of heritage listed buildings located throughout the area.</li><li>Risk of archaeological discovery given the archaeological sites associated with the Expressway</li></ul>	
Topography	<ul style="list-style-type: none"><li>The majority of the area is relatively flat.</li><li>The area to the south-east of the railway station gently slopes up to the south-east.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>There are significant areas of flood hazard located in the central and southern extents of the area, particularly around the undeveloped area to the north of the Metropolitan Centre. This includes areas of ponding, flood storage, overland flow paths and stream corridors.</li><li>The majority of the area is subject to high liquefaction potential, although there are extents to the south-east of the railway line that are not subject to this.</li><li>There are small extents of area to the south-east of the railway line subject to high combined earthquake hazard.</li><li>There are numerous sites on the SLUR, particularly around Coastlands and the General Industrial areas.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>Potential for reverse sensitivity effects on the Expressway.</li><li>Potential for reverse sensitivity effects on low-density industrial uses in the area.</li><li>Potential for reverse sensitivity effects on schools in the area.</li><li>Potential for reverse sensitivity effects on the railway corridor.</li><li>Parts of the area are covered by the airport air noise boundary and obstacle limitation surfaces.</li><li>There are a range of designations associated with the Expressway, schools, drainage and open space, telecommunications and the railway corridor.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have good access to a range of community services, commercial activities, shops, and centres of employment.</li><li>The area has good access to active modes along the Expressway.</li><li>The area has good access to public transport and is within a walkable catchment of the Paraparaumu Railway station.</li><li>Intensification in the area could promote reduced-emission choices.</li><li>Good access to community services, commercial activities and other amenity may encourage the development of more energy efficient, higher density dwelling typologies.</li></ul>	

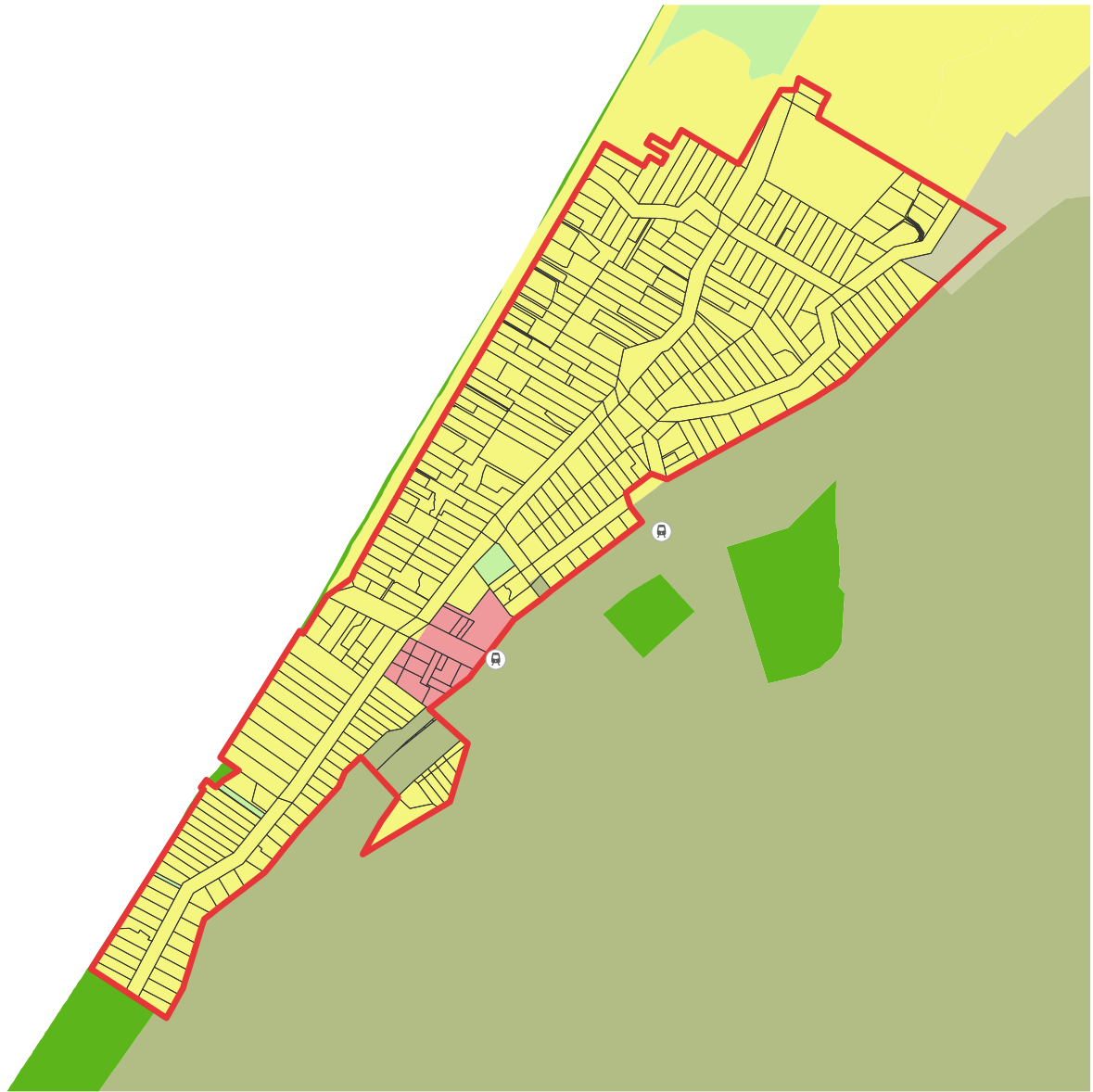


# PAEKAKARIKI LOCAL CENTRE AND RAILWAY STATION

AERIAL



ZONING



- Railway Station
- Urban Intensification Study Areas
- General Residential Zone
- General Rural Zone
- Rural Production Zone
- Local Centre Zone
- Natural Open Space Zone
- Open Space Zone

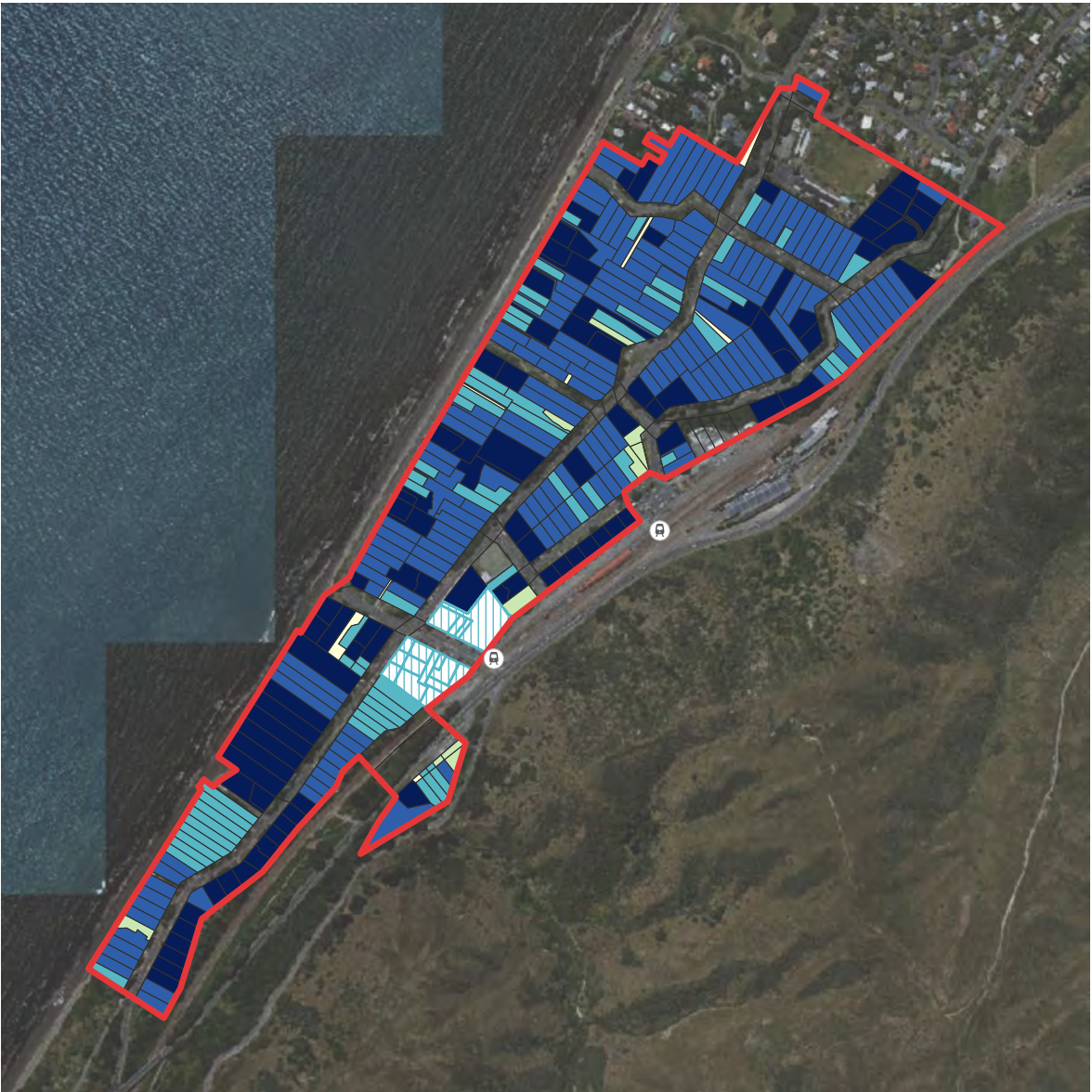


YIELD IN RESIDENTIAL AREA



	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.31	20	6
6.5m - 11m		3	0.57	30	17
11m - 14.5m		4	4.56	40	182
14.5m - 18m		5	15.50	50	775
18m <		6	10.61	60	637
306					1,617
Additional dwellings (yield minus existing residential units)					1,311

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE

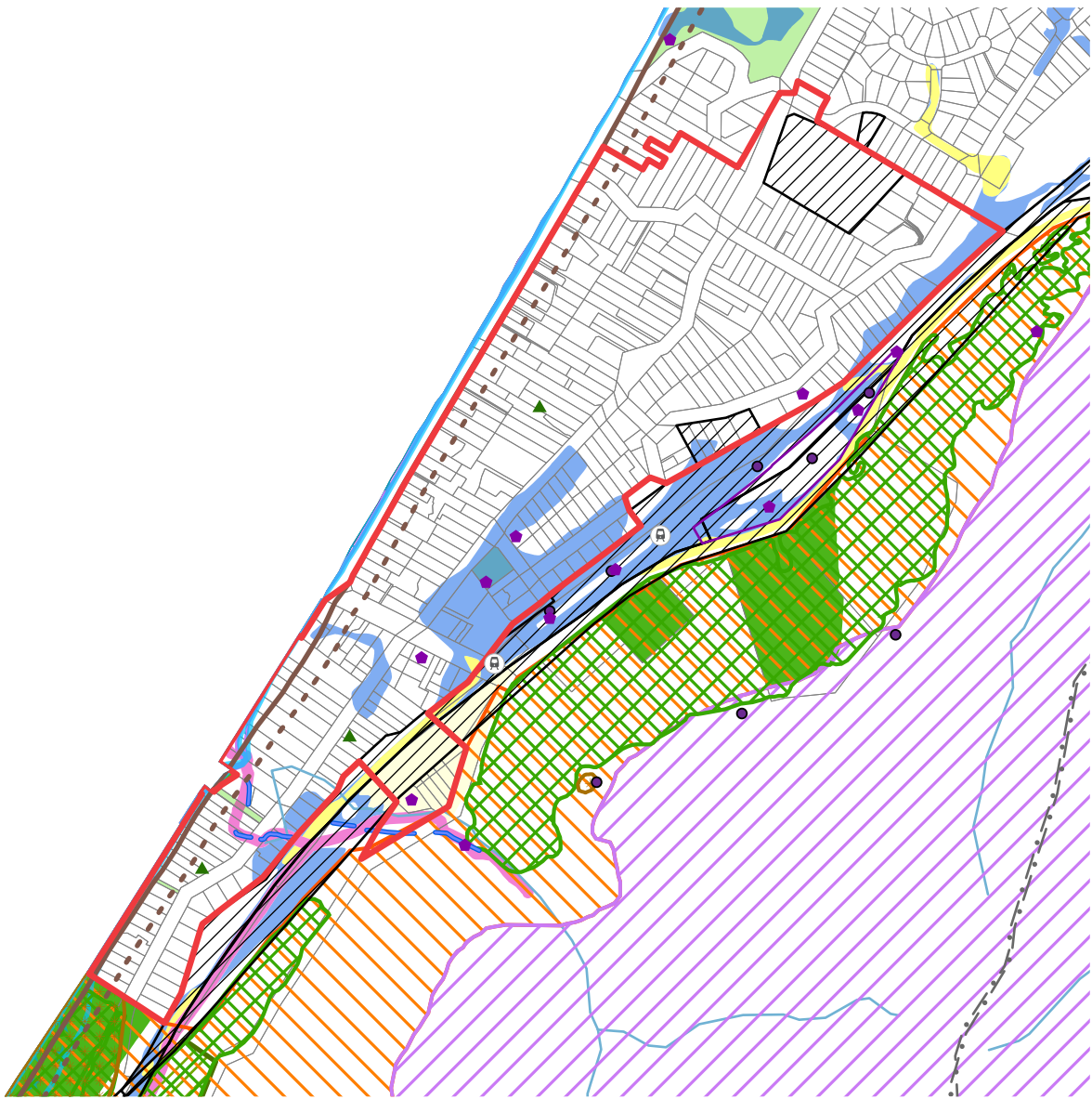


	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.31	20	6
6.5m - 11m		3	0.57	30	17
11m - 14.5m		4	4.56	40	182
14.5m - 18m		5	15.50	50	775
18m <		6	10.61	60	637
Local centre zone*		6	1.24	60	74
306					1,691
Additional dwellings (yield minus existing residential units)					1,385

\*Local centre height for Paekākāriki has been assumed at 6 storeys, as it is within the walkable catchment of the railway station.

# PAEKAKARIKI LOCAL CENTRE AND RAILWAY STATION

## POTENTIAL QUALIFYING MATTERS



- Urban Intensification Study Areas
- Notable Trees (KCDC)
- Historic Heritage Places (KCDC)
- NZ Heritage (NZHPT)
- Natural Gas (KCDC)
- Coastal Hazard 20m Building Line Restriction (KCDC)
- Coastal Hazard 30m Relocatable Area (KCDC)
- Historic Heritage Area (KCDC)
- Designation (KCDC)
- Designation (KCDC)
- Designation (KCDC)
- Designation (KCDC)
- Rivers Streams and Drains (KCDC)
- Waahi Tapu (KCDC)
- Ecological Sites (KCDC)

Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.



UI-PK (Paekakariki Local Centre and Railway Station)	
Locality	Paekakariki
Location	The area to the north and south of the Paekakariki railway station.
Extent	Approximate 800m walking distance from the Paekakariki railway station, and approximate 200m walking distance from the Paekakariki local centre zone.

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Distance from commercial activities and community services at Paraparaumu.</li><li>High liquefaction potential and areas of combined earthquake hazard.</li><li>Lack of reticulated stormwater and wastewater infrastructure.</li><li>Safety issues with the Beach Road intersection.</li><li>Significant alteration of existing neighbourhood character.</li><li>Complex topography.</li><li>Increased coastal hazard associated with climate change.</li></ul>	<ul style="list-style-type: none"><li>Good access to local shops, amenity and coastal open space.</li><li>Good access to public transport.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment	•	High natural character at the coastal margin.
Wetlands, lakes, rivers and their margins	•	Stream passes through the southern extent of the area.
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna		
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga	•	Adjacent urupā site.
Historic heritage	•	Several listed heritage buildings located throughout the area.
Significant risk from flood hazard	•	Some areas of flood hazard.
Significant risk from earthquake hazard	•	Some areas of high combined earthquake hazard.
Significant risk from coastal hazard	•	Proximity to the coastal edge.
Nationally significant infrastructure	•	Proximity to the railway line and state highway.
Public open space	•	One public open space located within the area.
Designations	•	State highway, railway corridor and school designations.
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>Paekakariki urupā is located to the south of the area.</li><li>There are a number of archaeological sites associated with middens located throughout the area.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>Increase in building height and density may be appropriate in the area around Beach Road and the railway station, and may assist in improving the legibility of Beach Road as a local centre.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>The full extent of the area is located within the Paekakariki Special Character Area.</li><li>The local centre zone around Beach Road is defined by a mix of one, two and three storey buildings with a mix of uses.</li><li>The majority of the residential area is influenced by the dune system on which the area is built. Existing buildings are integrated into the topography, and are predominantly single storey with some two storey dwellings. Intensification up to six storeys is likely to significantly alter the existing character of the neighbourhood.</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>There are a small number of commercial activities and community services located within area. Intensification within the area is likely to support existing commercial activity.</li><li>Services such as supermarkets and high schools are not located in the area, and require trips to Paraparaumu.</li><li>There is a primary school located within the area.</li><li>The area is relatively distant to Paraparaumu metropolitan centre.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area could contribute to dwelling supply.</li><li>Access to local amenity and proximity to the railway station could encourage a range of dwelling typologies and densities.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There is no General Industrial zoned land in the area.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>Intensification in the area will put additional pressure on the Beach Road intersection with SH1. This intersection is currently congested and has safety issues, however congestion at this intersection is likely to reduce following the opening of Transmission Gully.</li><li>Intensification in the area will put additional pressure on the level railway crossing at Beach Road.</li><li>The area has good access to public transport at Paekakariki station.</li></ul>	

Criteria	Observations	Rating
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water reticulation is generally integrated into the existing street network.</li><li>There are limited areas of stormwater reticulation integrated in to the street network. The majority of stormwater in the area discharges directly in to the coastal marine area.</li><li>Lack of stormwater reticulation may require on-site solutions.</li><li>There is no existing reticulated waste water at Paekakariki. New development would require a new reticulated network, piped up to the existing waste water treatment facility at Otaihanga. This may trigger requirements to upgrade the existing plant at Otaihanga.</li><li>On-site solutions for wastewater may be possible, although this may significantly reduce development density.</li></ul>	
Natural ecosystem values	<ul style="list-style-type: none"><li>There are no mapped ecological sites located within the area.</li></ul>	
Water bodies	<ul style="list-style-type: none"><li>A stream passes through the southern extent of the area.</li></ul>	
Landscape and open space values	<ul style="list-style-type: none"><li>There is a small public open space located on the corner of Robertson Road and Wellington Road. Intensification may increase demand for functional open space.</li><li>The area has good access to coastal open space.</li><li>The underlying dune topography and the steep hills to the east influence the landscape character of the area.</li><li>There are a number of notable trees located within the area.</li><li>There are no special amenity landscapes identified within the area, although the coastal edge adjacent to the area is identified as an area of high natural character.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There are a number of listed heritage buildings within the area.</li><li>The railway sheds adjacent to the area is identified as a heritage area.</li><li>There are a number of archaeological sites associated with middens located throughout the area.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area is relatively undulating, and there are areas of steep topography on the coastal side of the area.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>There is an area of flood ponding located to the west of the railway station.</li><li>The entire area is subject to high liquefaction potential.</li><li>There are a number of areas of high combined earthquake hazard located throughout the area.</li><li>The area adjacent to the coast is likely to be subject to increased natural hazard risk associated with climate change.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>Potential for reverse sensitivity associated with the railway line and the state highway.</li><li>Potential for reverse sensitivity effects on the school.</li><li>There are designations associated with the railway corridor, state highway and school located in the area.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have reasonable access to some commercial activities, and good access to public open space, public transport and coastal amenity. This could reduce short vehicle trips.</li><li>The area is relatively distant to Paraparaumu metropolitan centre and railway station. This may promote private vehicle commuting.</li></ul>	

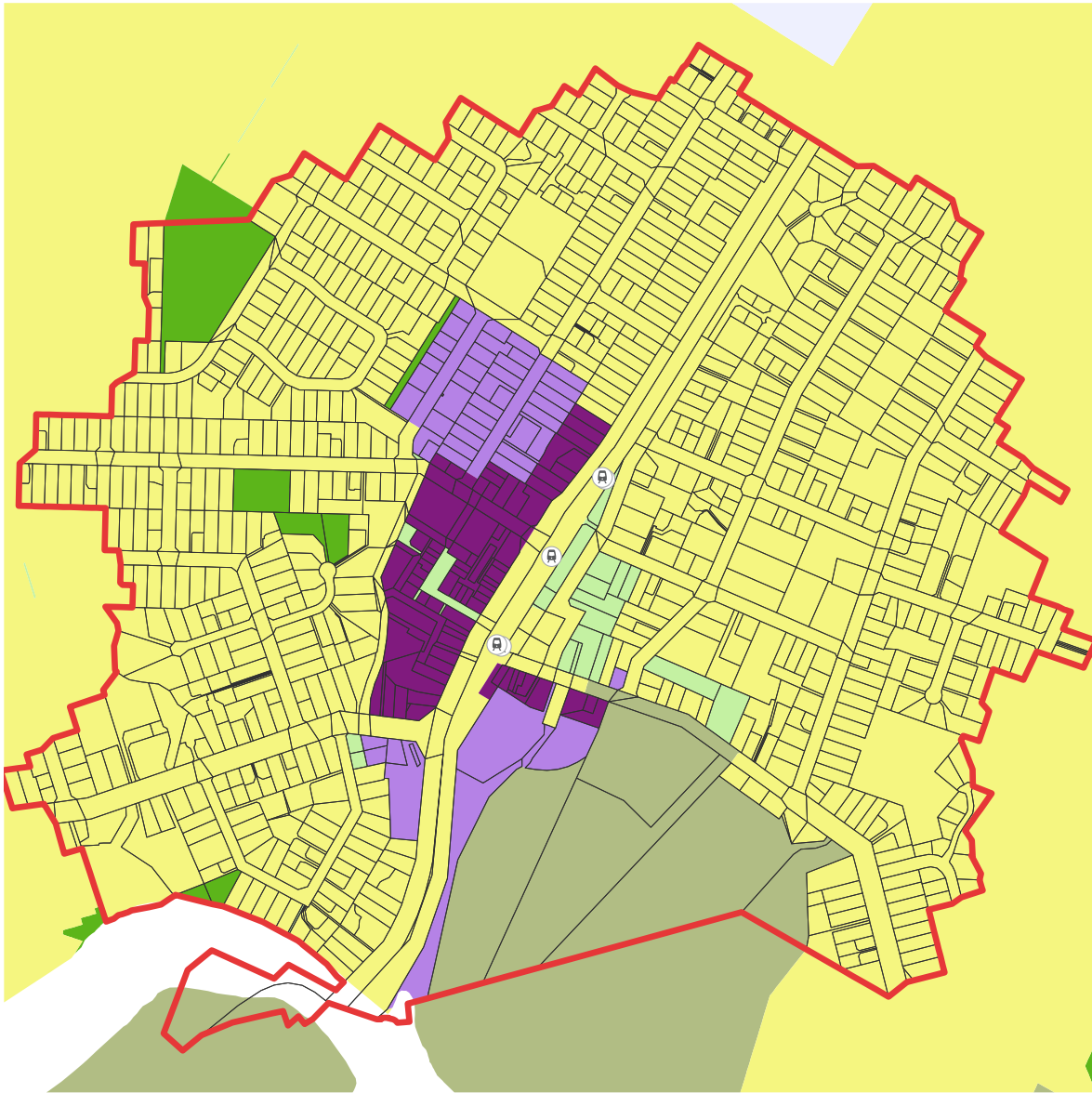


# WAIKANAE TOWN CENTRE

AERIAL



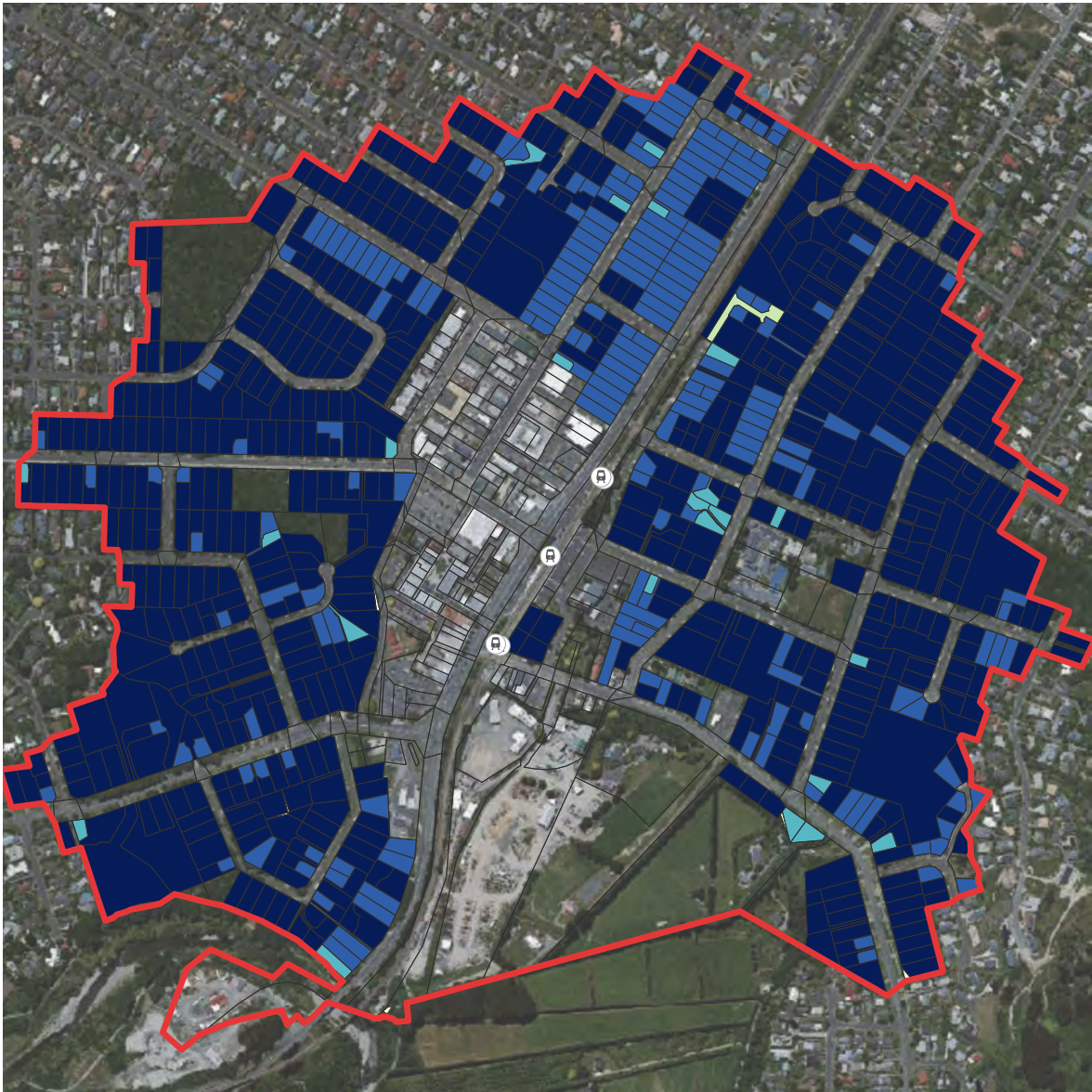
ZONING



- Railway Station
- Urban Intensification Study Areas
- General Residential Zone
- Rural Production Zone
- Town Centre Zone
- General Industrial Zone
- Natural Open Space Zone
- Open Space Zone
- Waikanae North Development Area

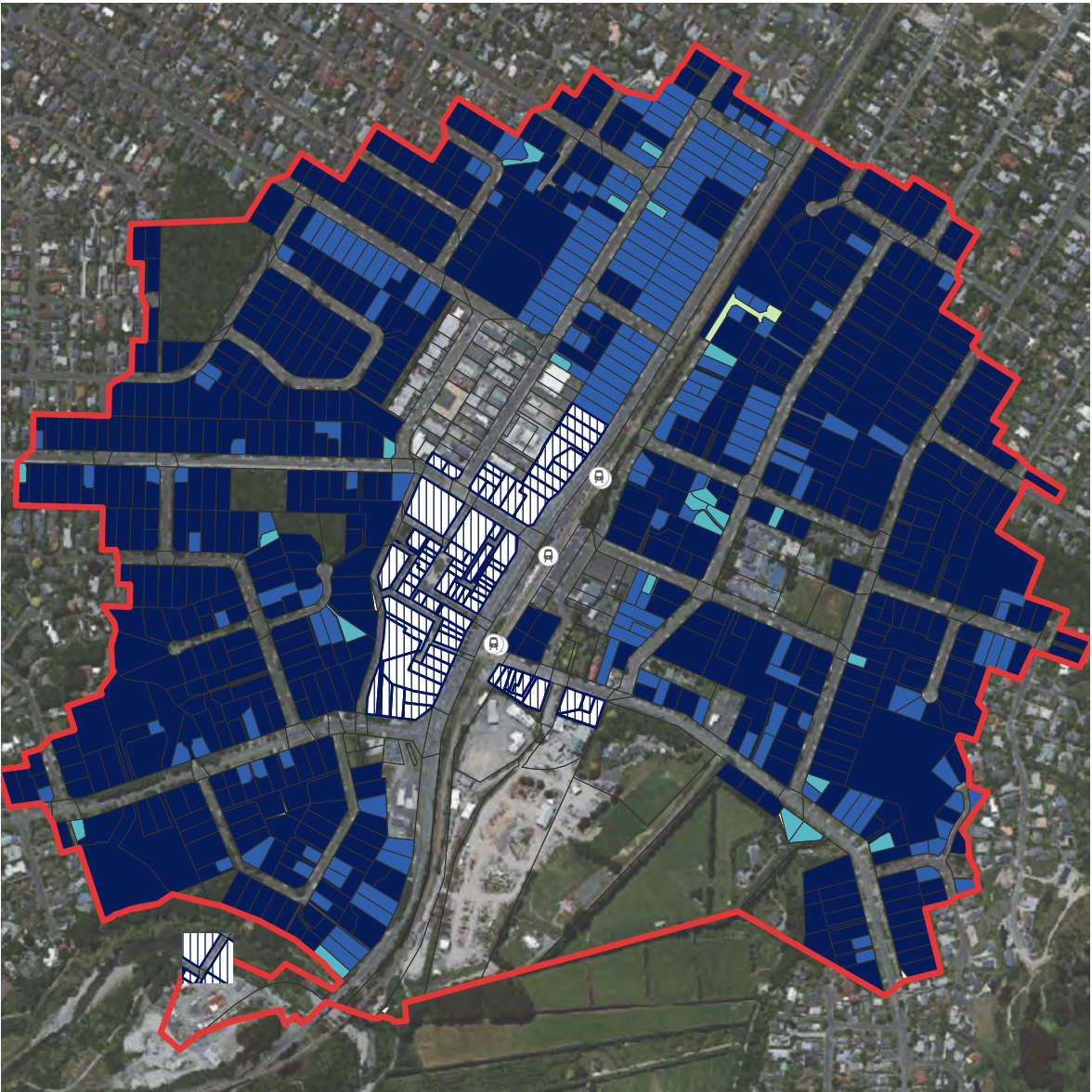


YIELD IN RESIDENTIAL AREA



SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.05	20	1
6.5m - 11m		3	0.16	30	5
11m - 14.5m		4	1.32	40	53
14.5m - 18m		5	14.38	50	719
18m <		6	67.97	60	4,078
761			83.87		4,856
Additional dwellings (yield minus existing residential units)					4,095

YIELD IN RESIDENTIAL + TOWN CENTRE ZONE

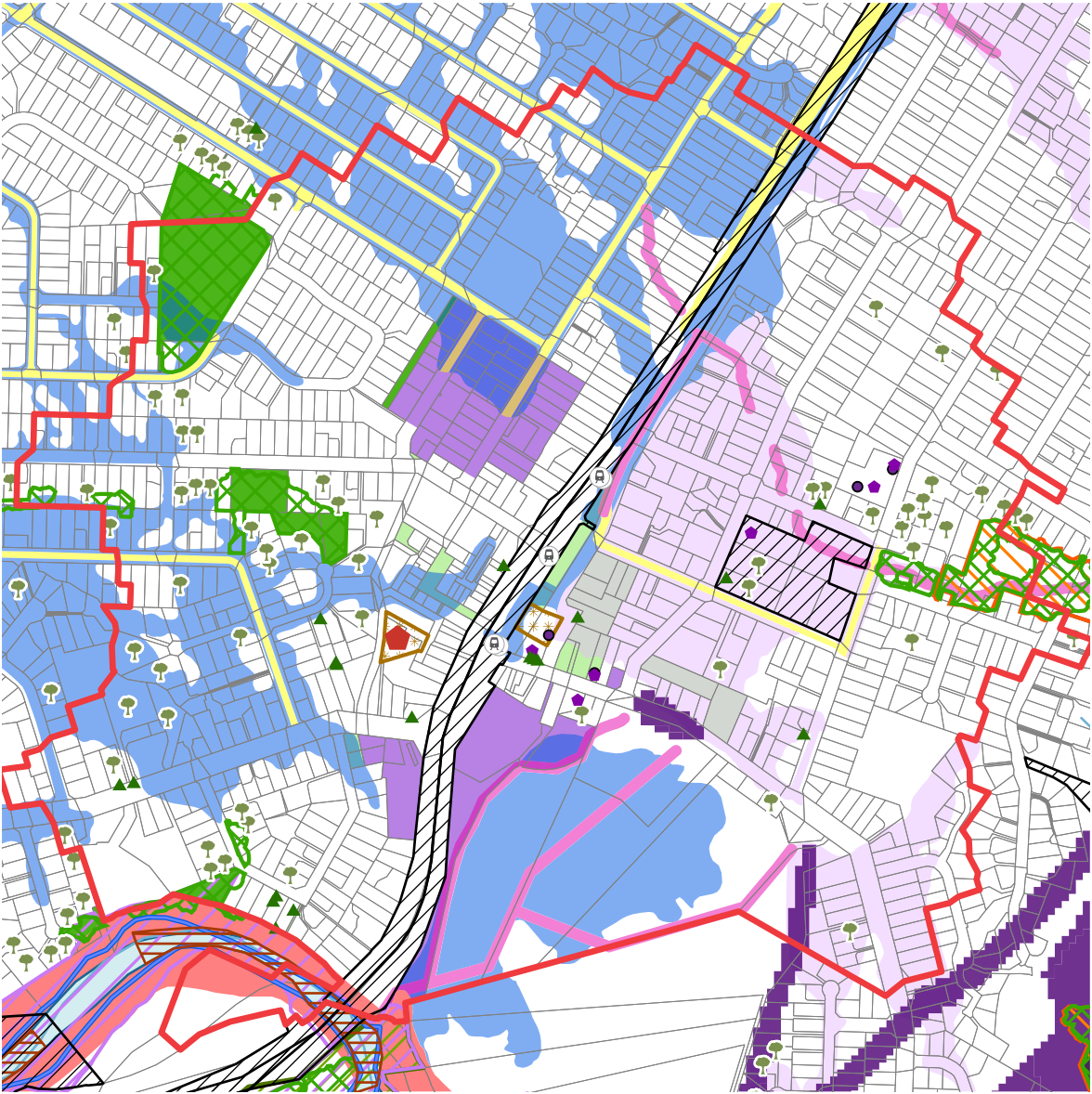


SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.05	20	1
6.5m - 11m		3	0.16	30	5
11m - 14.5m		4	1.32	40	53
14.5m - 18m		5	14.38	50	719
18m <		6	67.97	60	4,078
Town centre zone		6	5.14	60	308
761			89.01		5,164
Additional dwellings (yield minus existing residential units)					4,403



# WAIKANAE TOWN CENTRE

## POTENTIAL QUALIFYING MATTERS



Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

- Urban Intensification Study Areas
- Notable Trees (KCDC)
- Historic Heritage Places (KCDC)
- NZ Heritage (NZHPT)
- Marae (TPK)
- Key Indigenous Trees (KCDC)
- Designation (KCDC)
- Designation (KCDC)
- Designation (KCDC)
- Designation (KCDC)
- Designation (KCDC)
- Site of Significance Te Ātiawa ki Whakarongotai (GWRC)
- Rivers Streams and Drains (KCDC)
- Waahi Tapu (KCDC)
- Ecological Sites (KCDC)
- Special Amenity Landscapes (KCDC)
- Outstanding Natural Features and Landscapes (KCDC)
- Key Native Ecosystems (GWRC)
- Rivers (LINZ)
- Schedule B - Ngā Taonga Nui a Kiwa (GWRC)
- High Combined Earthquake Hazard (GWRC)
- Flood Hazard River Corridor (KCDC)
- Flood Hazard Stream Corridor (KCDC)
- Flood Hazard Overflow Path (KCDC)
- Flood Hazard Ponding Area (KCDC)
- Flood Hazard Shallow Surface Flow (KCDC)
- General Industrial Zone (KCDC)
- Natural Open Space Zone (KCDC)
- Open Space Zone (KCDC)

UI-WA (Waikanae Town Centre)	
Locality	Waikanae
Location	The area around the Waikanae Town Centre on both sides of Main Road/the railway line
Extent	Approximate 400m walking distance from the Waikanae Town Centre zone and an approximate 800m walking distance from the Waikanae Railway Station.

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Coordinating intensification with low-density industrial land.</li><li>Flood hazard.</li><li>Steeper topography in the eastern extent of the area.</li></ul>	<ul style="list-style-type: none"><li>Opportunity to improve the legibility and vibrancy of the Waikanae town centre through intensification.</li><li>Proximity to rapid transit.</li><li>Good access to a range of commercial activities, community services, employment and public open spaces.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment		
Wetlands, lakes, rivers and their margins	<ul style="list-style-type: none"><li></li></ul>	The margins of the Waikanae river run along the southern extent of the area.
Outstanding natural features and landscapes	<ul style="list-style-type: none"><li></li></ul>	ONL associated with Hemi Matenga Memorial Park in the eastern extent of the area.
Significant indigenous vegetation and significant habitats of indigenous fauna	<ul style="list-style-type: none"><li></li></ul>	Numerous ecological sites and key indigenous trees located throughout the area.
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga	<ul style="list-style-type: none"><li></li></ul>	Whakarongotai marae and Ruakohatu urupā.
Historic heritage	<ul style="list-style-type: none"><li></li></ul>	Several listed buildings located in the east of the area.
Significant risk from flood hazard	<ul style="list-style-type: none"><li></li></ul>	Areas of ponding, shallow surface flow, overland flow and stream corridors.
Significant risk from earthquake hazard	<ul style="list-style-type: none"><li></li></ul>	Small areas of high combined earthquake hazard around Elizabeth Street.
Significant risk from coastal hazard		
Nationally significant infrastructure	<ul style="list-style-type: none"><li></li></ul>	The railway line runs through the area.
Public open space	<ul style="list-style-type: none"><li></li></ul>	Several public open spaces located throughout the area.
Designations	<ul style="list-style-type: none"><li></li></ul>	School and rail corridor designations.
Business land for low density uses	<ul style="list-style-type: none"><li></li></ul>	General Industrial zoned land to the north and south of the Town Centre.

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>Whakarongotai marae is located on Marae Lane to the west of the Town Centre.</li><li>There is a wāhi tapu site associated with the Whakarongotai marae.</li><li>There is a wāhi tapu site associated with Ruakohatu urupā to the north of Elizabeth Street.</li></ul>	
Iwi development	<ul style="list-style-type: none"><li>The Waikanae Station park and ride car park (to the west of the station) is identified as Māori freehold land.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>Increased height and building density could be appropriate within and around the Town Centre zone.</li><li>Increased density of urban form will improve the legibility of the area as the centre of Waikanae.</li><li>A cohesive response to density around the town centre may be challenged by the low density uses associated with the General Industrial zoned land to the north and south of the town centre.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>The area within the town centre itself is defined by a mix of single and two storey commercial buildings within the Town Centre Zone, low density single and two storey industrial/commercial buildings located to the north and south of the Town Centre.</li><li>The residential area to the west and north of the Town Centre is predominantly defined by single storey residential dwellings.</li><li>The residential area to the east of the Town Centre is predominantly defined by single storey residential dwellings, which are increasingly integrated in to the landscape as the topography becomes steeper towards the west.</li><li>Intensification could improve the existing neighbourhood environment within the existing Town Centre zone.</li><li>Intensification could alter existing residential neighbourhood environments around the Town Centre, given their existing low-density scale of built form.</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>The area has good access to range of commercial activities and community services, including shops, cafes and entertainment, supermarkets, schools, and other community facilities.</li><li>The General Industrial areas function as centres of employment.</li><li>Intensification could support existing commercial and community activity within the town centre.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area could contribute significantly to dwelling supply.</li><li>High levels of access to commercial activities and community services could encourage the development of higher density typologies.</li></ul>	

Criteria	Observations	Rating
Business land	<ul style="list-style-type: none"><li>There is General Industrial zoned land located to the north and south of the town centre. Residential intensification may put pressure on these uses to relocate elsewhere.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>The existing intersection at Elizabeth Street and Main Road is already constrained, and intensification to the east of the railway line could put further pressure on this intersection.</li><li>The area is within a walkable catchment of the Waikanae railway station.</li></ul>	
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water and wastewater reticulation is generally integrated into the existing street network.</li><li>Stormwater reticulation is generally integrated into the street network although there are a number of streets without reticulation. Stormwater in the southern extent of the area discharges into the Waikanae river. In the northern extent of the area stormwater discharges through Ngā Manu reserve towards the Ngarara stream.</li><li>Depending on scale, development in the area may trigger upgrades to the existing waste water plant, and/or pipes and pump stations between the area and the plant.</li></ul>	
Natural ecosystem values	<ul style="list-style-type: none"><li>There are several ecological sites located in the eastern and western extents of the area.</li><li>There are numerous listed indigenous trees located throughout the area.</li></ul>	
Water bodies	<ul style="list-style-type: none"><li>The Waikanae river runs along the southern extent of the area.</li><li>A stream associated with the stormwater network runs through the northern extent of the area and discharges in to the Ngarara stream.</li><li>Reticulated stormwater discharges in to the Waikanae river and Ngarara streams, so intensification within the area could increase discharges to these waterbodies.</li></ul>	
Landscape and open space values	<ul style="list-style-type: none"><li>There are several public open spaces located throughout the area. Open spaces in the west of the area are generally conservation open spaces. There is a civic open space located within the existing town centre. There is an open space including sports facilities and playground located on Elizabeth Street.</li><li>There is an Outstanding Natural Landscape associated with Hemi Matenga Memorial Park located at the eastern extent of the area.</li><li>There are several notable trees located throughout the area.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There are several listed heritage buildings located in the east of the area, around Elizabeth Street, Seddon Street and Winiata Ave.</li><li>There are several notable trees located throughout the area.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area to the west of the railway line is largely flat.</li><li>The area to the east of the railway line progressively increases in slope to the east.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>Flood hazard is identified in a number of locations throughout the area. This is comprised of ponding areas, shallow surface flow, overland flow paths and stream corridors.</li><li>There are some areas of high combined earthquake hazard located to the south of Elizabeth Street.</li><li>There are sites on the SLUR located on both sides of Main Road in the southern extent of the area.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>Potential for reverse sensitivity effects on the railway line.</li><li>Potential for reverse sensitivity effects on industrial land uses.</li><li>Potential for reverse sensitivity effects on the school.</li><li>A school designation and the rail corridor designation run through the area.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have good access a range of community services, commercial activities, shops, employment and public open space.</li><li>The area has good access to active modes along Main Road.</li><li>The area is within a walkable catchment of the Waikanae Railway station.</li><li>Intensification in the area could promote reduced-emission choices.</li><li>Good access to community services, commercial activities and other amenity may encourage the development of more energy efficient, higher density dwelling typologies.</li></ul>	

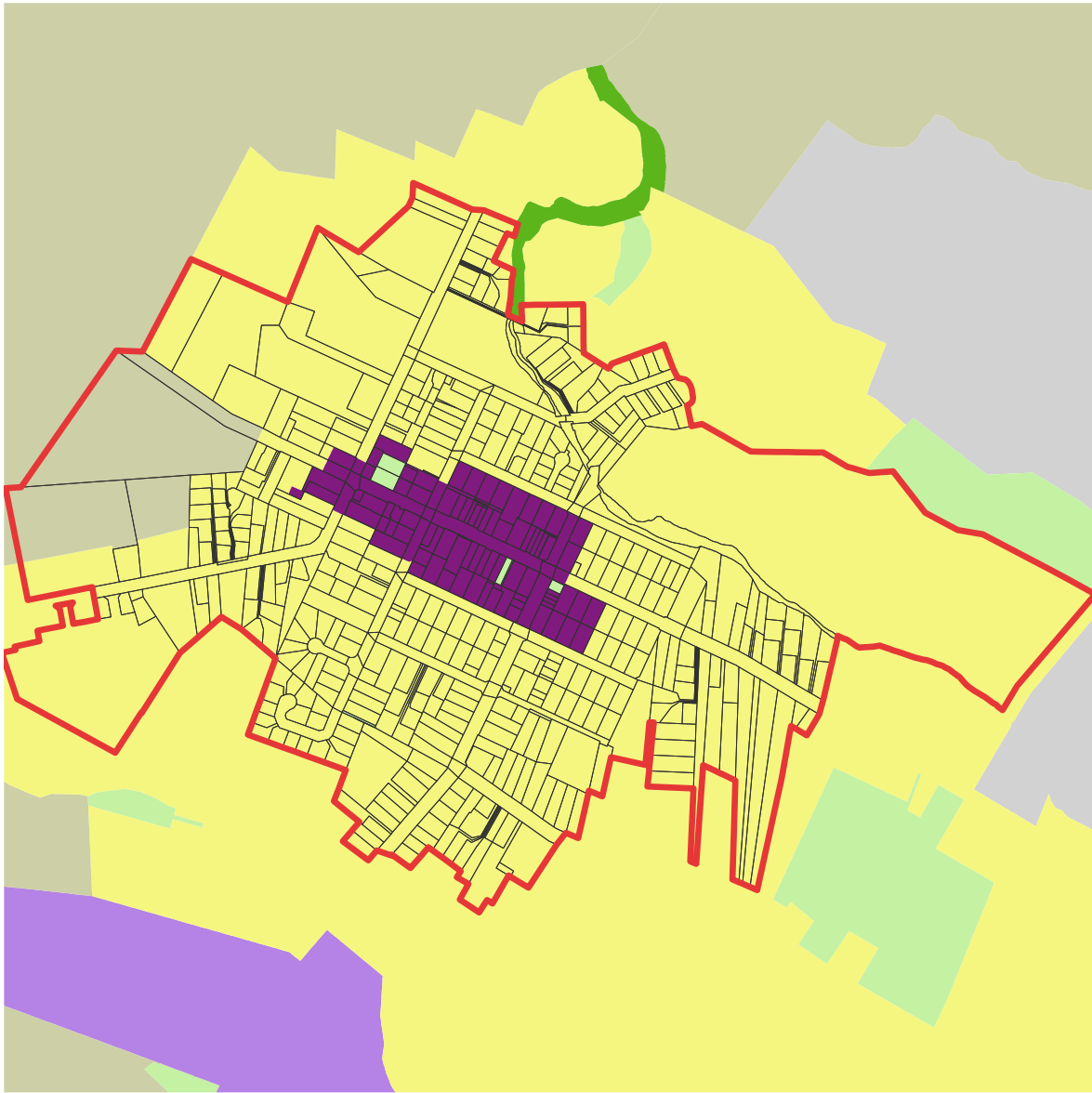










# ŌTAKI MAIN STREET/MILL ROAD

AERIAL



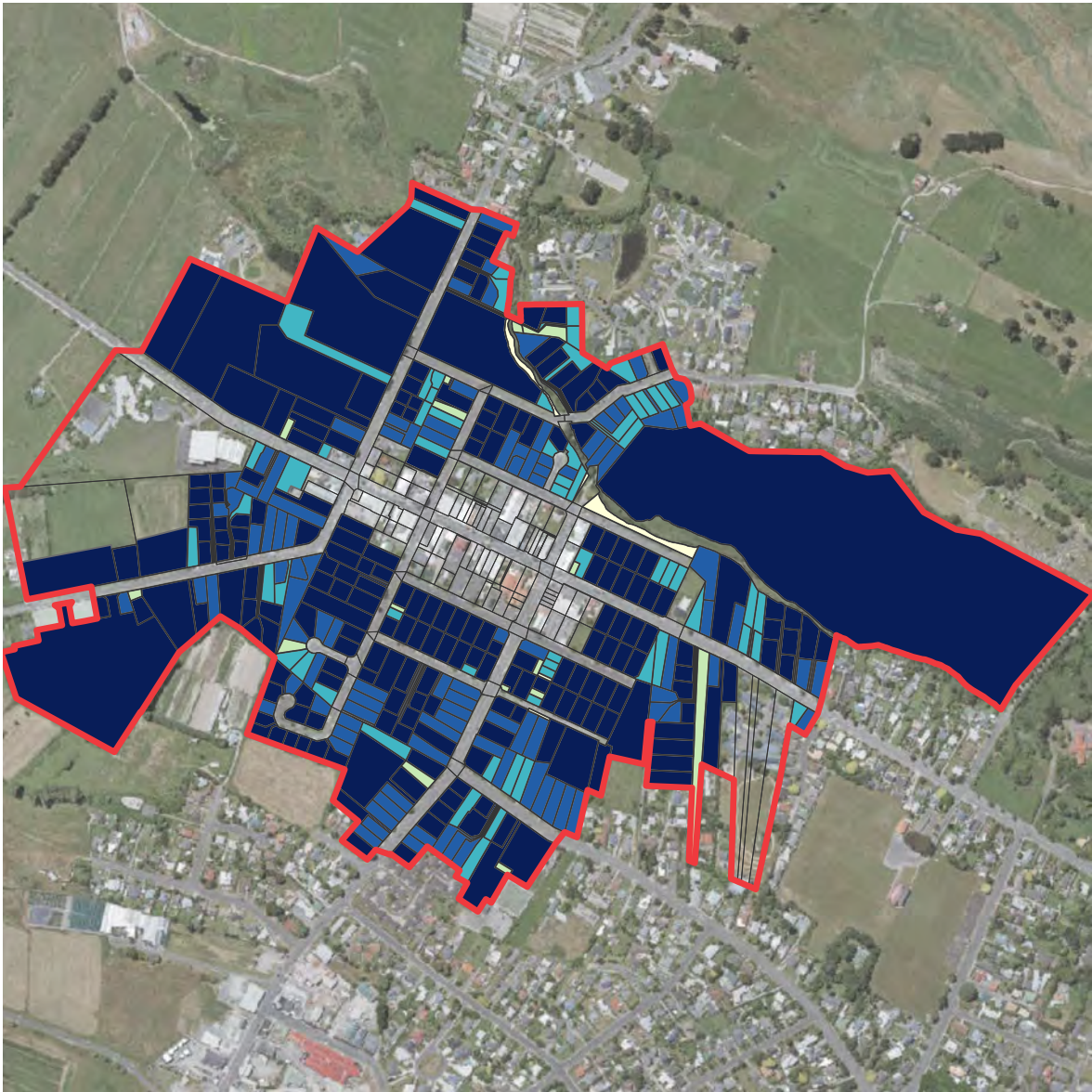
ZONING



- |   |   |
|---|---|
|  Urban Intensification Study Areas |  General Industrial Zone |
|  General Residential Zone          |  Natural Open Space Zone |
|  General Rural Zone                |  Open Space Zone         |
|  Town Centre Zone                  |  Future Urban Zone       |

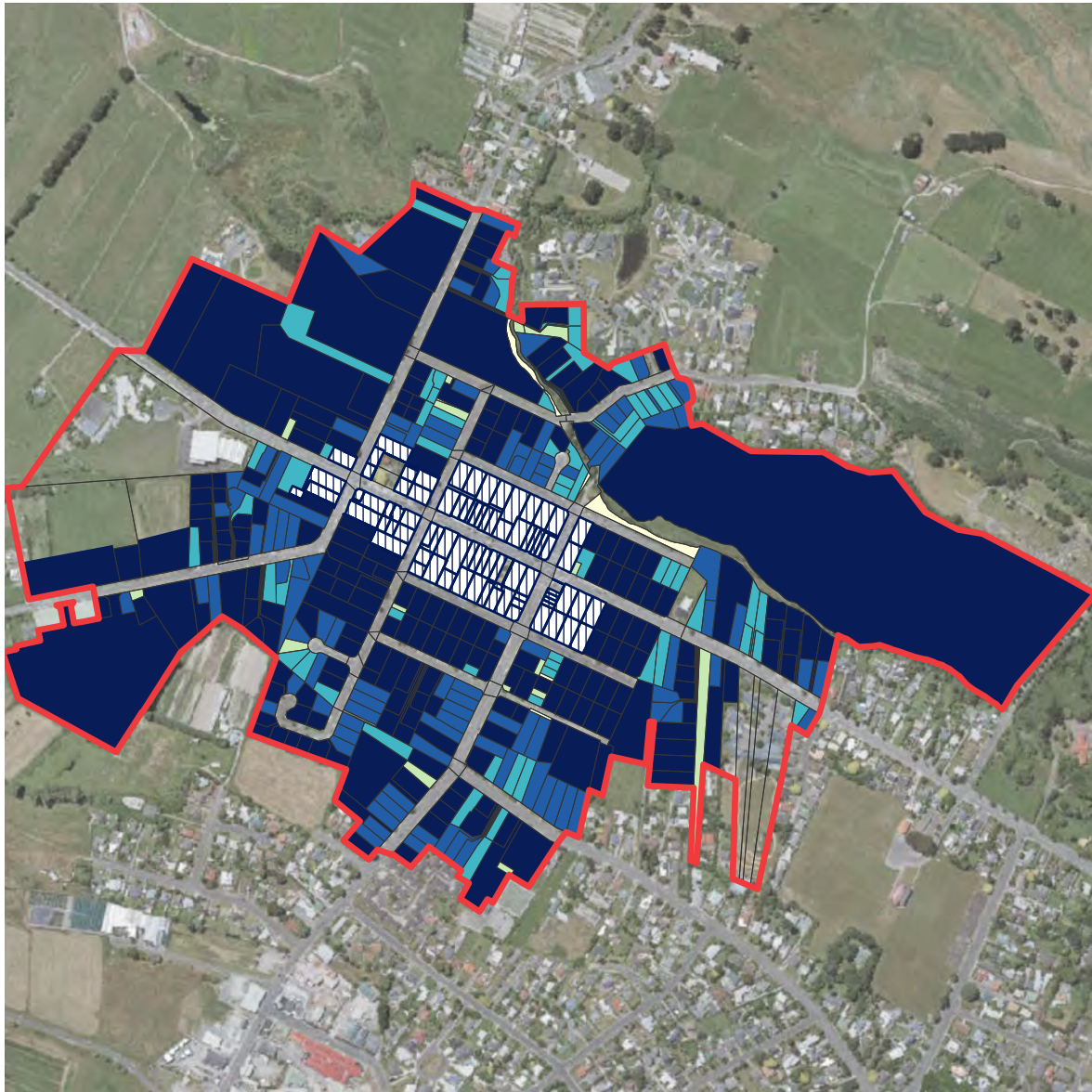


YIELD IN RESIDENTIAL AREA



EXISTING #		CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY	
SITE WIDTH	UNITS			DW/HA	APPROX YIELD
< 6.5m		up to 2	0.32	20	6
6.5m - 11m		3	0.84	30	25
11m - 14.5m		4	4.35	40	174
14.5m - 18m		4	8.13	40	325
18m <		4	45.19	40	1,808
495			58.84		2,338
Additional dwellings (yield minus existing residential units)					1,843

YIELD IN RESIDENTIAL + TOWN CENTRE ZONE

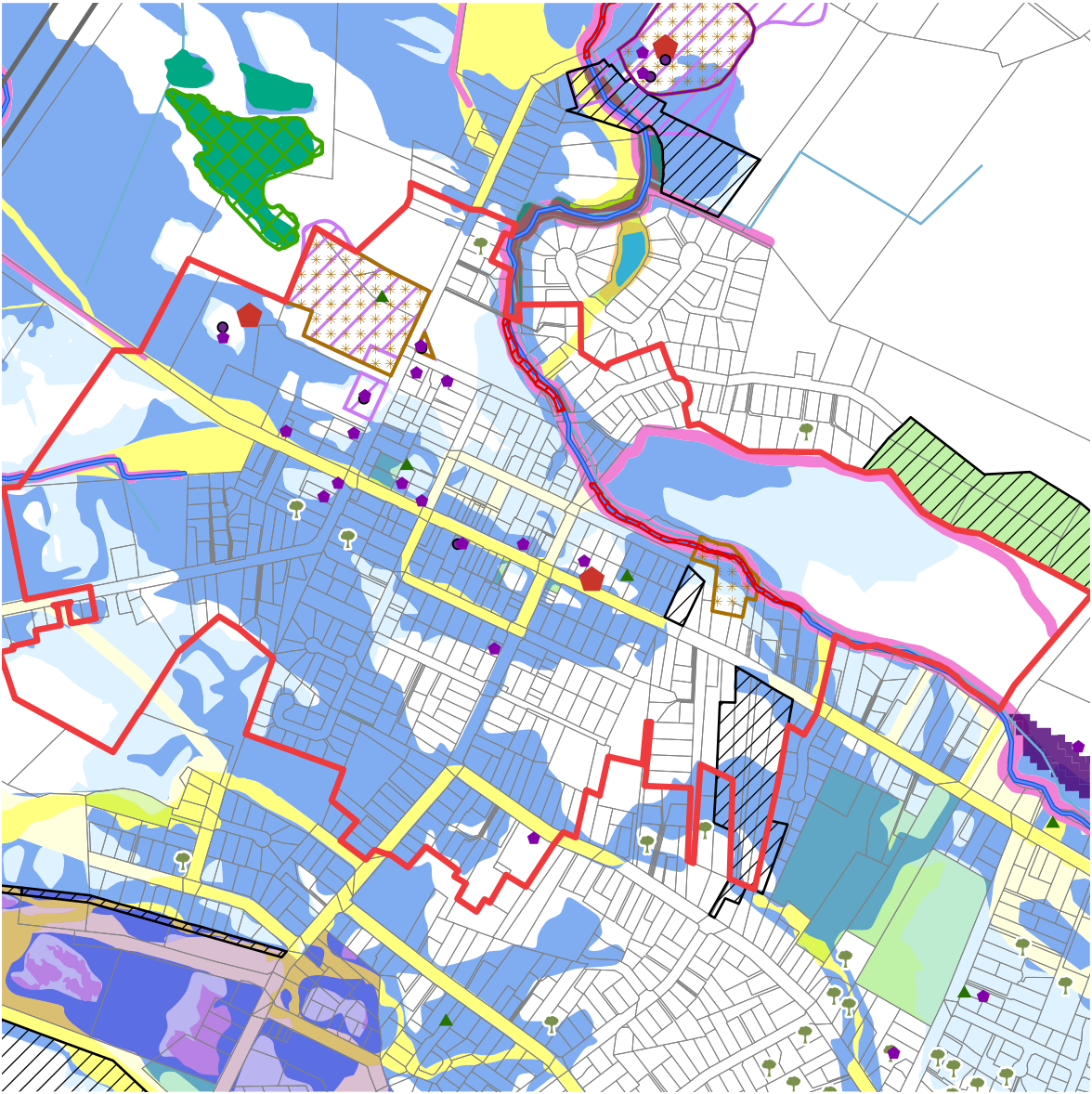


EXISTING #		CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY	
SITE WIDTH	UNITS			DW/HA	APPROX YIELD
< 6.5m		up to 2	0.32	20	6
6.5m - 11m		3	0.84	30	25
11m - 14.5m		4	4.35	40	174
14.5m - 18m		4	8.13	40	325
18m <		4	45.19	40	1,808
Town centre		6	4.65	60	279
495			63.49		2,617
Additional dwellings (yield minus existing residential units)					2,122



# ŌTAKI MAIN STREET/MILL ROAD

## POTENTIAL QUALIFYING MATTERS



- Urban Intensification Study Areas

Notable Trees (KCDC)

Historic Heritage Places (KCDC)

NZ Heritage (NZHPT)

Marae (TPK)

Key Indigenous Trees (KCDC)

National Grid Lines (KCDC)

Historic Heritage Area (KCDC)

Designation (KCDC)

Designation (KCDC)

Designation (KCDC)

Site of Significance Ngā Hapū o Ōtaki (GWRC)

Rivers Streams and Drains (KCDC)

Waahi Tapu (KCDC)
- Ecological Sites (KCDC)

Special Amenity Landscapes (KCDC)

Significant Natural Wetlands (GWRC)

Rivers (LINZ)

Lakes and Ponds (LINZ)

High Combined Earthquake Hazard (GWRC)

Flood Hazard Stream Corridor (KCDC)

Flood Hazard Overflow Path (KCDC)

Flood Hazard Residual Overflow Path (KCDC)

Flood Hazard Flood Storage Area (KCDC)

Flood Hazard Ponding Area (KCDC)

Flood Hazard Residual Ponding Area (KCDC)

General Industrial Zone (KCDC)

Natural Open Space Zone (KCDC)

Open Space Zone (KCDC)

Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

UI-ÖT-1 (Ötaki Main Street/Mill Road)	
Locality	Ötaki
Location	Ötaki Main Street/Mill Road
Extent	Approximate 400m walking distance from the Ötaki Main Street Town Centre Zone

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Infrastructure, particularly a constrained water supply.</li><li>Extensive flood hazard.</li><li>Historic heritage.</li><li>Wähi tapu.</li><li>Poor access to public transport.</li><li>Discharges to Haruätai stream.</li></ul>	<ul style="list-style-type: none"><li>Good access to local services.</li><li>Intensification could support existing and new activities and services on Main Street/Mill Road.</li><li>Relatively flat.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment		
Wetlands, lakes, rivers and their margins	•	The Haruätai stream passes through the area.
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna		
Relationship of Mäori and their culture and their traditions with their ancestral lands, water, sites, wähi tapu and other taonga	•	Three wähi tapu sites (two urupä and a monument). Two marae sites. A number of Mäori freehold land blocks.
Historic heritage	•	There are a large number of listed heritage buildings located in the area.
Significant risk from flood hazard	•	Extensive flood hazard.
Significant risk from earthquake hazard		
Significant risk from coastal hazard		
Nationally significant infrastructure		
Public open space	•	There are a number of small civic open spaces integrated into Main Street/Mill Road.
Designations	•	School designation and telecommunications designation.
Business land for low density uses		

Criteria	Observations	Rating
Infrastructure and servicing	<ul style="list-style-type: none"><li>Reticulated water supply is generally integrated into the existing street network.</li><li>Storm water reticulation is only integrated into key streets such as Main Street/Mill Road and Aotaki Street.</li><li>Intensification in Ötaki may trigger town-wide upgrades to the water supply, particularly reservoir storage.</li><li>Intensification in Ötaki may put pressure on already constrained wastewater reticulation networks and pump stations.</li></ul>	
Natural ecosystem values	<ul style="list-style-type: none"><li>There are three identified key indigenous trees located in the area.</li><li>There are no ecological sites identified in the area.</li></ul>	
Water bodies	<ul style="list-style-type: none"><li>The Haruätai stream runs through the area, to the north of Mill Road and Raukawa Street. Reticulated stormwater appears to discharge into this stream, so intensification within the area could increase discharges of water directly to the stream.</li></ul>	
Landscape and open space values	<ul style="list-style-type: none"><li>There are a number of small civic open spaces integrated into Main Street/Mill Road.</li><li>There are no playgrounds located in the area.</li><li>The area around the church, urupä and monument on Te Rauparaha Street are recognised as special amenity landscapes.</li><li>There are a number of notable trees identified in the area.</li><li>Ötaki Domain is relatively accessible to the area.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There are a significant number of heritage listed buildings located on Main Street/Mill Road and on Te Rauparaha Street.</li><li>There is an archaeological site associated with a colonial hotel located on the corner of Mill Road and Aotaki Street.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area is relatively flat.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>The majority of the area is covered by flood hazard. This is comprised of ponding areas, overland flow paths associated with Main Street/Mill Road and the Haruätai stream corridor.</li><li>There are four sites identified on the SLUR in the area.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>The existing school may be sensitive to residential intensification in close proximity.</li><li>There is a school designation and telecommunications designation located in the area.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have direct access to a wide range of commercial activities, community services, schools and open spaces.</li><li>Poor access to regional public transport may increase reliance on private vehicle transport.</li></ul>	

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>There are two urupä wähi tapu sites located within the area.</li><li>The Haruätai stream is recognised as a site of significance to Ngä Hapü o Ötaki.</li><li>There are two marae identified in the area.</li></ul>	
Iwi development	<ul style="list-style-type: none"><li>There are several Mäori freehold land blocks located within the area.</li><li>Te Wänanga o Raukawa campus is located on the western edge of the area around Tasman Road.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>Increased building height and density could be appropriate around Main Street/Mill Road, which is the main thoroughfare.</li><li>It is likely more appropriate to prioritise intensification around old State Highway 1 prior to this area, due to the proximity of that area to current and future transport links.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>Main Street/Mill Road is defined by predominantly by single story buildings, with some two storey buildings. The blocks to the north and south of Mill Road are predominantly single storey dwellings.</li><li>Main Street/Mill Road appears to have a distinct character based on the scale and appearance of existing buildings and open spaces that would likely be altered by intensification.</li><li>Intensification in the area beyond two storeys could significantly alter the character of the existing neighbourhood.</li><li>The area is not within an established Special Character Area.</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>There is a good variety of activity around Mill Road, including a museum, library, medical centre, churches, schools and supermarkets.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area could contribute modestly to dwelling supply.</li><li>Low access to public transport may limit the development of higher density typologies.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There is no General Industrial zoned land within the area.</li><li>Existing business uses are likely to be supported by residential intensification.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>Significant growth may put pressure on existing east-west connectivity across Ötaki.</li><li>While there is no dedicated cycleway, Ötaki railway station is accessible by active modes along Mill Road.</li><li>There is an existing bus route that runs along Mill Road, however all areas in Ötaki have poor access to regional public transport.</li></ul>	

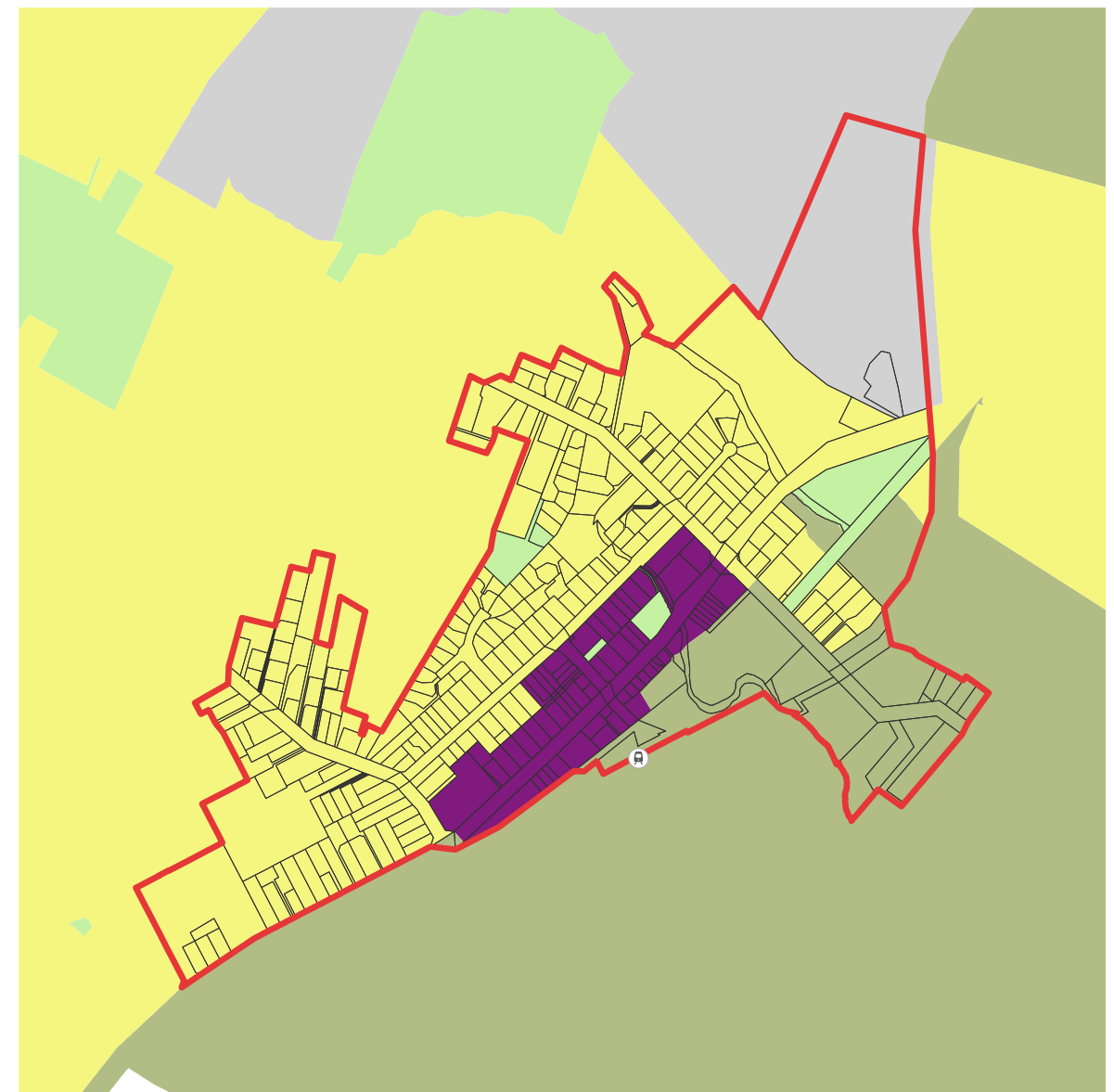









# ŌTAKI RAILWAY

## AERIAL



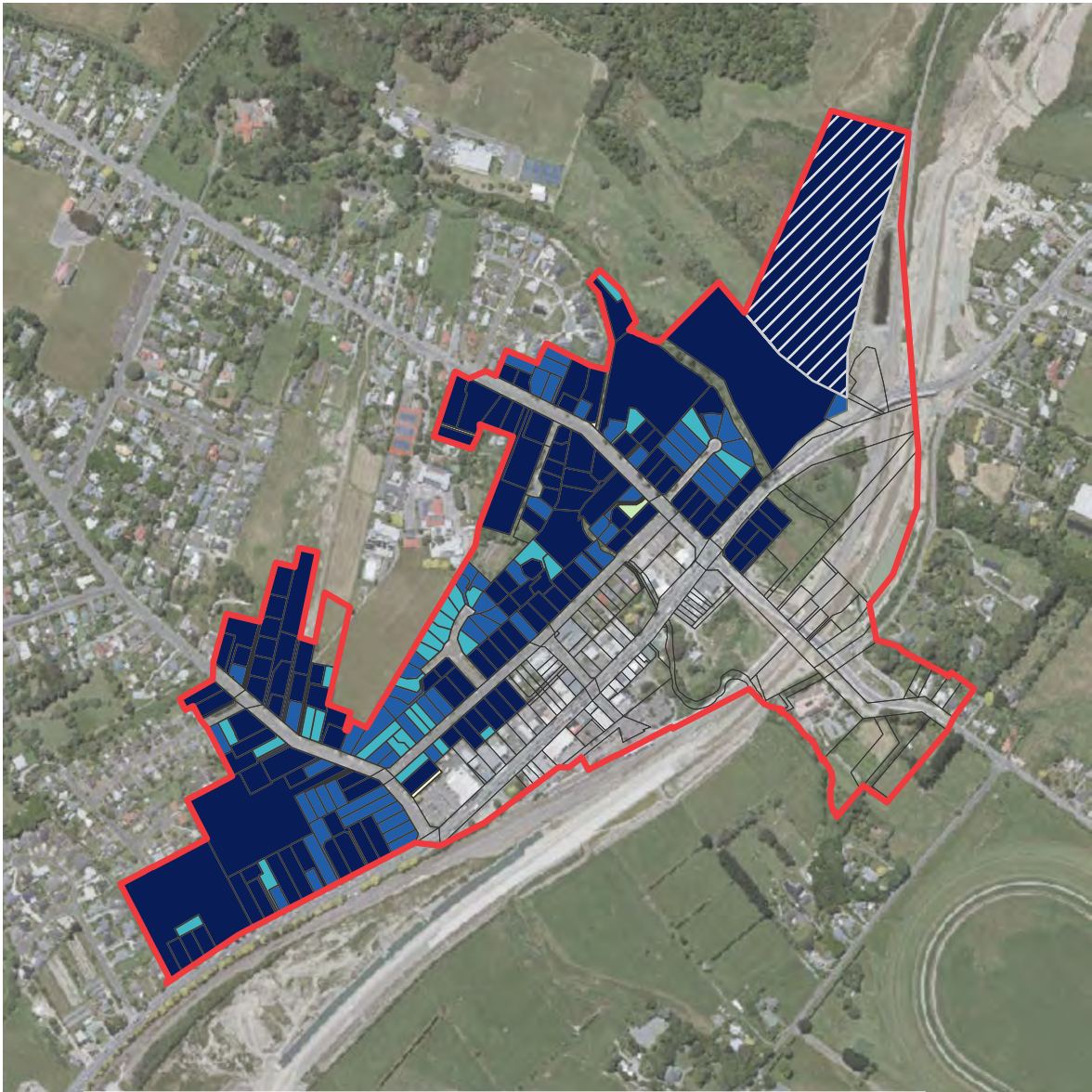
## ZONING



-  Railway Station
-  Urban Intensification Study Areas
-  General Residential Zone
-  Rural Production Zone
-  Town Centre Zone
-  Open Space Zone
-  Future Urban Zone

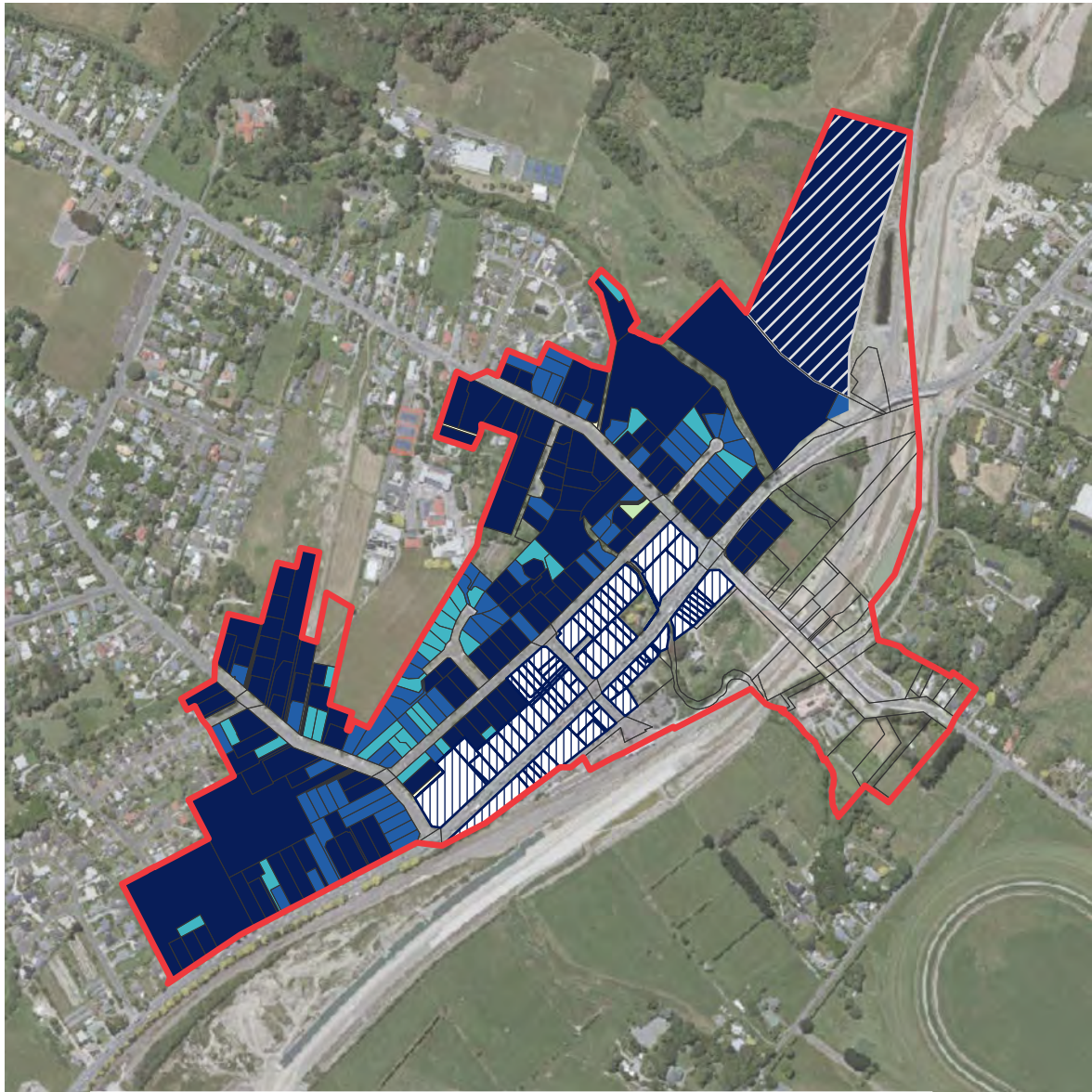


YIELD IN RESIDENTIAL AREA



EXISTING #		CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
SITE WIDTH	RESIDENTIAL UNITS				
< 6.5m		up to 2	0.05	20	1
6.5m - 11m		3	0.05	30	2
11m - 14.5m		4	1.87	40	75
14.5m - 18m		4	4.62	40	185
18m <		4	20.19	40	808
216			26.79		1,070
Additional dwellings (yield minus existing residential units)					854

YIELD IN RESIDENTIAL + TOWN CENTRE ZONE

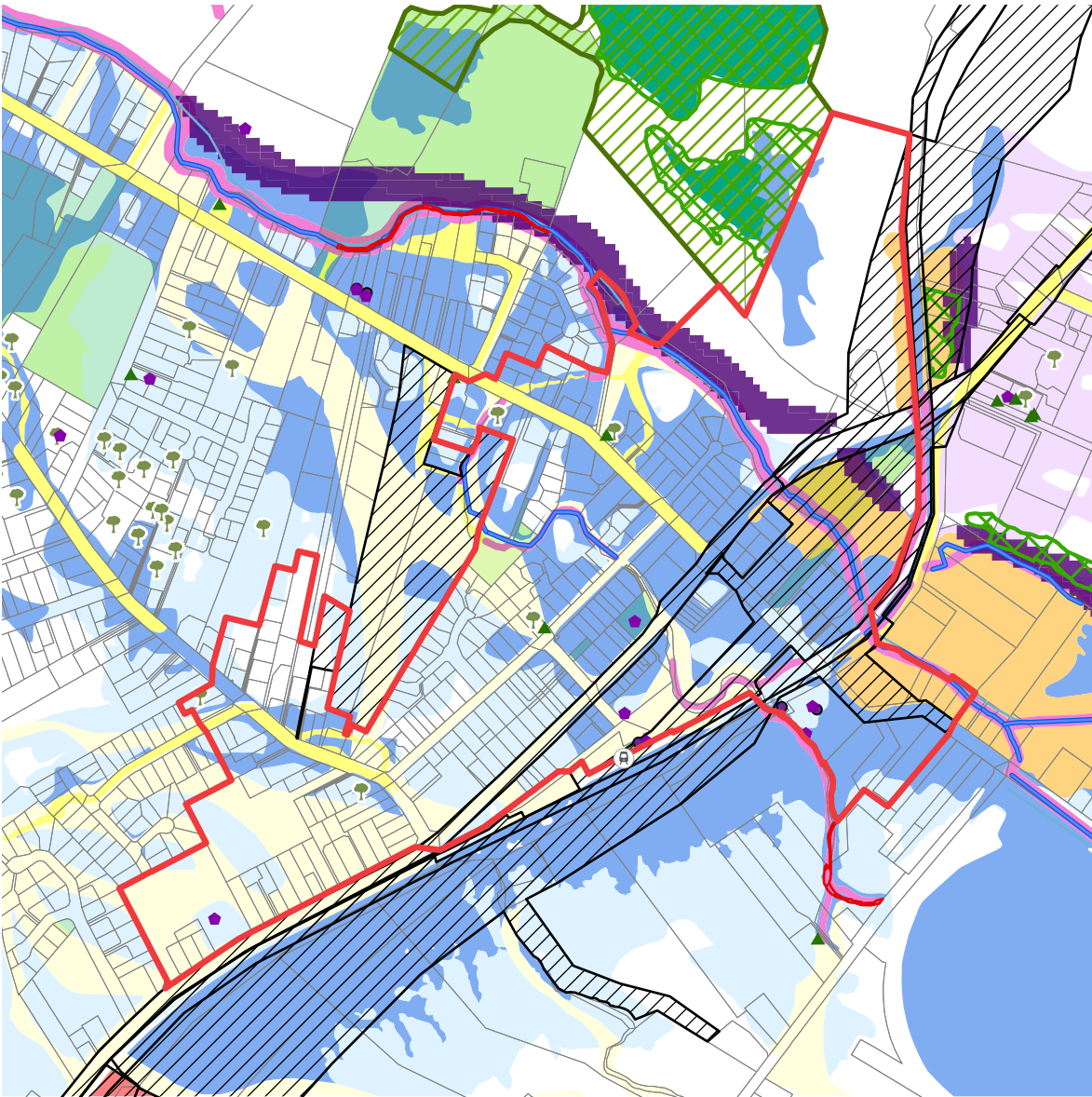


EXISTING #		CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
SITE WIDTH	RESIDENTIAL UNITS				
< 6.5m		up to 2	0.05	20	1
6.5m - 11m		3	0.05	30	2
11m - 14.5m		4	1.87	40	75
14.5m - 18m		4	4.62	40	185
18m <		4	20.19	40	808
Future urban zone (excluded from calculation, refer separate Greenfield assessment)					
Town Centre		6	4.8	60	288
216			31.59		1,358
Additional dwellings (yield minus existing residential units)					1,142



# ŌTAKI RAILWAY

## POTENTIAL QUALIFYING MATTERS



Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

UI-ÖT-2 (Ötaki Railway)	
Locality	Ötaki
Location	Ötaki Railway Station
Extent	Approximate 400m walking distance from the Ötaki Railway Town Centre Zone

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Infrastructure, particularly a constrained water supply.</li><li>Extensive flood hazard.</li><li>Earthquake hazard and liquefaction.</li><li>Poor access to public transport.</li><li>Discharges to Haruätai stream.</li></ul>	<ul style="list-style-type: none"><li>Good access to local services.</li><li>Intensification could support existing and new activities and services around old SH1.</li><li>Improve existing neighbourhood character, particularly the pedestrian environment around old SH1.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment		
Wetlands, lakes, rivers and their margins	<ul style="list-style-type: none"><li></li></ul>	The Haruätai stream and a tributary drain pass through the area.
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna		
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga	<ul style="list-style-type: none"><li></li></ul>	There are two large Māori freehold land block located in the area.
Historic heritage	<ul style="list-style-type: none"><li></li></ul>	There are a small number of listed heritage buildings.
Significant risk from flood hazard	<ul style="list-style-type: none"><li></li></ul>	Extensive flood hazard.
Significant risk from earthquake hazard	<ul style="list-style-type: none"><li></li></ul>	High combined earthquake hazard to the north of the Haruätai Steam.
Significant risk from coastal hazard		
Nationally significant infrastructure	<ul style="list-style-type: none"><li></li></ul>	The railway line runs through the area.
Public open space	<ul style="list-style-type: none"><li></li></ul>	There are a number of public open spaces located in the area.
Designations	<ul style="list-style-type: none"><li></li></ul>	Expressway designation, railway designation and high school designation.
Business land for low density uses		

Criteria	Observations	Rating
Natural ecosystem values	<ul style="list-style-type: none"><li>There are five identified key indigenous trees located in the area.</li><li>There are no ecological sites identified in the area, although there is a key native ecosystem identified to the north of the area, around Haruatai park.</li></ul>	
Water bodies	<ul style="list-style-type: none"><li>The Haruätai stream runs through the area, to the north of Mill Road. Some reticulated stormwater discharges to this stream, so intensification within the area could increase discharges of water directly to the stream.</li><li>A tributary drain runs through the area around Dunstan Street into a stormwater management area off Jean Hing Place. Reticulated stormwater discharges to this drain.</li></ul>	
Landscape and open space values	<ul style="list-style-type: none"><li>There are several public open spaces located in the area.</li><li>There is a small playground located at Centennial Park on Old State Highway 1.</li><li>There are no special amenity landscapes identified in the area.</li><li>There are a number of notable trees identified in the area.</li><li>Haruatai Park is relatively accessible to the area.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There are a number of heritage listed buildings located in the area, including the Ötaki Railway Station,</li><li>There is an archaeological site associated with a house located to the north-east of the railway station.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area to the south of the Haruätai stream is relatively flat.</li><li>The area to the north of the stream is relatively steep.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>The area is extensively covered by flood hazard. This is comprised of ponding areas, flood storage areas, overland flow paths and stream corridors. Some of this is residual.</li><li>The area to the north of the Haruätai stream is subject to high liquefaction potential.</li><li>There is an area to the north of the Haruätai stream subject to high combined earthquake hazard.</li><li>There are a two sites identified on the SLUR in the area.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>Intensification may have reverse sensitivity effects on the Expressway and railway corridor.</li><li>Ötaki College may be sensitive to intensification.</li><li>Designations in the area are associated with the Expressway, the railway corridor and Ötaki college.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have direct access to a wide range of commercial activities, community services, schools and open spaces.</li><li>Poor access to regional public transport may increase reliance on private vehicle transport.</li></ul>	

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>There are no mapped sites of significance identified in the area, however the Haruätai stream runs through the northern extent of the area, and this is recognised downstream as a site of significance to Ngā Hapū o Ötaki.</li></ul>	
Iwi development	<ul style="list-style-type: none"><li>There are two large Māori freehold land blocks located in the east and north of the area.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>Increased building height and density could be appropriate in the area, particularly focussed on Old SH 1, the block back to Dunstan Street, the area around the intersection with Mill Road, and the area around the railway station.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>The area is predominantly defined by low density, single storey commercial development located around Old SH1. The environment is relatively vehicle oriented and has little identifiable character. The area could be improved through intensification.</li><li>The area to the north west of Dunstan Street and around Mill Road to the west of Old SH1 is defined predominantly by single storey dwellings. Intensification within this part of the are in the area beyond two storeys could alter the character of the existing neighbourhood.</li><li>The area is not within an established Special Character Area.</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>There is a good variety of activity within the area, including shops and local services, a supermarket and Ötaki.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area could contribute modestly to dwelling supply.</li><li>Low access to public transport may limit the development of higher density typologies.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There is no General Industrial zoned land within the area.</li><li>Existing business uses are likely to be supported by residential intensification.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>The area has good access to the Expressway.</li><li>Ötaki railway station is located in the area (although services to Wellington do not extent do Ötaki).</li><li>While there are bus routes that service the area, all areas in Ötaki have poor access to regional public transport.</li></ul>	
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water and wastewater reticulation is generally integrated into the existing street network.</li><li>There is storm water reticulation integrated into some streets including Dunstan Street, Waerenga Road, Mill Road, and part of Old State Highway 1. Old State Highway 1 has no stormwater reticulation south of Arthur Street..</li><li>Intensification in Ötaki may trigger town-wide upgrades to the water supply, particularly reservoir storage.</li><li>Intensification in Ötaki may put pressure on already constrained wastewater reticulation networks and pump stations.</li></ul>	

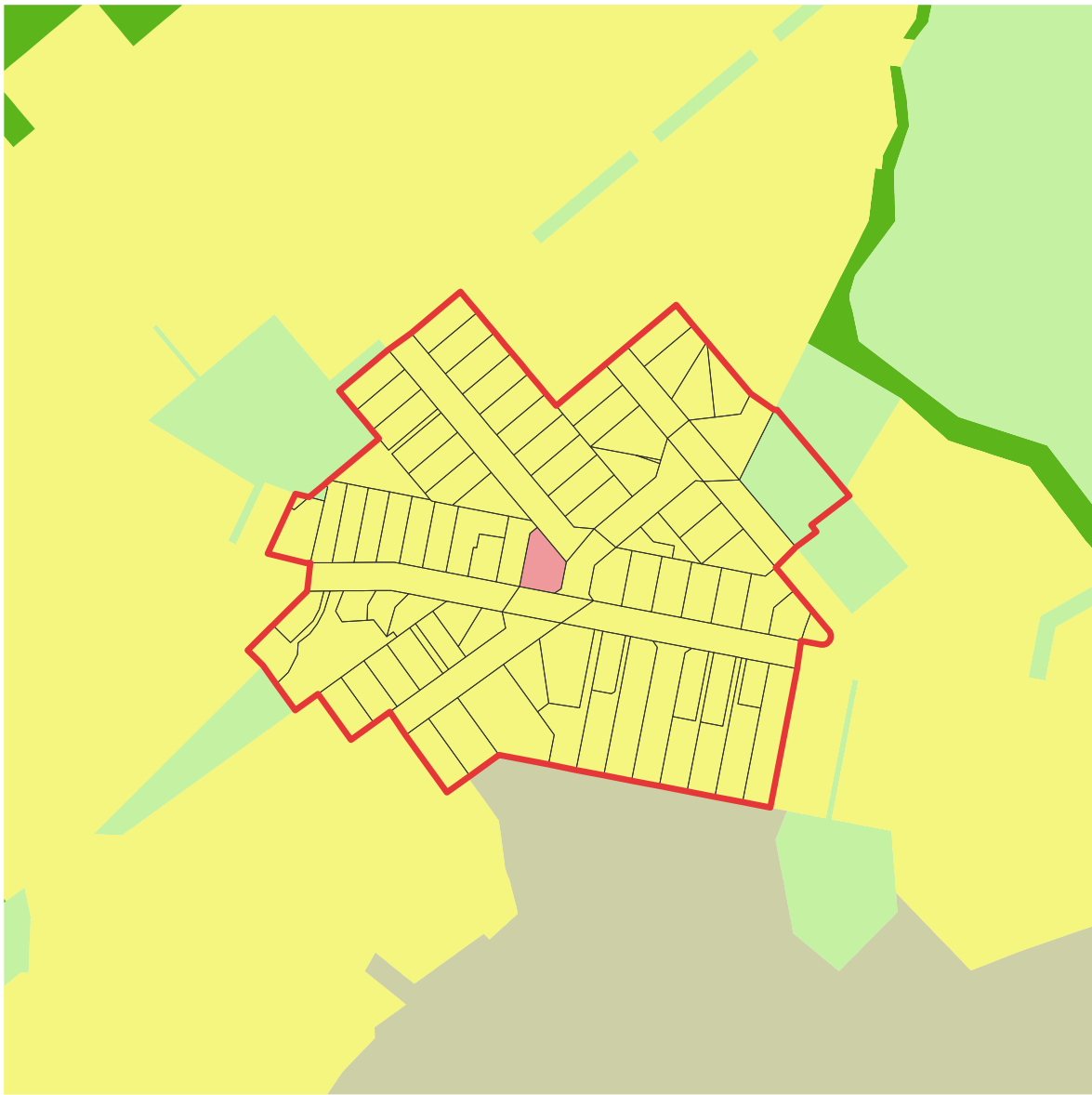


# WAIKANAĒ BEACH LOCAL CENTRE

AERIAL



ZONING



- Urban Intensification Study Areas
- General Residential Zone
- General Rural Zone
- Local Centre Zone
- Natural Open Space Zone
- Open Space Zone



YIELD IN RESIDENTIAL AREA



	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.16	20	3
6.5m - 11m		3	0.08	30	2
11m - 14.5m		4	1.08	40	43
14.5m - 18m		4	3.10	40	124
18m <		4	10.18	40	407
176			14.60		580
Additional dwellings (yield minus existing residential units)					404

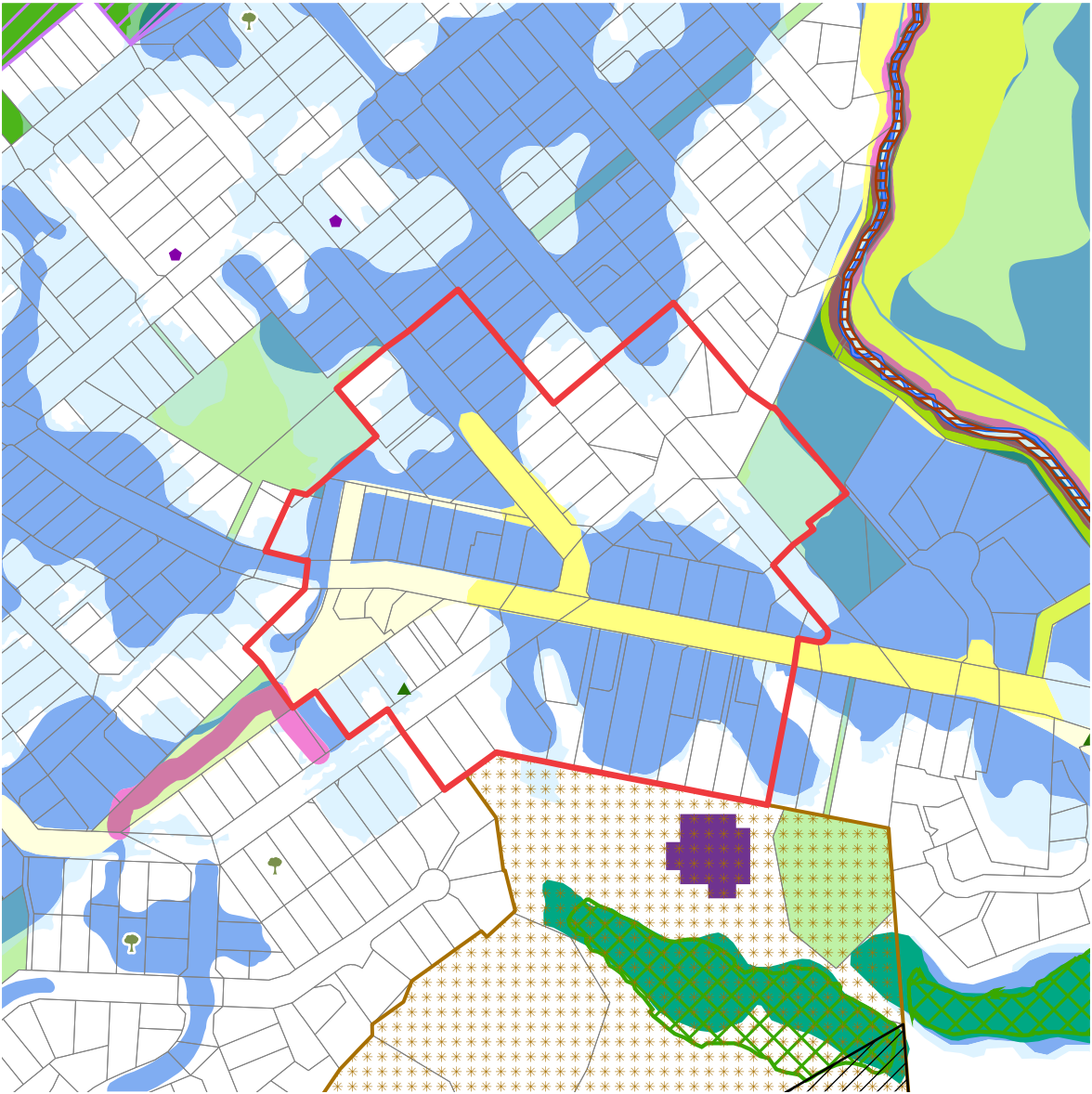
YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE



	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.16	20	3
6.5m - 11m		3	0.08	30	2
11m - 14.5m		4	1.08	40	43
14.5m - 18m		4	3.10	40	124
18m <		4	10.18	40	407
Local Centre		4	0.10	40	4
176			14.70		584
Additional dwellings (yield minus existing residential units)					408

# WAIKANAE BEACH LOCAL CENTRE

## POTENTIAL QUALIFYING MATTERS



- Urban Intensification Study Areas

Notable Trees (KCDC)

Historic Heritage Places (KCDC)

Key Indigenous Trees (KCDC)

Designation (KCDC)

Site of Significance Te Ātiawa ki Whakarongotai (GWRC)

Rivers Streams and Drains (KCDC)

Waahi Tapu (KCDC)

Ecological Sites (KCDC)

Special Amenity Landscapes (KCDC)
- Significant Natural Wetlands (GWRC)

Rivers (LINZ)

Schedule B - Ngā Taonga Nui a Kiwa (GWRC)

High Combined Earthquake Hazard (GWRC)

Flood Hazard Stream Corridor (KCDC)

Flood Hazard Overflow Path (KCDC)

Flood Hazard Residual Overflow Path (KCDC)

Flood Hazard Ponding Area (KCDC)

Flood Hazard Residual Ponding Area (KCDC)

Natural Open Space Zone (KCDC)

Open Space Zone (KCDC)

Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.



UI-WB (Waikanae Beach Local Centre)	
Locality	Waikanae Beach
Location	The area around the intersection of Te Moana Road and Waimea Road
Extent	Approximate 200m walking distance from the Waikanae Beach Local Centre zone.

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Poor access to a range of commercial activities and community services.</li><li>Extensive flood hazard.</li><li>High liquefaction potential.</li><li>Proximity to the Takamore wāhi tapu area.</li></ul>	<ul style="list-style-type: none"><li>Opportunity to improve the legibility and vibrancy of the Waikanae Beach local centre through intensification.</li><li>Area is relatively flat.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment		
Wetlands, lakes, rivers and their margins		
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna		
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga	<ul style="list-style-type: none"><li></li></ul>	The Takamore wāhi tapu site is located to the south of the area.
Historic heritage		
Significant risk from flood hazard	<ul style="list-style-type: none"><li></li></ul>	Extensive flood hazard.
Significant risk from earthquake hazard		
Significant risk from coastal hazard		
Nationally significant infrastructure		
Public open space		
Designations		
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>The Takamore wāhi tapu area is located immediately to the south of the area.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>The existing cluster of shops is not large, and difficult to distinguish from surrounding residential development. A moderate increase in building height and density may be appropriate in the area, and may assist in improving the legibility of the Waikanae Beach local centre.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>The area is predominantly defined by single storey dwellings with larger yards.</li><li>Intensification could alter the existing low density character of the area, although this may have benefits to the legibility and sense of activity around the existing local centre.</li><li>The western half of the area is located within the Waikanae Beach Special Character Area.</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>The existing shops within the local centre comprise a dairy and a cafe. Intensification could support the existing shops.</li><li>The area has a low degree of access to commercial activities and community services (including schools), most of which are located in Waikanae or Paraparaumu.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area could contribute modestly to dwelling supply.</li><li>Low access to commercial activities and community services may limit the development of higher density typologies.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There is no General Industrial zoned land within the area.</li><li>Existing business uses are likely to be supported by residential intensification.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>The area has immediate access to the Expressway via the adjacent interchange.</li><li>There is an existing bus route that runs along Te Moana Road.</li><li>There is reasonable access to Waikanae Station and town centre via active modes along Te Moana Road, although distance may result in vehicle trips to the station, putting pressure on park and ride facilities.</li><li>Some parts of Te Moana Road include a cycle lane.</li><li>The area has good access to active modes of transport associated with the Expressway.</li><li>Some streets in the area have a footpath on only one side.</li></ul>	
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water and wastewater reticulation is generally integrated into the existing street network.</li><li>Stormwater reticulation is integrated into the street network to the west of the shops. This discharges in to the Waimea Lagoon and Waikanae Estuary.</li><li>Depending on scale, development in the area may trigger upgrades to the existing waste water plant, and/or pipes and pump stations between the area and the plant.</li></ul>	

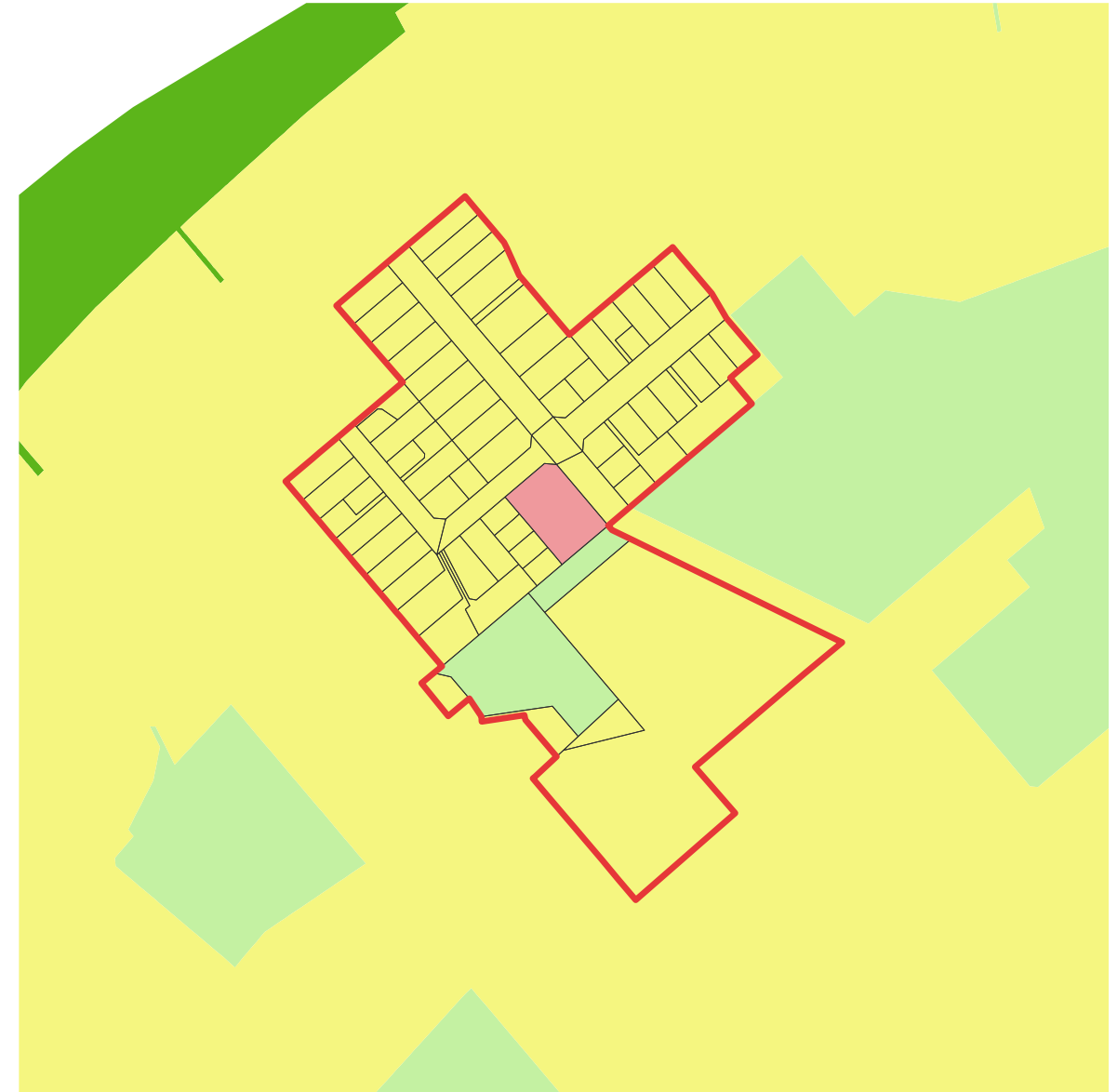
Criteria	Observations	Rating
Natural ecosystem values	<ul style="list-style-type: none"><li>There are no ecological sites identified in the area.</li></ul>	
Water bodies	<ul style="list-style-type: none"><li>There are no waterbodies that pass through the area.</li><li>Reticulated stormwater discharges to the Waimea Lagoon and Waikanae Estuary, so intensification within the area could increase discharges to these waterbodies.</li></ul>	
Landscape and open space values	<ul style="list-style-type: none"><li>There are no open spaces located within the area, although the Rangihiroa street reserve is located to the north-west of the area.</li><li>There are no special amenity landscapes identified in the area.</li><li>There is one notable tree identified in the area.</li><li>The area has good access to surround public open space an coastal open space.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There are no listed heritage items in the area.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area is relatively flat, aside from some areas of gentle dune mounding.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>The area is extensively covered by flood hazard. This is comprised of ponding areas and overland flow paths.</li><li>The full extent of the area is subject to high liquefaction potential.</li><li>The area relatively low lying and close to the coast, so may be subject to increased natural hazard risk associated with climate change.</li><li>There is one SLUR site located on the eastern edge of the area.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>There are no notable reverse sensitivity issues associated with the area.</li><li>There are no designations in the area.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have good access to open space, but poor access to other activities and community services. This will likely encourage private vehicle trips to access everyday services.</li><li>The area has good access to active modes of transport associated with the Expressway.</li><li>While the area is generally accessible to Waikanae railway station, distance from the station may encourage private vehicle commuting.</li></ul>	

# KENA KENA LOCAL CENTRE

## AERIAL



## ZONING



- Urban Intensification Study Areas
- General Residential Zone
- Local Centre Zone
- Natural Open Space Zone
- Open Space Zone




YIELD IN RESIDENTIAL AREA



	SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
	< 6.5m		up to 2	0.00	20	0
	6.5m - 11m		3	0.00	30	0
	11m - 14.5m		4	0.03	40	1
	14.5m - 18m		4	1.74	40	70
	18m <		4	2.72	40	109
82			4.50		180	
Additional dwellings (yield minus existing residential units)						98

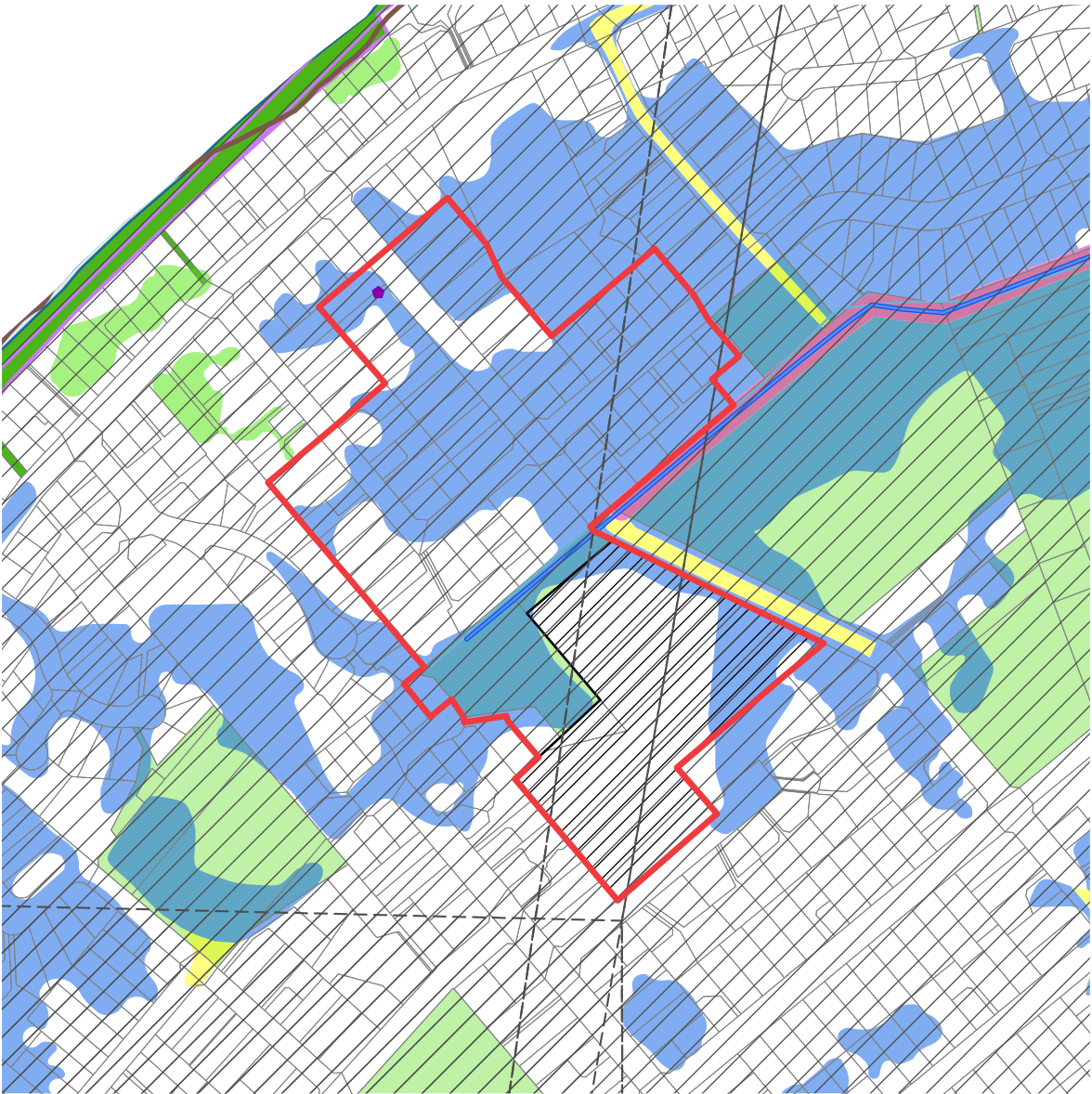
YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE



	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.00	20	0
6.5m - 11m		3	0.00	30	0
11m - 14.5m		4	0.03	40	1
14.5m - 18m		4	1.74	40	70
18m <		4	2.72	40	109
 Local Centre		4	0.27	40	11
82		4.77		191	
Additional dwellings (yield minus existing residential units)					109

# KENA KENA LOCAL CENTRE

## POTENTIAL QUALIFYING MATTERS



Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

- Urban Intensification Study Areas

Historic Heritage Places (KCDC)

Coastal Hazard 20m Building Line Restriction (KCDC)

Designation (KCDC)

Rivers Streams and Drains (KCDC)

Special Amenity Landscapes (KCDC)

Rivers (LINZ)

Schedule B - Ngā Taonga Nui a Kiwa (GWRC)
- Flood Hazard Stream Corridor (KCDC)

Flood Hazard Overflow Path (KCDC)

Flood Hazard Fill Control Area (KCDC)

Flood Hazard Ponding Area (KCDC)

Natural Open Space Zone (KCDC)

Open Space Zone (KCDC)

Airport OLS (KCDC)



UI-PA-1 (Kena Kena Local Centre)	
Locality	Paraparaumu
Location	The area around the Kena Kena shops on the corner of Ngapotiki Street and Te Kupe Road.
Extent	Approximate 200m walking distance from the Kena Kena local centre zone.

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Low lying land near the coast.</li><li>Flood hazard.</li><li>Distance from Papararaumu station and metropolitan centre.</li><li>High liquefaction potential.</li></ul>	<ul style="list-style-type: none"><li>Opportunity to improve the legibility and vibrancy of the Kena Kena local centre through intensification.</li><li>Excellent access to public and coastal open space.</li><li>The area is flat.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment		
Wetlands, lakes, rivers and their margins		
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna	<ul style="list-style-type: none"><li></li></ul>	Potential effects of increased discharge on the Waikanae saltmarsh wetlands.
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga		
Historic heritage	<ul style="list-style-type: none"><li></li></ul>	Heritage listed building on Ngapotiki street.
Significant risk from flood hazard	<ul style="list-style-type: none"><li></li></ul>	Flood ponding hazard to a significant extent of the area.
Significant risk from earthquake hazard		
Significant risk from coastal hazard	<ul style="list-style-type: none"><li></li></ul>	Low lying area in close proximity to the coast.
Nationally significant infrastructure		
Public open space	<ul style="list-style-type: none"><li></li></ul>	Public open space located to the north of the school, and Te Atiawa Park.
Designations	<ul style="list-style-type: none"><li></li></ul>	School designation.
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>There are no mapped sites of significance located within the area, although the area is upstream from the Waikanae saltmarsh wetlands, which is identified as a site of significance to Te Atiawa ki Whakarongotai.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>A moderate increase in building height and density may be appropriate in the area, and may assist in improving the legibility of the area around the shops as a local centre.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>Kāpiti island is visible from a number of streets in the area. Intensification may obstruct some local and private views of the island.</li><li>Intensification could alter the existing low density character of the area, although this will be mitigated to some extent large adjacent open spaces (including Te Atiawa Park).</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>There are a number of commercial activities located within the Kena Kena shops. Intensification could support the existing shops.</li><li>The area is accessible to a number of schools.</li><li>The area is relatively distant to Paraparaumu town centre.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area could contribute modestly to dwelling supply.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There is no General Industrial zoned land within the area.</li><li>Existing business uses are likely to be supported by residential intensification.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>Intensification of the area may put pressure on existing east-west connectivity across northern Paraparaumu.</li><li>There is an existing bus route that runs along Te Kupe Road and down Mazengarb Road.</li><li>The area is relatively distant to Paraparaumu station and metropolitan centre. Active modes of transport may be less utilised on this basis and this may put pressure on park and ride facilities at the station.</li></ul>	
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water and wastewater reticulation is generally integrated into the existing street network.</li><li>Stormwater reticulation is generally integrated into the street network although there are a number of streets without reticulation. Stormwater discharges through Te Atiawa Park into the Waikanae saltmarsh wetlands.</li><li>Depending on scale, development in the area may trigger upgrades to the existing waste water plant, and/or pipes and pump stations between the area and the plant.</li></ul>	
Natural ecosystem values	<ul style="list-style-type: none"><li>There are no mapped ecological sites located within the area, although the Waikanae saltmarsh wetlands are located downstream from the area. The saltmarsh wetlands are identified as an area of indigenous coastal biodiversity.</li></ul>	
Water bodies	<ul style="list-style-type: none"><li>A drain that discharges into the Waikanae saltmarsh wetlands runs through the area, along Te Atiawa park.</li><li>Intensification within the area could increase discharges to the Waikanae saltmarsh wetlands.</li></ul>	

Criteria	Observations	Rating
Landscape and open space values	<ul style="list-style-type: none"><li>The area has excellent access to public open space at Te Atiawa Park.</li><li>The area has good access to coastal open space.</li><li>There are no identified special amenity landscapes within the area.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There is a heritage listed building located in the north of the area on Ngapotiki street.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area is flat.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>Flood hazard covers the a significant extent of the central and northern portion of the area. This is identified as ponding hazard.</li><li>The full extent of the area is subject to high liquefaction potential.</li><li>The area relatively low lying and close to the coast, so may be subject to increased natural hazard risk associated with climate change.</li><li>The school site is identified on the SLUR as an old landfill.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>Potential for reverse sensitivity effects on the school.</li><li>The area is located underneath the airport approach path, although this is unlikely to affect building heights in the area.</li><li>A school designation is located in the south of the area.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have good access to open space, but relatively poor access to other activities and community services. This could encourage private vehicle trips to access everyday services.</li><li>Distance to Paraparaumu station may encourage private vehicle commuting.</li><li>Good access to coastal amenity may encourage the development of more energy efficient, higher density dwelling typologies.</li></ul>	

# MAZENGARB LOCAL CENTRE

AERIAL



ZONING



- Urban Intensification Study Areas
- General Residential Zone
- Rural Lifestyle Zone
- Local Centre Zone
- Open Space Zone



YIELD IN RESIDENTIAL AREA



	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.00	20	0
6.5m - 11m		3	0.05	30	2
11m - 14.5m		4	0.20	40	8
14.5m - 18m		4	0.05	40	2
18m <		4	0.68	40	27
12			0.98		39
Additional dwellings (yield minus existing residential units)					27

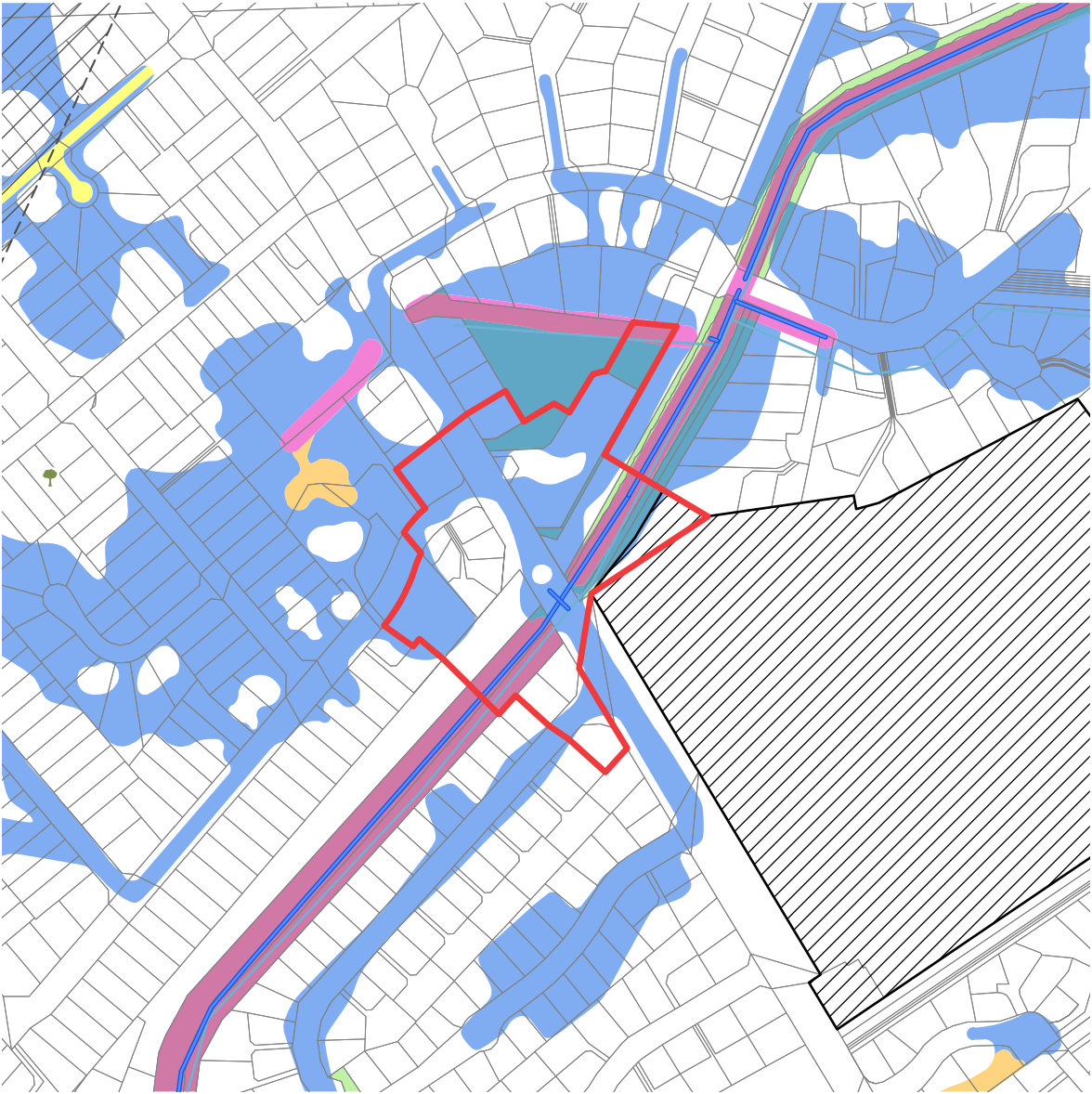
YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE



	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.00	20	0
6.5m - 11m		3	0.05	30	2
11m - 14.5m		4	0.20	40	8
14.5m - 18m		4	0.05	40	2
18m <		4	0.68	40	27
Local Centre		4	0.46	40	18
12			0.98		57
Additional dwellings (yield minus existing residential units)					45

# MAZENGARB LOCAL CENTRE

## POTENTIAL QUALIFYING MATTERS



- Urban Intensification Study Areas
- Key Indigenous Trees (KCDC)
- Designation (KCDC)
- Rivers Streams and Drains (KCDC)
- Rivers (LINZ)
- Flood Hazard Stream Corridor (KCDC)
- Flood Hazard Overflow Path (KCDC)
- Flood Hazard Flood Storage Area (KCDC)
- Flood Hazard Ponding Area (KCDC)
- Open Space Zone (KCDC)
- Airport OLS (KCDC)

Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.



UI-PA-2 (Mazengarb Local Centre)	
Locality	Paraparaumu.
Location	The area around the intersection of Mazengarb Road and Guildford Drive.
Extent	Approximate 100m walking distance from the Mazengarb local centre zone.

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Poor access to a range of community services and commercial activities (except Paraparaumu College).</li><li>Flood hazard.</li><li>Distance from Papararaumu station and metropolitan centre.</li><li>High liquefaction potential.</li></ul>	<ul style="list-style-type: none"><li>The area is flat.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment		
Wetlands, lakes, rivers and their margins	<ul style="list-style-type: none"><li></li></ul>	Mazengarb stream runs through the area.
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna	<ul style="list-style-type: none"><li></li></ul>	Potential effects of increased discharge on the Waikanae estuary.
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga		
Historic heritage		
Significant risk from flood hazard	<ul style="list-style-type: none"><li></li></ul>	Flood hazard to a significant extent of the area.
Significant risk from earthquake hazard		
Significant risk from coastal hazard		
Nationally significant infrastructure		
Public open space	<ul style="list-style-type: none"><li></li></ul>	Public open space in the northern extent of the area.
Designations	<ul style="list-style-type: none"><li></li></ul>	School designation.
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>There are no mapped sites of significance located within the area, although the area is upstream from the Waikanae estuary, which is identified as a site of significance to Te Ātiawa ki Whakarongotai.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>The Mazengarb local centre is not significant in the scale of its amenity, comprising only one restaurant. While increased height and density could improve the legibility of the local centre, this could be unwarranted in the context of the small scale of activity associated with the centre.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>The area is predominantly defined by Paraparaumu College to the east, and low density dwellings to the west. There does not appear to be any notable or cohesive neighbourhood character that would be affected by intensification in the area.</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>The Mazengarb local centre is not significant in the scale of its amenity, comprising only one restaurant.</li><li>The area is accessible to a number of schools, including Paraparaumu College, which is adjacent to the area.</li><li>The area is relatively distant to Paraparaumu town centre.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area in the area could contribute minimally to dwelling supply.</li><li>Low access to commercial activities and community services may limit the development of higher density typologies.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There is no General Industrial zoned land within the area.</li><li>Intensification may support the existing local centre, although due to its small scale, benefits are likely to be minimal.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>Intensification of the area may put pressure on existing east-west connectivity across northern Paraparaumu.</li><li>There is an existing bus route that runs along Mazengarb Road.</li><li>There is a cycleway/footpath that runs along the Mazengarb Stream. This does not provide direct access to Paraparaumu metropolitan centre, although it does connect to Guildford drive closer to the metropolitan centre.</li><li>The area is relatively distant to Paraparaumu station and metropolitan centre. Active modes of transport may be less utilised on this basis.</li></ul>	
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water and wastewater reticulation is generally integrated into the existing street network.</li><li>Stormwater reticulation is generally integrated into the street network. Stormwater discharges to an open drain that runs to the Waikanae estuary.</li><li>Depending on scale, development in the area may trigger upgrades to the existing waste water plant, and/or pipes and pump stations between the area and the plant.</li></ul>	
Natural ecosystem values	<ul style="list-style-type: none"><li>There are no mapped ecological sites located within the area, although the Waikanae estuary is located downstream from the area. The estuary is identified as an area of indigenous coastal biodiversity.</li></ul>	

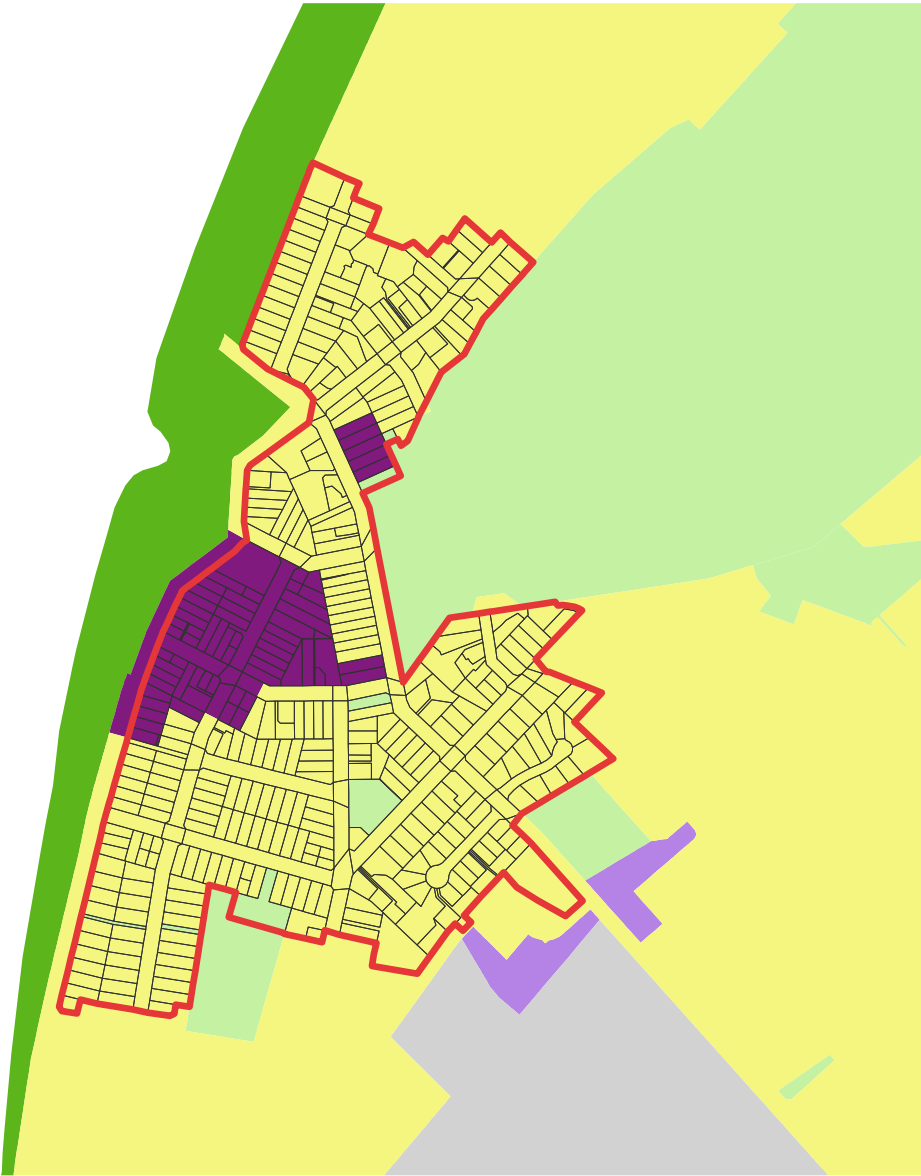
Criteria	Observations	Rating
Water bodies	<ul style="list-style-type: none"><li>The Mazengarb stream, which discharges into the Waikanae estuary, runs through the area.</li><li>Intensification within the area could increase discharges to the Waikanae estuary.</li></ul>	
Landscape and open space values	<ul style="list-style-type: none"><li>The area has moderate access to open space. There is adjacent an open space to the north of the area, although this is predominantly a grassed area.</li><li>There are no identified special amenity landscapes within the area.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There are no heritage buildings located in the area.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area is flat.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>Flood hazard covers the a significant extent of the area. This is identified as ponding and stream corridor hazard.</li><li>The full extent of the area is subject to high liquefaction potential.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>Potential for reverse sensitivity effects on the school.</li><li>A school designation is located to the east of the area.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have good access to Paraparaumu College, but poor access to other activities and community services. This will likely encourage private vehicle trips to access everyday services.</li><li>While the area is generally accessible to Paraparaumu railway station, distance from the station may encourage private vehicle commuting.</li></ul>	

# PARAPARAUMU BEACH TOWN CENTRE

AERIAL



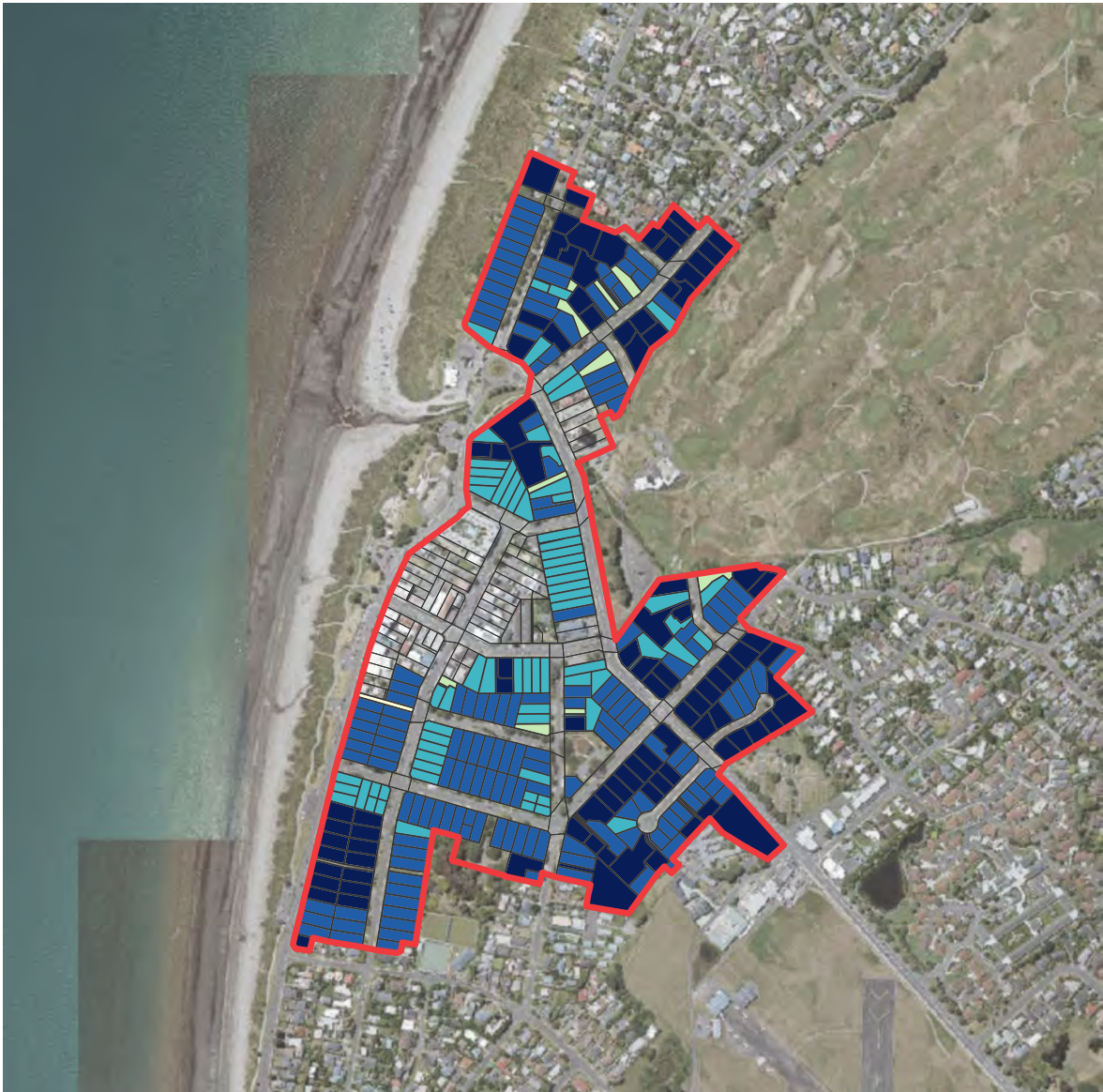
ZONING



- Urban Intensification Study Areas
- General Residential Zone
- Town Centre Zone
- General Industrial Zone
- Natural Open Space Zone
- Open Space Zone
- Airport Zone



YIELD IN RESIDENTIAL AREA



	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.06	20	1
6.5m - 11m		3	0.53	30	16
11m - 14.5m		4	4.49	40	180
14.5m - 18m		4	10.45	40	418
18m <		4	9.40	40	376
416			24.94		991
Additional dwellings (yield minus existing residential units)					575

YIELD IN RESIDENTIAL + TOWN CENTRE ZONE

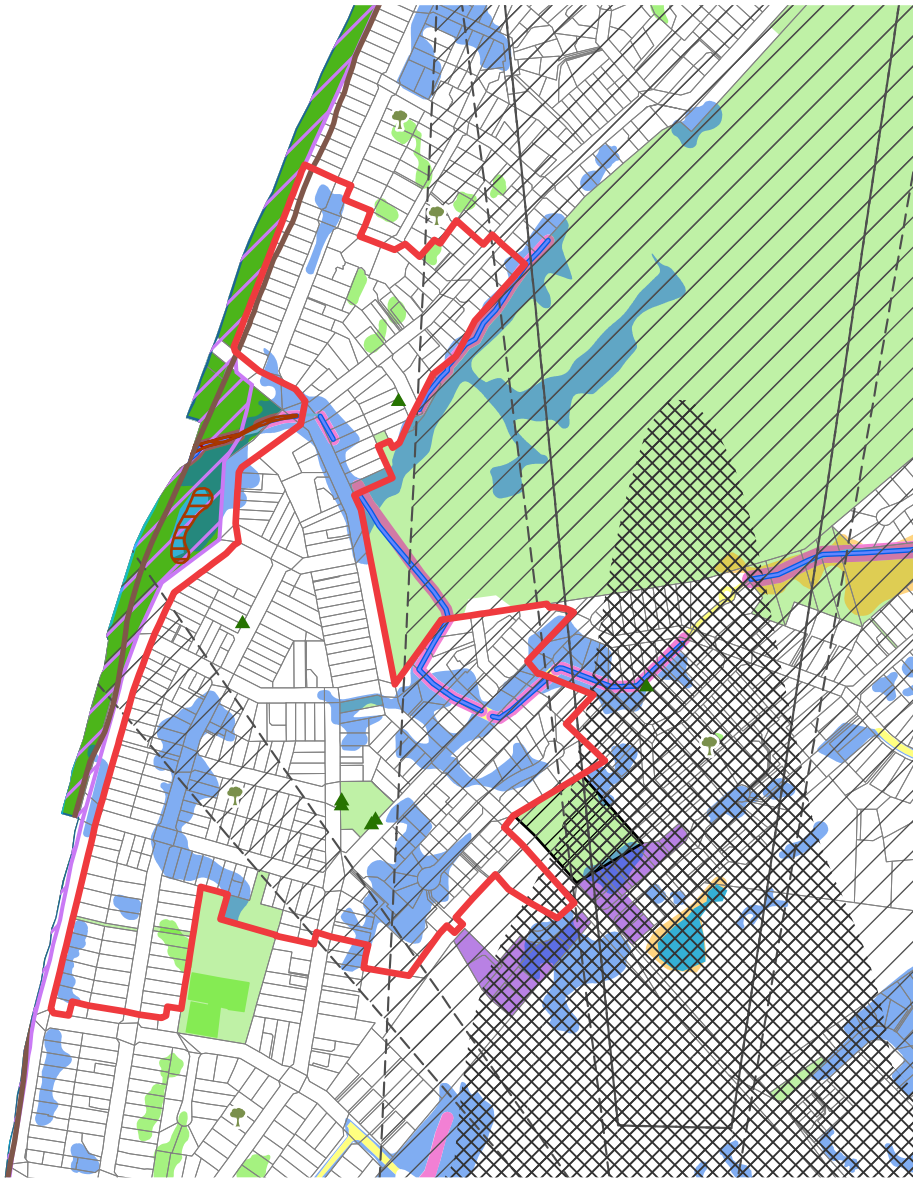


	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.06	20	1
6.5m - 11m		3	0.53	30	16
11m - 14.5m		4	4.49	40	180
14.5m - 18m		4	10.45	40	418
18m <		4	9.40	40	376
Town Centre		6	4.22	60	253
416			29.16		1,244
Additional dwellings (yield minus existing residential units)					828



# PARAPARAUMU BEACH TOWN CENTRE

## POTENTIAL QUALIFYING MATTERS



Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

- Urban Intensification Study Areas

Notable Trees (KCDC)

Key Indigenous Trees (KCDC)

Coastal Hazard 20m Building Line Restriction (KCDC)

Designation (KCDC)

Site of Significance Te Ātiawa ki Whakarongotai (GWRC)

Site of Significance Ngāti Toa Rangātira (GWRC)

Rivers Streams and Drains (KCDC)

Areas of High Natural Character (KCDC)

Special Amenity Landscapes (KCDC)

Rivers (LINZ)

Lakes and Ponds (LINZ)

Schedule B - Ngā Taonga Nui a Kiwa (GWRC)

Flood Hazard Stream Corridor (KCDC)

Flood Hazard Overflow Path (KCDC)

Flood Hazard Fill Control Area (KCDC)

Flood Hazard Flood Storage Area (KCDC)

Flood Hazard Ponding Area (KCDC)

General Industrial Zone (KCDC)


Natural Open Space Zone (KCDC)


Open Space Zone (KCDC)

Airport OLS (KCDC)

Airport Noise Polygons (KCDC)

Areas of High Natural Character
- Boffa Miskell



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0200m

1:10,000 @ A3
- KAPITI COAST INTENSIFICATION

Paraparaumu Beach Town Centre
- Date: 01 February 2022 Revision: 1

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Hamish.Wesney@boffamiskell.co.nz | Drawn: HHm | Checked: JCo/ABa



UI-PA-3 (Paraparaumu Beach Town Centre)	
Locality	Paraparaumu
Location	The area to the north and south of the Paraparaumu Beach town centre.
Extent	Approximate 400m walking distance from the Paraparaumu Beach town centre zone.

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Coastal hazard and effects of climate change.</li><li>Congestion on Kāpiti Road.</li><li>High liquefaction potential.</li></ul>	<ul style="list-style-type: none"><li>Excellent access to a range of commercial services and community activities, as well as coastal amenity and open space.</li><li>Intensification could further support a well established town centre.</li><li>The area is flat.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment	•	Special amenity landscape in the coastal margin adjacent to the area.
Wetlands, lakes, rivers and their margins	•	Tikotu stream runs through the area.
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna	•	Potential effects of increased discharge on the Waikanae estuary.
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga	•	Sites of significance associated with the Tikotu stream and the coastal margin.
Historic heritage	•	Archaeological sites.
Significant risk from flood hazard		
Significant risk from earthquake hazard		
Significant risk from coastal hazard	•	The area is located immediately adjacent to the coast.
Nationally significant infrastructure		
Public open space	•	Several public open spaces located throughout the area.
Designations	•	Obstacle limitation surfaces associated with the airport.
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>The Tikotu Stream is identified as a site of significance to Te Ātiawa ki Whakarongotai and Ngāti Toa Rangatira.</li><li>The Te Uruhi lagoon and the Paraparaumu coastal margin are identified as sites of significance to Te Ātiawa ki Whakarongotai.</li><li>There are a number of archaeological sites located within and around the town centre, associated with middens, burial sites and kāinga.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>Existing urban form around the town centre is well developed, generally ranging from 2 to 3 storeys, with one 14 storey apartment building. Increased height and building density is likely to be appropriate within and around the Town Centre zone.</li><li>On the basis of the established scale of urban form in the town centre, increase in the height and density of built form in areas to the north and south of the town centre, and along Kāpiti road, could be appropriate.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>Intensification within the town centre could be consistent with established patterns of development within the area.</li><li>The residential areas to the north and south of the town centre are defined by a mix of one and two storey dwellings, on relatively densely developed sites. Moderate intensification of these areas could to be consistent with existing patterns of development.</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>The area has access to a range of commercial activities and community services, including shops, cafes and entertainment, and other community facilities.</li><li>Intensification could support existing commercial and community activity within the town centre.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area is likely to contribute to dwelling supply.</li><li>High levels of access to a range of activities and coastal amenity may encourage the development of higher density typologies.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There is no General Industrial zoned land within the area.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>Kāpiti Road is the most congested road in the district, and development in the area could exacerbate this.</li><li>Alterations to the surrounding road network are planned to relieve some of this congestion. Work to the network is contingent on NZTA funding and not planned to be completed until the mid 2030's.</li><li>Distance to Paraparaumu railway station may promote vehicle commuting, although there is a cycleway incorporated into Kāpiti Road.</li></ul>	
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water and wastewater reticulation is generally integrated into the existing street network.</li><li>Stormwater reticulation is generally integrated into the street network, although to a lesser extent in the areas to the north of the town centre. Stormwater discharges at a number of points directly to the coast, including through the Tikotu stream.</li><li>Depending on scale, development in the area may trigger upgrades to the existing waste water plant, and/or pipes and pump stations between the area and the plant.</li></ul>	

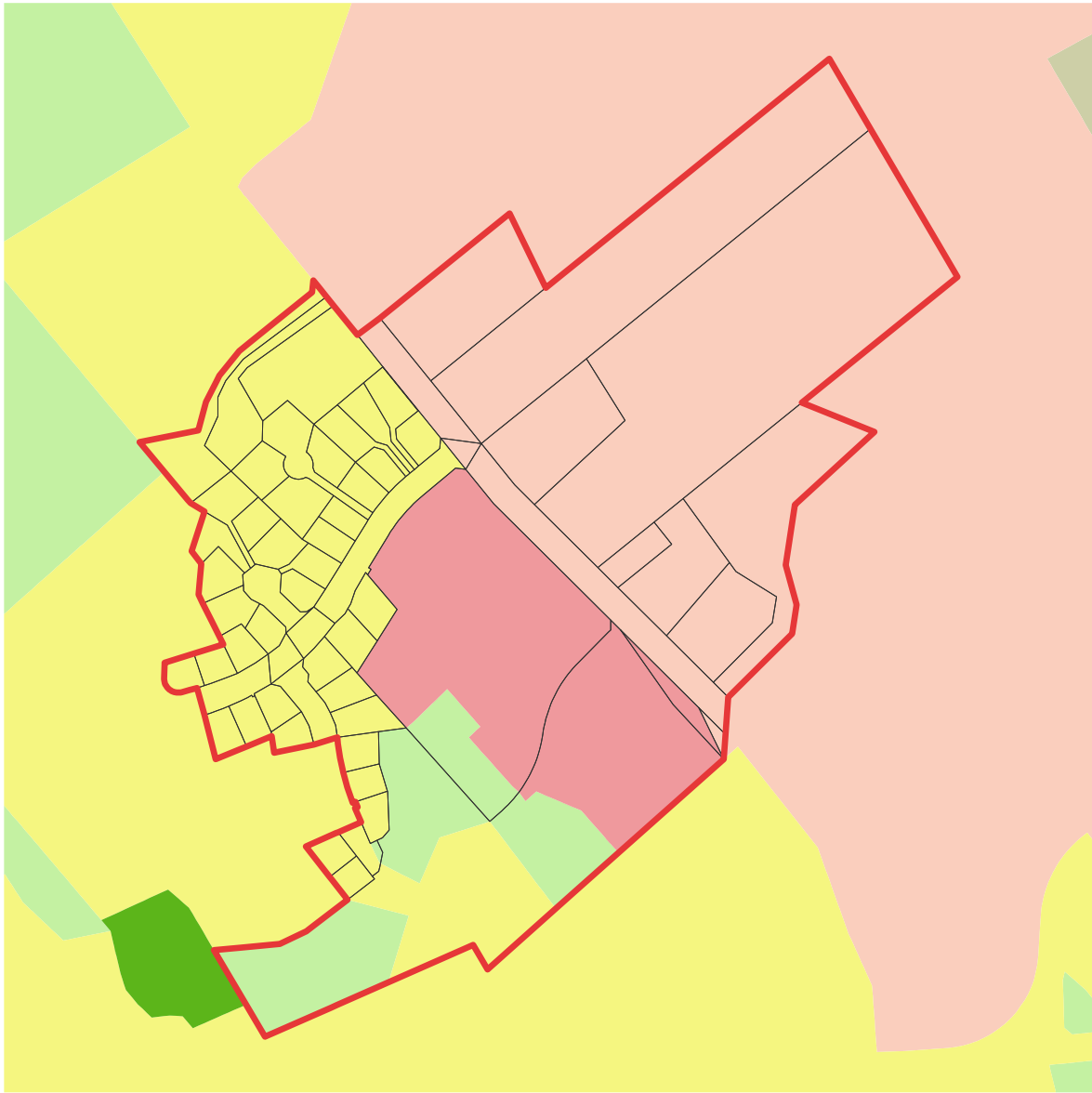
Criteria	Observations	Rating
Natural ecosystem values	<ul style="list-style-type: none"><li>There are no mapped ecological sites located within the area.</li><li>There is one key indigenous tree located in the area.</li></ul>	
Water bodies	<ul style="list-style-type: none"><li>The Tikotu stream runs through the area.</li><li>Intensification in the area could increase discharges to the Tikotu stream and directly into the coastal marine area.</li></ul>	
Landscape and open space values	<ul style="list-style-type: none"><li>The area has excellent access to coastal open space, which includes a playground located in Maclean Park.</li><li>There are a number of smaller public open spaces located within the area.</li><li>There are a number of notable trees located within the area.</li><li>There are no special amenity landscapes located within the area, although the coastal margin adjacent to the area is identified as a special amenity landscape.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There are no heritage buildings located in the area.</li><li>There are a number of archaeological sites located throughout the area, and there is an archaeological area identified on Ocean road.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area is flat.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>There are small areas of flood hazard located within the area. These are primarily made up of small extents of ponding, fill control area and stream corridor associated with the Tikotu stream.</li><li>The full extent of the area is subject to high liquefaction potential.</li><li>The area relatively low lying and adjacent to the coast, so will be subject to increased natural hazard risk associated with climate change.</li><li>There are a number of sites on the SLUR located within the Town Centre.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>Parts of the area are located underneath the obstacle limitation surfaces associated with the airport. These are unlikely to prohibit development below 4 storeys in residential areas and 6 storeys in the town centre, although taller buildings may be affected.</li><li>There are no designations located within the area, although there is a cemetery designation located adjacent the area.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have good access a range of community services, commercial activities, shops, public open space and coastal amenity. This could reduce short vehicle trips.</li><li>The area has good access to active modes along Kāpiti Road, although proximity to the railway is relatively distant, and this may promote some vehicle commuting.</li><li>Good access to community services, commercial activities and other amenity may encourage the development of more energy efficient, higher density dwelling typologies.</li></ul>	

# MEADOWS LOCAL CENTRE

## AERIAL



## ZONING



- Urban Intensification Study Areas
- General Residential Zone
- General Rural Zone
- Rural Lifestyle Zone
- Local Centre Zone
- Natural Open Space Zone
- Open Space Zone




YIELD IN RESIDENTIAL AREA



	SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
	< 6.5m		up to 2	0.00	20	0
	6.5m - 11m		3	0.00	30	0
	11m - 14.5m		4	0.17	40	7
	14.5m - 18m		4	0.40	40	16
	18m <		4	4.09	40	164
54			4.66		186	
Additional dwellings (yield minus existing residential units)						132

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE

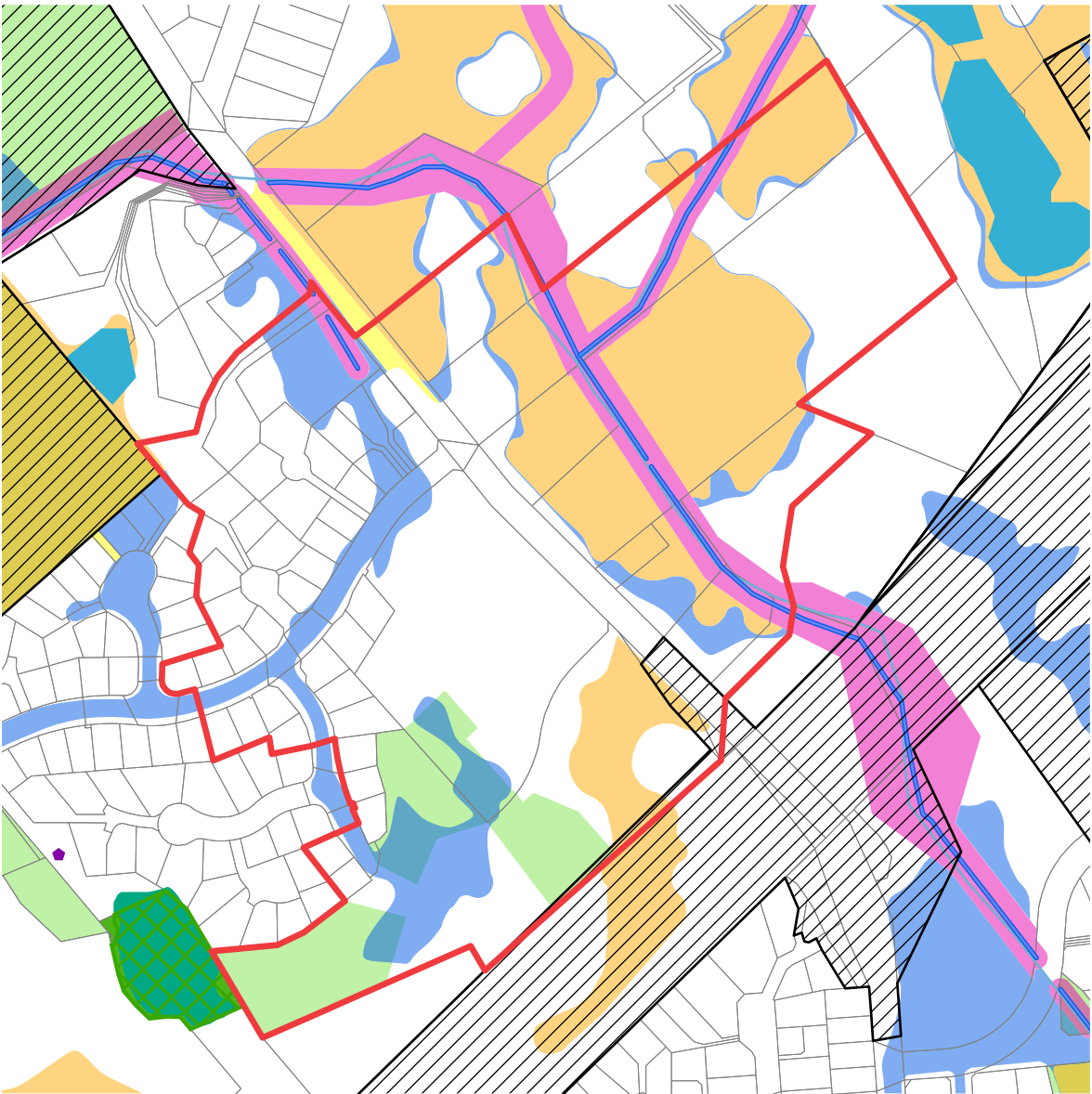


	SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
	< 6.5m		up to 2	0.00	20	0
	6.5m - 11m		3	0.00	30	0
	11m - 14.5m		4	0.17	40	7
	14.5m - 18m		4	0.40	40	16
	18m <		4	4.09	40	164
	Local Centre		4	3.31	40	132
54			7.97		318	
Additional dwellings (yield minus existing residential units)						264



# MEADOWS LOCAL CENTRE

## POTENTIAL QUALIFYING MATTERS



- Urban Intensification Study Areas

Historic Heritage Places (KCDC)

Designation (KCDC)

Designation (KCDC)

Rivers Streams and Drains (KCDC)

Ecological Sites (KCDC)

Significant Natural Wetlands (GWRC)

Rivers (LINZ)
- Lakes and Ponds (LINZ)

Flood Hazard Stream Corridor (KCDC)

Flood Hazard Overflow Path (KCDC)

Flood Hazard Flood Storage Area (KCDC)

Flood Hazard Ponding Area (KCDC)

Natural Open Space Zone (KCDC)

Open Space Zone (KCDC)

Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.



UI-PA-4 (Meadows Local Centre)	
Locality	Paraparaumu
Location	The area around the corner of Mazengarb Road and Realm Drive.
Extent	Approximate 200m walking distance from the Meadows precinct local centre zone. Excludes the extent to the north of Mazengarb Road, which is associated with Future Urban Study Area OH-01.

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Poor access to a range of community services and commercial activities.</li><li>Liquefaction potential.</li></ul>	<ul style="list-style-type: none"><li>Development opportunity associated with undeveloped parts of the area.</li><li>The area is relatively flat.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment		
Wetlands, lakes, rivers and their margins	<ul style="list-style-type: none"><li></li></ul>	Ponds located within the area.
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna		
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga		
Historic heritage		
Significant risk from flood hazard		
Significant risk from earthquake hazard		
Significant risk from coastal hazard		
Nationally significant infrastructure	<ul style="list-style-type: none"><li></li></ul>	Expressway located adjacent to the area.
Public open space	<ul style="list-style-type: none"><li></li></ul>	Several public open spaces located throughout the area.
Designations	<ul style="list-style-type: none"><li></li></ul>	The Expressway designation extends in to the area.
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>There are no mapped sites of significance within the area, although there are a number of archaeological sites associate with middens located around the Expressway to the south of the area.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>The local centre is relatively undeveloped and is not significant in the scale of its amenity, comprising a church and early childhood education centre a large extent of at-grade car parking. While increased height and density could improve the legibility of the local centre, this could be unwarranted in the context of the small scale of activity associated with the centre.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>The area is relatively undeveloped, and defined predominantly by the Expressway to the south and rural residential activity within the rural zone to the east.</li><li>The area to the north of Realm Drive is predominantly defined by single storey residential dwellings. There does not appear to be any notable or cohesive neighbourhood character that would be affected by intensification in the area.</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>The local centre is not significant in the scale of its amenity (although this may change over time)</li><li>There are limited commercial activities located in the surrounding area.</li><li>Paraparaumu College is located approximately 1km to the north of the area.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area in the area could contribute minimally to dwelling supply.</li><li>Low access to commercial activities and community services may limit the development of higher density typologies.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There is no General Industrial zoned land within the area.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>The area does not have direct access to the Expressway.</li><li>The area has good access to active modes along the Expressway.</li><li>Distance to Paraparaumu railway station may promote vehicle commuting.</li></ul>	
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water and wastewater reticulation is integrated into Realm Drive and Mazengarb Road to the north of Realm Drive.</li><li>Stormwater reticulation is integrated in to Realm Drive, and there is a reticulation point in Mazengarb Road opposite the local centre zone. Stormwater to a pond in Mazengarb Reserve, which discharges into Mazengarb Stream. This eventually discharges in to Waikanae estuary.</li><li>Depending on scale, development in the area may trigger upgrades to the existing waste water plant, and/or pipes and pump stations between the area and the plant.</li></ul>	
Natural ecosystem values	<ul style="list-style-type: none"><li>There are no mapped ecological sites located within the area, although there is an ecological area and wetland located to the south-west of the area.</li></ul>	

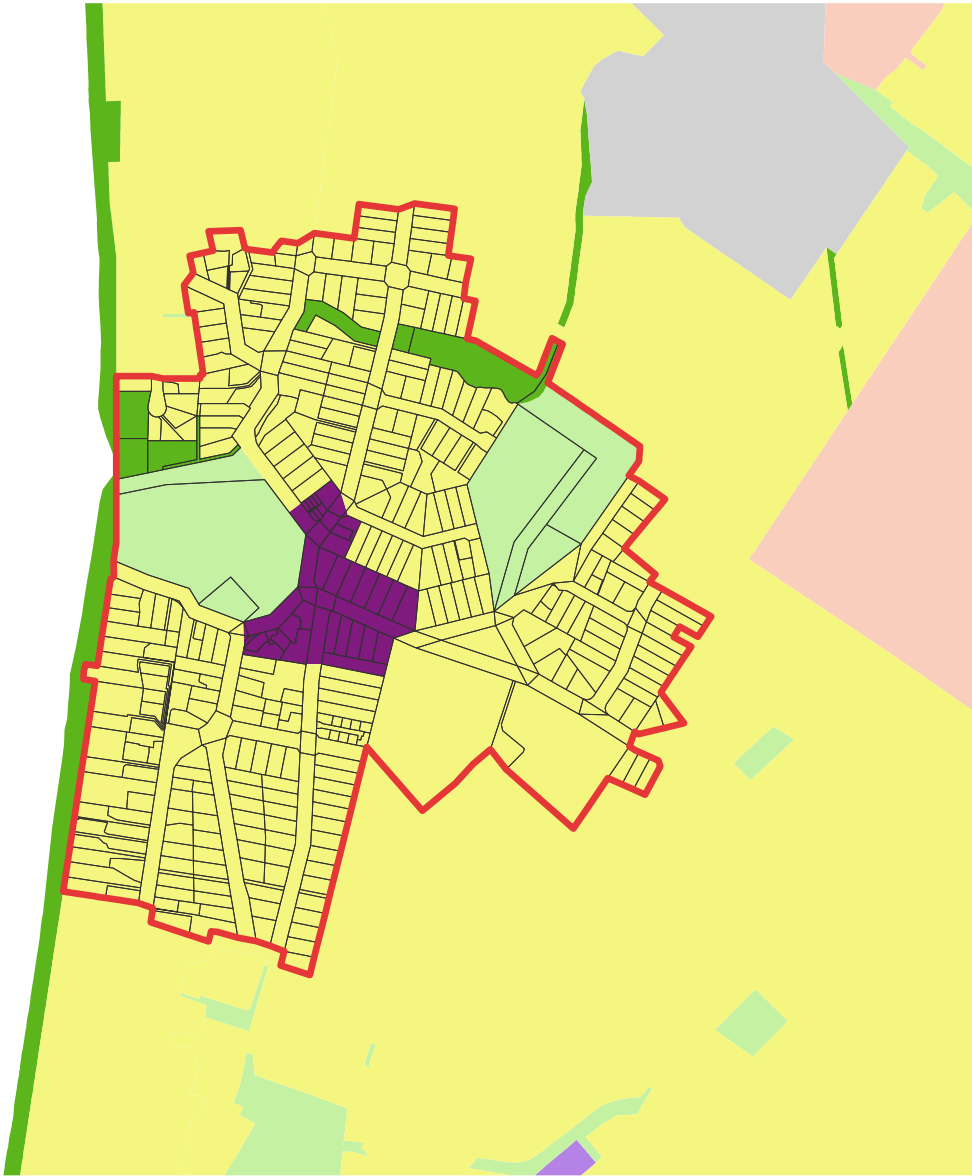
Criteria	Observations	Rating
Water bodies	<ul style="list-style-type: none"><li>A tributary to the Mazengarb Stream originates in the north of the area.</li><li>There are two ponds located in public open spaces to the south of the area.</li><li>Intensification in the area could increase discharges to the Mazengarb Stream.</li></ul>	
Landscape and open space values	<ul style="list-style-type: none"><li>The area has good access to public open spaces, both within the area, and at Mazengarb Reserve to the north of the area.</li><li>There are no special amenity landscapes located within the area.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There are no heritage buildings located in the area.</li><li>Given the archaeological sites associated with the Expressway, there could be the possibility of discovery within the area.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area is relatively flat.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>There are small areas of flood hazard located to the south of Mazengarb Road. This includes areas of ponding and flood storage.</li><li>The area to the north of Mazengarb Road (outside the extent of the study area) is subject to extensive flood hazard.</li><li>The full extent of the area is subject to high liquefaction potential.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>Potential for reverse sensitivity effects on the Expressway.</li><li>The Expressway designation extends along Mazengarb Road into the area.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area will have a low degree of access to a range of community services and commercial activities. This could promote short vehicle trips.</li><li>The area has good access to active modes along the Expressway, which provide access to Paraparaumu metropolitan centre.</li><li>While the area is generally accessible to Paraparaumu railway station, distance from the station may encourage private vehicle commuting.</li></ul>	

# RAUMATI BEACH TOWN CENTRE

AERIAL



ZONING



- Urban Intensification Study Areas

General Residential Zone

Rural Lifestyle Zone

Town Centre Zone
- General Industrial Zone

Natural Open Space Zone

Open Space Zone

Airport Zone



YIELD IN RESIDENTIAL AREA



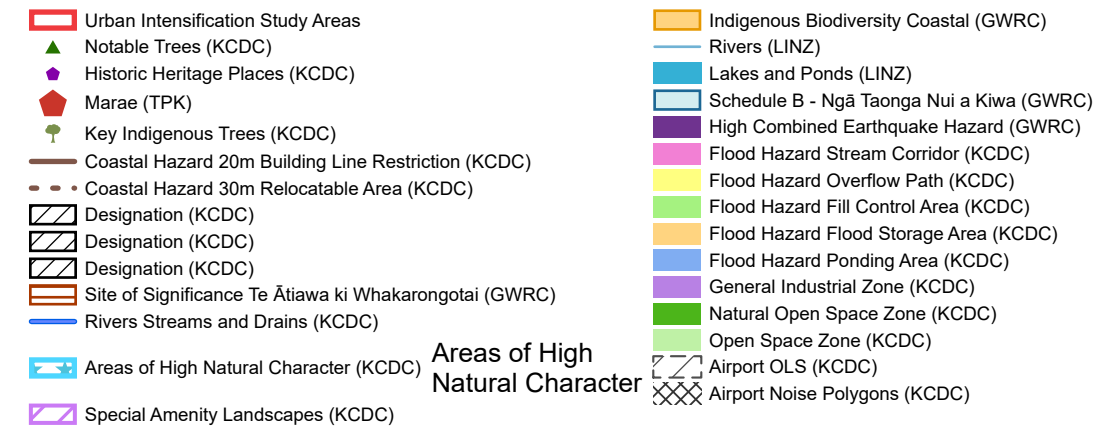
SITE WIDTH	EXISTING #	CAPACITY #	AREA IN	APPLIED	APPROX
	RESIDENTIAL UNITS				
		STOREYS	HA	DENSITY DW/HA	YIELD
< 6.5m		up to 2	0.43	20	9
6.5m - 11m		3	0.02	30	1
11m - 14.5m		4	1.53	40	61
14.5m - 18m		4	13.59	40	544
18m <		4	12.00	40	480
401					1,094
Additional dwellings (yield minus existing residential units)					693

YIELD IN RESIDENTIAL + TOWN CENTRE ZONE



SITE WIDTH	EXISTING #	CAPACITY #	AREA IN	APPLIED	APPROX
	RESIDENTIAL UNITS				
		STOREYS	HA	DENSITY DW/HA	YIELD
< 6.5m		up to 2	0.43	20	9
6.5m - 11m		3	0.02	30	1
11m - 14.5m		4	1.53	40	61
14.5m - 18m		4	13.59	40	544
18m <		4	12.00	40	480
Town Centre		6	1.99	60	199
401					1,213
Additional dwellings (yield minus existing residential units)					812

## POTENTIAL QUALIFYING MATTERS



Date: 01 February 2022 Revision: 1  
Plan prepared for KCDC by Boffa Miskell Limited  
Project Manager: Hamish.Wesney@boffamiskell.co.nz | Drawn: HHm | Checked: JC0/ABa



UI-RB (Raumati Beach Town Centre)	
Locality	Raumati Beach
Location	The area around the Raumati Beach town centre.
Extent	Approximate 400m walking distance from the Raumati Beach town centre zone.

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>Coastal hazard and effects of climate change.</li><li>High liquefaction potential.</li></ul>	<ul style="list-style-type: none"><li>Excellent access to a range of commercial services and community activities, as well as coastal amenity and open space.</li><li>Intensification could further support a well established town centre.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment	•	Special amenity landscapes along the coastal edge.
Wetlands, lakes, rivers and their margins	•	The Wharemauku stream runs through the area.
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna	•	Coastal indigenous biodiversity associated with the mouth of the Wharemauku stream.
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga	•	The Wharemauku Stream is a site of significance of Te Ātiawa ki Whakarongotai.
Historic heritage	•	A small number of listed heritage buildings located throughout the area.
Significant risk from flood hazard	•	Flood hazard associated with the Wharemauku stream.
Significant risk from earthquake hazard		
Significant risk from coastal hazard	•	The area is located immediately adjacent to the coast.
Nationally significant infrastructure		
Public open space	•	Several public open spaces located throughout the area.
Designations	•	School designation.
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>The Wharemauku stream is identified as a site of significance to Te Ātiawa ki Whakarongotai.</li><li>An archaeological site associated with the Wharemauku pā is located in the north of the area.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>Existing urban form around the town centre is well developed, generally 2 storeys and in some cases three storeys. Increased height and building density is likely to be appropriate within and around the Town Centre zone.</li><li>Increased height and density in and around the town centre would help strengthen the areas legibility as the centre of Raumati Beach.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>The town centre area and the residential area surrounding the town centre is composed of a mixture of activities developed at a relatively high density. There are a number of terrace and multi-unit housing typologies established in the area. Increases in height and density is likely to complement established patterns of development.</li><li>The area to the north of the town centre is defined by single and double storey dwellings integrated into the ridge that overlooks the Wharemauku stream. Residential intensification may alter the scale of existing development in this area, although this may be mitigated to some extent by the topography of the area.</li><li>The area to the south of the town centre is located within the Raumati Beach special character area. This area is defined predominantly by one and two storey dwellings located around the ridgeline along Rosetta Road. Residential intensification is likely to alter the existing scale of development in the area.</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>The area has good access to range of commercial activities and community services, including shops, cafes, schools, and other community facilities.</li><li>Intensification would be likely to support existing activities in the area.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area is likely to contribute to dwelling supply.</li><li>High levels of access to a range of activities and coastal amenity may encourage the development of higher density typologies.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There is no General Industrial zoned land in the area.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>There is a bus route on Raumati Road.</li><li>The area is well connected by active modes to Paraparaumu district centre and relatively accessible to Paraparaumu railway station.</li></ul>	
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water and wastewater reticulation is generally integrated into the existing street network.</li><li>Stormwater reticulation is generally integrated into the street network. The majority of stormwater in the area discharges at various points in to the Wharemauku stream.</li><li>Depending on scale, development in the area may trigger upgrades to the existing waste water plant, and/or pipes and pump stations between the area and the plant.</li></ul>	

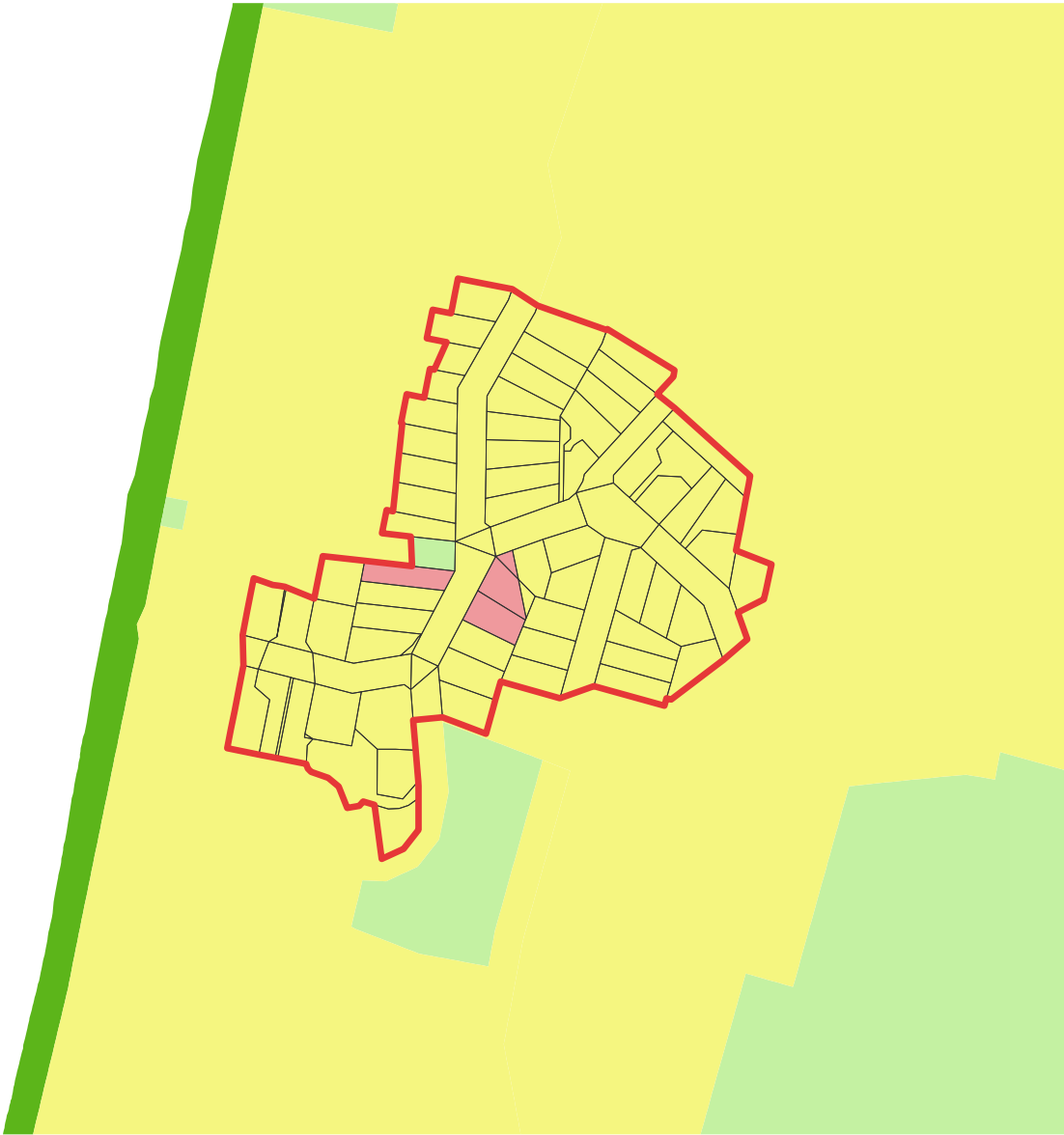
Criteria	Observations	Rating
Natural ecosystem values	<ul style="list-style-type: none"><li>The area around the mouth of the Wharemauku stream is identified as an area of indigenous coastal biodiversity.</li><li>There are three identified key indigenous trees located in the area.</li></ul>	
Water bodies	<ul style="list-style-type: none"><li>The Wharemauku stream flows through the area. Intensification in the area could increase discharges to the Wharemauku stream.</li></ul>	
Landscape and open space values	<ul style="list-style-type: none"><li>The area has excellent access to public open space, including at Weka Park and Raumati Beach park.</li><li>The underlying dune topography had an influence on the landscape of the area.</li><li>The coastal edge and the area around the Raumati Beach park are identified as a special amenity landscape.</li><li>There are two notable trees identified in the area.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>There are two listed heritage buildings located within the area.</li><li>There are two archaeological sites identified in the area.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area is relatively undulating, and topography increases in steepness on the coastal side of the area.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>The area around the Wharemauku stream is subject to flood hazard, although the raised areas in and around the town centre are relatively free of flood hazard.</li><li>The coastal margin and low lying areas around the Wharemauku stream are likely to be subject to increased risk from climate change.</li><li>The entire area is subject to high liquefaction potential.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>Parts of the area are located beneath the airport obstacle limitation surface, although these are unlikely to affect building heights in the area.</li><li>Potential for reverse sensitivity effects on the school.</li><li>There is a school designation located in the south of the area.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have good access a range of community services, commercial activities, shops, public open space and coastal amenity. This could reduce short vehicle trips.</li><li>The area has reasonable access by active modes to Paraparaumu metropolitan centre.</li><li>Good access to community services, commercial activities and other amenity may encourage the development of more energy efficient, higher density dwelling typologies.</li></ul>	

# RAUMATI SOUTH LOCAL CENTRE

AERIAL



ZONING



- Urban Intensification Study Areas
- General Residential Zone
- Local Centre Zone
- Natural Open Space Zone
- Open Space Zone



YIELD IN RESIDENTIAL AREA



	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.05	20	1
6.5m - 11m		3	0.00	30	0
11m - 14.5m		4	0.75	40	30
14.5m - 18m		4	1.20	40	48
18m <		4	3.26	40	130
70			5.27		209
Additional dwellings (yield minus existing residential units)					139

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE

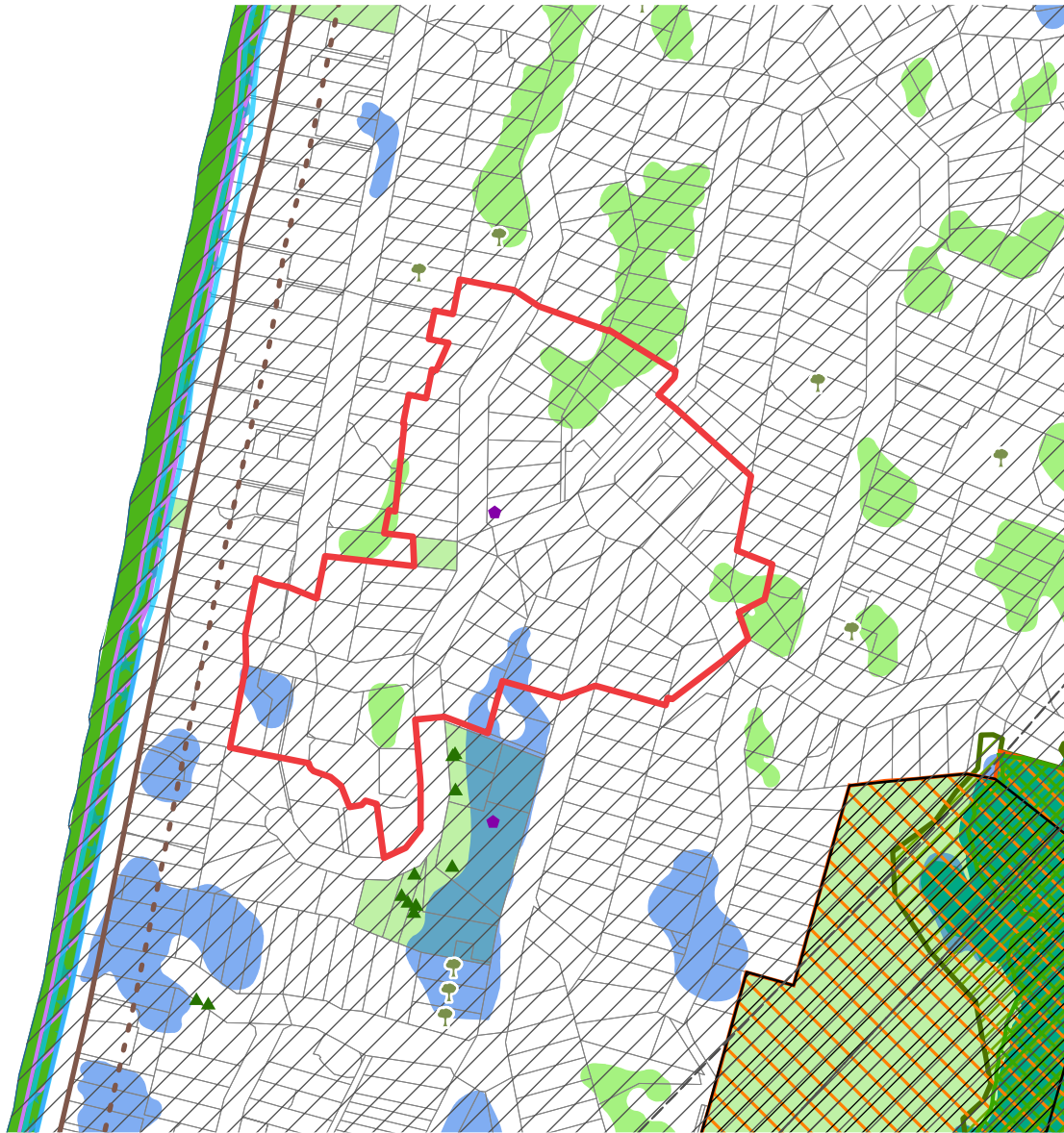


	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m		up to 2	0.05	20	1
6.5m - 11m		3	0.00	30	0
11m - 14.5m		4	0.75	40	30
14.5m - 18m		4	1.20	40	48
18m <		4	3.26	40	130
Local Centre		4	0.25	40	10
70			5.52		219
Additional dwellings (yield minus existing residential units)					149



# RAUMATI SOUTH LOCAL CENTRE

## POTENTIAL QUALIFYING MATTERS



Note: this drawing highlights potential “qualifying matters” that may apply to each area, based on existing mapping. This is a scoping exercise only. These have not been used to reduce height or density as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

- Urban Intensification Study Areas

Notable Trees (KCDC)

Historic Heritage Places (KCDC)

Key Indigenous Trees (KCDC)

Coastal Hazard 20m Building Line Restriction (KCDC)

Coastal Hazard 30m Relocatable Area (KCDC)

Designation (KCDC)

Ecological Sites (KCDC)

Areas of High Natural Character (KCDC)

Special Amenity Landscapes (KCDC)

Outstanding Natural Features and Landscapes (KCDC)

Key Native Ecosystems (GWRC)

Significant Natural Wetlands (GWRC)

Schedule B - Ngā Taonga Nui a Kiwa (GWRC)

Flood Hazard Fill Control Area (KCDC)

Flood Hazard Ponding Area (KCDC)

Natural Open Space Zone (KCDC)

Open Space Zone (KCDC)

Airport OLS (KCDC)
- Areas of High Natural Character



UI-RS (Raumati South Local Centre)	
Locality	Raumati South
Location	The area around the Raumati South local centre on the corner of Poplar Ave and Renown Road.
Extent	Approximate 200m walking distance from the Raumati South local centre zone.

Key constraints	Key opportunities
<ul style="list-style-type: none"><li>High liquefaction potential.</li><li>Relative distance to Paraparaumu metropolitan centre and railway station.</li></ul>	<ul style="list-style-type: none"><li>Good access to local commercial activity, amenity and coastal open space.</li><li>Intensification could further support a well established local centre.</li></ul>

Potential qualifying matters (refer methodology for explanation and limitations)		
Qualifying matter	Applicable?	Notes
Natural character in the coastal environment		
Wetlands, lakes, rivers and their margins		
Outstanding natural features and landscapes		
Significant indigenous vegetation and significant habitats of indigenous fauna		
Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga		
Historic heritage	<ul style="list-style-type: none"><li></li></ul>	One listed heritage building in the area.
Significant risk from flood hazard		
Significant risk from earthquake hazard		
Significant risk from coastal hazard		
Nationally significant infrastructure		
Public open space	<ul style="list-style-type: none"><li></li></ul>	One public open space located within the area.
Designations		
Business land for low density uses		

Criteria	Observations	Rating
Landscape and open space values	<ul style="list-style-type: none"><li>There is a small public open space located within the area adjacent to the local centre, and there is a larger park located to the south of the area.</li><li>The area has good access to coastal open space to the west.</li><li>The area is accessible to Queen Elizabeth Park.</li><li>The underlying dune topography had an influence on the landscape of the area.</li><li>There are no special amenity landscapes identified within the area.</li></ul>	
Heritage values	<ul style="list-style-type: none"><li>The building located on the corner of Poplar Ave and Renown Road is a listed heritage building.</li></ul>	
Topography	<ul style="list-style-type: none"><li>The area is relatively undulating, and topography increases in steepness on the coastal side of the area.</li></ul>	
Natural hazards and land risks (including effects of climate change)	<ul style="list-style-type: none"><li>There are some small extents of flood hazard located within the area.</li><li>The entire area is subject to high liquefaction potential.</li></ul>	
Land use compatibility	<ul style="list-style-type: none"><li>There are no notable reverse sensitivity issues in the area.</li><li>There are no designations in the area.</li></ul>	
Climate change (low-carbon futures)	<ul style="list-style-type: none"><li>Intensification in the area would have reasonable access to some commercial activities, and good access to public open space and coastal amenity. This could reduce short vehicle trips.</li><li>The area is relatively distant to Paraparaumu metropolitan centre and railway station. This may promote private vehicle commuting.</li></ul>	

Criteria	Observations	Rating
Mana whenua	<ul style="list-style-type: none"><li>There are no mapped sites of significance located within the area.</li></ul>	
Urban form	<ul style="list-style-type: none"><li>The existing cluster of shops is modest in scale. A moderate increase in building height and density may be appropriate in the area, and may assist in improving the legibility of the Raumati South local centre.</li></ul>	
Local neighbourhoods	<ul style="list-style-type: none"><li>The area is predominantly defined by single storey dwellings integrated into the gently undulating landscape. The western half of the area is situated within the Raumati Beach special character area.</li><li>Increases in height and density could alter the existing character of the area, although this may be mitigated to some extent by the topography of the area.</li></ul>	
Activity centres	<ul style="list-style-type: none"><li>There are a number of commercial activities located within the Raumati South shops. Intensification could support existing commercial activity within the area.</li><li>There is some commercial activity on the northern side of the intersection between Poplar Ave and Renown Road, even though this is not part of the local centre zone.</li><li>The area is relatively accessible to Raumati South school.</li><li>The area is relatively distant to Paraparaumu town centre.</li></ul>	
Residential development	<ul style="list-style-type: none"><li>Intensification in the area could contribute modestly to dwelling supply.</li><li>High levels of access to a range of activities and coastal amenity may encourage the development of higher density typologies.</li></ul>	
Business land	<ul style="list-style-type: none"><li>There is no General Industrial zoned land in the area.</li></ul>	
Transport networks	<ul style="list-style-type: none"><li>There is a bus route on Poplar Ave.</li><li>The area is not well served by active mode access to Paraparaumu metropolitan centre or Paraparaumu railway station.</li><li>Distance to Paraparaumu Station is likely to promote private vehicle commuting and put pressure on park and ride facilities at the train station.</li></ul>	
Infrastructure and servicing	<ul style="list-style-type: none"><li>Water and wastewater reticulation is generally integrated into the existing street network.</li><li>Stormwater reticulation is generally integrated into the street network. The majority of stormwater in the area discharges directly in to the the coastal marine area via a rising main on Kainui Road.</li><li>Depending on scale, development in the area may trigger upgrades to the existing waste water plant, and/or pipes and pump stations between the area and the plant.</li></ul>	
Natural ecosystem values	<ul style="list-style-type: none"><li>There are no mapped ecological sites identified within the area.</li></ul>	
Water bodies	<ul style="list-style-type: none"><li>There are no waterbodies located within or adjacent to the area.</li></ul>	

# METHODOLOGY

## GENERAL METHODOLOGY AND ASSUMPTIONS

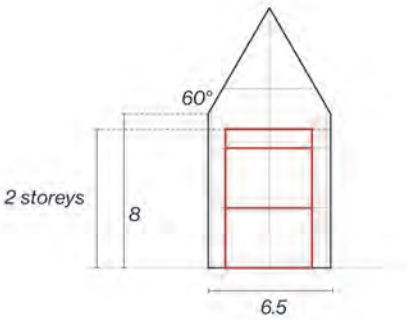
- Walkable catchments have been mapped by KCDC, to the following specification: 800m from the edge of the metropolitan centre zone and rapid transit stops; 400m from town centres and 200m from local centres. Properties that fall within these walkable catchments have been assessed.
- Roads, open space, rural zoned sites and designations have been excluded.
- The assessment assumes the following overall specification (consistent with the draft District Growth Strategy):

Area	Maximum height	Recession plane assumption
Metropolitan centre zone	12 storeys	No recession planes
Town centre zone and mixed use zone (and Paekakariki Local Centre)	6 storeys	No recession planes
Local centre zone	4 storeys	No recession planes
General residential zone within the walkable catchment of the metropolitan centre or rapid transit stop	6 storeys	8m vertical at the boundary with 60 degree recession plane
General residential zone around Town and Local centres	4 storeys	8m vertical at the boundary with 60 degree recession plane

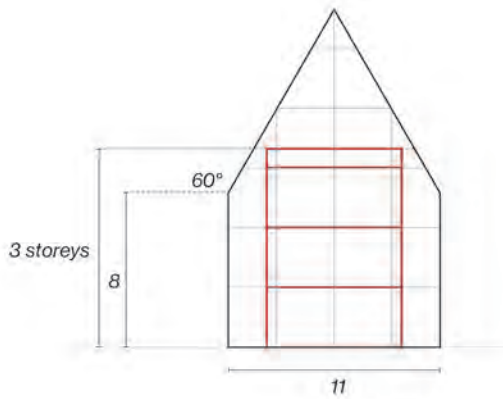
- Recession plane assumptions have been derived from the Auckland Unitary Plan's Terrace House and Apartment Building Zone.
- Based on applied recession planes, the minimum site width required to achieve certain buildings heights was calculated (refer diagrams shown).
- A minimum 1m side yard has been assumed.
- For 2 storey buildings, a minimum width of 4.5m has been assumed. For 3+ storey buildings, a minimum 7m width has been assumed. Assumed less than 4.5m wide does not provide sufficient space to accommodate a storey.
- Each site within the intensification area has been graded based on site width. Site widths were identified by measuring the shortest side of the largest rectangle that can fit within each of each site. Density was applied to each site based on the building height that could be accommodated on the site, based on its width.
- Densities have been derived from the KCDC draft District Growth Strategy, and have been adjusted to fit the modelled recession planes as applied within the general residential zone (see the adjacent diagrams).
- Within the Local Centre zone a density of 40 dwellings per hectare (4 storeys) has been applied. This assumes a non-residential ground floor, and no recession planes.
- Within the Town Centre, Mixed Use and Paekakariki local centre zone a density of 60 dwellings per hectare (6 storeys) has been applied. This assumes a non-residential ground floor, and no recession planes.
- Within the Metropolitan Zone, a density of 100 dwellings per hectare (12 storeys) has been applied. This assumes a non-residential ground floor, and no recession planes.
- Existing dwellings for each site are estimated based on the number of address points located within each site. No existing dwellings have been assumed on sites within the centres or mixed use zones.
- Potential qualifying matters shown are indicative only. The presence of qualifying matters has not been taken into account in the calculation of potential yield., nor have other site specific constraints such as topography, access or hazards.
- The yield calculations contained in this assessment should be seen as indicative only. They represent a general quantum of dwelling capacity that could be enabled based on the parameters and assumptions outlined in this methodology. They do not account for the feasibility or realisability of development.

## DENSITY, HEIGHT AND RECESSION PLANE ASSUMPTIONS

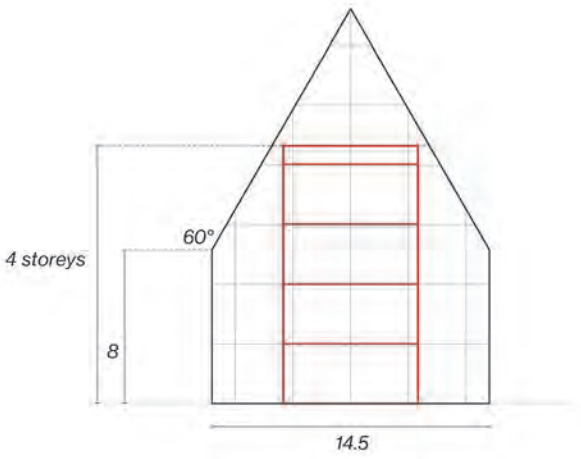
2 STOREY - 20 DW/HA  
UP TO 6.5M WIDE



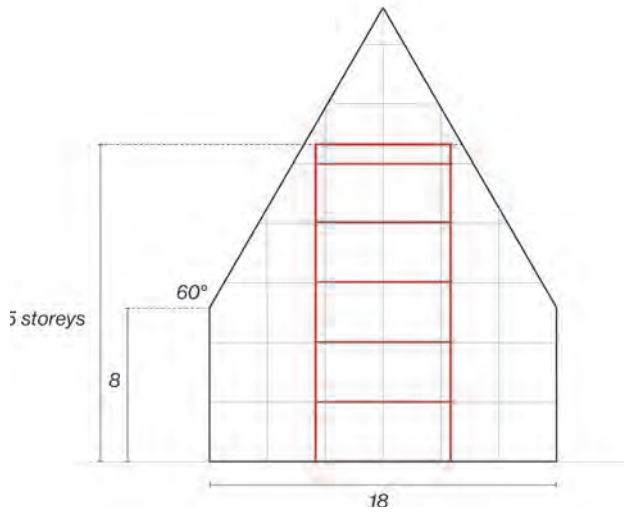
3 STOREY - 30 DW/HA  
BETWEEN 6.5M AND 11M WIDE



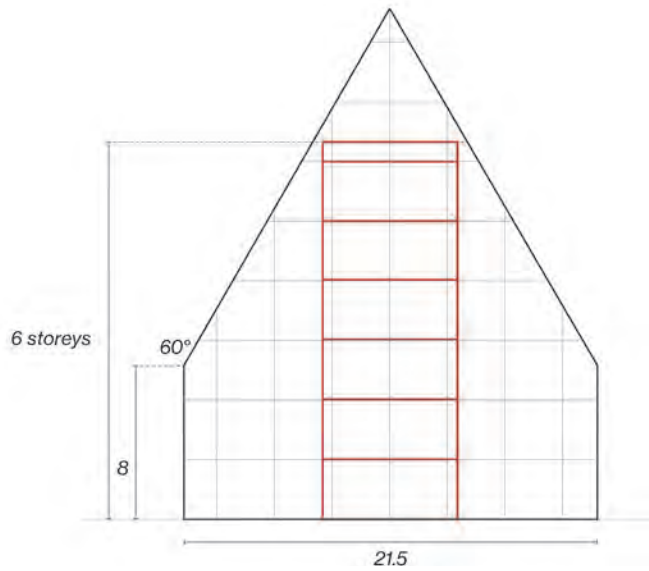
4 STOREY - 40 DW/HA  
BETWEEN 11M AND 14.5M WIDE



5 STOREY - 50 DW/HA  
BETWEEN 14.5M AND 18M WIDE



6 STOREY - 60 DW/HA  
WIDER THAN 18M





## Appendix 4: Aurecon Three-Waters Infrastructure Assessment

## KCDC Masterplanning

### Growth Area Review

#### Paraparaumu Metropolitan Centre (UI-PA-05)



#### Stormwater



Area with pre-designated flood storage zones through "metropolitan centre"  
Significant flooding issues in Arawhata Road and Ihakara Street that will constrain development through that zone.  
Wider flooding issues with Wharemauku will likely necessitate on-site storage and controlled discharge to pre-development levels for any increase in impervious area.  
Compensatory flood storage likely required in any area where building platforms are to be raised.  
Need for neutrality



#### Water

Reasonable comprehensive reticulation coverage  
Adequacy of storage to be confirmed and likely requires upgrade

#### Sewer

Well connected to treatment plant  
Localised upgrades to reticulation network likely

1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

Significant flooding constraints on Wharemauku. As a predesignated flood storage area, unlikely to progress significant development in area without establishment of compensatory storage and/or upstream attenuation. Close connection to existing wastewater treatment plant, though localised network upgrades may be required in some areas. Well serviced by water supply network, however population triggers for storage upgrade requirements to be confirmed

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

Stormwater in particular is a significant constraint to development in this area. Residential densification viable, outside of flood storage zones provisional on ensuring stormwater neutrality can be established. Network upgrade requirements likely to be localised.

#### Paekakariki Local Centre and Railway Station (UI-PK)



Localised flooding potential through town centre and along fringe of rail  
Coastal Hazard potential  
Number of localised volcano catchments



Reasonable comprehensive reticulation coverage  
Adequacy of storage to be confirmed and likely requires upgrade

No formalised wastewater network in area.  
Significant constraint to increased development of area

1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

The absence of a formalised sewer network would present a significant issue if looking to up densities in the area. The establishment of a new treatment plant or a major pumpstation and transmission main would likely be required. This would also trigger establishment of a localised gravity connection network. Confirmation is required on the adequacy of the water network, in particular storage requirements for the increased population. Localised flooding along the rail and in the vicinity of town centre necessitates improved drainage in these areas required to achieve prescribed densities.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

The cost of reticulation and treatment plant upgrades is likely to be prohibitive to development.

#### Waikanae Town Centre (UI-WA)



Significant secondary flow through northern part of town and kohekohe road area  
Town centre general clear  
Park to south influenced by Waikanae river  
Significant ponding on eastern side of rail  
Need for neutrality in design outcomes



Reasonable comprehensive reticulation coverage  
Adequacy of storage to be confirmed and likely requires upgrade

Reticulation discharges primarily by gravity to west via two trunk connections which feeds back to Paraparaumu treatment plant  
Minor network upgrades likely required

1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

Significant areas of Kohekohe street area impacted by flooding and localised upgrades likely required (noting much of this flooding seems to be relatively shallow). Similarly for breakouts from stream across northern reaches in area. Water supply looks good, however adequacy of storage to meet future demand needs to be confirmed. Localised infrastructure upgrades likely required to improve wastewater connection to trunk wastewater mains.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

Town centre relatively well suited to improved densities with wider drainage upgrades implemented (as closer to top reaches of catchment). Water and wastewater can accommodate growth with relatively minor upgrades.

#### Ōtaki Main Street/Mill Road (U.-ŌT-01)



Known issues with breakout from stream through town centre  
limited local sw network



Known condition issues  
Adequacy of storage limited.

Close to WWTP  
Aging infrastructure  
Poor condition  
Number of localised PSs

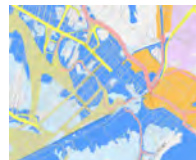
1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

Significant issues with quality of existing local infrastructure which is known to be aging and strained (water and wastewater). Issues also with breakout from adjacent stream with limited formal network to accommodate these flows. While wastewater treatment plant is close, existing network known to be performing poorly.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

Likely requires storage upgrades, streetscape upgrade and network upgrades/ connections in all three waters. Potential for development to the east of stream.

#### Ōtaki Railway (U.-ŌT-02)



Significant flooding with secondary flow from Ōtaki river breakout  
Designated storage zone to north of township impede development  
Improved drainage likely required for streetscapes



Limitations on localised water supply and potentially storage

Close treatment plant.  
Known constraints on existing reticulated supply

1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;



Existing infrastructure known to be undersized with known maintenance issues in need of significant upgrade to accommodate projected demands. Network storage and supply requirements for bulk water known to be close to limits. Extensive flooding through area (being in part assisted by SH upgrades) with issues on local catchment and potential for breakout from Otaki river. Designated storage zones identified that will constrain development to the north.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

Significant storage and network upgrades required to develop this area. Protection from Otaki river and local drainage network required to accommodate.

Waikanae Beach Local Centre (UI-WB)



Overflow from the low lying area behind dunes. secondary flowpath down Te Moana Road potential backwater effects from adjacent waterway



Good water supply networks. Upgrade scale unlikely to necessitate storage upgrades

Directly adjacent to transfer pumpstation

1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

Good for connection to main wastewater trunk mains and relatively well serviced by water. Issues with low lying flatter residential areas with secondary overflow from area down Te Moana road.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

Stormwater upgrades required to develop area, likely to necessitate reticulation upgrades.

Kena Kena Local Centre (UI-PA-01)



low lying area behind dune scape with significant localised ponding backwater influence from waikanae reserve



Upgrade scale unlikely to necessitate storage upgrades. Good water supply networks.

Localised gravity network that pumps back towards WWTP. Potential for local pumpstation upgrades

1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

Significant issues with stormwater management in the area low lying area likely to subject to the influence of sea level rise. Relatively well served by water and wastewater networks.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

Limited options to deal with backwater influence of elevated sea levels. Potential to stormwater pumpstation and associated reticulation upgrades.

Mazengarb Local Centre (U,-PA-02)



Flood sensitive, need for compensatory storage. Compensatory storage likely required for proposed development



Reasonably well connected for water supply

Good connection in close proximity to WWTP

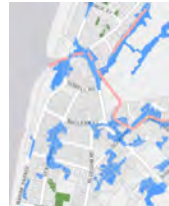
1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

Known area of flooding and levels to be established to ensure clear of floodplain. Relatively well served for water and wastewater.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

Given pre-existing nature of flooding, compensatory storage likely required.

Paraparaumu Beach Town Centre (UI-PA-03)



localised (volcano) stormwater catchments constraints adjacent to stream areas with limited network reliance on soakage in some areas localised ponding zones adjacent to development areas



good water coverage storage requirements to be confirmed.

undulating topography and localised pumpstations with rising main connections

1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

Constraints likely in establishment of floor levels. Localised upgrades would likely be required to wastewater network and pumpstations. Storage implications to be confirmed holistically.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

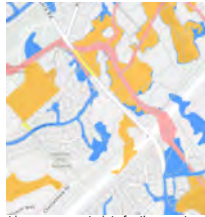
Given pre-existing nature of flooding, compensatory storage likely required in designated flood areas.

#### MeadowsLocal Centre(UI-PA-04)

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE



AERIAL



pre-defined storage areas  
constraints adjacent to stream  
designated storage area



Reasonably well connected for water supply

Good connection in close proximity to WWTP

1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

Known area of flooding and levels to be established to ensure clear of floodplain. Relatively well served for water and wastewater.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

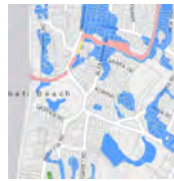
Designated stormwater areas to be accommodated into design.

#### Raumati BeachTown Centre(UI-RB)

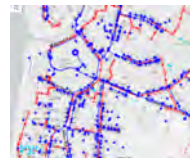
YIELD IN RESIDENTIAL + TOWN CENTRE ZONE



AERIAL



recent stormwater upgrades and  
pumpstation for CBD  
constraints adjacent to wharemauku  
  
localised ponding in school grounds  
stage 2 works pending



good water supply and localised  
storage.  
adequacy of network storage to be  
confirmed

wastewater networks daisy chains.  
Localised constraints to be confirmed  
localised network upgrade required

1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

Constraints with sea level rise in proximity of stream. Ability of wastewater network to accommodate peak flows. Storage and pump capacity to be confirmed.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

Development viable through area.

#### Raumati SouthLocal Centre(UI-RS)

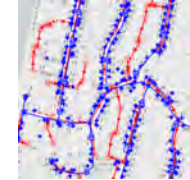
YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE



AERIAL



localised (volcano) stormwater  
catchments  
areas with limited network  
  
reliance on soakage in some areas  
undulating dune scape



good water supply  
  
adequacy of network storage to be  
confirmed

wastewater networks daisy chains.  
Localised constraints to be confirmed  
localised network upgrade required

1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

Constraints likely to be in loading upper reaches of daisy chained network. Storage and pump upgrades may need to be required. Localised low spots may necessitate formalised connection.

2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

Minor wastewater upgrades and stormwater connection.



## Appendix 5: KCDC Walkable Catchment Methodology

## Walkable Catchment methodology

The Walkable Catchment maps were created by the Kapiti Coast District Council GIS team. The maps show the areas that can be reached on foot from rapid transit stops and from the edge of Metropolitan Centre, Town Centre and Local Centre zones. The methodology behind these maps is described below. The software ArcGIS Pro was used by the GIS team to do this work.

### 1. Created a Kapiti walking network

Before walking areas can be determined, a digital GIS walking network needs to be created. The KCDC GIS team did not have an existing walking network and enlisted a student to help with this task. He used the KCDC Aerial Photography (2021, 7.5cm per pixel) to manually digitise the walking network. The following walking route types were created:

- Footpaths
- Zebra crossings
- Controlled road crossings
- Uncontrolled road crossings
- Walking tracks
- Bridges
- Tunnels



Figure 1 - Walking Network in Paraparaumu



## 2. Determined starting points (points to measure distance from)

Before a walkable catchment can be created, the points that we are measuring distance from need to be known. These were determined as follows:

- **Train stations**

These often have more than one entrance point. Each entrance point was used as a starting point when measuring distance.



Figure 2 - Starting Points for Paraparaumu Train Station

- **Metropolitan Centre / Town Centre Zones / Local Centre Zones**

As these zones show an area rather than one single location, the starting points for these areas were taken to be the intersection of the walking network and the edge of these areas.



Figure 3 - Starting Points for Metropolitan Centre Zone

### 3. Performed network analysis

The walkable catchments were determined by performing GIS network analysis for each rapid transit stop and for each Metropolitan, Town Centre, and Local Centre zone. The inputs to this tool that were used each time were as follows:

- Walking network
- Starting points
- Distance
  - 200m from edge of Local Centre zones
  - 400m from edge of Town Centre zones
  - 800m from edge of Metropolitan zone
  - 400m and 800m from train stations

As the areas being measured are relatively flat, slope was not taken into consideration.

This tool created polygons (areas) showing how far a person could walk along the walking network from the starting points.

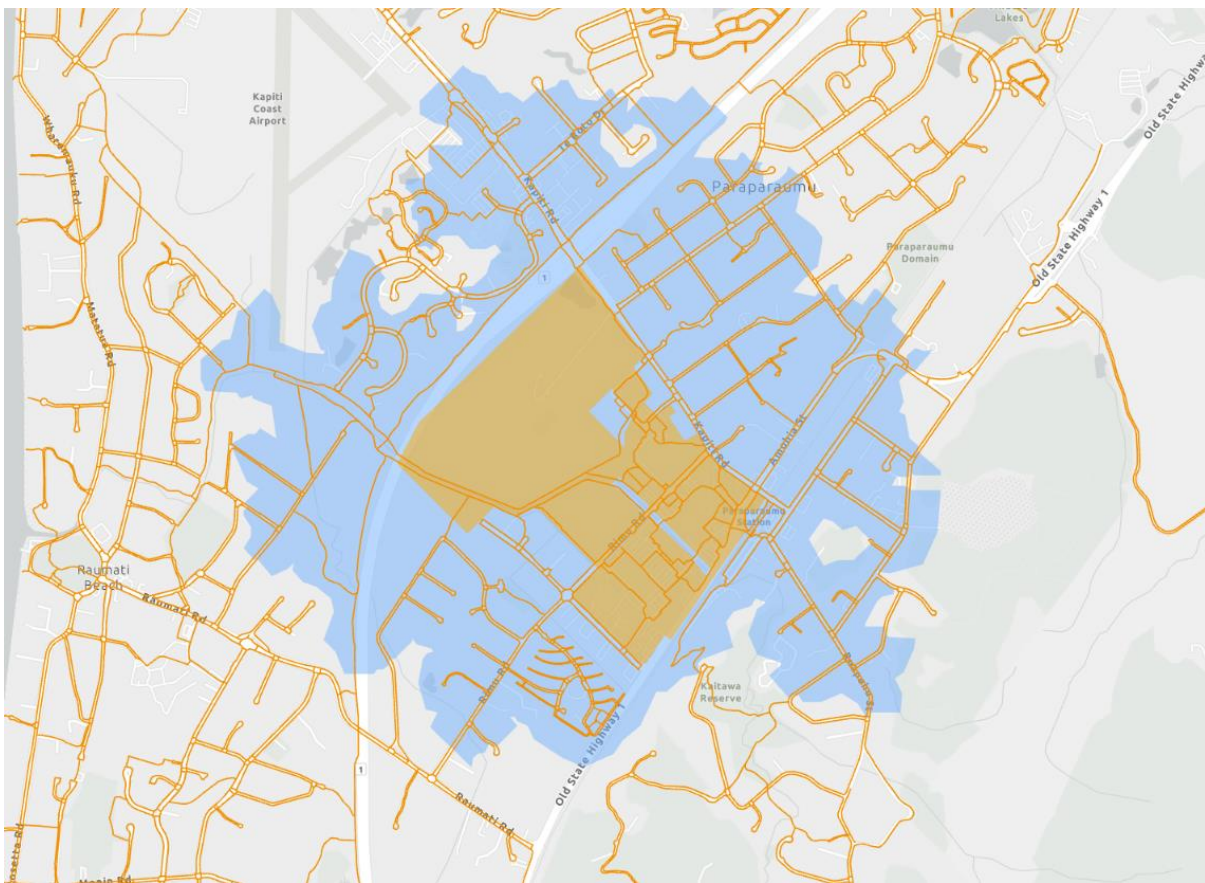


Figure 4 - Walking Catchment (blue) for the Metropolitan Centre Zone (orange)



## Appendix 6: Medium Density Residential Standards

The following table provides a summary of the existing provisions of the General Residential Zone, compared to the Medium Density Residential Standards. References to existing provision numbers are shown in [brackets]. Note that the General Residential Zone includes a number of precincts subject to bespoke provisions. These are not summarised in this table, but can be found in the online version of the Kapiti Coast District Plan.

	Existing General Residential Zone provision	Medium Density Residential Standards
Number of residential units per site	<ul style="list-style-type: none"> <li>Up to 4, provided that: <ul style="list-style-type: none"> <li>Each residential unit is capable of being contained within its own allotment which complies with the subdivision standards;</li> <li>Each residential unit is separated by a distance of not less than 4.5m (except for attached residential units);</li> <li>Each residential unit must comply with the permitted activity standards under GRZ-R6.</li> </ul> </li> </ul> <p>[GRZ-R6.1 &amp; 2]</p>	<ul style="list-style-type: none"> <li>There must be no more than 3 residential units per site.</li> </ul>
Building height	<ul style="list-style-type: none"> <li>Maximum height of 8m above original ground level [GRZ-R6.7].</li> <li>Minor residential unit maximum height of 4.5m [GRZ-R.6.7.a]</li> </ul>	<ul style="list-style-type: none"> <li>Buildings must not exceed 11 metres in height, except that 50% of a building's roof in elevation, measured vertically from the junction between wall and roof, may exceed this height by 1 metre, where the entire roof slopes 15° or more.</li> </ul>
Height in relation to boundary	<ul style="list-style-type: none"> <li>2.1m vertically above ground level at the boundary, with a 45 degree recession plane. Applies to all boundaries, including the road boundary [GRZ-R6.8].</li> </ul>	<ul style="list-style-type: none"> <li>Buildings must not project beyond a 60° recession plane measured from a point 4 metres vertically above ground level along all boundaries.</li> <li>Does not apply to: <ul style="list-style-type: none"> <li>A boundary with a road;</li> <li>Existing or proposed internal boundaries within a site;</li> <li>Site boundaries with a common wall.</li> </ul> </li> </ul>

	Existing General Residential Zone provision	Medium Density Residential Standards
Setbacks	<ul style="list-style-type: none"> <li>• 3m setback from the road boundary generally (excluding any part of the primary residential building used as a garage) [GRZ-R6.11a];</li> <li>• 4.5m setback from the road boundary for garages, carports and covered vehicle storage areas [GRZ-R6.11a];</li> <li>• For residential units: 3m setback from side and rear boundaries (except one side yard for front allotments may be 1.5m) [GRZ-R6.11c(i)];</li> <li>• For accessory buildings: 1m setback from side and rear boundaries [GRZ-R6.11c(ii)];</li> <li>• For non-residential buildings: 4m setback from side and rear boundaries [GRZ-R6.11c(ii)].</li> </ul>	<ul style="list-style-type: none"> <li>• 1.5m front yard;</li> <li>• 1m side yard;</li> <li>• 1m rear yard;</li> <li>• No yard where there is a common wall between 2 buildings.</li> </ul>
Building coverage	<ul style="list-style-type: none"> <li>• 40% of total property area excluding rights of way and access legs [GRZ-R6.5].</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum 50% of net site area.</li> </ul>
Outdoor living space	<ul style="list-style-type: none"> <li>• Minimum area 40m<sup>2</sup> [GRZ-R6.10a];</li> <li>• Minimum dimension of 4m [GRZ-R6.10b];</li> <li>• Located to the north, west or east of any primary residential building [GRZ-R6.10c];</li> <li>• Screened by a fence or vegetation to provide privacy from the ground floor windows and the outdoor living space of other primary residential buildings [GRZ-R6.10d];</li> <li>• Direct access to an internal habitable room in the primary residential building [GRZ-R6.10e].</li> </ul>	<ul style="list-style-type: none"> <li>• Outdoor living space for residential units at the ground floor level: <ul style="list-style-type: none"> <li>○ Minimum area 20m<sup>2</sup>;</li> <li>○ No dimension less than 3m;</li> <li>○ Must be accessible from the residential unit;</li> <li>○ May be: <ul style="list-style-type: none"> <li>▪ Grouped cumulatively by area in 1 communally accessible location; or</li> <li>▪ Located directly adjacent to the unit.</li> </ul> </li> <li>○ Must be free of buildings, parking spaces, servicing and manoeuvring areas.</li> </ul> </li> <li>• Outdoor living space for residential units above ground floor level: <ul style="list-style-type: none"> <li>○ Minimum area 8m<sup>2</sup>;</li> <li>○ No dimension less than 1.8m;</li> <li>○ Must be accessible from the residential unit.</li> <li>○ May be:</li> </ul> </li> </ul>



	Existing General Residential Zone provision	Medium Density Residential Standards
		<ul style="list-style-type: none"> <li>▪ Grouped cumulatively by area in 1 communally accessible location; or</li> <li>▪ Located directly adjacent to the unit.</li> </ul>
Outlook space	No existing outlook space requirements.	<ul style="list-style-type: none"> <li>• An outlook space must be provided from habitable room windows.</li> <li>• The minimum dimensions for a required outlook space are as follows: <ul style="list-style-type: none"> <li>○ a principal living room must have an outlook space with a minimum dimension of 4 metres in depth and 4 metres in width; and</li> <li>○ all other habitable rooms must have an outlook space with a minimum dimension of 1 metre in depth and 1 metre in width.</li> </ul> </li> <li>• The width of the outlook space is measured from the centre point of the largest window on the building face to which it applies.</li> <li>• Outlook spaces may be within the site or over a public street or other public open space.</li> <li>• Outlook spaces may overlap where they are on the same wall plane in the case of a multi-storey building.</li> <li>• Outlook spaces may be under or over a balcony.</li> <li>• Outlook spaces required from different rooms within the same building may overlap.</li> <li>• Outlook spaces must— <ul style="list-style-type: none"> <li>○ be clear and unobstructed by buildings; and</li> <li>○ not extend over an outlook space or outdoor living space required by another dwelling.</li> </ul> </li> </ul>
Windows to street	No existing windows to street requirements.	<ul style="list-style-type: none"> <li>• Any residential unit facing the street must have a minimum of 20% of the street-facing façade</li> </ul>

	Existing General Residential Zone provision	Medium Density Residential Standards
		in glazing. This can be in the form of windows or doors.
Landscaped area	No existing landscape area requirements.	<ul style="list-style-type: none"> <li>• A residential unit at ground floor level must have a landscaped area of a minimum of 20% of a developed site with grass or plants, and can include the canopy of trees regardless of the ground treatment below them.</li> <li>• The landscaped area may be located on any part of the development site, and does not need to be associated with each residential unit.</li> </ul>
Minimum allotment size	<ul style="list-style-type: none"> <li>• Raumati, Paraparaumu and Waikanae: 450m<sup>2</sup> (inclusive of access) [SUB-RES-R26.4];</li> <li>• General Residential Zone at Ōtaki: 450m<sup>2</sup> for front lots, 550m<sup>2</sup> for rear lots, 700m<sup>2</sup> average (exclusive of access) [SUB-RES-R26.5].</li> <li>• Lots must accommodate an 18m diameter circle [SUB-RES-R26.6].</li> <li>• General residential zone at Paekākāriki, Peka Peka and Te Horo: 950m<sup>2</sup> [SUB-RES-R27.2a].</li> <li>• General residential zone at Ōtaki Beach: 450m<sup>2</sup> minimum with 600m<sup>2</sup> average (exclusive of access) [SUB-RES-R27.2].</li> <li>• Lots must accommodate an 18m diameter circle [SUB-RES-R27.3].</li> </ul>	<ul style="list-style-type: none"> <li>• No minimum lot size, shape or other size-related requirements, for the following types of subdivision: <ul style="list-style-type: none"> <li>○ Subdivision where there is an existing residential unit, if the subdivision does not increase the degree of any non-compliance with the building standards;</li> <li>○ Subdivision where residential units are approved under a land use resource consent and no vacant allotments are created.</li> </ul> </li> </ul>



### About Boffa Miskell

Boffa Miskell is a leading New Zealand professional services consultancy with offices in Auckland, Hamilton, Tauranga, Wellington, Christchurch, Dunedin and Queenstown. We work with a wide range of local and international private and public sector clients in the areas of planning, urban design, landscape architecture, landscape planning, ecology, biosecurity, cultural heritage, graphics and mapping. Over the past four decades we have built a reputation for professionalism, innovation and excellence. During this time we have been associated with a significant number of projects that have shaped New Zealand's environment.

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