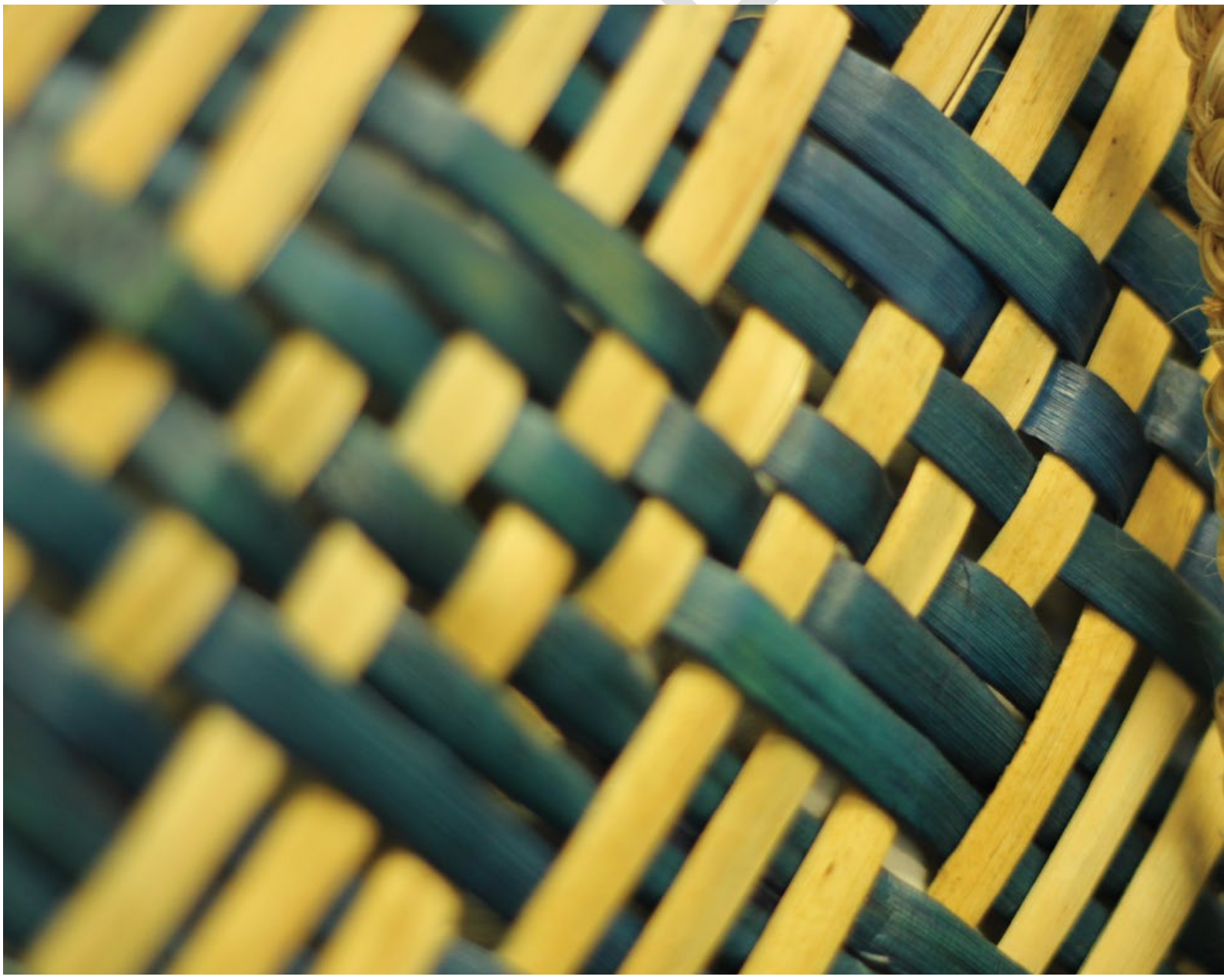
Boffa Miskell

Kāpiti Coast Urban Development Intensification Assessment

Prepared for Kāpiti Coast District Council

DRAFT

13 October 2021



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Executive Summary

The population of the Kāpiti Coast district is expected to increase by 30,000 people by the year 2050, and this population increase is expected to result in demand for an additional 13,800 dwellings over the same period. It is possible to meet this demand through a mixture of greenfield development and intensification within existing urban areas. This assessment addresses the potential for intensification enabled through the district plan to address some of this demand.

Unlike greenfield development, the nature and location of intensification is heavily driven by the National Policy Statement on Urban Development 2020 (NPS-UD), which requires that district plans enable intensification in existing urban environments based on specified parameters. At the same time, the draft Kāpiti Coast District Growth Strategy helps to provide local substance to the general policy direction provided by the NPS-UD. This assessment considers both the NPS-UD and the draft Growth Strategy in coordination.

This assessment has been prepared to provide an information base for potential intensification areas that may be considered as a part of the Council's 2022 Urban Development plan change. The assessment has identified 12 specific "potential intensification study areas"[1] across the district, based on direction provided by the NPS-UD and the draft District Growth Strategy.

The assessment finds that there is an estimated theoretical dwelling capacity of an additional 25,000 dwellings across all 12 study areas that could be enabled through changes to the district plan. This is summarised in the following table:

Area	Enabled building heights	Estimated additional theoretical dwelling capacity
Intensification in and around the Metropolitan Centre and Paraparaumu railway station	12 storeys within the Metropolitan Centre Zone. 6 storeys within the surrounding Mixed Use and General Residential Zones.	12,543 dwellings
Intensification around rapid transit stops at Waikanae and Paekākāriki	6 storeys within the Town/Local Centre Zone and surrounding General Residential Zones.	6,457 dwellings
Intensification around Town Centres	6 storeys within the Town Centre Zone 4 storeys within the surrounding General Residential Zone.	5,006 dwellings
Intensification around Local Centres	4 storeys within the Local Centre Zone and surrounding General Residential Zone.	815 dwellings
	Total estimated additional dwelling capacity	**24,965 dwellings**

[1] Also referred to in this assessment as "Urban Intensification Study Areas".

This additional theoretical dwelling capacity is a high-level estimate of the additional number of dwellings that could be enabled by changes to the district plan, and should be seen as reflecting a general quantum of dwellings rather than an exact estimate. Within existing urban environments, there can be a significant difference between plan-enabled dwelling capacity, and feasible and realisable development capacity, based on the range of complexities associated with the redevelopment of sites in urban areas. A gauge of feasible and realisable development will be able to be ascertained from the Housing and Business Capacity Assessment (HBA) once this assessment has been prepared, but as a guide, the 2019 HBA[2] identified that approximately 10% of plan enabled capacity could be expected to be feasible and realisable.

Because the updated HBA has not yet been prepared, this assessment has not considered the effects that feasibility and realisability might have on the estimate of theoretical dwelling capacity. Following the completion of the update to the HBA by the Council, it is recommended that the dwelling capacity estimate outlined in this assessment is reviewed and refined to ensure that it aligns with the updated HBA.

The level of intensification directed by the NPS-UD may not be appropriate in certain circumstances. The NPS-UD provides for a range of "qualifying matters", which are spatially defined matters that can be used to justify lower heights and densities than would otherwise be required by the NPS. These matters include natural hazards, historic heritage, low-density business land and the relationship of Māori with ancestral land, water and other sites of significance. This assessment has scoped the potential range of qualifying matters that could apply to each intensification study area, based on the information available at the time of writing. However, these qualifying matters have not been used to reduce the estimated number of dwellings at this stage. The planning response to qualifying matters is subject to further work, although it is likely that many of these matters will be able to be addressed through district plan policies and rules. Section 5.0 provides a detailed discussion on qualifying matters.

Section 6.0 of the report includes a range of observations and recommendations based on the assessment of each of the potential intensification study areas. Key observations and recommendations include:

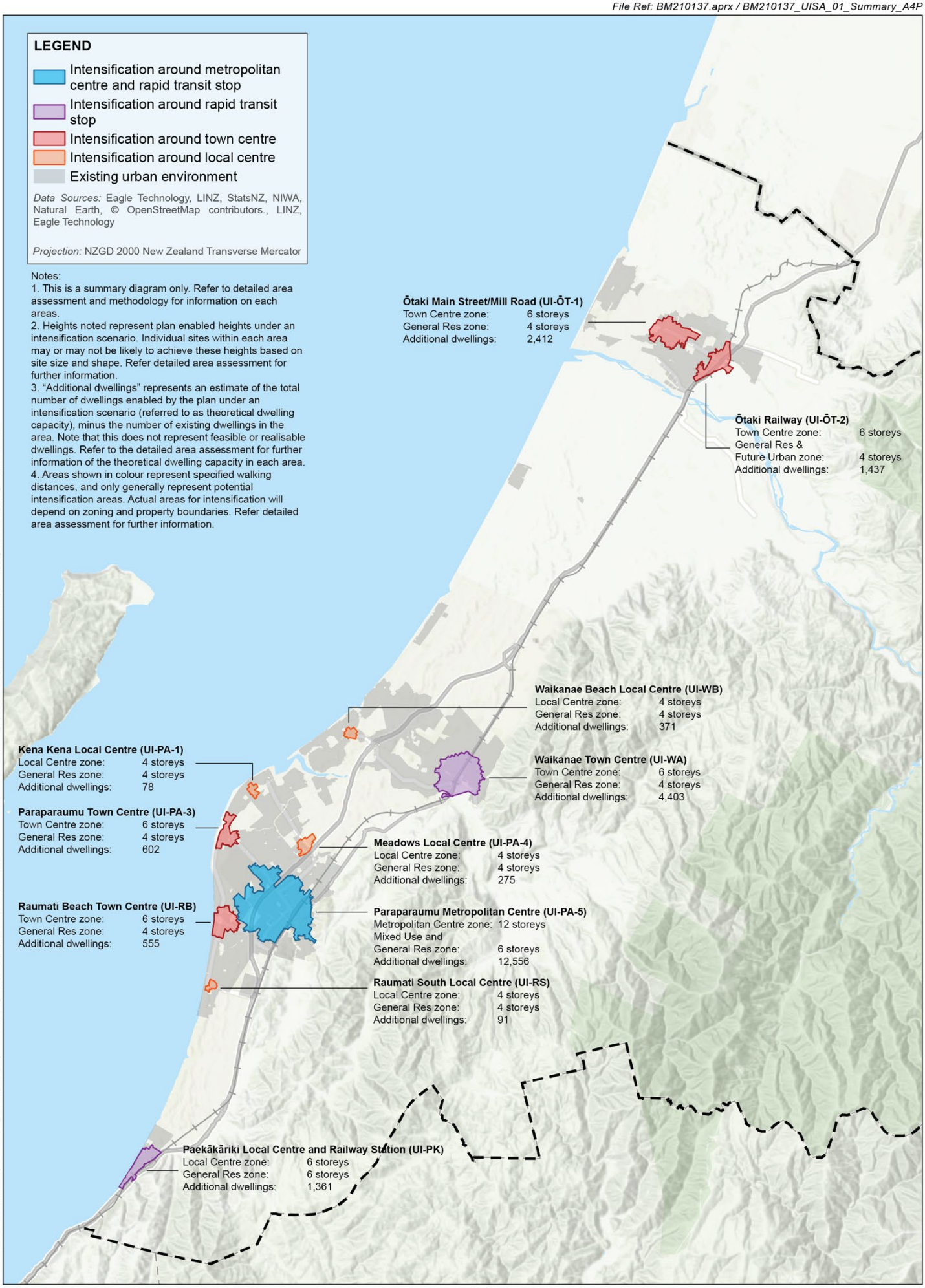
- 83% of potential intensification is situated around three centres: Paraparaumu Metropolitan Centre (50%), Waikanae Town Centre (17.6%) and the twin centres at Ōtaki (15.4%).
- The intensification potential at Paekākāriki is small compared to the remainder of the district (5.4%). However the area has significant infrastructure constraints. In particular, the area does not have access to reticulated wastewater treatment. Resolving these challenges may be costly in the context of the marginal amount of intensification enabled.
- Many of the district's industrial areas are located within the intensification areas around Paraparaumu and Waikanae. Special consideration will be required to ensure industrial land use is not adversely affected by residential intensification.
- Given this, and the fact that significant projected population growth is likely to change demand for business activity at town and local centres, a review of the

[2] Note that the Council is in the process of updating the HBA to reflect current demand and population growth projections. As a result, guidance from the 2019 HBA should be treated with caution.

demand for business land across the district, and the development of a spatial strategy to respond to this demand in coordination with residential intensification and greenfield growth planning, is recommended.

- In the context of intensification, three-waters infrastructure networks are or will be variously constrained depending on their location within the district. It is recommended that Council review existing infrastructure plans and strategies alongside projected population growth to ensure that infrastructure capacity is coordinated with plan-enabled intensification.
- There is relatively poor access to public transport and social infrastructure in Ōtaki when compared to other parts of the district. Enabling intensification at Ōtaki should be coordinated with improved access to public transport (for example by extending commuter rail services to the area) and measures to support the growth of community services.
- Intensification areas are subject to a range of natural hazards, including flood hazard, earthquake hazard (particularly liquefaction), and in some cases coastal hazards. Key hazards that are likely to impact on intensification include flood storage hazard within Paraparaumu Metropolitan Centre, flood hazard at Ōtaki and coastal hazard associated with coastal centres such as Paekākāriki, Raumati South, Raumati Beach, Paraparaumu Beach and Kena Kena. Response to coastal hazard will need to be coordinated with future coastal hazard modelling prepared through the Takutai Kāpiti project.
- Residential intensification can result in a general reduction in access to private outdoor space. As a result, access to communal and public outdoor space becomes increasingly important. A range of recommendations are identified to ensure that open space provision is addressed in coordination with residential intensification.
- This assessment does not cover the approach to a general uplift in residential planning provisions to enable greater intensification across the district. It is recommended that general residential planning provisions are reviewed once the updated HBA has identified underlying market demand for intensification across the district.

This report is a draft document and is intended to be revised as further information relevant to the assessments becomes available. The assessment may be updated in future following engagement with mana whenua.



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KĀPITI URBAN DEVELOPMENT

Urban Intensification Study Areas Summary

Date: 31.08.2021 | Revision: 0

Plan prepared for Kāpiti Coast District Council by Boffa Miskell Limited

Project Manager: hamish.wesney@boffamiskell.co.nz | Drawn: ABa

Figure 1

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1.0 Purpose

The population of the Kāpiti Coast district is expected to increase by 30,000 people by the year 2050[3], and this is expected to result in demand for an additional 13,800 dwellings[4] over the same period. It is possible to meet this shortfall through a mixture of greenfield and intensification development.

The purpose of this report is to provide a qualitative and quantitative assessment of the potential for residential development capacity associated with the intensification of identified areas within the existing urban environment.

To achieve this purpose, the report is structured as follows:

- Section 2 provides a background to the National Policy Statement for Urban Development 2020 (NPS-UD) and the Draft Kāpiti Coast District Growth Strategy, both of which form the basis for this assessment;
- Section 3 describes the location and extent of potential intensification study areas, based on the National Policy Statement for Urban Development 2020 and the Draft Kāpiti Coast District Growth Strategy;
- Section 4 provides a qualitative and quantitative assessment of each study area to identify the constraints and opportunities associated with the intensification of each, alongside an estimate of their theoretical dwelling capacity;
- Section 5 outlines a preliminary approach to "qualifying matters" that could apply to each study area.
- Section 6 outlines several key observations that have emerged through the assessment, for consideration alongside development of future changes to the district plan.

A separate report addresses the potential for greenfield growth to provide for residential development capacity outside of the existing urban environment[5]. These reports should be read together.

This report has been prepared to inform the development of future changes to the district plan. It is a draft document and is intended to be revised as further information relevant to the assessments becomes available.

[3] 4Sight Consulting. (June 2021). *Kāpiti Coast Growth Strategy Review – Growth Scenarios Report,* p.3.

[4] Based on updated demand analysis by Sense Partners, for the 2021 HBA (yet to be published). Received 9th August 2021.

[5] Refer: Boffa Miskell. (13 October 2021). *Kāpiti Coast Urban Development Greenfield Assessment (Draft).*

2.0 Background

Two key documents form the basis of the approach to intensification outlined in this assessment. These documents are:

- The National Policy Statement on Urban Development 2020[6];
- The draft Kāpiti Coast District Growth Strategy[7].

The salient aspects of these documents that are relevant to this assessment are discussed below.

2.1 National Policy Statement on Urban Development (2020)

The National Policy Statement on Urban Development 2020 (NPS-UD) outlines a range of objectives and policies around planning for "well-functioning urban environments". Local authorities are required to amend their district plans in accordance with the National Policy Statement, and the NPS includes policies that provide direction on how to do this.

A core component of the NPS are the "intensification policies" that apply to Tier 1 local authorities and urban environments. The Kāpiti Coast District Council is defined as a "Tier 1 local authority" under the NPS. Policies 3 and 4 are the key intensification policies and are outlined as follows:

> ***Policy 3:*** *In relation to tier 1 urban environments, regional policy statements and district plans enable:*
>
> *a) in city centre zones, building heights and density of urban form to realise as much development capacity as possible, to maximise benefits of intensification; and*
>
> *b) in metropolitan centre zones, building heights and density of urban form to reflect demand for housing and business use in those locations, and in all cases building heights of at least 6 storeys; and*
>
> *c) building heights of least 6 storeys within at least a walkable catchment of the following:*
>
> *i. existing and planned rapid transit stops*
>
> *ii. the edge of city centre zones*
>
> *iii. the edge of metropolitan centre zones; and*
>
> *d) in all other locations in the tier 1 urban environment, building heights and density of urban form commensurate with the greater of:*
>
> *i. the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services; or*

[6] Ministry for the Environment. (July 2020). *National Policy Statement on Urban Development 2020.*

[7] Kāpiti Coast District Council. (August 2021). *Toitū Kāpiti – Draft Approach to Enabling Growth in the Kāpiti District 2021-2051.*

ii. relative demand for housing and business use in that location.

***Policy 4:** Regional policy statements and district plans applying to tier 1 urban environments modify the relevant building height or density requirements under Policy 3 only to the extent necessary (as specified in subpart 6) to accommodate a qualifying matter in that area.*

Implementation of these policies is given further substance by clauses 3.31 to 3.33, which require that the local authority identify the locations for intensification. These clauses also provide for "qualifying matters", which are specific matters that the local authority, at its discretion, may use to modify the height and density of buildings otherwise required by policy 3 of the NPS. Qualifying matters are discussed later in this report.

2.2 Draft Kāpiti Coast District Growth Strategy

The draft Kāpiti Coast District Growth Strategy[8] is intended to set the overall vision and desired community outcomes for the growth and the development of the district over the next 30 years.

Of most relevance to this assessment is the draft approach to intensification of existing urban areas. This is summarised in the following table:

Location	Building heights anticipated by the draft Growth Strategy
Central Paraparaumu	12 storeys within central Paraparaumu, with up to 6 storeys within an 800m walkable catchment of central Paraparaumu and the railway station
Intensification around rapid transit stops at Paekākāriki, Paraparaumu and Waikanae (with acknowledgement that this would apply to new rapid transit stops in the future).	Up to 6 storeys within an 800m walkable catchment of rapid transit stops
Intensification in and around town centres at Raumati Beach, Paraparaumu Beach, Waikanae and Ōtaki.	Up to 6 storeys within the town centre, and up to 4 storeys within a 400m walkable catchment of the town centre.
Intensification in and around local centres at Kena Kena, Raumati South, Meadows Precinct and Te Moana Road (Waikanae Beach)	Up to 4 storeys within the local centre, and up to 4 storeys within a 200m walkable catchment of the town centre.
Suburban areas[9]	Up to 3 storeys

In addition to this, the draft Growth Strategy provides the following guidance around business uses:

- All business areas except industrial land will allow for mixed use activity, retaining and providing for more business activities as well as higher density residential uses;
- Industrial business areas will be protected from conversion to higher value residential use and from sensitive activities that if located close by may restrict lawful operations.

These aspects of the draft District Growth Strategy have been adopted as a basis for this assessment. However, it is acknowledged that the District Growth Strategy may change as a

[8] KCDC. (30 September 2021). *Growing Well: Community Consultation Document (Draft)*,

[9] This element of the District Growth Strategy has not yet been covered by this assessment. Refer discussion in section 3.1.2.

result of community consultation and mana whenua engagement. This assessment may need to be reviewed and updated to incorporate and future changes to the District Growth Strategy.

3.0 Potential Intensification Areas

The identification of potential intensification study areas[10] was undertaken based on the following steps:

- Review the intensification policies under the NPS-UD and identify those relevant to the Kāpiti Coast district;
- Identify potential areas based on the NPS-UD and draft District Growth Strategy;
- Map the potential areas for assessment.

The following section describes each step in this process.

3.1 Intensification policies under the NPS-UD

Policy 3 of the NPS articulates several types of intensification that are relevant to the Kāpiti district. These are summarised in the following table:

NPS Policy	Type of intensification	Applicable area	Interpretation of applicable area for the Kāpiti District
3(b)	Building height and density to reflect demand for housing and business use, and in all cases building heights of at least 6 storeys.	The Metropolitan Centre Zone.	The Metropolitan Centre Zone at Paraparaumu.
3(c)(i)	Building heights of at least 6 storeys.	Within at least a walkable catchment of existing and planned rapid transit stops.	The area within a walkable catchment of Paekākāriki, Paraparaumu and Waikanae stations[11].
3(c)(iii)	Building heights of at least 6 storeys.	Within at least a walkable catchment of the edge of the Metropolitan Centre Zone.	The area within a walkable catchment of the edge of the Metropolitan Centre Zone.
3(d)(i)	Building heights and density of urban form commensurate the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services.	All other locations within the urban environment.	Proximity to centres zones (as defined by Kāpiti Coast District Plan).
3(d)(ii)	Building heights and density of urban form relative demand for housing and business use in that location.	All other locations within the urban environment.	To be determined once demand has been established through HBA.

[10] Also referred to in this assessment as “Urban Intensification Study Areas”.

[11] Ōtaki railway station is deemed not to meet the definition of an existing or planned rapid transit stop under the NPS-UD. Ōtaki railway station is not served by an existing rapid transit service. An extension of the commuter rail network to Ōtaki is not planned for in the Wellington Regional Land Transport Plan 2021 or the Wellington Regional Public Transport Plan 2021-2031.

3.1.1 Interpretation of "walkable catchment" under policy 3(c)

The term "walkable catchment" is not defined in the NPS-UD, however guidance provided by the Ministry for the Environment[12] suggests that an 800m walking distance (or an approximate 10 minute walk) is an appropriate measure of a "walkable catchment". This interpretation has been adopted for this assessment, with respect to the interpretation of "walkable catchments" from the edge of the Metropolitan Centre Zone and rapid transit stops[13] under policy 3(c)[14].

It is noted that other Tier 1 territorial authorities within the region are considering a range of sizes for walkable catchments. For example:

- The Wellington City Council proposed a 15 minute walk time from the central city, 10 minute walk time from Johnsonville and Tawa railway stations, and a 5 minute walk from other stations[15]. Walkable catchments were mapped using a sophisticated GIS-based method that accounts for topography affecting walking speed.
- The Hutt City Council is consulting with the community on reasonable distances to walk to train stations, proposing a range of 400m to 800m[16].

3.1.2 Interpretation of "all other locations within the urban environment" under policy 3(d)

Policy 3(d) has two limbs that need to be addressed when considering intensification in "all other areas of the urban environment".

The first limb (policy 3(d)(i)) requires intensification commensurate with "the level of accessibility by existing or planned active or public transport to a range of commercial activities or community services". This clause is not further defined in the NPS, however guidance from the Ministry for the Environment[17] suggests that this clause could be determined based on proximity to centre zones.

At this stage this limb of the policy has been interpreted as proximity to town and local centres in Kāpiti, based on their status within the centres hierarchy in the District Plan. The interpretation is based on an assumption that centres higher up the hierarchy currently contain or are planned to contain a greater range of commercial activities and community services than those lower down the hierarchy. On the basis that an 800m walking distance was used to determine the walkable catchment for the Metropolitan Centre Zone (under policy 3(c) discussed above), an approximate 400m walking distance from Town Centre zones and an approximate 200m walking distance from Local Centre zones have been deemed to be

[12] MfE (2020). *Understanding and implementing intensification provisions for the NPS-UD*, p.23.

[13] "Rapid transit stops" in the context of the Kāpiti Coast District include the railway stations at Paekākāriki, Paraparaumu and Waikanae. "Rapid transit stops" are defined in the NPS-UD as "a place where people can enter or exit a rapid transit service, whether existing or planned", and a "rapid transit service" is defined as "any existing or planned frequent, quick, reliable and high-capacity public transport service that operates on a permanent route (road or rail) that is largely separated from other traffic".

[14] Note that the term "walkable catchment" only applies to policy 3(c) of the NPS-UD. Policy 3(d) refers more generally to areas with a "level of accessibility". However, given that proximity to town and local centres is being used as a proxy for accessibility to the range of community services and commercial activities in those centres, the term "walkable catchment" is used to describe proximity generally. Refer discussion in section 3.1.2 of this report.

[15] Wellington City Council. (2020). *Draft Spatial Plan for Wellington City, Integrated Land-use and Transport Strategy*. p.26.

[16] Hutt City Council. (August 2021). *Walking distances from Lower Hutt city centre, Petone commercial centre and railway stations of Lower Hutt*. http://iportal.huttcity.govt.nz/Record/ReadOnly?Tab=3&Uri=5982002

[17] MfE (2020). *Understanding and implementing intensification provisions for the NPS-UD*, p.35.

appropriate, reflecting the existing or planned level of activity associated with their respective status in the centres hierarchy[18].

The second limb (policy 3(d)(ii)) requires intensification commensurate with relative demand for housing and business use in that location. The HBA, currently being prepared by the Council, is anticipated to form a key component of this assessment. As this is yet to be completed, intensification associated with this limb of the policy has not been considered as a part of this assessment.

3.1.3 Summary of interpretation of intensification policies

On the basis of the discussion outlined above, the approach to interpreting the intensification policies of the NPS-UD in the context of the Kāpiti Coast district is based primarily on relative proximity to centres determined through each centre's position within the centres hierarchy. This is a relevant approach for a district made up of several distributed towns and urban areas, each relying on their own centre(s) to provide for current and future local commercial activities and community services. It also acknowledges the logic of the centres hierarchy established through the District Plan.

In summary, the following approach has been taken to interpretation of the intensification policies of the NPS-UD:

Area	Walking distance applied to determine walkable catchment	Relevant NPS-UD policy
Metropolitan Centre Zone	800m	3(c)(iii)
Rapid transit stops	800m	3(c)(i)
Town Centre Zone	400m	3(d)(i)
Local Centre Zone	200m	3(d)(i)

It is noted that these distances may be subject to change as a result of community consultation on the District Growth Strategy.

3.2 Identification of potential intensification areas

Based on the interpretation of the NPS-UD intensification policies outlined above, alongside the initial direction provided by the draft Kāpiti Coast District Growth Strategy, several potential intensification study areas have been identified across the district. These are summarised in the following table:

Ref. (note 1)	Location	Area description	Building heights to be enabled
Metropolitan centre zone			
UI-PA-5	Paraparaumu metropolitan centre and railway station	Approximate 800m walkable catchment from the Metropolitan Centre zone and the Paraparaumu railway station. Excludes the extents of the area that are located within Future Urban Study Areas PA-01, PA-02 and RB-01.	Up to 12 storeys within the Metropolitan Centre Zone. At least 6 storeys within an 800m walkable catchment of the Metropolitan Centre Zone.

[18] Note that this logic has informed the specification walkable catchments outlined in the draft consultation document for the District Growth Strategy. Refer KCDC. (30 September 2021). *Growing Well: Community Consultation Document (Draft)*,

Ref. (note 1)	Location	Area description	Building heights to be enabled
Rapid transit stops			
UI-WA	Waikanae town centre and railway station	Approximate 400m walkable catchment from the Waikanae Town Centre zone and an approximate 800m walkable catchment from the Waikanae Railway Station.	At least 6 storeys.
UI-PK	Paekākāriki local centre and railway station	Approximate 800m walkable catchment from the Paekakariki railway station, and approximate 200m walkable catchment from the Paekakariki local centre zone.	At least 6 storeys.
Town centres			
UI-ŌT-1	Ōtaki Main Street/Mill Road	Approximate 400m walkable catchment from the Ōtaki Main Street Town Centre Zone	Up to 6 storeys in the Town Centre Zone. Up to 4 storeys within a 400m walkable catchment of the Town Centre Zone.
UI-ŌT-2	Ōtaki railway station	Approximate 400m walkable catchment from the Ōtaki Railway Town Centre Zone	Up to 6 storeys in the Town Centre Zone. Up to 4 storeys within a 400m walkable catchment of the Town Centre Zone.
UI-PA-3	Paraparaumu Beach town centre	Approximate 400m walkable catchment from the Paraparaumu Beach town centre zone.	Up to 6 storeys in the Town Centre Zone. Up to 4 storeys within a 400m walkable catchment of the Town Centre Zone.
UI-RB	Raumati Beach town centre	Approximate 400m walkable catchment from the Raumati Beach town centre zone.	Up to 6 storeys in the Town Centre Zone. Up to 4 storeys within a 400m walkable catchment of the Town Centre Zone.
Local centres			
UI-WB	Waikanae Beach local centre	Approximate 200m walkable catchment from the Waikanae Beach Local Centre zone.	Up to 4 storeys.
UI-PA-1	Kena Kena local centre	Approximate 200m walkable catchment from the Kena Kena local centre zone.	Up to 4 storeys.
UI-PA-4	Meadows local centre	Approximate 200m walkable catchment 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.	Up to 4 storeys.
UI-RS	Raumati South local centre	Approximate 200m walkable catchment from the Raumati South local centre zone.	Up to 4 storeys.

Notes:

1. Area reference numbers are for internal purposes only, and are used to identify each area within the Spatial Influences maps (refer Appendix 2).
2. Where parts of an area fall within a greenfield study area, then these have been excluded from the assessment. Refer to the separate report *Kāpiti Urban Development Greenfield Assessment* for further information on these areas.
3. "Building heights to be enabled" is a synthesis of policy 3 of the NPS-UD and the initial direction provided by the draft Kāpiti District Growth Strategy.

Note that the Local Centre zone in the Kāpiti district includes some individual sites that are zoned as local centres, but which otherwise do not support a significant degree of local activity. On this basis, some Local Centre Zones have been identified or assessed as potential intensification areas. Specifically:

- The local centre zoned site on the corner of Mazengarb Road and Guildford Drive has been excluded based on the small scale of activity on the site (the centre is presently one food and beverage outlet)[19]. In addition to this, there centre shares a broader catchment with the local centres located at Donovan and Te Kupe Roads in Kena Kena and Mazengarb Road at Meadows.
- The local centre zoned site near the corner of the Parade and Paneta Street in Paekākāriki has been excluded based on the small scale of activity on the site (the site has occasionally been a café/store).
- While the local centre on Te Moana Road at Waikanae Beach is composed of a single site, the site has been assessed as a potential intensification area there are a range of activities that take place on the site. In addition to this, the centre has a large catchment, serving the full extent of Waikanae Beach.

3.3 Mapping of potential intensification areas

Each of the potential intensification study areas identified above were mapped to determine the spatial extent to be assessed. The mapping process was undertaken as follows:

- Kāpiti Coast District Council provided walkable catchment areas as a polygon feature class. The methodology for calculating these areas is contained in appendix 5.
- Boffa Miskell overlaid the walkable catchment polygons on to property boundaries, and created study areas based on the group of property boundaries that overlapped or fell within the walkable catchment polygons provided by KCDC.

Where some walkable catchment polygons overlapped, these were amalgamated into single study areas. These areas that have been amalgamated include:

- The walkable catchment for the Metropolitan Centre Zone and Paraparaumu railway station;
- The walkable catchment for the Waikanae railway station and Waikanae Town Centre Zone;
- The walkable catchment for the Paekākāriki railway station and Paekākāriki Local Centre Zone.

The extent of each area is shown in Figure 1 and in the detailed assessment contained in Appendix 3B. Note that the primary purpose of the mapping exercise was to identify areas to

[19] Note that this area was originally included in the assessment, however upon assessing the area the limited scale of activity in the centre became apparent. In addition to this, when assessing the estimated theoretical dwelling capacity within and around the centre, the nature of surrounding land use (the area is bordered by open space and a large school site) resulted in only a marginal degree of intensification being enabled.

study for intensification as a part of this assessment. They do not necessarily represent proposed zone or precinct boundaries.

4.0 Qualitative and quantitative assessment of potential intensification areas

The following table outlines the broad steps undertaken as part of the quantitative and qualitative assessment of potential intensification areas:

Steps taken	Timing
Identification of potential intensification areas	June – July 2021
Development of assessment framework	June – July 2021
Mapping of spatial influences and constraints	June – July 2021
Qualitative assessment of potential intensification areas	August 2021
Estimate of theoretical dwelling capacity	August 2021
Identification of potential qualifying matters	August 2021
Refine assessment and identify matters for further consideration	August 2021

4.1 Methodology

Following the identification of potential intensification study areas, a qualitative and quantitative assessment was undertaken for each area. The purpose of the assessment was to:

- Identify the range of constraints and opportunities (including potential qualifying matters) associated with the intensification of each area;
- Estimate the theoretical dwelling capacity of each area, based on the intensification scenario outlined in the draft District Growth Strategy and as directed by the NPS-UD.

The following section outlines the methodology used to undertake the assessment, and then discusses the overall results of the assessment.

4.1.1 Qualitative assessment

The methodology for undertaking the qualitative assessment was similar to the approach adopted for the greenfield assessment[20], although it was tailored to address matters specific to the intensification of existing urban environments. The purpose of adopting a similar methodology was to provide a degree of consistency to the assessment of both greenfield and intensification areas, to allow them to be considered alongside each other.

The following section summarises the approach to the qualitative assessment for the potential intensification areas, and identifies where this approach differs from the greenfield assessment:

Step 1: adapt assessment framework for intensification areas

The Greenfield Assessment adopted an assessment framework that was informed by a range of policy documents, as well as input from Council officers. This framework has been adapted to be relevant to the intensification of existing urban environments. A separate row of “outcomes

[20] Refer section 2.0 of the Greenfield Assessment for a detailed description of the qualitative assessment methodology. See: Boffa Miskell. (13 October 2021). *Kāpiti Urban Development Greenfield Assessment (Draft).*

sought" was added to identify specific matters to be considered for intensification (identified in the assessment framework as "Outcomes sought (Urban Intensification Study Areas)").

The primary difference between the assessment of greenfield areas and intensification areas is that the criteria of highly productive land is not considered relevant to the assessment of intensification areas. This is on the basis that existing urban areas would not meet the definition of highly productive land under the draft National Policy Statement for Highly Productive Land[21].

Refer to Appendix A for the assessment framework.

Step 2: identification of spatial influences and constraints

Similar to the approach taken for the Greenfield Assessment, a series of spatial influences and constraints were assembled into a GIS using ArcGIS Pro, from which spatial influences and constraints maps were produced that covered each intensification area. To enable the maps to be legible, the maps were organised into themes, with each theme representing several assessment criteria. The themes and their associated assessment criteria are identified in the assessment framework, and are broken down as follows:

Map theme	Assessment criteria
Urban environment	Urban form Local neighbourhoods Activity centres
Urban function	Residential development Business land Transport networks Infrastructure and servicing
Natural environment and landscape	Natural ecosystem values Water bodies Landscape and open space values Heritage Values
Hazards	Natural hazards and land risks
Land development constraints	Topography Land use compatibility Climate change (low-carbon futures)
Mana whenua	Mana whenua values Iwi development aspirations

The information contained in the maps has been assembled from publicly available sources, and the source of each data layer is noted in parenthesis within the legend to each map. The data sources include:

- The Kāpiti Coast District Council;
- The Greater Wellington Regional Council;
- Waka Kotahi;
- Department of Conservation;
- Heritage New Zealand Pouhere Taonga;

[21] Ministry for Primary Industries (August 2019). *Valuing highly productive land,* p.50.

- The New Zealand Archaeological Association;
- Land Information New Zealand;
- The New Zealand Land Resource Inventory (Landcare Research);
- Te Puni Kōkiri.

It is noted that the areas, sites and places of significance to mana whenua identified in the maps have been sourced from publicly available sources, including KCDC, GWRC, Heritage New Zealand, Te Puni Kōkiri and Land Information New Zealand. It is acknowledged that the mana whenua position on sites of significance within their rohe may differ from the sites identified in these maps. The maps are open to being revised based on engagement with mana whenua.

The key differences between the Greenfield Assessment and Intensification Assessment spatial influences and constraints maps are:

- Special character area, medium density and focussed infill precincts from the KCDC District Plan have been added to the "Urban Environment" map theme;
- Key public stormwater reticulation networks have been added to the "Urban Function" map theme;
- Highly productive land has been removed from the "Land Development Constraints" map theme;
- All designations have been added to the "Land Development Constraints" map theme.

The assessment is based on the information available at the time of the assessment and may be reviewed and revised as new spatial information comes to hand.

Map books identifying the spatial influences and constraints associated with each theme are contained in Appendix 2.

Step 3: qualitative assessment

Similar to the process used to undertake the Greenfield Assessment, the qualitative assessment involved a desktop review of each potential intensification area, based on the mapping of spatial influences and constraints outlined in the previous step. The information obtained through workshops with Council officers as a part of the Greenfield Assessment[22] also provided useful information for assessing potential intensification areas.

For each criterion, observations were recorded and a rating given in accordance with the "traffic light" system described in the following table:

Rating	Description
	Intensification in the area is likely to align with the outcomes sought by the assessment criteria. The area is relatively free of constraints, or there are some constraints but these could be readily managed. Development in the area may also be an opportunity to resolve existing constraints or achieve positive outcomes.

[22] These include: the workshop on transport networks held on the 29th of June; the workshop on water and wastewater infrastructure held on the 5th of July; and the workshop on stormwater, flooding and coastal hazard held on the 12th of July.

Rating	Description
	Intensification in the area would be somewhat inconsistent with the outcomes sought by the assessment criteria. The area is relatively constrained, and management of the constraints are likely to have impacts on the cost, complexity or timing of development. Development is unlikely to resolve existing constraints in the area, and may aggravate them.
	Intensification in the area is inconsistent with the outcomes sought by the assessment criteria. The area is heavily constrained, and management of the constraints are likely to have a significant impact on the cost, complexity or timing of development. Development is likely to significantly aggravate existing constraints in the area.

It should be noted that the assessment is not a linear or weighted combination assessment and does not use a numerical scoring system. This is partly because it can be difficult to numerically weight the relative importance of the diverse range of matters associated with urban development. Rather, the purpose of the qualitative assessment is to provide an indication of the relative complexity associated with urban intensification in each of the study areas.

Qualitative assessment limitations

Similar to the Greenfield Assessment, the assessment is based on the information available at the time of the assessment. The following limitations are of note:

- **Desktop assessment.** The qualitative assessment has been undertaken as a desktop exercise only, based on the geospatial information mapping contained in Appendix 2, supplemented by the use of Google Street View. The assessment may be refined by future fieldwork where this is considered appropriate.
- **Flooding and stormwater modelling.** KCDC are currently working on updating existing flood modelling, but this will not be available in time for this assessment. The current assessment is based on the existing identification of flood hazards contained within the District Plan, but does acknowledge areas where further flood modelling investigation is being undertaken.
- **Coastal hazard modelling.** The Takutai Kāpiti project is working to establish a coastal hazard model. This model is not presently available. The current assessment simply considers the adjacency of an area to the coast, and acknowledges the existing coastal hazard building restriction lines from the 1999 District Plan.
- **Infrastructure capacity.** The assessment of infrastructure issues is based on high-level commentary from Council officers around infrastructure capacity, alongside publicly available GIS data on the location of infrastructure networks. Aurecon have provided a review of this assessment as it relates to three waters infrastructure, based on their knowledge of infrastructure issues and constraints within the District.
- **Mana whenua engagement.** The assessment may be updated in future following engagement with mana whenua.

This assessment may need to be updated where new relevant information becomes available.

4.1.2 Estimate of theoretical dwelling capacity

An assessment of the theoretical dwelling capacity of each of the potential intensification study areas has been undertaken. This assessment adopted a GIS-based approach to identify the theoretical dwelling capacity for each area, based on the following high-level scenarios:

- intensification of the General Residential zoned land within each area; and
- intensification of the General Residential zoned land within each area, plus intensification of all floors above the ground floor in Centres or Mixed Use zoned land within the area.

The process for estimating theoretical dwelling capacity is based on the following overall methodology:

1. Sites zoned General Residential, Future Urban, Centres and Mixed Use were identified within each of the study areas. Roads, designated sites, and sites within the Rural, Open Space, Institutional/Special Purpose and General Industrial zones were excluded.
2. For each site, a plan-enabled building height was identified, based on the intensification area within which the site is located (refer to section 3.2 for the enabled heights to each area).
3. For each site, the plan enabled building height was translated into a nominally permitted building height. The nominally permitted building height recognises that even where a district plan may enable a particular height in an area through a height standard, other factors including the site width and size may preclude that height from being achieved as a permitted activity. In particular, this assessment takes in to account the potential effects of height in relation to boundary standards[23] in reducing building heights that would otherwise be permitted by a height standard. The grading of individual sites into site size/width categories was undertaken in GIS.
4. Once the nominally permitted building height for each site is established, this was translated into a nominal density for each site (in dwellings per hectare). The densities used were translated pro-rata from the draft District Growth Strategy, which assigns indicative densities to different building heights[24]. The density assigned to each site was multiplied by the site area to calculate the estimated theoretical dwelling capacity of the site.
5. For each site, the existing number of dwellings currently located on the site was estimated, and this is subtracted from the theoretical dwelling capacity of the site (calculated in the previous step) to identify the number of additional dwellings enabled.

The following table summarises the key parameters used to undertake the estimate (for comparison, the maximum building height currently enabled through the district plan is noted):

[23] Also commonly referred to as “recession planes” or “daylight access planes”. Height in relation to boundary standards, more than any other commonly used development control standard, are likely to have an impact on building heights that would otherwise be permitted by a height standard. On this basis it is deemed relevant to account for their potential effects when estimating the number of dwellings that would be enabled by the district plan.

[24] Kāpiti Coast District Council. (unpublished, August 2021). *Toitū Kāpiti – Draft Approach to Enabling Growth in the Kāpiti District 2021-2051,* pp.21. The draft Growth Strategy notes that these densities are based on those adopted by the Wellington Regional Growth Framework. They were also adopted by background reporting for the Wellington City Council as part of the preparation of the Wellington Spatial Plan. See: Beca. (8 February 2019). *Wellington City – Planning for Future Growth: Preliminary Baseline Scenario Development*, p.4.

Sites within the...	Existing maximum building height (operative district plan)	Enabled building height (refer also section 3.2)	Recession plane assumption
Metropolitan centre zone (at Paraparaumu)	4 storeys (15m) in precinct A1, 3 storeys (12m) elsewhere	12 storeys	No recession plane between sites
Town centre zone and mixed use zone (within intensification areas)	3 storeys (12m)	6 storeys	No recession plane between sites
Local centre zone	3 storeys (12m)	4 storeys	No recession plane between sites
General residential zone within the walkable catchment of the Metropolitan Centre or rapid transit stops	2 storeys (8m), or 3 storeys (10m) in the Medium Density precinct	6 storeys	8m vertical at the boundary with 60 degree recession plane (from Auckland Terrace House and Apartment Building Zone)
General residential zone within the walkable catchment of Town and Local Centres	2 storeys (8m), or 3 storeys (10m) in the Medium Density precinct	4 storeys	3m vertical at the boundary with 45 degree recession plane (from Auckland Mixed Housing Urban Zone)

The methodology is based on the following key assumptions:

- All sites are assumed to be redeveloped;
- All sites are assumed to maintain their current geometry (it is assumed that there are no boundary adjustments or lot amalgamations);
- The estimate does not account for any potential reductions in height or density as a result of a qualifying matter.
- The estimate does not account for infrastructure constraints, or whether an area is considered “infrastructure ready”.
- Recession plane assumptions are based on equivalent Centres and higher density residential zones in the Auckland Unitary Plan. These have been used as a starting point, and do not preclude exploration of other height in relation to boundary approaches at a later date;
- Sites within the Mixed Use and Centres zones are assumed to have a non-residential ground floor. However, on the basis that no recession plane has been assumed for sites within these zones, the effective residential density for these sites has been kept the same as for residential sites with the same height, on the assumption that the loss of dwellings at the ground floor could be balanced by the gain in dwellings enabled through a lack of recession planes. It is acknowledged that this is a high-level assumption; and
- The estimate is intended to represent dwelling capacity enabled by the district plan, and does not represent feasible or realisable development. A gauge of feasible and realisable development will be able to be ascertained from the HBA once this has been prepared, but as a guide, the 2019 HBA identified that for sites within existing urban areas that have already been developed, approximately 10% of plan enabled capacity could be expected to be feasible and realisable.

Further detailed assumptions are listed at the end of the detailed assessment contained in Appendix 3C.

The estimates that result from this methodology should be seen as high-level estimates based on the application of the densities identified by the draft District Growth Strategy to individual sites. They should not be viewed as a precise estimate of the number of dwellings that might otherwise result through site specific design. There are a range of factors that could influence the precise number of dwellings that might be able to fit on individual sites, such as local topography, boundary geometry, frontage width, chosen dwelling typologies, unit sizes, the provision of on-site parking, and a host of other site-specific factors that have not been taken into account as part of this estimate. As a result, the planning of individual sites may be able to achieve more or less dwellings than outlined in this estimate. Nevertheless, the estimate provides a useful general indication of the relative quantum of dwellings that could be enabled in each intensification area.

It is recommended that this estimate is reviewed and refined alongside the updated HBA, once this is released.

4.2 Overall Assessment

Based on the qualitative assessment, the potential intensification areas have been grouped into the categories outlined in the following table. Areas have been grouped into these categories based on a review of the overall degree of constraints or opportunities associated with each individual area. As outlined in the methodology, this grouping was not a linear weighted process, rather a qualitative judgement based on the observations made against individual assessment criteria for each area. The groupings used are similar to those used for the Greenfield Assessment. However, unlike the Greenfield Assessment, the purpose of this assessment is not to prioritise areas for intensification[25]. Rather it is to identify the range and scale of combined issues that could emerge from the intensification of each area. This approach enables a more informed planning response to enabling intensification throughout the district.

Overall assessment	Description
1	Intensification of the area is likely to achieve a range of positive outcomes. There are relatively few constraints to development in the area, and those that do exist could be managed through the district plan or other planning mechanisms.
2A	Intensification of the area is likely to achieve a range of positive outcomes, however there are a number of constraints that need to be overcome.
2B	Intensification of the area is likely to achieve a range of positive outcomes, however there are a number of constraints associated with the area, some of which are significant. Overcoming these constraints them is likely to have an impact on Council's long-term planning and strategic decision-making.

A detailed assessment of each area is contained in Appendix 3A and 3B. The following table summarises the overall assessment for each area:

[25] On the basis that (notwithstanding the consideration of potential qualifying matters) policy 3 of the NPS-UD directs district plans to enable intensification regardless of the level of constraints associated with the area.

Ref.	Location	Extent	Enabled heights	Additional estimated dwelling capacity	Overall assessment
Intensification in and around the Metropolitan Centre and Paraparaumu railway station					
UI-PA-5	Paraparaumu Metropolitan Centre	Approximate 800m walking distance from the Metropolitan Centre zone and the Paraparaumu railway station.	12 storeys within the Metropolitan Centre Zone. 6 storeys within the surrounding Mixed Use and General Residential Zones.	12,543 (of which 1,400 is subject to flood storage hazard)	2B
Sub-total additional estimated dwellings				**12,543**	
Intensification around rapid transit stops					
UI-PK	Paekākāriki Local Centre and Railway Station	Approximate 800m walking distance from the Paekākāriki railway station, and approximate 200m walking distance from the Paekākāriki local centre zone.	6 storeys within the Local Centre Zone and surrounding General Residential Zones.	1,361	2B
UI-WA	Waikanae Town Centre and Railway Station	Approximate 400m walking distance from the Waikanae Town Centre zone and an approximate 800m walking distance from the Waikanae Railway Station.	6 storeys within the Town Centre Zone and surrounding General Residential Zone.	4,403	2A
Sub-total additional estimated dwellings				**6,457**	
Intensification around Town Centres					
UI-ŌT-1	Ōtaki Main Street/Mill Road	Approximate 400m walking distance from the Ōtaki Main Street Town Centre Zone.	6 storeys within the Town Centre Zone. 4 storeys within the surrounding General Residential Zone.	2,412	2B
UI-ŌT-2	Ōtaki Railway	Approximate 400m walking distance from the Ōtaki Railway Town Centre Zone.	6 storeys within the Town Centre Zone. 4 storeys within the surrounding General Residential and Future Urban Zones.	1,437	2A
UI-PA-3	Paraparaumu Beach Town Centre	Approximate 400m walking distance from the Paraparaumu Beach town centre zone.	6 storeys within the Town Centre Zone. 4 storeys within the surrounding General Residential Zone.	602	1
UI-RB	Raumati Beach Town Centre	Approximate 400m walking distance from the Raumati Beach town centre zone.	6 storeys within the Town Centre Zone. 4 storeys within the surrounding General Residential Zone.	555	2A
Sub-total additional estimated dwellings				**5,006**	
Intensification around Local Centres					

Ref.	Location	Extent	Enabled heights	Additional estimated dwelling capacity	Overall assessment
UI-WB	Waikanae Beach Local Centre	Approximate 200m walking distance from the Waikanae Beach Local Centre zone.	4 storeys within the Local Centre Zone and surrounding General Residential Zone.	371	2A
UI-PA-1	Kena Kena Local Centre	Approximate 200m walking distance from the Kena Kena local centre zone.	4 storeys within the Local Centre Zone and surrounding General Residential Zone.	78	2A
UI-PA-4	Meadows Local Centre	Approximate 200m walking distance from the Meadows precinct local centre zone.	4 storeys within the Local Centre Zone and surrounding General Residential Zone.	275	2B
UI-RS	Raumati South Local Centre	Approximate 200m walking distance from the Raumati South local centre zone.	4 storeys within the Local Centre Zone and surrounding General Residential Zone.	91	1
Sub-total additional estimated dwellings				**815**	
Total additional estimated dwelling capacity				**24,965**	

Notes:

1. Additional estimated dwelling capacity means the estimated theoretical dwelling capacity, minus the estimated number of existing dwellings within an area.
2. The detailed assessment of each area identifies two intensification scenarios, one which considers the intensification of Residential and Future Urban zoned sites only, and the other which considers intensification of Centres and Mixed Use zoned areas in addition to Residential and Future Urban zoned sites. The estimate presented in this table represents the latter.
3. As noted in section 4.1.2, estimated dwelling capacity is a plan enabled estimate, and does not account for feasibility and realisability.

4.3 Three-waters infrastructure assessment

In addition to the assessment outlined above, Aurecon have provided an assessment of the issues associated with stormwater, water supply and wastewater infrastructure for each of the potential intensification areas. This assessment is contained in appendix 4.

The following is a summary of the key issues raised by this assessment.

Stormwater

- Flood storage requirements in Paraparaumu Metropolitan Centre could restrict development options in this area. Because of the potential significance of this issue, the extent of yield potentially effected by this has been highlighted in the estimate of dwelling capacity for this area. The assessment has identified that approximately 1,400 dwellings within the estimated dwelling capacity of the Metropolitan Centre is subject to flood storage hazard, and this reflects the number of dwellings in our estimate that may not be able to be realised should flood storage not be able to be resolved through engineering approaches.
- Flood hazard is widespread in parts of Ōtaki. This is largely associated with breakout of the Haruatai stream to the north, and residual risk associated with the Ōtaki river

breaching its stop banks to the south. Addressing this hazard may require review of existing river control measures.

- Areas of flooding associated with waterways may require compensatory flood storage to be developed in order to compensate for increased impervious surfaces.
- In general, a hydraulic neutrality approach would likely be required to manage any increase in impervious surfaces.
- Low-lying coastal catchments in dune areas are potentially impacted by climate change (sea level rise). There will be limited gravity options to resolve this, and pumped solutions may be required (similar to those that already exist at Raumati South).

Water supply

- In all areas, the adequacy of bulk storage (reservoirs) needs to be confirmed. A minimum volume will be required for storage per person, so a significant increase in population may necessitate wider reservoir upgrades (which could be incremental with development).
- While the majority of existing urban areas within the district are well supplied with water, the exception is Ōtaki. The supply at Ōtaki is known to be near capacity and in poor condition. Upgrades will likely be required in coordination with intensification.
- Security of the water source supply for Ōtaki and Paekākāriki should be reviewed and confirmed as this has been identified as a constraint in the past.
- Bulk storage ponds for longer term bulk supply may need to be brought forward where development is accelerated.

Wastewater

- The absence of a wastewater network at Paekākāriki is a major constraint to development.
- Localised pump station and storage upgrades will likely be required in all areas across the network to accommodate excess flows.
- The long term tipping point for the Paraparaumu Waste Water Treatment Plant should be reviewed and confirmed. The existing plant has been designed to accommodate a certain growth horizon, and accelerated development will bring this forward. Long term solutions, including the potential to relocate the plant, could be considered to address this.
- The Paraparaumu network daisy-chains near the beach through numerous localised gravity catchments, pump stations and rising mains. Upgrades will likely be required to these facilities locally to accommodate increased densities. This would include storage, pump and power upgrades.
- The Ōtaki wastewater network is known to be aging and at capacity. There is a risk that significant upgrades may be required to accommodate intensification.
- In addition to this, the capacity of the Ōtaki Wastewater Treatment Plant should be reviewed and confirmed to ensure that it can accommodate planned growth in the area.

5.0 Potential Qualifying Matters

Policy 4 of the NPS-UD provides for consideration of "qualifying matters", which can be used to justify lower building heights and densities otherwise required to be enabled under policy 3. Clause 3.32 of the NPS outlines the definition of qualifying matters. This section outlines the potential scope of qualifying matters that could apply within the district.

5.1 Scoping of potential qualifying matters

The following table outlines a potential scope of qualifying matters that could apply to the Kāpiti Coast district. There are a range of potential responses to address the resource management issues underlying each qualifying matter, and reducing the height and density of buildings otherwise required by the NPS may not always be the most appropriate response. This table therefore also identifies a series of next-steps to establish the most appropriate response to each matter[26].

The detailed assessment contained in Appendix 3B identifies the extent to which each of these qualifying matters may apply to each of the potential intensification areas.

Potential qualifying matter	NPS-UD implementation clause	Spatial reference	Comments/next steps
Natural character in the coastal environment	3.32(1)(a) (referring to RMA s6(a))	Areas of High or Outstanding Natural Character in the Coastal Environment (KCDC). Special Amenity Landscapes in the Coastal Environment (KCDC). The definition and extent of the coastal environment within the district is currently being reviewed, and KCDC have prepared a Natural Character Evaluation to support this.	• Identify any spatial overlap between intensification areas and KCDC Natural Character Evaluation to determine whether there are any overlapping areas that could be dealt with through a qualifying matter approach. • Review district plan policy settings to ensure they adequately address the way intensification may affect the context/setting of the coastal environment.
Wetlands, lakes, rivers and their margins, and fresh water generally	3.32(1)(a) (referring to RMA s6(a)), and 3.32(1)(b) (referring to the NPS Freshwater Management)	Significant Natural Wetlands (GWRC). Outstanding waterbodies (GWRC). Rivers, streams and drains (KCDC). Rivers and lakes (LINZ). Water collection areas (KCDC).	• Review existing district plan policies to ensure they adequately address effects of intensification on the surroundings/settings of water bodies. • Review existing district plan provisions to ensure they adequately address stormwater runoff quality and quantity in the context of intensification. • Spatial extent of waterbodies (including buffers around wetlands) are already managed through the NES-F.

[26] These have been informed by a preliminary workshop on qualifying matters held with Council officers on the 26th and 30th of August.

Potential qualifying matter	NPS-UD implementation clause	Spatial reference	Comments/next steps
Outstanding natural features and landscapes	3.32(1)(a) (referring to RMA s6(b))	Outstanding natural features and landscapes (KCDC).	• There is no spatial overlap between intensification areas and ONFL. • Kāpiti Island is and ONFL. Views of Kāpiti Island could be a potential qualifying matter. Review existing district plan to identify whether there are any viewshafts already provided for.
Significant indigenous vegetation and significant habitats of indigenous fauna	3.32(1)(a) (referring to RMA s6(c))	Key native ecosystems (GWRC). Indigenous biodiversity coastal (GWRC). Ecological sites (KCDC). Key indigenous trees (KCDC).	• Identified areas of ecological significance (KCDC Ecological Sites) are already directly protected from intensification through existing district plan provisions. • Review district plan policies to ensure areas of unmapped ecology are adequately protected from intensification. • Review indigenous tree provisions in the district plan to ensure they adequately account for the effects of intensification on the surroundings/settings of indigenous trees.

Relationship of Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga	3.32(1)(a) (referring to RMA s6(e))	Wāhi tapu sites (KCDC).
		Sites with significant mana whenua values (GWRC).
		Ngā Taonga Nua a Kiwa (GWRC).
		Marae (Te Puni Kōkiri).
		Awa generally (refer waterbodies above).
			• Potential qualifying matters should be informed through engagement with mana whenua. These may include:
			  ○ Effects of intensification on awa;
			  ○ Effects of intensification on sites of significance;
			  ○ Managing the effects of intensification on unmapped/proprietary sites of significance;
			  ○ Views of Kāpiti Island.
			• Review and incorporate potential wāhi tapu sites that are currently being considered for future changes to the district plan.
			• Review existing iwi management plans for matters to be taken in to account at a preliminary stage.
			• Review district plan provisions to ensure that the effects of intensification on the surroundings/settings of sites and areas of significance to mana whenua are adequately addressed. This will enable a policy approach to managing the effects of intensification while further work is undertaken with mana whenua.

Historic heritage	3.32(1)(a) (referring to RMA s6(g))	Historic heritage area (KCDC). Historic heritage place (KCDC).	• Heritage features are already protected from intensification through existing district plan provisions.

Potential qualifying matter	NPS-UD implementation clause	Spatial reference	Comments/next steps
		Notable trees (KCDC). Geological sites (KCDC). Heritage listed sites (Heritage New Zealand).	• Review district plan provisions to ensure that the effects of intensification on the surroundings/settings of heritage features are adequately addressed.
Significant risk from flood hazard	3.32(1)(a) (referring to RMA s6(h))	Flood hazard areas (KCDC). Note that KCDC are in the process of updating the district-wide flood hazard modelling. In lieu of updated modelling, the hazard extents outlined in the Operative District Plan are used to identify flood hazard areas.	• Review district plan flood provisions to ensure they adequately manage the exposure of intensification to flood hazard. • Flood storage is a particular issue for Paraparaumu metropolitan centre, and it has been identified that it may be difficult to resolve this through engineering. Review existing district plan provisions and/or identify flood storage at Paraparaumu as a qualifying matter.
Significant risk from earthquake hazard	3.32(1)(a) (referring to RMA s6(h))	Fault avoidance areas (KCDC). High combined earthquake hazard (GWRC).	• Fault avoidance areas do not overlap any proposed intensification area. • Liquefaction risk most appropriately dealt with outside of the district plan (under the Building Act).
Significant risk from coastal hazard	3.32(1)(a) (referring to RMA s6(h))	Coastal hazard mapping to be provided through the Takutai Kāpiti project.	• Coastal hazard could be addressed as a qualifying matter, based on hazard mapping as it becomes available through the Takutai Kāpiti project. It is anticipated that a "holding pattern" approach could be taken prior to the outcome of any future coastal hazard plan change process. On this basis, intensification would not enabled within any coastal erosion hazard area identified as a part of the Takutai Kāpiti project.Existing district plan approach to tsunami hazard is to promote emergency management systems rather than control development. It was determined not to alter this approach at this stage.
Nationally significant infrastructure	3.32(1)(c)	State highway designation (KCDC). Rail corridor designation (KCDC). National grid lines (KCDC). High pressure gas network (KCDC).	• Review existing district plan provisions to ensure reverse sensitivity effects are suitably managed in relation to intensification.
Public open space	3.32(1)(d)	Open space zones (KCDC).	• Existing district plan provisions protect open spaces themselves from intensification. • Review district plan provisions to ensure that the effects of intensification on the surroundings/settings of open spaces are adequately addressed.

Potential qualifying matter	NPS-UD implementation clause	Spatial reference	Comments/next steps
Designations	3.32(1)€	Designations (KCDC).	• Existing designation instruments are assumed to be appropriate to prevent intensification within the designation boundary. • Review existing district plan provisions to ensure reverse sensitivity effects are suitably managed in relation to intensification.
Business land for low density uses	3.32(1)(g)	Quarries (KCDC). General industrial zone (KCDC).	• Review existing General Industrial zone provisions to ensure they sufficiently protect the zone from changes of use. • Review existing provisions for the boundary between the General Industrial and Residential Zone to ensure reverse sensitivity effects are appropriately managed. This may include reviewing noise standards and height in relation to boundary standards.

Notes:

1. The list of spatial references is assumed to be sufficient to identify the spatial extent of potential qualifying matters. Where this is not the case, further information may need to be gathered to confirm spatial extents.
2. It is assumed that protected customary rights (RMA s6(g)) are unlikely to be a qualifying matter in the context of urban development.
3. It is assumed that maintenance and enhancement of access to and along the coastal marine area, lakes, and rivers (RMA s6(d)) is otherwise managed through consideration of open space as a qualifying matter.

Many of the resource management issues outlined in the table above may be able to be addressed through a review of existing district plan provisions to ensure that the provisions adequately consider and manage the actual or potential effects of intensification, both on sites subject to intensification and on surrounding sites.

Based on the matters outlined in the table above, at this stage it is likely that the following matters would be most appropriately addressed as qualifying matters:

- Any areas where mana whenua consider the effects of intensification to be inappropriate. This could include (but is not limited to): areas in and around mapped and unmapped wāhi tapu sites, areas in proximity to awa, and any important views shafts to sites of significance.
- Coastal hazard areas to be identified as a part of the Takutai Kāpiti project.

In addition to the above, where flood hazard areas (in particular flood storage areas) are determined not to be able to be addressed through engineering solutions, then it may appropriate to adopt a qualifying matter approach to these areas in order to avoid creating the expectation that intensification would be appropriate in these areas.

5.2 Scoping of "other" qualifying matters

Clause 3.32(1)(h) provides for "any other matter that makes high density development as directed by policy 3 inappropriate in an area". However, there is a higher burden of evidence to

establish whether a matter is a qualifying matter under this clause. This includes a requirement for site specific analysis to identify whether the qualifying matter exists in relation to any area.

In addition to the qualifying matters identified above, potential “other” qualifying matters that could be considered in the context of the Kāpiti Coast District include matters outlined in the following sections.

5.2.1 Special character areas and low-density housing precincts

There are currently four "Special Character Areas" identified in the district plan (at Ōtaki Beach, Waikanae Beach, Raumati and Paekākāriki). The special character areas are given effect to in the district plan through standards embedded in the residential building rule (GRZ-R6), the standards and matters of discretion embedded in the residential subdivision rule (SUB-RES-27), and the Special Character Area Design Guidelines (which are referred to as a matter of discretion in the subdivision rule). The general thrust of the special character areas in the district plan is to ensure that new development maintains, amongst other things, the low-density, low scale character of each area. In some respects this could be seen as contrary to the intensification policies of the NPS-UD.

The special character areas have been established through urban design assessment undertaken in 2011 and 2017 (prior to the gazetting of the NPS-UD). The studies were undertaken for the purpose of identifying areas that would be subject to special character provisions, rather than for identifying individual sites or buildings[27]. On this assessments used to establish the character areas may not meet the new threshold of site-specific analysis and evaluation required by the NPS[28]. Should the Council wish to limit the degree of intensification that within the existing special character areas that would otherwise required by the NPS, then further assessment (or updating of the existing assessments) may be required to establish a sufficient evidence base to justify the special character areas as a qualifying matter.

In addition to the special character areas, there are a number of low-density housing precincts located within the General Residential zone a cross the district. A similar level of evidence may need to be gathered to support maintaining these areas as low-density precincts.

5.2.2 Lack of reticulated wastewater infrastructure at Paekākāriki

Paekākāriki is in a unique situation of being subject to the rapid transit stop intensification policy (policy 3(c)(i)), while at the same time not having a reticulated wastewater system that would practically enable the level of intensification anticipated by the NPS. While infrastructure systems are variously constrained elsewhere the district, they do at least exist in some form. This means that in the short-term, intensification in other parts of the district could be enabled through upgrades to existing systems, while larger upgrade programmes or new systems are planned for to meet medium to long term growth.

At Paekākāriki however, a wastewater reticulation and treatment system simply does not exist. Providing a system to service Paekākāriki would be a significant undertaking, involving the construction of a local reticulation network and either establishing a new local facility to treat wastewater, or piping the wastewater a at least 10 kilometers north to the existing treatment facility at Otaihanga. Such an undertaking would require a significant degree of planning, including through the Council’s long-term infrastructure planning and funding process. This is

[27] Urban Perspectives & MWH. (2011). *KCDC Character Review Paekākāriki Character Assessment,* p.3.

[28] Refer NPS-UD clause 3.33

unlikely to be achieved within the statutory timeframe for implementing the intensification policies of the NPS-UD.

To enable well-functioning intensification at Paekākāriki, a bridging mechanism may be required to allow sufficient time for the orderly planning and development of a wastewater infrastructure solution. Options for managing this bridge include:

- Exploring whether the present lack of wastewater infrastructure could be considered as a temporary qualifying matter, where intensification is enabled through a future district plan review once sufficient wastewater infrastructure has been planned for and developed;
- Exploring other district plan mechanisms (such as policy settings or matters of discretion) that could be used to manage this issue. This approach would rely on effective district plan implementation.

6.0 Observations

The following section provides observation on a range of matters associated with the intensification of existing urban areas that have emerged as a result of this assessment, for further consideration as part of any future planning response.

6.1 Key observations

6.1.1 Key intensification areas – Paraparaumu, Waikanae and Ōtaki

This assessment highlights that the key opportunities for intensification in the district are:

- Paraparaumu Metropolitan Centre (12,543 additional estimated dwellings, or 50% of total);
- Waikanae Town Centre (4,403 additional estimated dwellings, or 17.6% of total);
- The "twin" town centres at Ōtaki (3,849 additional estimated dwellings, or 15.4% of total).[29]

Combined, these areas are likely to provide a significant majority of the district's plan-enabled intensification opportunity (83% of total). As a set, they have the advantage of being geographically distributed across the district. Over time, this means that the potential benefits associated with intensification, including the ability for intensification to support existing and new commercial activities and community services in each of these areas, will also be distributed across the district. This pattern of development and intensification benefits may also improve the existing population's access to commercial activities and services in each of these areas.

At the same time, this pattern of development suggests that the district will need to focus the provision of further infrastructure, open space, public transport and access to commercial activities and community services in order to support the anticipated intensification in these areas.

In general, land within each of the potential intensification areas is already subdivided and developed to some degree. However, both the Paraparaumu Metropolitan Centre and the areas around the twin centres at Ōtaki contains large blocks of unsubdivided and in some cases undeveloped land. This includes the Coastlands site, the undeveloped land within Paraparaumu metropolitan centre, and a number of large blocks of land in the northern half of Ōtaki. While these blocks of land present opportunities for comprehensive intensification, the degree to which they are developed, and the timing of their development, will be dependent on the aspirations and timing of the land owners.

[29] As noted previously, these estimates are theoretical only and do not account for feasibility or realisability of development.

6.1.2 Intensification at Paekākāriki

Intensification at Paekākāriki is estimated to theoretically enable 1,361 additional dwellings[30] (5.4% of total).

Because Paekākāriki railway station is a rapid transit stop, the area is subject to policy 3(c)(i) of the NPS-UD. However, unlike the areas around the Paraparaumu and Waikanae railway stations, which are subject to the same policy, significantly fewer dwellings are anticipated to be enabled at Paekākāriki. This is primarily due to the following:

- Paekākāriki has a narrow settlement pattern as a result of being located between steep hills to the east and the coast to the west. This pattern results in fewer sites being located within the walkable catchment.
- Individual sites within Paekākāriki are narrower than those found in Waikanae or Paraparaumu. As a result, 6 storey building heights are less likely to be achieved.

Alongside the lower degree of intensification enabled at Paekākāriki compared to other areas, there are a number of factors unique to the area that make intensification of the area more challenging. These include:

- The area is not connected to a reticulated wastewater system. Existing sites generally dispose of wastewater on site through septic tank systems. The lack of a reticulated system is likely to challenge the feasibility of intensification in the area in the short to medium-term, and the costs associated with addressing this infrastructure deficit could be disproportionate to the level of intensification enabled in the area.
- The area has marginal road access, with the intersection at Beach Street and State Highway 1 being relatively congested and subject to a number of safety issues. These issues may be partly ameliorated by the opening of Transmission Gully Motorway.
- The area has relatively low access to a range of commercial activities and community services compared to Waikanae and Paraparaumu.
- The coastal margin of the area is subject to coastal hazard (in particularly coastal erosion), although the extent of this hazard is yet to be confirmed through the Takutai Kāpiti project.
- Compared with other potential intensification areas, topography in the area is variable and in some places steep. This is likely to make the development of more intensive dwelling typologies such as apartments and terraced housing more challenging.

Careful consideration should be given to a suitable planning response to intensification at Paekākāriki that ensures these matters are appropriately addressed. Some of these matters (particularly coastal hazard) may be able to be addressed as a qualifying matter (see the discussion on qualifying matters).

6.1.3 Intensification in and around local centres

Intensification in and around local centres represents a small proportion of the total intensification potential of the district (862 additional estimated dwellings, or 3.4% of total).

[30] As noted previously, this estimate is theoretical only and do not account for feasibility or realisability of development.

While the potential contribution to the district's dwelling supply in these areas is marginal, targeted intensification around local centres could have the following potential benefits:

- Intensification immediately surrounding local centres is likely to support existing commercial activity in those centres and could encourage their growth and development. Over time this would lead to increased access to commercial activities and community services for the surrounding community. This would be particularly beneficial for communities with low access to existing centres, such as Waikanae Beach.
- Intensification around local centres would have the benefit of improving their legibility within the overall urban form. That is, the increased height and density of buildings within and around centres will help distinguish them as distinct places within the broader urban environment.

6.1.4 Industrial areas

A significant proportion of the district's industrial land use is located within the walkable catchments of the Paraparaumu Metropolitan Centre zone and railway station, as well as the Waikanae railway station. This is likely to lead to tensions between industrial land uses and residential intensification, specifically around noise, heavy vehicle traffic and hazardous substances. At the same time, Kāpiti's industrial areas provide the benefit of being local centres for employment and provide access to a range of services.

The draft District Growth Strategy seeks to protect existing industrial land from residential intensification, and this is in line with the general policy direction provided by the NPS-UD. This assessment has reflected this by excluding General Industrial zoned land from intensification.

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6.2 Approach to qualifying matters

As noted in section 5.0, there are a range of qualifying matters that could apply to residential intensification across the district. It should be noted that it is not mandatory that the Council adopt qualifying matters as a means of reducing the heights and density otherwise required by policy 3. As noted in the table contained in section 5.1, there may be other more effective means of managing the resource management issues associated with each potential qualifying matter, including through objectives, policies and rules within the district plan.

In addition to this, should the Council wish to pursue "other" qualifying matters to reduce heights and density required by the NPS, then a sufficient evidence base may need to be established to support their consideration as qualifying matters.

6.3 Strategic approach to industrial and business land

As noted at the beginning of this report, the population of the district is expected to increase by 30,000 over the next 30 years. The 2019 HBA identifies that there is sufficient business land development capacity to meet demand[31]. However, the HBA also notes that projected demand for business land is sensitive to population growth, and the projected population growth under

[31] Kapiti Coast District Council. (2019). *Housing and Business Development Capacity Assessment.* p.266.

the 2019 HBA is approximately half the current projected growth. On this basis it is logical to assume that demand for business land is likely to be higher, and that relying on existing plan enabled capacity may be insufficient to meet changes in demand for business land.

This assessment and the related Greenfield Assessment have focussed on enabling residential development capacity. However, in the context of significantly increased population growth projections, it is important that growth in residential development capacity is considered in relation to the planning for business land, and an integrated approach to planning for residential and business land growth is part of achieving a well-functioning urban environment under the NPS-UD[32]. An integrated approach to planning for business land is relevant because:

- A significant proportion of the district's industrial land is located within areas subject to the residential intensification policies of the NPS-UD. As a result, these existing areas may come under pressure from reverse sensitivity effects associated with residential intensification. In addition to this, they may come under pressure to change to residential uses;
- Intensification in and around Kāpiti's existing centres may require those centres to grow and expand to meet future demand;
- Greenfield residential growth in the district may need to be supported by new local centres. In addition to this, there may be opportunities for expansion of greenfield business or industrial land;
- The district's central location in the Western Growth Corridor (Tawa to Levin) under the Wellington Regional Growth Framework may impact on future business land demand generally.

6.4 Approach to three-waters infrastructure

This assessment has highlighted that at a high level, there are a range potential infrastructure constraints across the district that could be compounded by residential intensification. In particular:

- **Stormwater.** Intensification is likely to result in an increase in impermeable surfaces and associated run-off. Hydraulic neutrality approaches may be required to manage this. In addition, areas subject to current flood storage requirements (in particular at the Paraparaumu Metropolitan Centre) may be difficult to develop, and/or may require compensatory storage in order to enable development. Low-lying coastal stormwater catchments may require pumped solutions to manage the impacts of climate change.
- **Water supply.** While the district is generally well supplied with potable water, the exception is Ōtaki, which is known to be at capacity and in poor condition. Growth across the district is likely to put pressure on existing bulk storage across the district. The long term security of water supply at Ōtaki and Paekākāriki has been identified as a constraint.
- **Wastewater.** The absence of a wastewater system at Paekākāriki is a major constraint to development. In Paraparaumu and Waikanae, increase in dwellings because of intensification is likely to put further pressure on the existing daisy chain network, including pump stations, storage, and power supply. At Ōtaki, the existing network is known to be aging and at capacity. Acceleration of growth in the district may bring

[32] Refer specifically policies 1(b) and 1(c).

forward capacity tipping points at the Paraparaumu and Ōtaki Wastewater Treatment Plants.

Further assessment of these issues could be undertaken through comparison of the estimated dwelling numbers identified in this report with existing Council infrastructure network models. This may help better identify local infrastructure network issues and enable a more targeted planning response.

6.5 Approach to transport and social infrastructure

The assessment has identified that there are a number of potential intensification areas that have low access to public transport and other social infrastructure (such as community services). In addition to this, intensification is likely to put further pressure on the existing district road network. Key issues include:

- **Social infrastructure.** Many of the community services within the district are focussed around the Paraparaumu/Waikanae area, and as such Ōtaki has a comparably lower degree of access to community services. Intensification at Ōtaki may need to be supported by the development of community services in the area (although it was acknowledged that an increase in population may first be required to support the growth in community services provision).
- **Public transport.** Ōtaki will continue to be poorly served by public transport until it becomes connected to the commuter rail network.
- **Road transport.** Residential intensification is likely to put additional pressure on east-west road connectivity across the district, as well as at key intersections in Waikanae, Paraparaumu and Paekākāriki, where roads cross the railway line.
- **Road reserves.** In intensified urban environments, road reserves are likely to come under increasing pressure to accommodate a range of uses, including on-street parking, stormwater treatment and disposal, landscaping and planting, waste collection, and pedestrian and cycle movements. This may become a particular issue where developers choose not to provide on-site vehicle parking.

6.6 Approach to natural hazards

Existing urban areas in the district are subject to a range of natural hazards. Specifically:

- **Flood hazard.** A key area of concern for flood hazard is the flood storage area located at Paraparaumu Metropolitan Centre. It has been identified that this hazard will be difficult to overcome through engineering measures, and as such this is likely to affect the ability to develop this portion of the Metropolitan Centre. Flood hazard is also a concern around Ōtaki, where the hazard covers much of the existing town to varying degrees. This hazard is primarily associated with overflow of the Haruatai Stream and Ōtaki river, meaning that addressing this hazard could require review of river control measures. Aside from at Paraparaumu and Ōtaki, the majority of flood hazard that affects existing urban areas is ponding hazard, with overland flow hazard generally concentrated to existing roads. The effects of climate change may increase the frequency and intensity of flood events. This is currently being assessed through updates to existing flood hazard modelling being undertaken by the Council.

- **Earthquake hazard.** Apart from at Ōtaki and Waikanae town centre, all other centres are subject to a high liquefaction potential. This hazard could have impacts on the engineering requirements and construction costs associated with more intensive building types, in particular multi-storey terraces and apartment buildings. Areas subject to "high combined earthquake hazard"[33] are less common in intensification areas, although there are some areas located to the east of Paraparaumu centre and around Paekākāriki.
- **Coastal hazard.** A number of Kāpiti's centres are located on or within close proximity to the coast. These include Waikanae Beach, Kena Kena, Paraparaumu Beach, Raumati Beach and Paekākāriki. Coastal hazards in these areas include coastal erosion (particularly in Paekākāriki), coastal inundation, and tsunami risk. These areas are likely to be subject to increased exposure to coastal hazard as a result of climate change. The Takutai Kāpiti project is currently updating coastal hazard modelling to account for the effects of climate change. It is anticipated that a "holding pattern" approach could be taken prior to the outcome of any future coastal hazard plan change process. Under this approach, intensification would not enabled within any coastal erosion hazard area identified as a part of the Takutai Kāpiti project.

6.7 Approach to open space

One of the effects of residential intensification is the reduction of private outdoor open space. As a result, residents within higher density residential environments rely to a greater degree on communal and public open space.

Many of the identified intensification areas have reasonable access to existing open space. Specifically:

- The twin town centres at Ōtaki have access to two large parks and a number of smaller open spaces within the area;
- Intensification areas in and around coastal centres including Waikanae Beach, Kena Kena, Paraparaumu Beach, Raumati Beach, Raumati South and Paekākāriki have good access to coastal open space.

However, the intensification areas around Paraparaumu Metropolitan Centre and Waikanae Town Centre have a relatively low provision of public open space. In order to support the intensification of these areas consideration should be given to how the provision of open space could be planned for.

6.8 Approach to enabling intensification in "all other areas"

As noted in section 3.1.2, this assessment does not address the potential associated with enabling greater residential intensification generally across all other urban areas within the

[33] Combined earthquake hazard is a composite measure of the combined hazards associated with slope failure, liquefaction potential, ground shaking, tsunami and fault lines. The measure is compiled by Greater Wellington Regional Council. Refer: Greater Wellington Regional Council (1996). *Sheet 4 Kapiti (1st ed.) Combined Earthquake Hazard Map 1:30000*, Pub. No. WRC/RP-T-96/16 Greater Wellington Regional Council, Wellington, New Zealand.

district[34]. It is anticipated that this will be reviewed in the light of updated residential development capacity figures to be released in the forthcoming HBA.

Approaches to enabling a general level of residential intensification could include:

- Reviewing existing district plan objectives and policies to ensure they appropriately provide for a range of different dwelling typologies;
- Reviewing existing district plan rules and standards including building height, height in relation to boundary, site coverage, outdoor living space provision and impermeable surface coverage to ensure they enable an appropriate degree of residential density;
- Reviewing existing subdivision standards to ensure they appropriately support the development of infill housing and semi-detached or terrace housing.

6.9 Feasibility of residential intensification and relationship with greenfield growth

As outlined in the methodology for estimating additional dwelling capacity (refer section 4.1.2) the difference between feasible and realisable development capacity, and plan-enabled development capacity in existing urban environments can be significant. This is because of the complexity associated with the redevelopment of existing sites. The estimate of dwellings contained in this assessment reflects an estimate of plan-enabled capacity and does not account for feasibility or realisability.

The 2019 HBA identified that on average, approximately 10% of plan enabled development could be expected to be feasible and realisable. While this may not be a reliable estimate in the context of present population projections, it is still likely that a fraction of intensification enabled through the district plan can be expected to be feasible and realisable.

This report is intended to be updated to incorporate the findings of the HBA, when this is released.

6.10 Refinement of intensification areas

As noted in section 3.0, the methodology for identifying potential intensification areas is based on walkable catchment mapping that has been translated into property boundaries. While this is an appropriate method for identifying the general extent of potential intensification areas, the areas identified in this assessment may need to be refined in order to provide for a rational planning response. In other words, the boundaries of potential intensification areas identified in this assessment should not be interpreted as the exact spatial extent of a proposed plan change.

There are a range of factors that could influence the refinement of intensification areas to ensure a rational planning response. These factors include whether intensification areas are aligned to streets and city blocks, whether there are topographic or other site-specific features that might influence the boundary of intensification areas. Direction provided by the NPS-UD notes that intensification is to be enabled within *at least* a walkable catchment, so this suggests

[34] This is referred to as intensification of "suburban areas" in the draft District Growth Strategy. See KCDC. (30 September 2021). *Growing Well: Community Consultation Document (Draft)*.

that refined intensification areas may be larger than the potential intensification areas outlined in this assessment.

6.11 Responding to future mana whenua engagement

The assessment may be updated in future following engagement with mana whenua.

6.12 Reviewing assessment in response to changes in the District Growth Strategy

As noted in section 2.2, this assessment is based on the parameters for district-wide growth outlined in the draft Kāpiti Coast District Growth Strategy. As this strategy is in draft, it may be subject to change, particularly following consultation on the strategy with the community in the coming months. As such, the parameters that have informed this assessment, and the conclusions that have been drawn from it, may need to be reviewed in the event that there is a change to the Strategy.

7.0 Conclusion

The population of the Kāpiti Coast district is expected to increase by 30,000 people by the year 2050, and this is expected to result in demand for an additional 13,800 dwellings over the same period. It is possible to meet this demand through a mixture of greenfield development and intensification within existing urban areas. This assessment has addressed the potential for intensification enabled through the district plan to address some of this demand.

Unlike greenfield growth, the nature and location of intensification is heavily driven by the National Policy Statement on Urban Development 2020 (NPS-UD). At the same time, the draft Kāpiti Coast District Growth Strategy helps to provide local substance to the general policy direction provided by the NPS-UD. This assessment has considered both the NPS-UD and the draft Growth Strategy in coordination.

The assessment has identified 12 “potential intensification areas”, based on direction provided by the NPS-UD and the draft District Growth Strategy. Following a qualitative and quantitative methodology, this assessment has found the following:

- That across the potential intensification areas considered by this assessment, there is an estimated additional theoretical capacity of 25,000 dwellings that could be enabled through changes to the district plan. The majority of this capacity (83%) is located around three centres: Paraparaumu Metropolitan Centre, Waikanae Town Centre and the twin centres at Ōtaki.
- Enabling intensification through the district plan raises a number of issues that need further resolution. Recommendations have been made to identify next steps for resolving these matters. These include:
    - Ensuring that residential intensification is coordinated with the demand for and spatial planning of business land across the district;
    - Ensuring that residential intensification is coordinated with infrastructure capacity constraints and future infrastructure planning;
    - Ensuring that planning for residential intensification responds appropriately to the range of natural hazards that apply across the district;
    - Ensuring that planning for residential intensification is considered alongside open space planning;
    - Ensuring that residential intensification enabled through the district plan is balanced with planning for greenfield growth, in order that the overall demand for residential growth can be met.

Ongoing engagement with mana whenua is likely to further inform appropriate approaches to enabling intensification throughout the district. It is recommended that this assessment is reviewed and updated to respond to the matters raised through mana whenua engagement.

Appendix 1: Assessment Criteria Framework

BOFFA MISKELL

BM210137 Kāpiti Urban Development and Intensification

Assessment Criteria Framework

WORKING DRAFT

Date: 08.10.2021

Revision notes: Updated to reflect revised growth principles wording.

Theme		URBAN ENVIRONMENT				URBAN F
Assessment criteria		**Urban form**	**Local neighbourhoods**	**Activity centres**	**Residential development**	**Business land**
Description		Urban form is an overall condition which is derived from the combination of a the footprint of urban areas, their distribution, density, street pattern, distribution of open space, and building scale. Cohesive urban form is integral to the planning urban growth as it influences the accessibility, liveability, sustainability and adaptability of the place. New growth areas located adjacent to existing urban areas or along/near key transport corridors have the potential to link well with existing urban areas. In contrast, poorly connected new growth areas have the potential to undermine social connection and cohesion, increase the cost of providing infrastructure services, and reduce their accessibility, liveability, sustainability and adaptability. The Kāpiti district has a distinctive and established pattern of urban development which is primarily defined by a series of urban centres (Paraparaumu, Waikanae, and Ōtaki), connected along a north-south spine (the state highway and railway network), alongside a network of connected coastal neighbourhoods. The Wellington Regional Growth Framework anticipates that urban growth will build upon the established hierarchy of centres, supplimented by the expansion of Waikanae and Otāki, as well as other potential greenfield areas. At the same time, other high level policy encourages the consolidation of urban areas within the coastal environment. Cohesive urban growth will respond to both the established pattern of urban development, as well as national, regional and local strategies and policies for how it should develop.	The Kāpiti district is composed of a diverse collection of connected centres and neighbourhoods. Each of these have their own place-based features and qualities that distinguish them from one another, and make them attractive places to live, work or play. The unique identity of a place can also contribute to the establishment and maintenance of a sense of local community. Urban growth and development has the potential to change existing centres and neighbourhoods. Change is not of itself a bad outcome, however it is important that urban intensification and growth responds to its local context, recognises the features and qualities that make a place distinctive, and builds upon these to ensure that the future centre or neighbourhood is an attactive and well functioning place to live, work and play. Areas of urban intensification will need to consider how intensification can be undertaken in a way that enhances the local sense of place, and enchances the demarkation between smaller communities and Kāpiti's main centres. Areas of new urban growth will need to consider their relationship to existing adjacent neighbourhoods, and whether the development is of a sufficient scale that it needs to consider how its own sense of neighbourhood is defined, maintained and distinguished from surrounding neighbourhoods.	Activity centres are where communities shop, work, access community services, relax and socialise. They function as a focal point for the provision of services and social interaction. Activity centres will provide for community facilities including libraries, community halls, schools, hospitals and parks. Activity centres both support, and are supported by, residential growth and intensification. For areas of urban intensification, activity centres provide the access to amenity that improves the attractiveness of living in a more densely occupied urban environment. This means that activity centres need to be supported to grow and develop to meet the needs of surrounding residential growth. Residential intensification will consider the form and function of existing activity centres, and their ability to provide for surrounding residential intensification. For new growth areas, proximity to activity centres and community facilities is important in ensuring the development of a viable and well functioning community, with ready accessibility to the amenity and services that these centres provide. New growth areas will need to consider how they provide for, or connect to, activity centres in order to support their development.	Providing for growth in housing supply is a key aspect of planning for growth. Residential development capacity refers to the potential for growth in the number of dwellings in the district enabled through integrated planning, in addition to the existing potential for growth already enabled. The target capacity will be informed by the Housing and Business Capacity Assessment. Residential development capacity will also consder the degree of choice in housing types enabled through integrated planning, and the degree to which housing choice is spatially distributed in a cohesive manner throughout the district.	A well functioning urban environment will provide for local employment in addition to housing capacity. Areas associated with commercial or industrial uses will be located, connected to and integrated with other land uses such as housing, open space and transport networks in a cohesive manner that acknowledges the scale, nature and character of its use. In districts and regions subject to growing housing demand, there may be pressure to convert existing or planned business land into housing. Cohesive urban growth will acknowledge the finite nature of land available for business uses, and in particular that some business land uses (such as industrial land) may not integrate well with housing growth.
Key Kāpiti growth principles	**Supporting mana whenua aspirations**	•	•	•	•	•
	Embracing the opportunities of growth	•	•	•	•	•
	Valuing our environment	•	•			
	Encouraging low-carbon living	•		•	•	•
	Fostering strong communities	•	•	•		
	Enabling choice	•		•	•	
Key policies from National Policy Statements	National Policy Statement on Urban Development 2020	Policy 1(e); 3(b), (c) and (d).		Policy 1(c).	Policy 1(a)(i); 2; and 8.	Policy 1(b); and 2.
	New Zealand Coastal Policy Statement 2010	Policy 6(1)(b) and (c).				
	National Policy Statement for Freshwater Management 2020	Clause 3.5(4).				
	National Policy Statement on Electricity Transmission 2008					
	National Policy Statement for Renewable Electricity Generation 2011					
	Draft National Policy Statement Indigenous Biodiversity 2019					
	Draft National Policy Statement for Highly Productive Land 2019					
Other key stategy and policy influences (to be developed further)		~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)
Spatial influences and constraints		~ Existing urban areas (KCDC areas currently zoned for urban development). ~ Future urban development areas (KCDC Future Urban Development zone). ~ Extent of the metropolitan centre zone equivalent (KCDC). ~ Walkable catchment from the metropolitan centre zone equivalent (KCDC). ~ Rapid transit stops (train stations). ~ Walkable catchment from existing or planned rapid transit stops (KCDC). ~ The extent of the Coastal Environment (KCDC Coastal Environment layer).	~ Special character areas (KCDC).	~ Location of civic centres (KCDC Civic and Community zone). ~ Location of district, town and local centres (KCDC District, Town and Local Centre zones). ~ Location of schools. ~ Location of libraries. ~ Location of hospitals.	~ Existing areas zoned fo urban residential development (KCDC Residential and Beach Residential zones). ~ Areas planned for residential development (KCDC Future Urban Development zone, Potential Residential Areas layer). ~ Medium density housing precinct (KCDC). ~ Focussed infill precinct (KCDC).	~ Existing areas zoned for commercial purposes (KCDC Town Centre, District Centre and Local Centre zones). ~ Existing areas zoned for industrial or services purposes (KCDC Industrial/Service and Outer Business Centre zones).
Outcomes sought (Future Urban Study Areas)		~ Growth builds cohesively on established patterns of urban development; ~ Development around established centres and networks.	~ Consideration of the impacts of growth on established neighbourhoods; ~ Recognition that urban development may require the establishment of new neighbourhoods to develop.	~ Urban growth in proximity to established district, town and local centres; ~ Recognition that new centres may be required to support expansive urban development.	~ Contribution to dwelling supply; ~ Contribution to dwelling diversity and choice.	~ Urban development does not come at the expense of business uses, particularly industrial uses.
Outcomes sought (Urban Intensification Study Areas)		~ Height and density of development responds to the established centres hierarchy and access to rapid transit stops.	~ Consideration of the impacts of intensification on established neighbourhood character.	~ Intensification is accessible to a range of commercial activities and community services.	~ Contribution to dwelling supply; ~ Contribution to dwelling diversity and choice.	~ Intensification does not come at the expense of business uses, particularly industrial uses. ~ Intensification has the ability to accommodate a range of commercial uses, where appropriate.

BOFFA MISKELL
BM210137 Kāpiti Urban Development and Intensification

Assessment Criteria Framework

WORKING DRAFT

Date: 08.10.2021
Revision notes: Updated to reflect revised growth principles wording.

Theme		UNCTION		NATURAL ENVIRONMENT AND LANDSCAPE		
Assessment criteria		**Transport networks**	**Infrastructure and servicing**	**Natural ecosystem values**	**Water bodies**	**Landscape and open space values**
Description		Transport networks are important for enabling people to move throughout urban areas to schools, work, commercial centres, and other activities and services. Choice in mode of transport is important to liveability and sustainability – active modes (walking and cycling), public transport, cars and heavy vehicle transport should be accessible options for people as the district grows. Transport networks within the Kāpiti district are influenced by the presence of the current, former and future location of State Highway 1, as well as the rail corridor, which form a north-south spine that traverses the district. Local networks provide connectivity to and between local centres that are prediominantly located to the west of this spine. At the same time, the relocation of the state highway network has opened up new opportunities for connected development to take place in the space between the new and existing network, particularly around Parapaumu and Waikanae. Regional public transport services focus on the railway line, which is services by stops at Paekakariki, Paraparaumu and Waikanae. Local public transport is serviced through a network of bus routes that connect local communities back to the railway line. New urban growth areas need to consider the degree to which they can readily connect in to these existing networks, including whether they can support the provision of public and active modes of transport. Areas of intensification, where individual car ownership is likely to become less necessary, will need to consider the degree to which they can connect into established or planned public transport, cycling or walking networks.	Sustainable urban growth needs to be cooridinated with the provision of infrastructure and services. The ability to connect easily with reticulated infrastructure can reduce the economic and environmental costs of new development and is a key influence on servicing feasibility. The feasibility of servicing an area with water and wastewater infrastructure is a key determinant of its overall development feasibility, with areas that have significant constraints in terms of the ability to provide cost-effective servicing being less feasible as growth options. Areas of residential intensification should consider the capacity constraints associated with existing reticulated infrastructure networks, and intensification will need to be coordinated with any work required to increase the capacity of existing infrastructure. Areas of new growth will need to consider their proximity to existing main trunk infrastructure networks, their ability to connect to these, and the effects of this on the wider network.	The Kāpiti district is home to a diverse range of natural environments and associated ecosystems that include terrestrial natural environments, riverine, wetland and freshwater environments and the natural coastal environment. These natural environments are not confined to rural areas, and are woven into both the urban and rural environments. Urban growth should seek to protect existing environmental values, and enhance or restore natural environmental values where there is the opportunity to. This includes protecting or enhancing existing ecological corridors across the district, and protecting significant natural areas, habitats, ecosystems, wetlands, fresh water resources with significant value and indigenous biodiversity, in both the coastal and terrestrial environments. Urban intensification should consider the presence of the existing natural ecosystems in the urban environment, and the entent to which they can be accommodated or supported by intensification.	The Kāpiti district is home to a large number and diverse range of water bodies. These not only include the larger Waikanae and Ōtaki rivers, but also the numerous networks of streams, drains, lakes and ponds that occupy the flatter coastal areas of the district. Recent fresh water reforms have established a national planning framework for freshwater. At the core of this framework is the concept of Te Mana o te Wai, which refers to the vital importance of water for sustaining life in New Zealand. When managing fresh water, it establishes a hierarchy that means prioritising the health and wellbeing of water first, then the health needs of people, followed by the ability for people and communities to provide for their social, economic and cultural wellbeing. A water body is fresh water in a river, lake, stream, pond, wetland or aquifer that is not located in the coastal marine area. Development has the potential to impact upon existing water bodies through increased runoff from impervious surfaces and increased contaminant loads from vehicle areas such as roads and car parking, and sediment runoff associated with earthworks. At the same time develoment can also have physical spatial effects on water bodies, particularly where they are accidentally or purposefully altererd (such as through reclamation, redirection or bridging) to enable development. In the context of Te Mana o te Wai, any effects of urban development that may cause degredation of existing water bodies will be considered as undesireable.	The Kāpiti district is composed of a diverse range of natural and modified landscapes that contribute to local identity and sense of place. These include a range of features and landscapes that are recognised at a regional and district level as being of value. At the same time, the existing network of coastal, rural and urban open spaces provide an underlying framework of amenity that supports the existing and future urban environment. Intensification of existing urban areas, and the growth of new urban area will need to be sensitive to the range of landscapes that are of value at a district, regional and national level. In particular, outstanding natural features and landscapes will be recognised and maintained, and natural coastal character along currently non-urbanised coastal margins will be maintained. Intensification of existing urban areas should seek to protect and enhance existing open space networks and the public amenity that they provide. At the same time it will consider the potential increase in demand for public open space in the context of residential intensfication. The development of new urban areas will need to be accompanied by suitable expansion of the open space network.
Key Kāpiti growth principles	**Supporting mana whenua aspirations**	•	•	•	•	•
	Embracing the opportunities of growth	•	•			
	Valuing our environment			•	•	•
	Encouraging low-carbon living	•		•		
	Fostering strong communities	•		•		•
	Enabling choice	•				
Key policies from National Policy Statements	National Policy Statement on Urban Development 2020	Policy 1(c).	Policy 10(b); and 3.2(1)(c).	Clause 3.32(1)(a).	Clause 3.32(1)(a) and (b).	Clause 3.32(1)(a) and (d),
	New Zealand Coastal Policy Statement 2010			Policy 12(1) and (2).		Policy 6(1)(i); 13(1)(a) & (b); 15(1)(a) and (b); & 18(b).
	National Policy Statement for Freshwater Management 2020			Policy 9.	Objective 1; policy 6; 7; and 8.	Policy 6; 7; 8; and 9.
	National Policy Statement on Electricity Transmission 2008					
	National Policy Statement for Renewable Electricity Generation 2011					
	Draft National Policy Statement Indigenous Biodiversity 2019			Policy 6; policy 7; clause 3.16; and clause 3.17(4).		
	Draft National Policy Statement for Highly Productive Land 2019					
Other key stategy and policy influences (to be developed further)		~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)
Spatial influences and constraints		~ Location of National, Regional and Arterial roads (Waka Kotahi National Road Centreline data); ~ Transmission Gully, M2PP, PP2O, O2NL. ~ Railway lines. ~ Railway stations. ~ Bus routes (GWRC). ~ Cycle network (GWRC/KCDC).	~ Location of existing "main trunk" wastewater services (KDCD). ~ Location of existing "main trunk" water supply services (KCDC). ~ Identification of areas where existing 3 waters infrastructure capacity is constrained (KCDC).	~ Ecological sites (KCDC Ecological Sites). ~ Key indigenous trees (KCDC Key Indigenous Trees). ~ Key native ecosystem areas (GWRC Key Native Ecosystems). ~ Areas of significant indigenous biodiversity (GWRC). ~ Extent of the coastal environment (KCDC Coastal Environment layer).	~ Wetlands (GWRC). ~ Rivers, streams, lakes and their margins (KCDC Rivers, Streams and Drains, LINZ Rivers and Lakes). ~ Drinking water collection areas (KCDC);	~ Existing public open spaces (KCDC Open Space zones). ~ Existing DoC estate (DOC); ~ Existing regional parks (GWRC); ~ QEII Sites (QEII National Trust); ~ Outstanding waterbodies (GWRC); ~ Geological areas and features (GWRC & KCDC); ~ Areas of Outstanding and High Natural Character (KCDC); ~ Outstanding Natural Features and Landscapes (KCDC); ~ Special Amenity Landscapes (KCDC); ~ Notable treesand notable tree areas (KCDC); ~ Esplanade reserves, strips and riparian margins to the Coastal Marine Area (GWRC). ~ Extent of the coastal environment (KCDC Coastal Environment layer).
Outcomes sought (Future Urban Study Areas)		~ Coordination of growth with the capacity of established transport networks; ~ Transport choice, and access to active modes and public transport.	~ Coodination of growth with the capacity of existing reticulated services networks; ~ Ability to connect new growth to reticulated services; ~ Recognition that growth in some areas may trigger significant upgrades to existing infrastructure systems.	~ Providing for natural environmental values; ~ Recognising the sensitivity of natural ecosystems.	~ Minimising the impacts of urban growth on exsiting water bodies; ~ Opportunities to improve water quality through urban development.	~ Recognition of Kāpiti's distinct landscapes; ~ Access to public open space.
Outcomes sought (Urban Intensification Study Areas)		~ Intensification in proximity to rapid transit stops. ~ Intensification is accessible public and active transport networks.	~ Coodination of intensification with the capacity of existing reticulated services networks; ~ Recognition that intensification in some areas may trigger significant upgrades to existing infrastructure systems.	~ Providing for natural environmental values; ~ Recognising the sensitivity of natural ecosystems.	~ Minimising the impacts of intensification on exsiting water bodies; ~ Opportunities to improve water quality through urban development.	~ Recognition of Kāpiti's distinct landscapes; ~ Access to public open space.

BOFFA MISKELL
BM210137 Kāpiti Urban Development and Intensification

Assessment Criteria Framework

WORKING DRAFT

Date: 08.10.2021
Revision notes: Updated to reflect revised growth principles wording.

Theme			LAND DEVELOPMENT			
Assessment criteria		**Heritage values**	**Topography**	**Natural hazards and land risks**	**Land use compatibility**	**Highly productive land**
Description		The Kāpiti district has a rich history, and this is acknowledged through the range of heritage places and areas that are recognised at a district and regional level, as well as through the Heritage New Zealand list. In addition to this, there are a number of archeological sites distributed across the district. The intensification of existing urban environments will need to consider the potential effects of intensification on urban sites of historic significance. New growth areas will need to consider the potential effects of urbanisation on sites or areas of heritage siginificance that have normally been defined by their rural setting. In addition to this, new growth areas should acknowledge the likelyhood of archeaological discovery associated with development.	The Kāpiti district is defined by its location between the mountains and the sea. As a result, there are a range of topographies across the district, including steep mountainous and foothill terrain, intermediate valleys with moderate topographic complexity, and comparatively flat coastal land. Towards the north of the district, the amount of flat land increases as the distance between the mountans and the sea opens up. While it is possible to build new urban areas over relatively steep or very undulating ground, the requirements to prepare steep land for growth can be costly and have adverse effects on the land and the wider environment. Conversely, developing urban environments on relatively flat land is both cheaper, and likely to have lower impacts on the environment. Urban growth should acknoweldge that it will be easier to develop and intensify flat areas, and relatively more challenging to develop or intensify areas with steep or complex topography.	Natural hazards present a risk to the wellbeing of communities, as well as to their ongoing health and safety. Some areas are potentially subject to natural hazards which provide significant risks associated with occupation of the land for residential or business uses. Some areas already have physical works and mitigations in place, or effective measures could be put in place as part of new development. In other areas, natural hazard effects cannot easily be mitigated, so growth areas that avoid critical hazards are favoured. Intensification of existing urban areas and development of new urban areas should consider earthquake related hazards, hazards associated with river and stream flooding, and hazards associated with the coastal environment. When considering the exposure of development to natural hazards, the influence of climate change on the nature, scale and frequency of natural hazards such as flooding, coastal erosion and inundation will also be a key consideration in the planning of urban intensification and growth that is both adaptable to and resilient towards the potential effects of climate change. The potential presence of contaminated land will also be a consideration for development, as land remediation can contribute to the cost and complexity of urban development.	As urban areas grow there are increasing instances where relatively sensitive activities come into contact with potentially incompatible land uses such as industrial activities, intensive agriculture or horticultural land uses and significant infrastructure. This can result in residents raising concerns about noise and air emissions, odour and traffic. However, land uses which may be incompatible with residential living or business activities are vital to the overall functioning of urban areas and to the district's economy and are often limited in where they can locate. The growth and intensification of residential areas needs to recognise the potential for reverse sensitivity effects on existing established uses, and planned uses, particularly where these uses are significant to the local, regional or national economy. To minimise the potential for adverse effects on sensitive uses, it is considered more desirable to direct new growth areas away from incompatible types of land use.	Highly productive land (land with an LUC Class I, II or III) are valued by the community for their productive purpose as they are highly fertile and require less irrigation or fertiliser to grow plants and food. This is particularly the case for the Kāpiti district, which has a high degree of horticulture and agricultural land use. Areas of potential urban growth containing highly productive land should be considered carefully in the context of the district before being allocated for residential or business development. There is a preference to maintain the availability of highly productive land (particularly where it is well located in terms of climate, water availability, and access to transport routes and labour markets) for productive uses for future generations and to protect its productive capacity from inappropriate subdivision, use, and development. The presently proposed National Policy Statement for Highly Productive Land is likely to be highly relevant to the consideration of areas of potential future urban growth in the Kāpiti district, in the event that it becomes operative. Note that the proposed NPS is unlikely to effect areas of proposed urban intensification.
Key Kāpiti growth principles	**Supporting mana whenua aspirations**	•	•	•	•	•
	Embracing the opportunities of growth				•	
	Valuing our environment		•	•		•
	Encouraging low-carbon living					
	Fostering strong communities	•				
	Enabling choice					
Key policies from National Policy Statements	National Policy Statement on Urban Development 2020	Clause 3.32(1)(a).		Policy 1(f); and clause 3.32(1)(a).	Clause 3.32(1)(c).	Clause 3.32(1)(b).
	New Zealand Coastal Policy Statement 2010	Policy 6(1)(j); and 17.		Policy 25(b); and 25(f).		
	National Policy Statement for Freshwater Management 2020					
	National Policy Statement on Electricity Transmission 2008				Policy 10.	
	National Policy Statement for Renewable Electricity Generation 2011				Policy D.	
	Draft National Policy Statement Indigenous Biodiversity 2019					
	Draft National Policy Statement for Highly Productive Land 2019				Policy 5(b), (c) and (d).	Policy 2(d); and 3.
Other key stategy and policy influences (to be developed further)		~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021)	~ Wellington Regional Growth Framework (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021)	~ Wellington Regional Growth Framework (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021)
Spatial influences and constraints		~ District heritage areas and places (KCDC); ~ Sites on the Heritage New Zealand List (Heritage NZ); ~ Archaeological sites and areas (NZ Archaeological Association).	~ Steep slopes (areas with a slope of greater than 1:4, or 14 degrees).	~ Fault avoidance areas (KCDC Fault Avoidance Area). ~ Combined earthquake hazard areas (severity 4 and 5 only) (GWRC). ~ Rivers and streams (KCDC). ~ Flood hazard areas (KCDC Flood Hazard layer). ~ Flood extents (KCDC & GWRC). ~ Potentially contaminated land (GWRC SLUR). ~ Extent of coastal hazard data not available.	~ National grid lines and development buffer (KCDC); ~ Natural gas distribution (KCDC); ~ State highway network reverse sensitivity buffer areas (Waka Kotahi, may need a special request); ~ Rail corridor designation (KCDC). ~ Renewable electricity generation assets. ~ Quarries (KCDC); ~ Intensive horticultural or agricultural areas (KCDC TBC); ~ Location of industrial areas (KCDC Industrial zone); ~ Location of the airport designation, air noise boundary, and protected surfaces (KCDC). ~ Location of other sensitive land uses (KCDC). ~ Designations (KCDC).	~ LUC I, II and III soils (exclude KCDC existing and planned urban areas from this).
Outcomes sought (Future Urban Study Areas)		~ Recognising existing heritage sites and areas; ~ Acknowledging the likelyhood of archaeological discovery.	~ Urban growth responds to topographical conditions	~ Urban growth seeks to avoid to flood hazard areas. ~ Exposure to earthquake hazard and liquefaction is minimised. ~ Urban growth seeks to avoid exposure to coastal hazards. ~ Remediation of contaminated land is acknowledged. ~ Increased hazards associated with climate change are acknowledged.	~ Minimising the potential for reverse sensitivity effects on infrastructure or key land uses.	~ Retaining the productive potential of highly productive land.
Outcomes sought (Urban Intensification Study Areas)		~ Recognising existing heritage sites and areas; ~ Acknowledging the likelyhood of archaeological discovery.	~ Intensification responds to topographical conditions	~ Intensification seeks to avoid to flood hazard areas. ~ Exposure to earthquake hazard and liquefaction is minimised. ~ Intensification seeks to avoid exposure to coastal hazards. ~ Remediation of contaminated land is acknowledged. ~ Increased hazards associated with climate change are acknowledged.	~ Minimising the potential for reverse sensitivity effects on infrastructure or key land uses.	NOT APPLICABLE TO INTENSIFICATION.

BOFFA MISKELL
BM210137 Kāpiti Urban Development and Intensification

Assessment Criteria Framework

WORKING DRAFT

Date: 08.10.2021
Revision notes: Updated to reflect revised growth principles wording.

Theme		MANA WHENUA	
Assessment criteria	**Climate change (low-carbon futures)**	**Mana whenua values**	**Iwi development aspirations**
Description	The Kāpiti district has a goal of transitioning to a low carbon future. The intensification of existing urban environments and the development of new urban environments can have long term implications for the ability for communities to reduce their emissions. The way in which urban environments develop determine the range of choices that people have in order to reduce their emissions, be it through lower transport emissions, reduced energy consumption associated with operating and maintaining a home. Communities, can be designed in a way that avoids locking in emissions if services, amenities, facilities and infrastructure are provided for at the planning stage. Areas of urban growth and intensification will need to consider the degree to which they support sustainable transport choices and consumption patterns, and whether or not development may be resource efficient or resource intensive. Note that the impacts of climate change on natural hazards are considered separately under the "Natural hazards and land risks" category.	The Council is working in partnership with mana whenua to on the development of the district growth strategy that respects the values held by mana whenua. Early engagement as part of the district growth strategy review has identified a number of values, including (but not limited to): ~ Education of and representation of whakapapa to whenua and water in the district; ~ Careful location and implementation of development in relation to freshwater management and mahinga kai; ~ Ensuring wāhi tapu and other taonga are protected, and respecting the intellectual property that mana whenua hold over this knowledge; ~ Maintaining customary rights and access; ~ Enabling iwi to exercise kaitiakitanga, ensuring the sustainable utilisation of land, caring for the healthy wairua and mauri of the environment, the people and the community; ~ Decision making informed by mana whenua. TO BE DEVELOPED THROUGH ENGAGEMENT.	The Council is working in partnership with mana whenua on the development of the district growth strategy that is supportive of iwi and hapu development aspirations. Early engagement as part of the district growth strategy review has identified a number of aspirations, including (but not limited to): ~ Unlocking Māori owned-land; ~ Providing for business and papakāinga development aspriations; ~ Providing locally for the growth of iwi; ~ Growing the capacity of and skills of rangatahi and whānau to support their economic wellbeing. TO BE DEVELOPED THROUGH ENGAGEMENT.
Key Kāpiti growth principles	**Supporting mana whenua aspirations**	•	TO BE DEVELOPED THROUGH ENGAGEMENT	TO BE DEVELOPED THROUGH ENGAGEMENT
	Embracing the opportunities of growth	•		
	Valuing our environment	•		
	Encouraging low-carbon living	•		
	Fostering strong communities			
	Enabling choice			
Key policies from National Policy Statements	National Policy Statement on Urban Development 2020	Objective 8; policy 1(e) and (f).	Policy 1(a)(ii); and 9(b).	Policy 1(a)(ii); and 9(b).
	New Zealand Coastal Policy Statement 2010	Policy 3(2).	Policy 2(a) and (f); and 6(1)(d).	Policy 2(a) and (f); and 6(1)(d).
	National Policy Statement for Freshwater Management 2020			
	National Policy Statement on Electricity Transmission 2008			
	National Policy Statement for Renewable Electricity Generation 2011			
	Draft National Policy Statement Indigenous Biodiversity 2019			
	Draft National Policy Statement for Highly Productive Land 2019			
Other key stategy and policy influences (to be developed further)		~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021) ~ Ināia tonu nei: a low emissions future for Aoteroa (Climate Change Commission, 2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Kāpiti Draft Growth Strategy Review (2021) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)
Spatial influences and constraints			TO BE DEVELOPED THROUGH ENGAGEMENT ~ Statutory acknowledgement areas (KCDC and GWRC); ~ Waahi tapu sites (KCDC); ~ Sites of significance to mana whenua (GWRC); ~ Location of marae (Maori Maps).	TO BE DEVELOPED THROUGH ENGAGEMENT ~ Māori freehold land (Ministry of Justice). ~ Location of iwi or hapu community social services. ~ Other iwi/hapu landholdings (TBC).
Outcomes sought (Future Urban Study Areas)		~ Enabling low emissions choices by ensuring that urban growth is accessible to and integrated with amenities, facilites and infrastructure. ~ Preferring resource-efficient over resource intensive development types	~ Respecting mana whenua values and kaupapa ~ Protecting sites and areas of significance to mana whenua	~ Supporting mana whenua to provide for their own needs ~ Enabling iwi to meet their economic development and housing aspriations
Outcomes sought (Urban Intensification Study Areas)		~ Enabling low emissions choices by ensuring that intensification is accessible to and integrated with amenities, facilites and infrastructure. ~ Preferring resource-efficient over resource intensive development types	~ Respecting mana whenua values and kaupapa ~ Protecting sites and areas of significance to mana whenua	~ Supporting mana whenua to provide for their own needs ~ Enabling iwi to meet their economic development and housing aspriations

Appendix 2: Spatial influences and constraints mapping

Urban Intensification Study Area
Spatial Influences and Constraints Mapping

Urban Environment

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Data Sources: KCDC, BML, Earthstar Geographics

Projection: NZGD 2000 New Zealand Transverse Mercator

LEGEND

Map Index

Urban Intensification Study Areas

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Intensification Study Area Mapbook

Date: 02 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UISA

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Urban Intensification Study Areas
Future Urban Study Areas
Railway Station (GWRC)
Railway (GWRC)
Extent of the Coastal Environment (KCDC)

Urban Environment (KCDC)
Existing Urban Areas
Future Urban Development Areas

Centres (KCDC)
Town Centre
School

Precincts (KCDC)
Focused infill precinct

UI-ŌT-01
UI-ŌT-02
ŌT-01
ŌT-02
ŌT-03A
ŌT-03B
ŌT-04
ŌT-05
Tasman Rd
Main St
Mill Rd
Rangiuru Rd
RECREATION RESERVE
HARUATAI PARK
OTAKI DOMAIN
Riverbank Road Ext
Riverbank Rd
Otaki
Otaki Railway
OTAKI RACECOURSE

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Data Sources: KCDC, BML, Basemap: Eagle Technology, LINZ, StatsNZ, NIWA, Natural Earth, © OpenStreetMap contributors., LINZ, Eagle Technology, Esri Community Maps Contributors, LINZ, Stats NZ, Eagle Technology, Esri, HERE, Garmin, METI/NASA, USGS

Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION
Urban Environment
Urban Intensification Study: Otaki Centre
Date: 09 August 2021 | Revision: 0
Plan prepared for KCDC by Boffa Miskell Limited
Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.1.A

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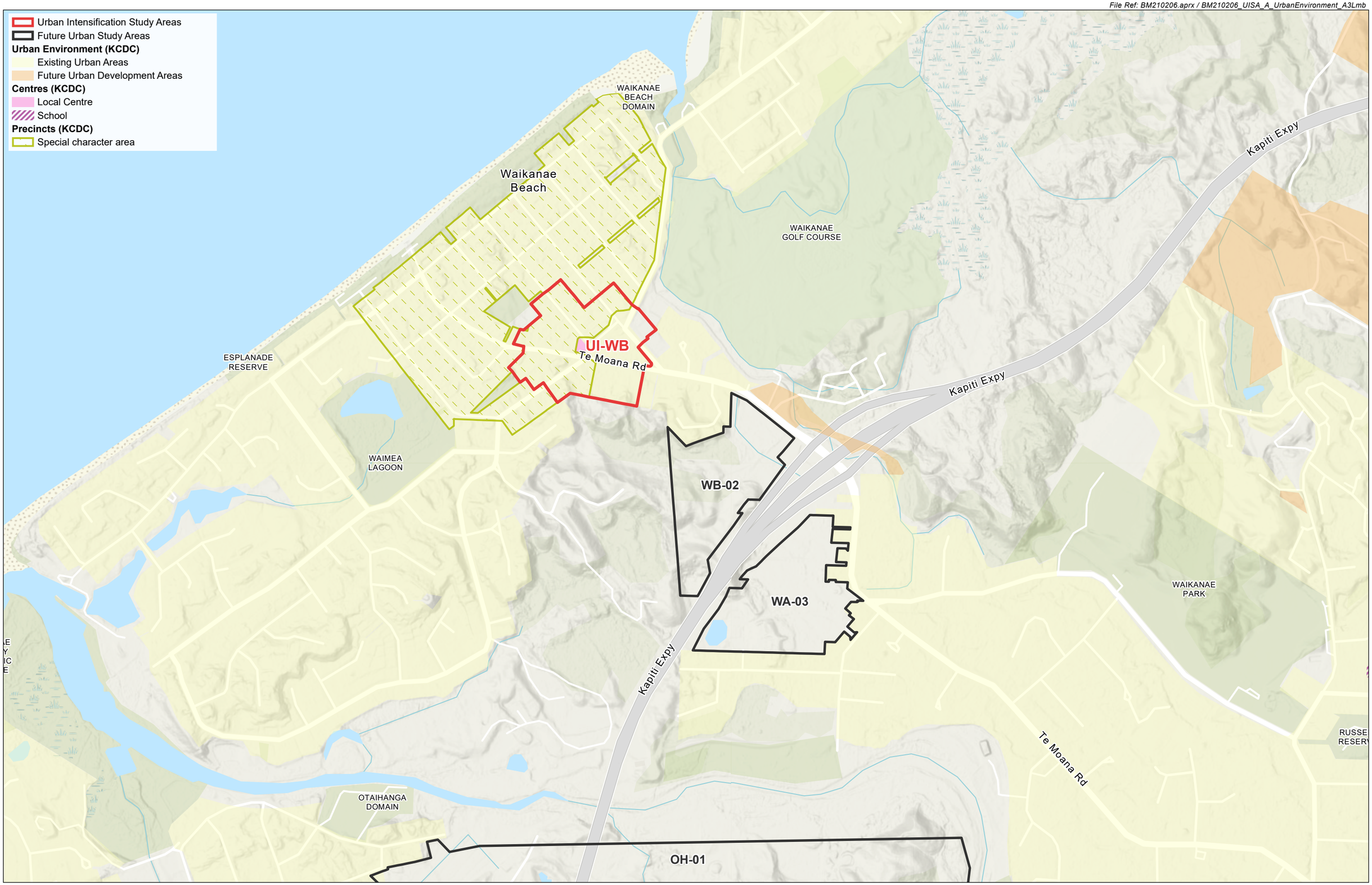

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Urban Intensification Study: Waikanae Beach

Date: 09 August 2021 | Revision: 0

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Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.2.A

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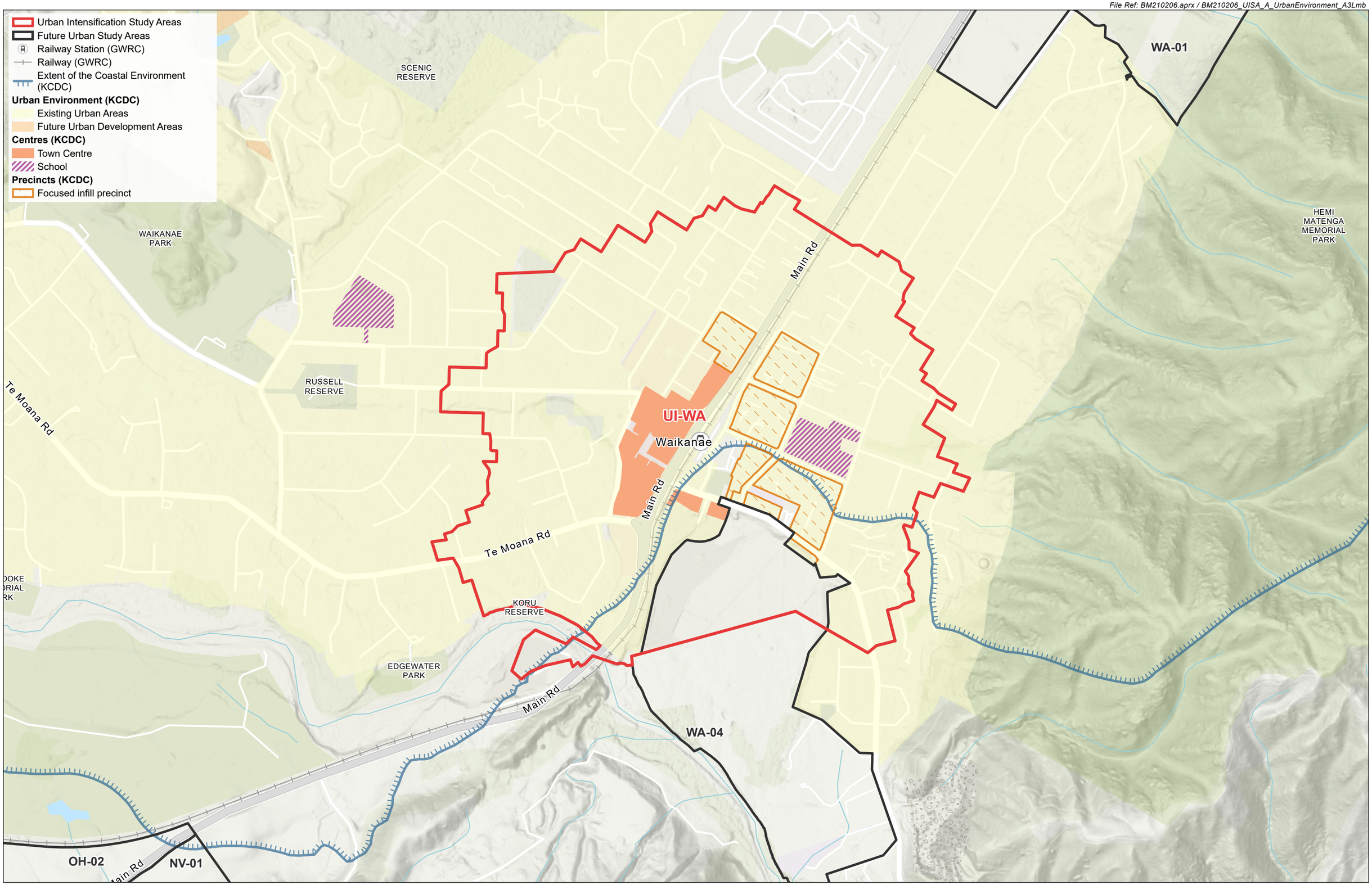

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Urban Intensification Study: Waikanae Centre

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UI.3.A

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Urban Intensification Study Areas
Future Urban Study Areas
Urban Environment (KCDC)
Existing Urban Areas
Centres (KCDC)
Local Centre
Town Centre
School
Precincts (KCDC)
Medium density housing precinct
Focused infill precinct

UI-PA-01
UI-PA-02
UI-PA-03
UI-PA-04
PA-01
OH-01
Otaihanga
TE ATIAWA PARK
KENA KENA PARK
PARAPARAUMU BEACH GOLF CLUB
MACLEAN PARK
Paraparaumu Beach
PARAPARAUMU BEACH CEMETERY
WESLEY KNIGHT PARK
MAZENGARB RESERVE
Manly St
Mazengarb Rd
The Drive
Kapiti Rd
Marine Pde
Kapiti Expy

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Data Sources: KCDC, BML, Basemap: Eagle Technology, LINZ, StatsNZ, NIWA, Natural Earth, © OpenStreetMap contributors., LINZ, Eagle Technology, Esri Community Maps Contributors, LINZ, Stats NZ, Eagle Technology, Esri, HERE, Garmin, METI/NASA, USGS

Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION
Urban Environment
Urban Intensification Study: Paraparaumu Local
Date: 09 August 2021 | Revision: 0
Plan prepared for KCDC by Boffa Miskell Limited
Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

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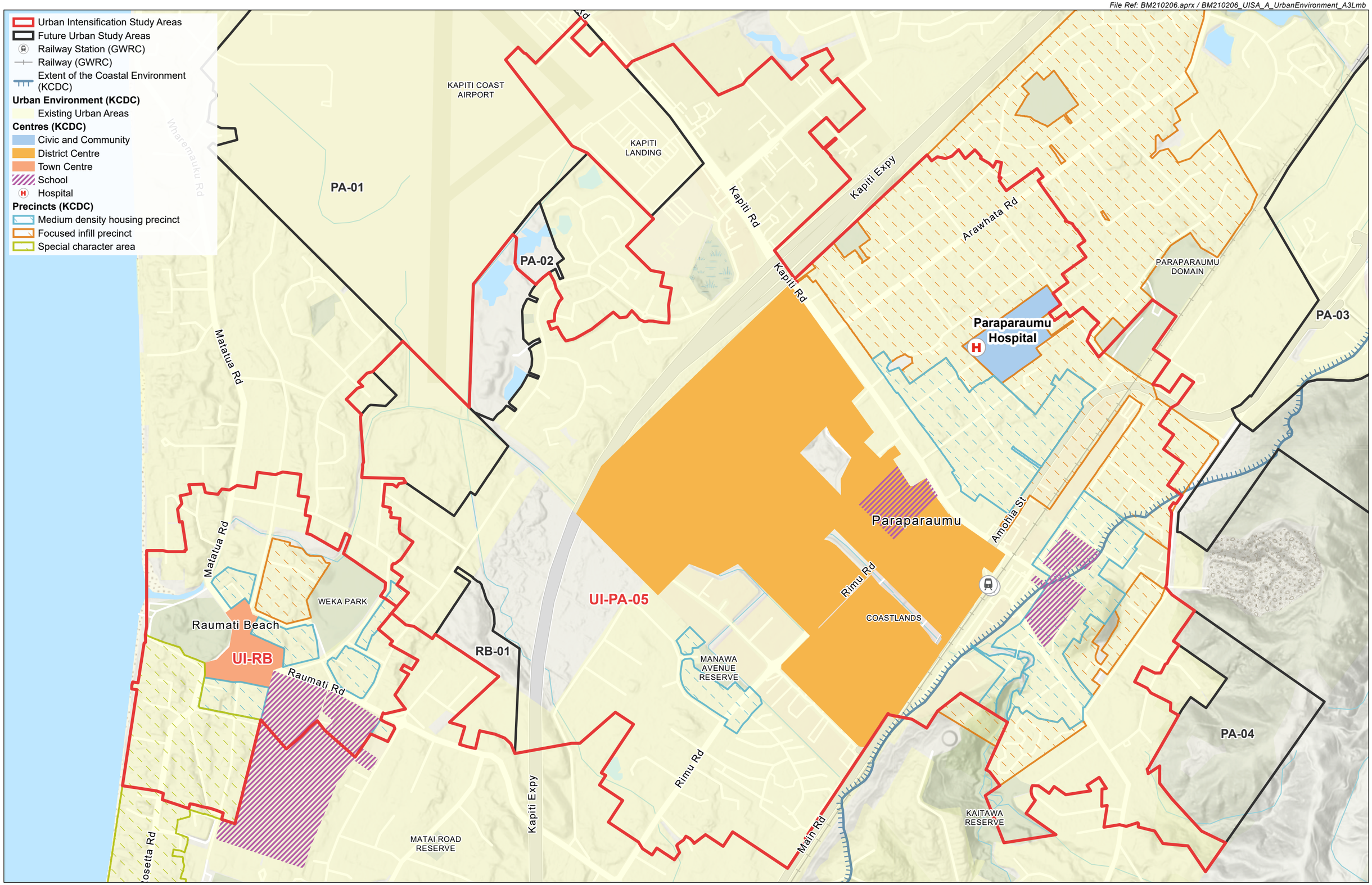

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Urban Intensification Study: Paraparaumu

Date: 09 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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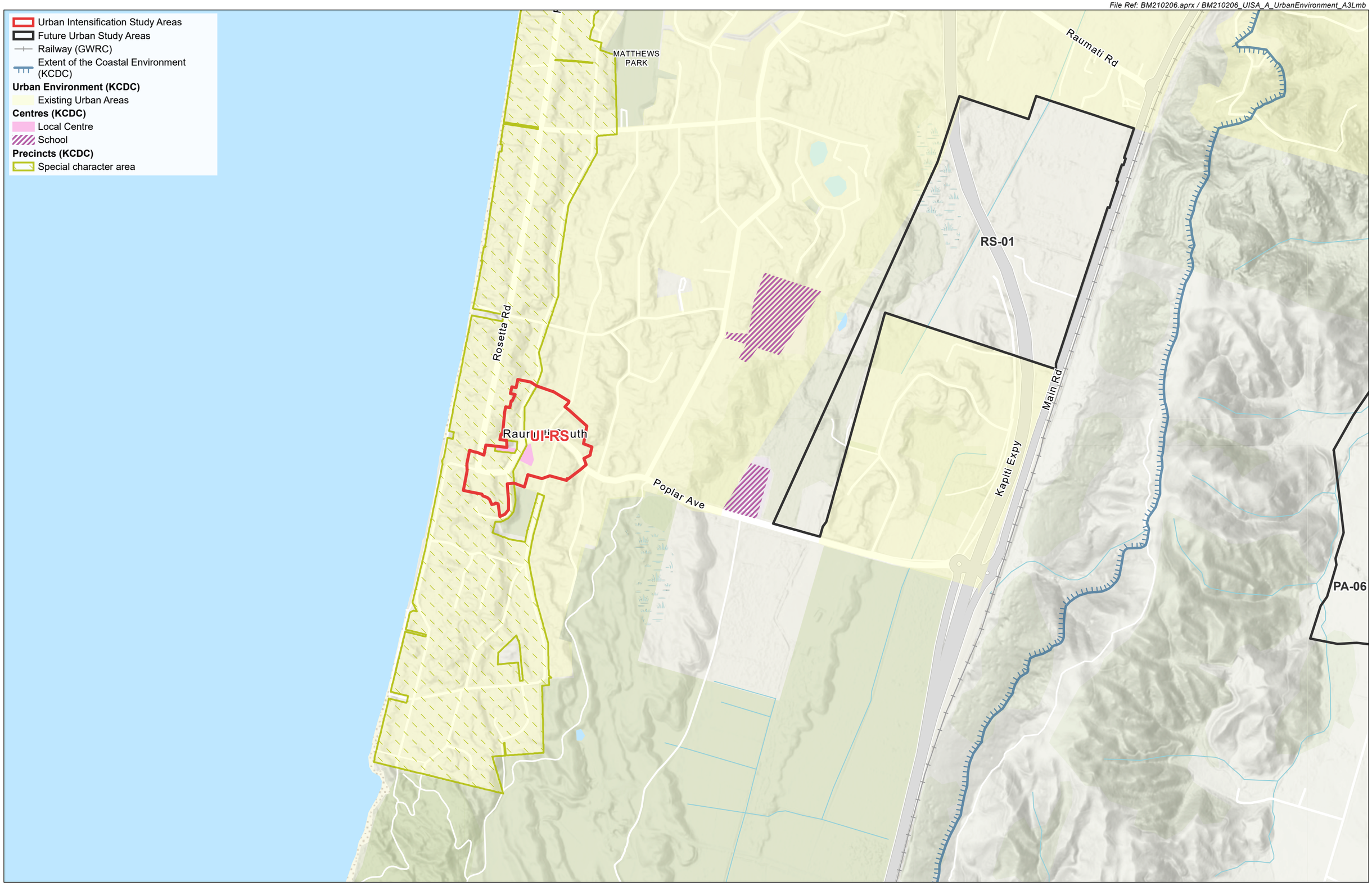

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Urban Intensification Study: Raumati South

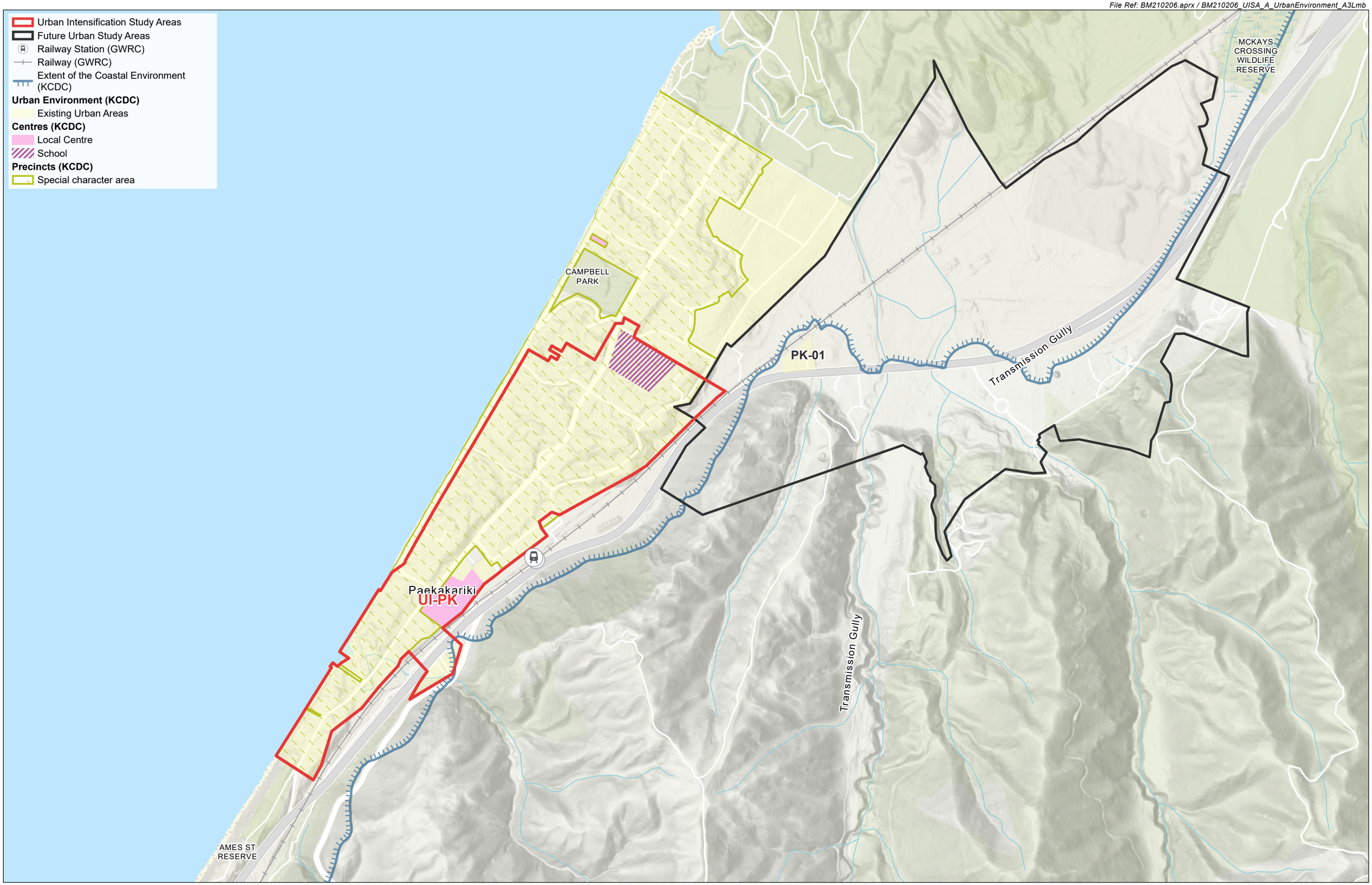
Date: 09 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.6.A

DRAFT



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Urban Intensification Study: Paekakariki Station

Date: 09 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.7.A

DRAFT

Urban Intensification Study Area
Spatial Influences and Constraints Mapping

Urban Function

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0 4 km

1:125,000 @ A3

Data Sources: KCDC, BML, Earthstar Geographics

Projection: NZGD 2000 New Zealand Transverse Mercator

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Map Index

Urban Intensification Study Areas

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Intensification Study Area Mapbook

Date: 02 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UISA

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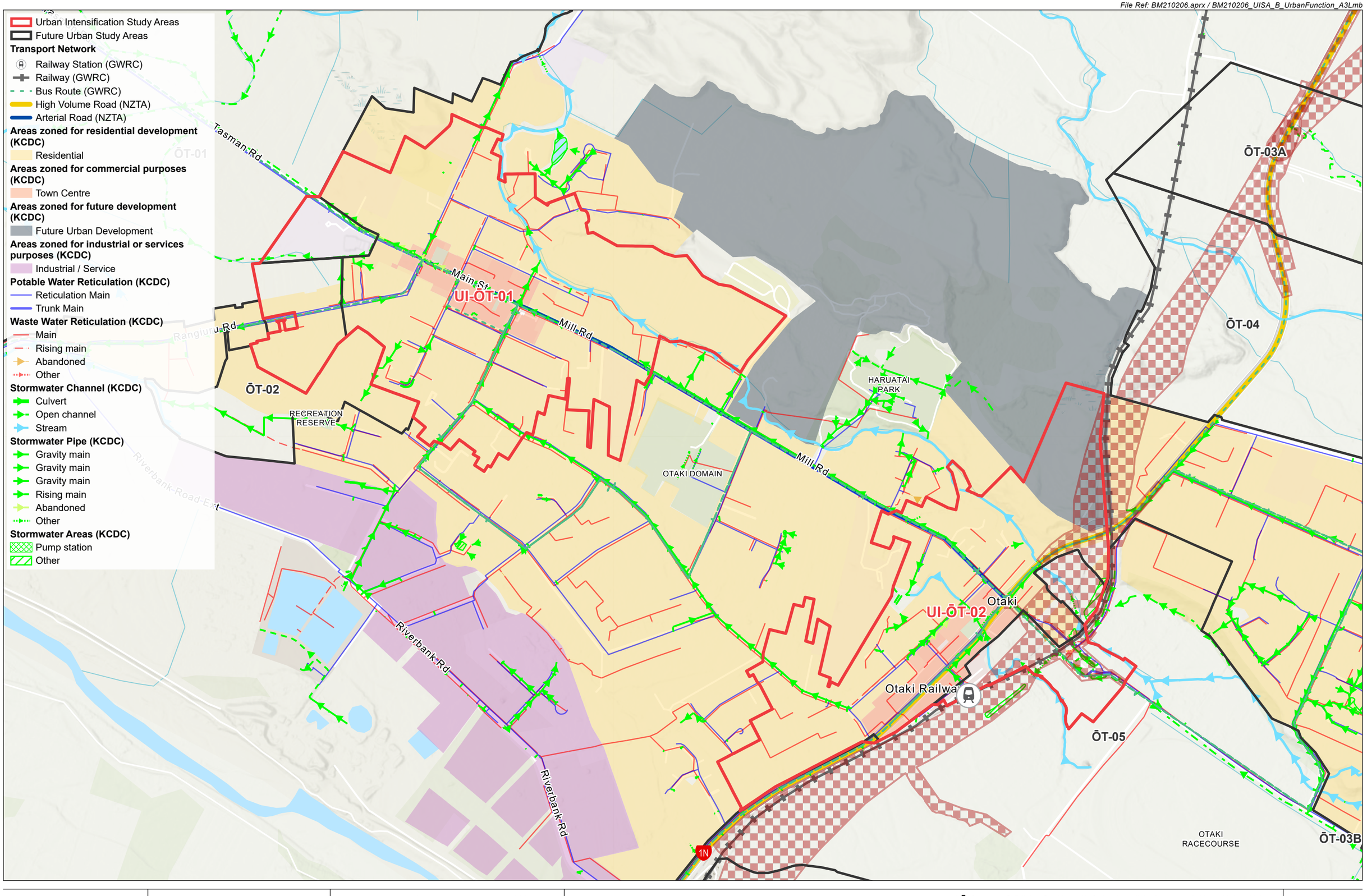

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Urban Intensification Study: Otaki Centre

Date: 16 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.1.B

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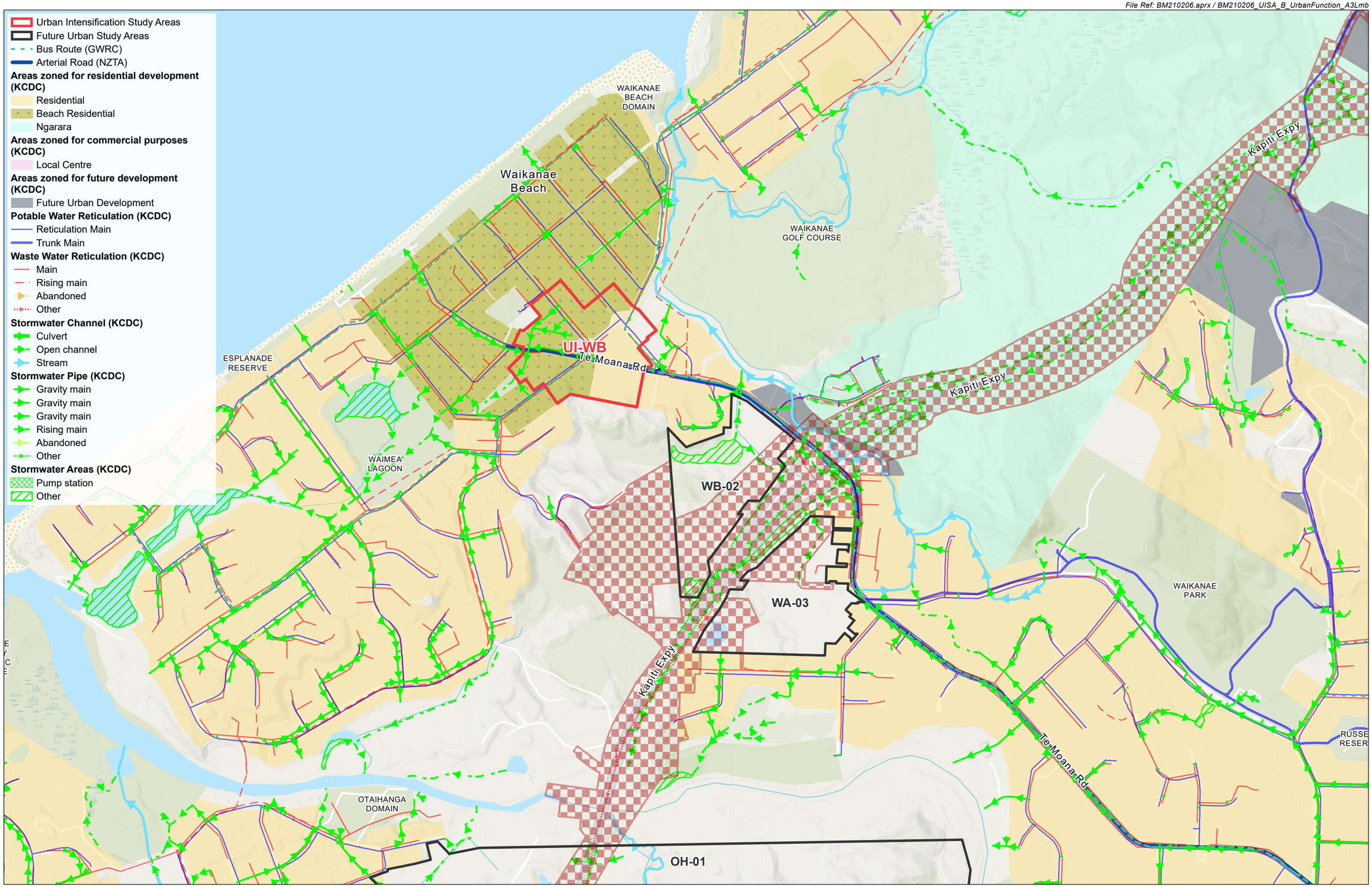

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Urban Intensification Study: Waikanae Beach

Date: 16 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.2.B

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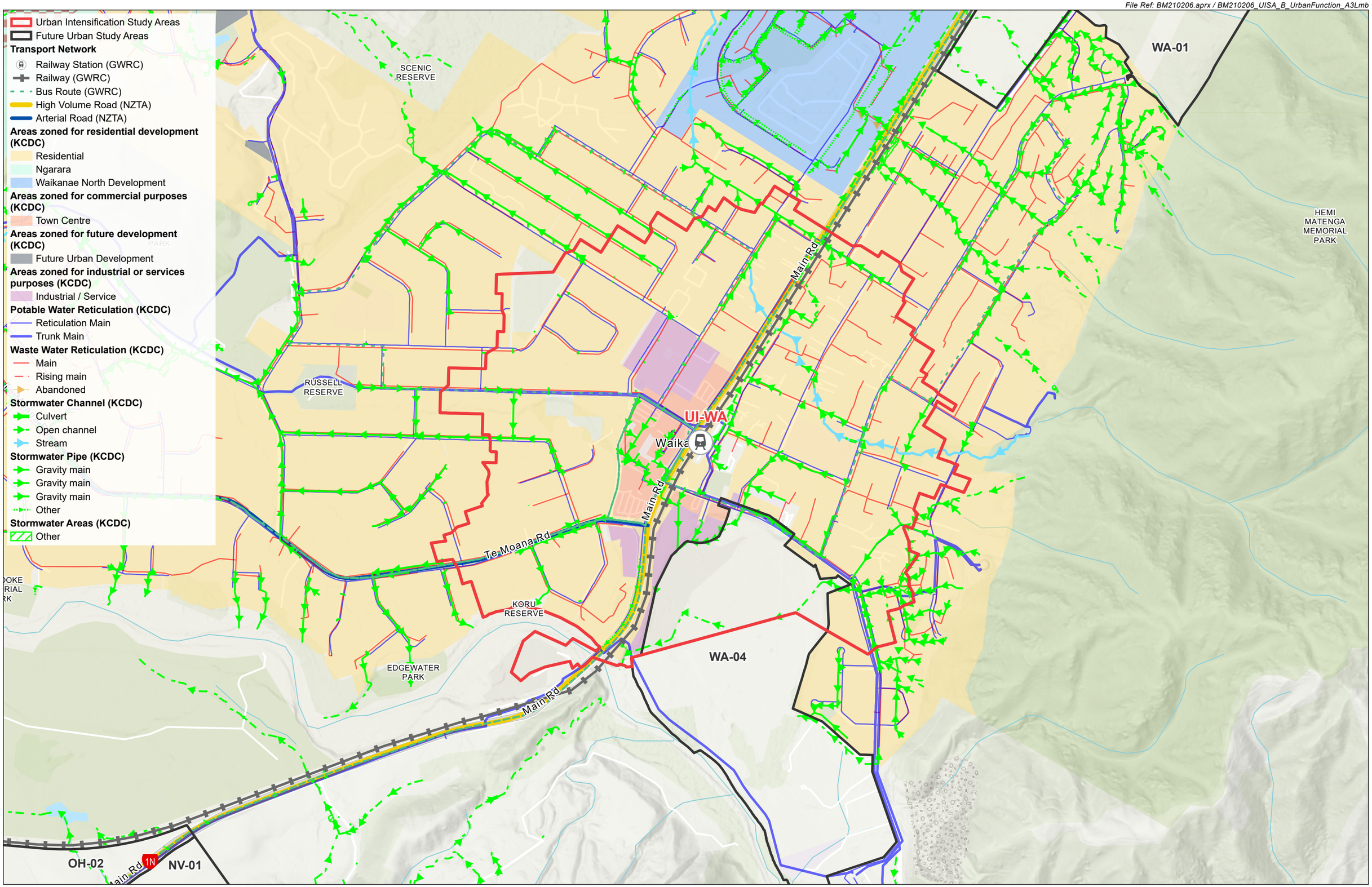

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Urban Intensification Study: Waikanae Centre

Date: 16 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.3.B

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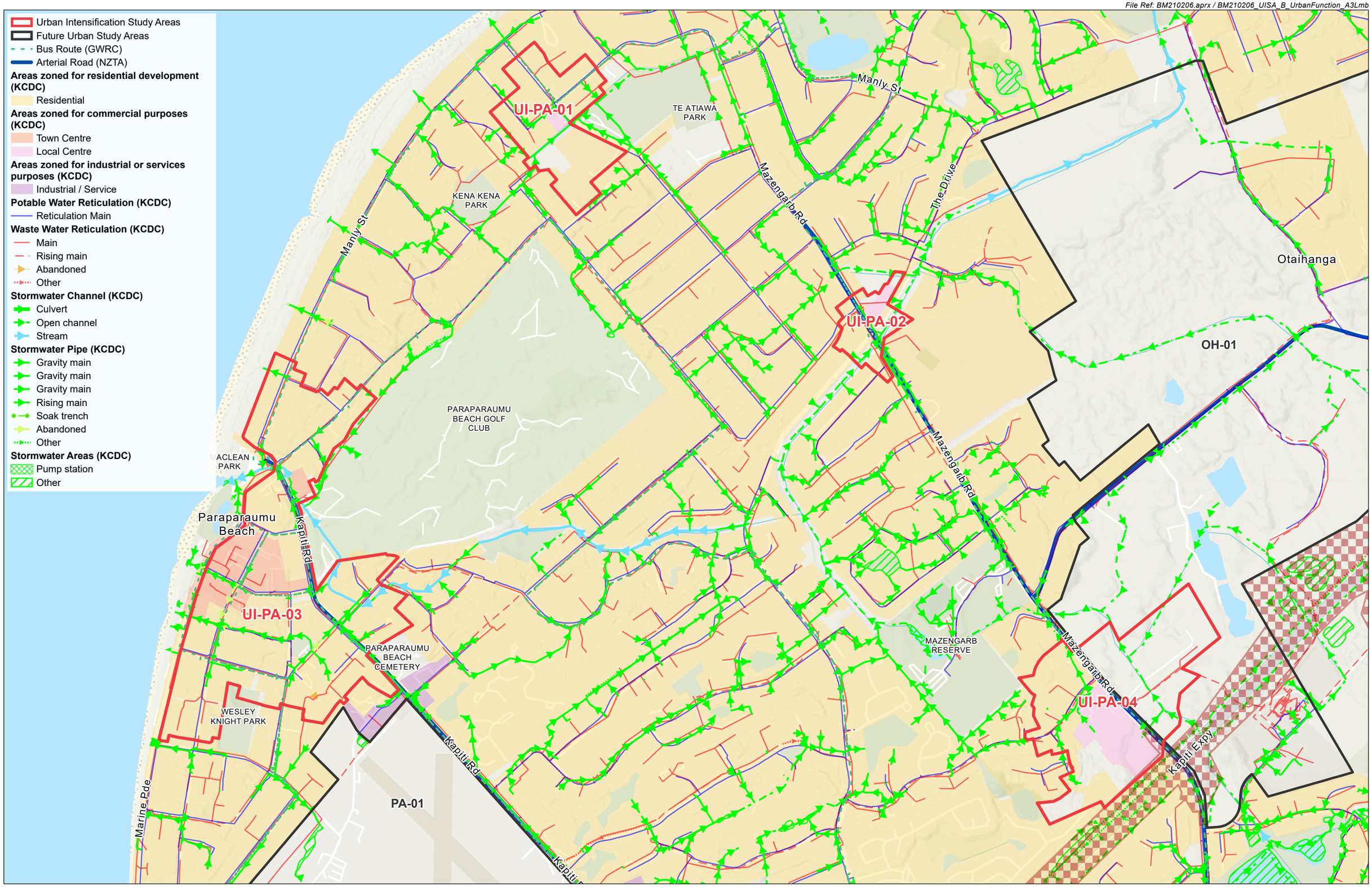

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Urban Intensification Study: Paraparaumu Local

Date: 16 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.4.B

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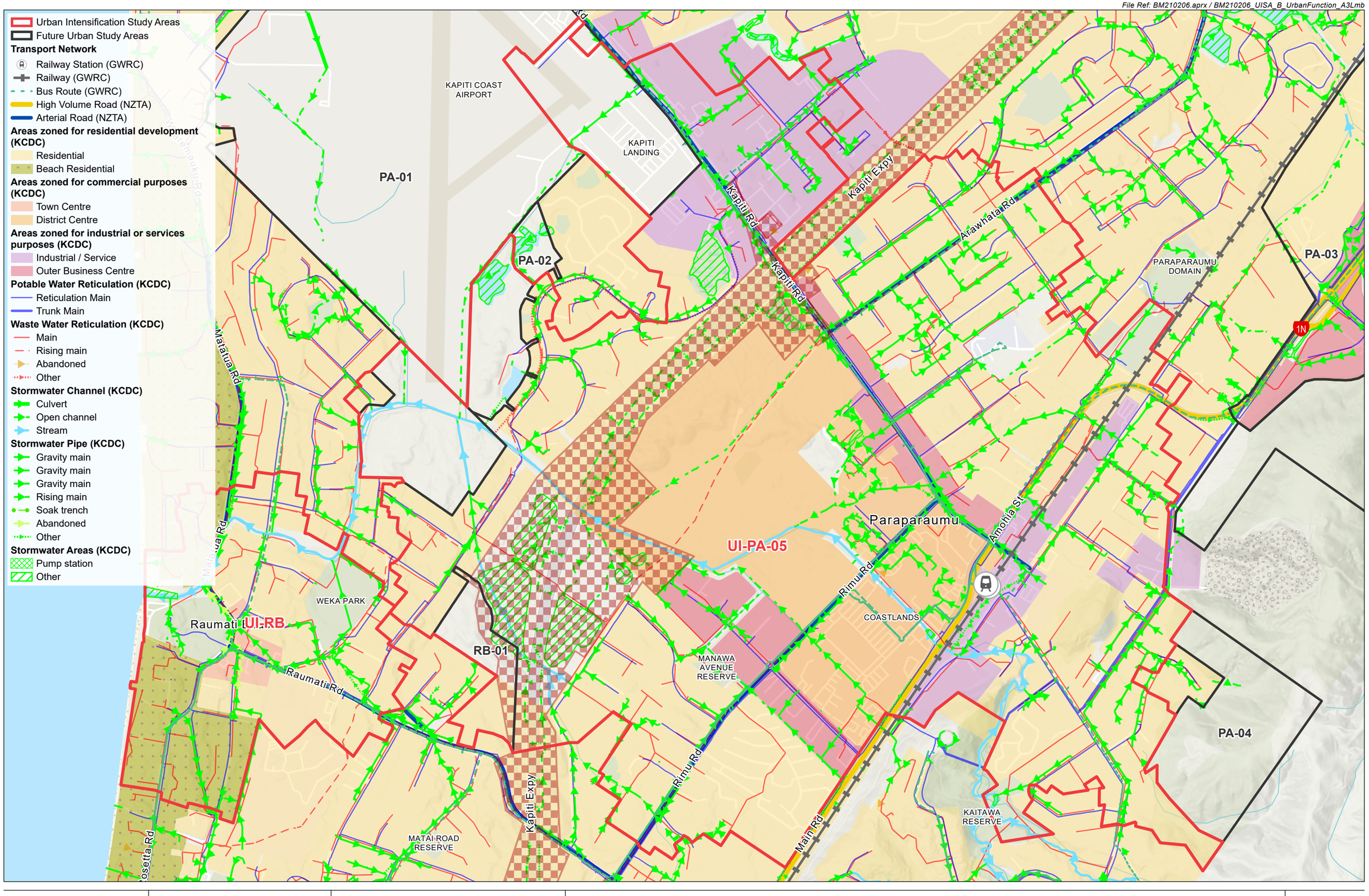

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Urban Intensification Study: Paraparaumu

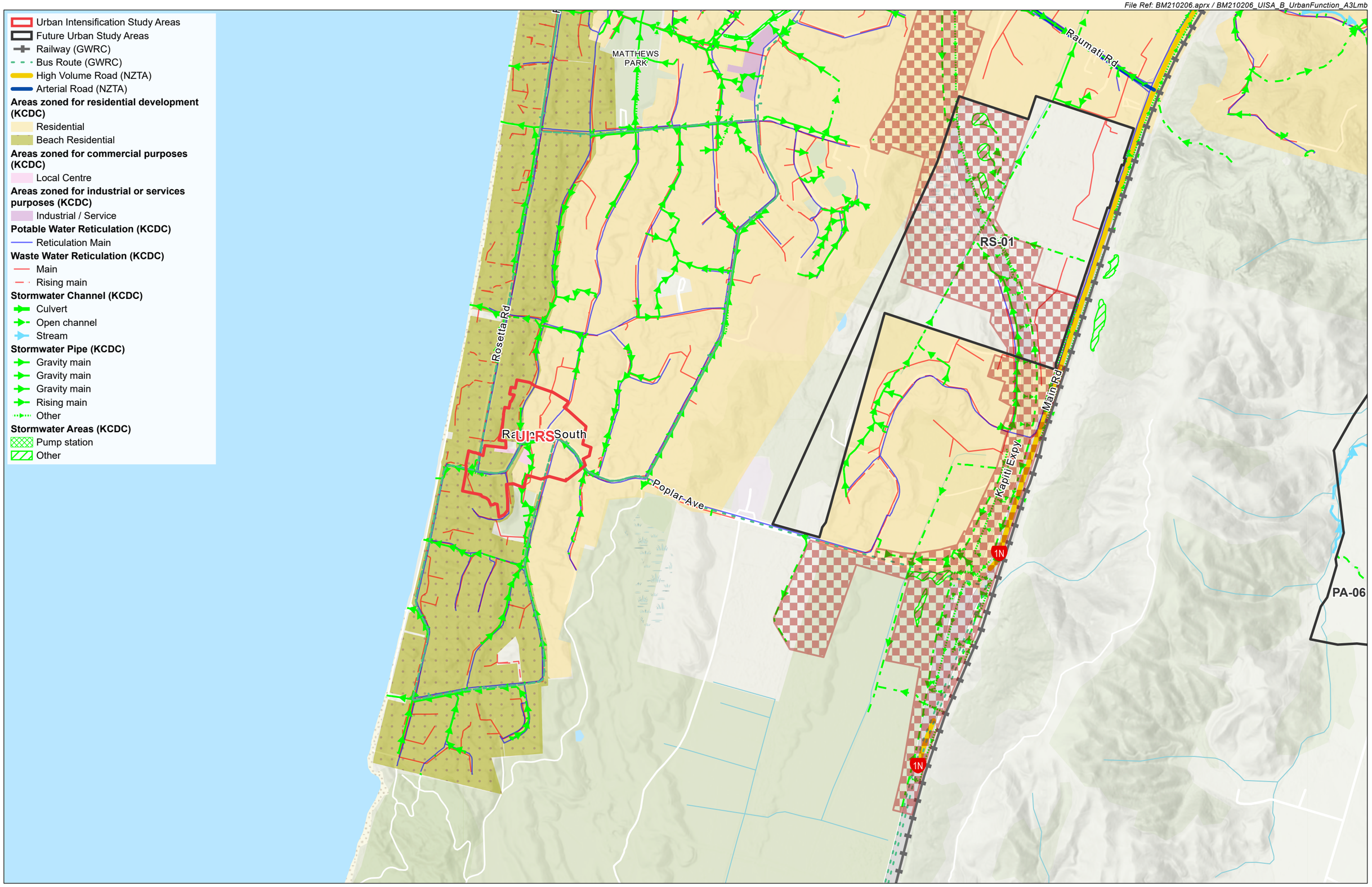
Date: 16 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.5.B

DRAFT



- Urban Intensification Study Areas
- Future Urban Study Areas
- Railway (GWRC)
- Bus Route (GWRC)
- High Volume Road (NZTA)
- Arterial Road (NZTA)

Areas zoned for residential development (KCDC)
- Residential
- Beach Residential

Areas zoned for commercial purposes (KCDC)
- Local Centre

Areas zoned for industrial or services purposes (KCDC)
- Industrial / Service

Potable Water Reticulation (KCDC)
- Reticulation Main

Waste Water Reticulation (KCDC)
- Main
- Rising main

Stormwater Channel (KCDC)
- Culvert
- Open channel
- Stream

Stormwater Pipe (KCDC)
- Gravity main
- Gravity main
- Gravity main
- Rising main
- Other

Stormwater Areas (KCDC)
- Pump station
- Other

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Urban Intensification Study: Raumati South

Date: 16 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

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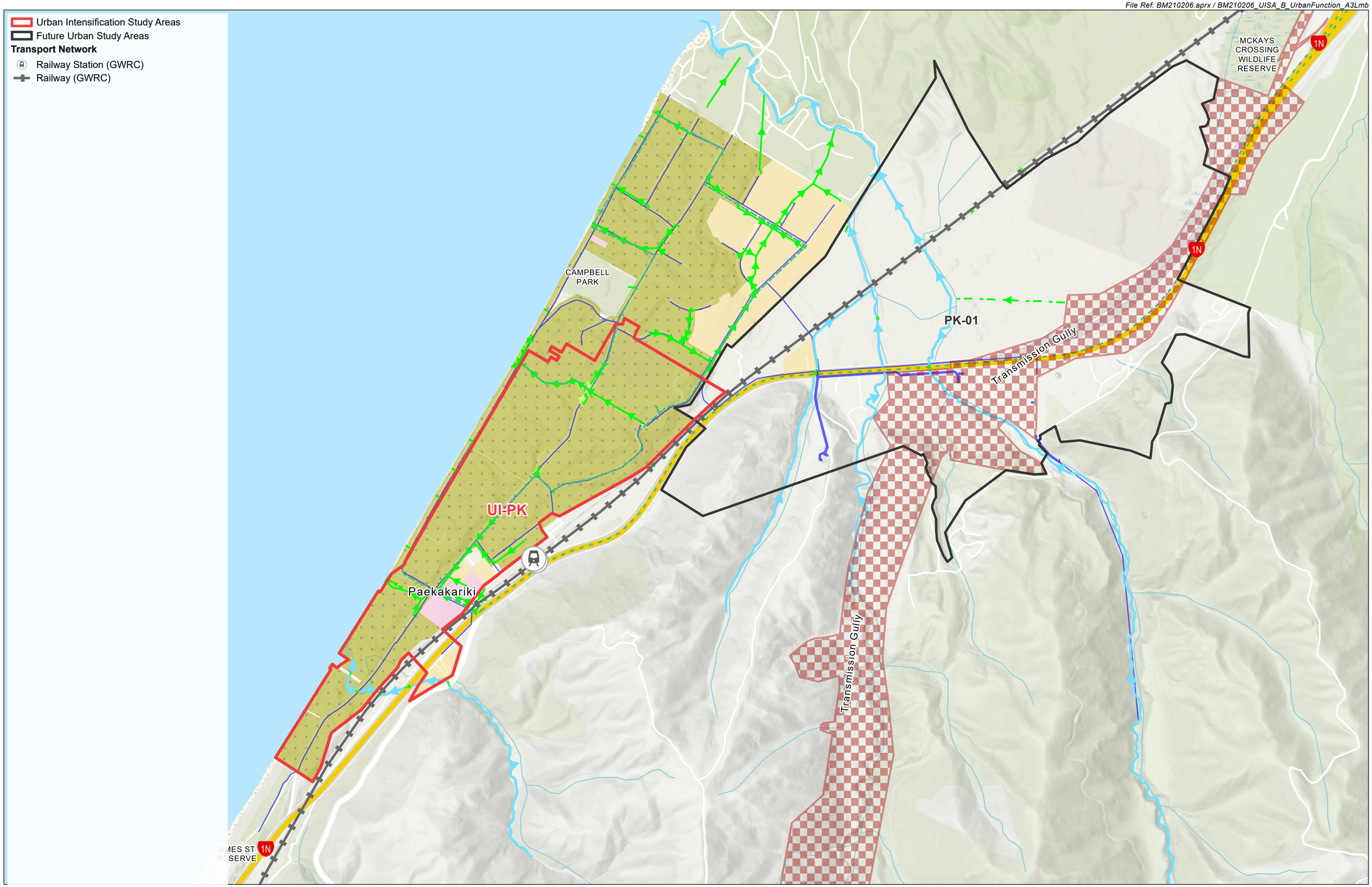

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Urban Intensification Study: Paekakariki Station

Date: 16 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.7.B

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Urban Intensification Study Area
Spatial Influences and Constraints Mapping

Natural Environment and Landscape

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0 4 km

1:125,000 @ A3

Data Sources: KCDC, BML, Earthstar Geographics

Projection: NZGD 2000 New Zealand Transverse Mercator

LEGEND

Map Index

Urban Intensification Study Areas

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Intensification Study Area Mapbook

Date: 02 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UISA

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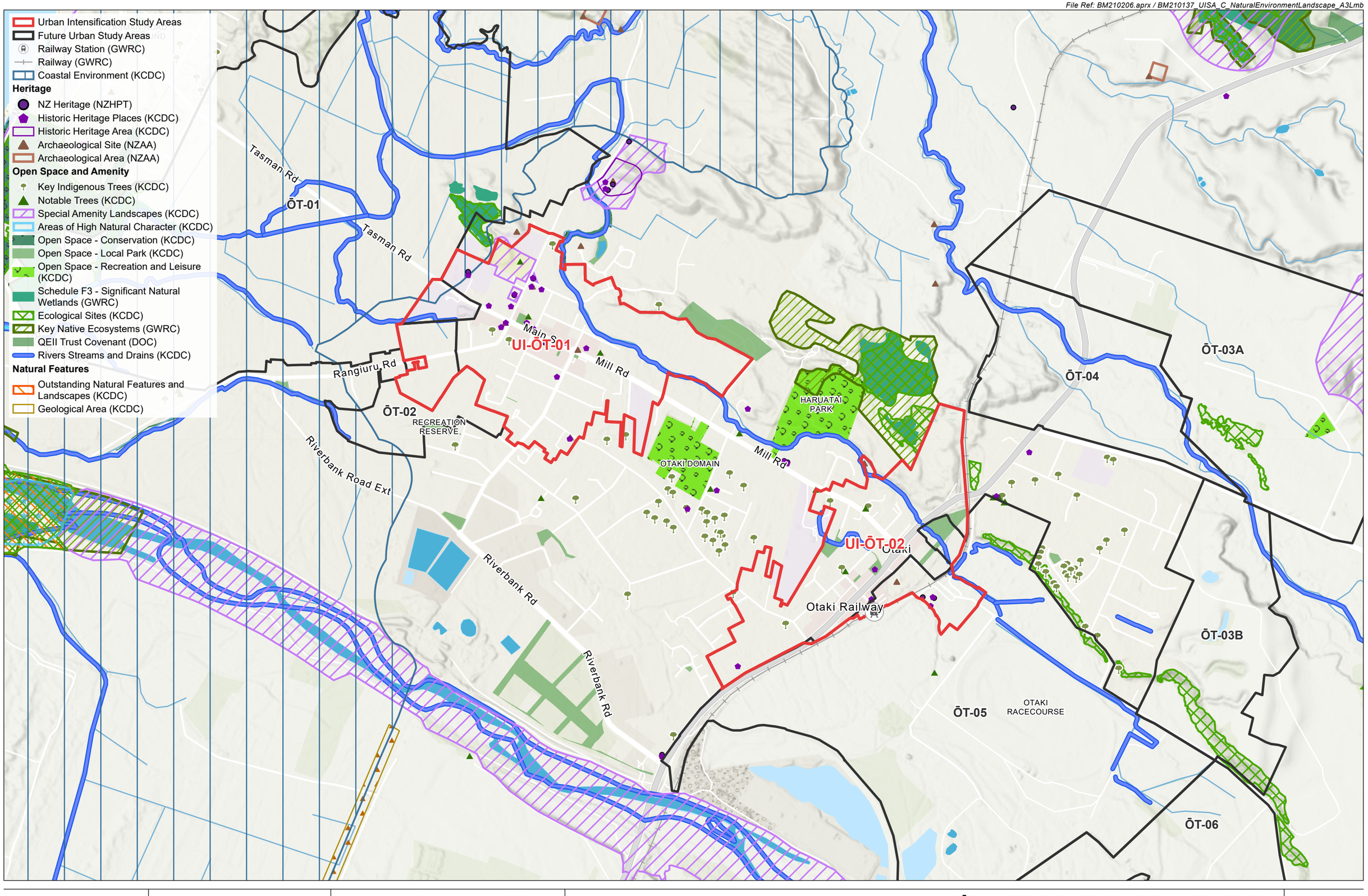

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape
Urban Intensification Study: Otaki Centre

Date: 02 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.1.C

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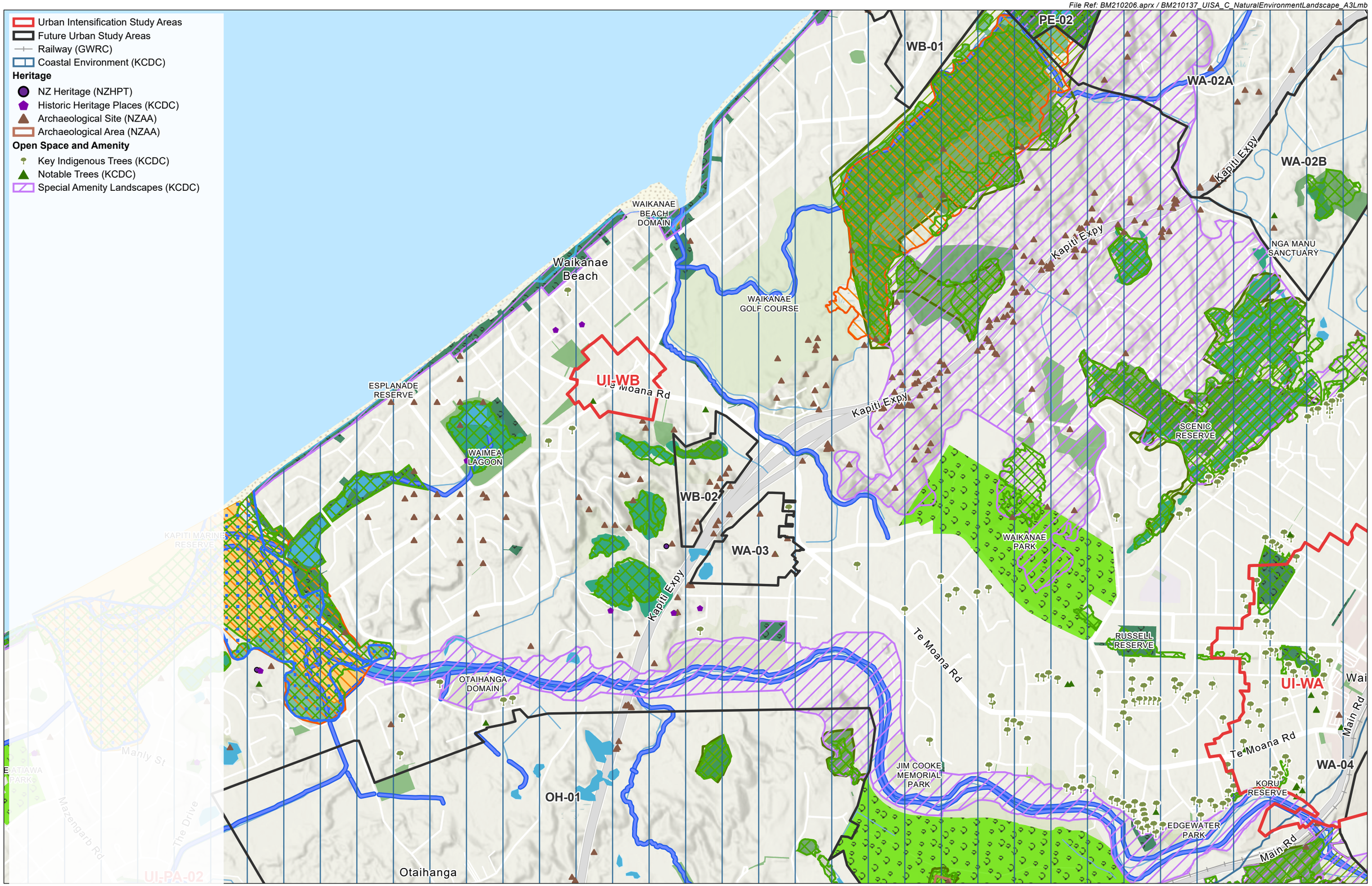

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape
Urban Intensification Study: Waikanae Beach

Date: 02 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.2.C

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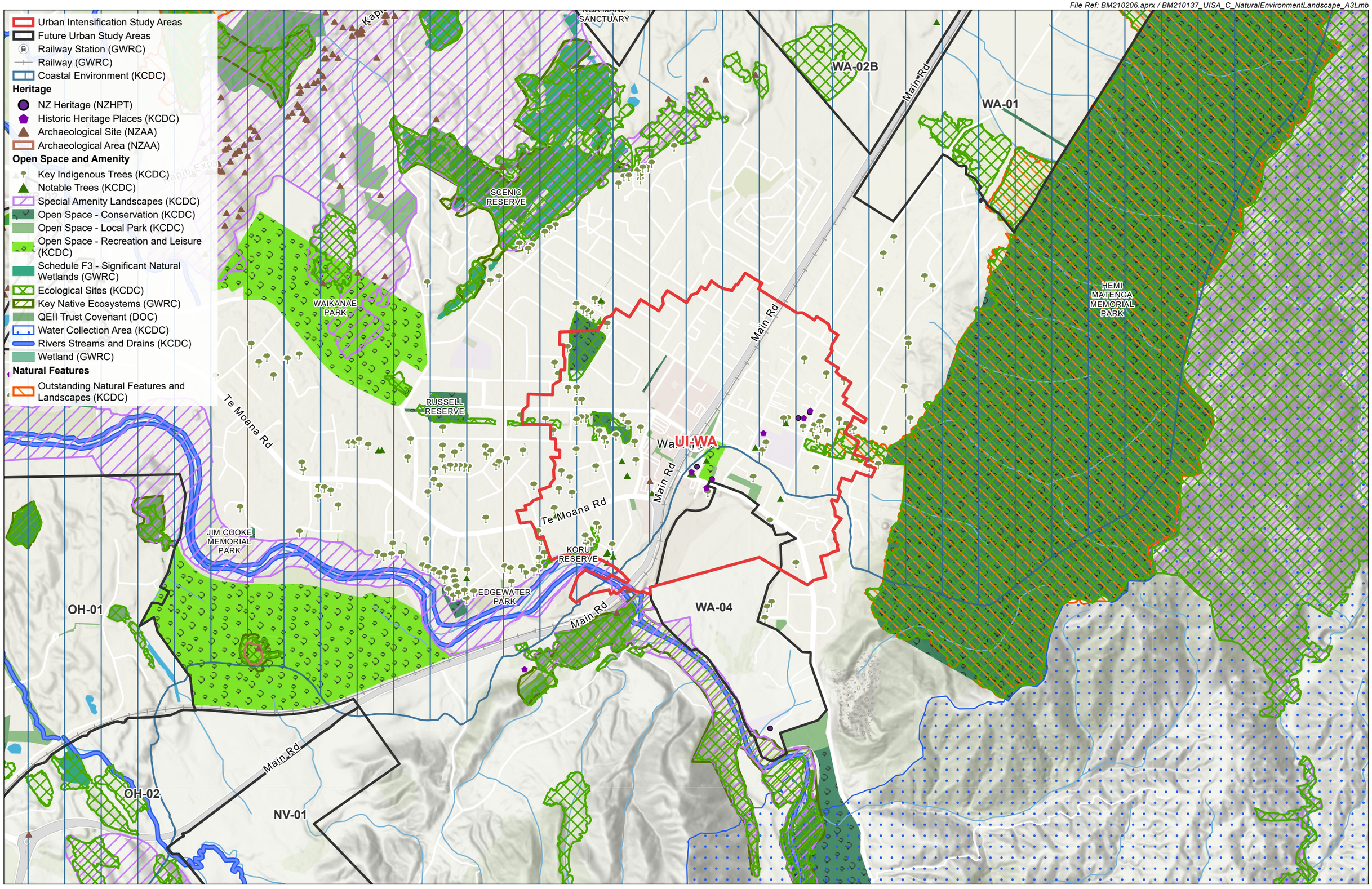

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape

Urban Intensification Study: Waikanae Centre

Date: 02 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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UI.3.C

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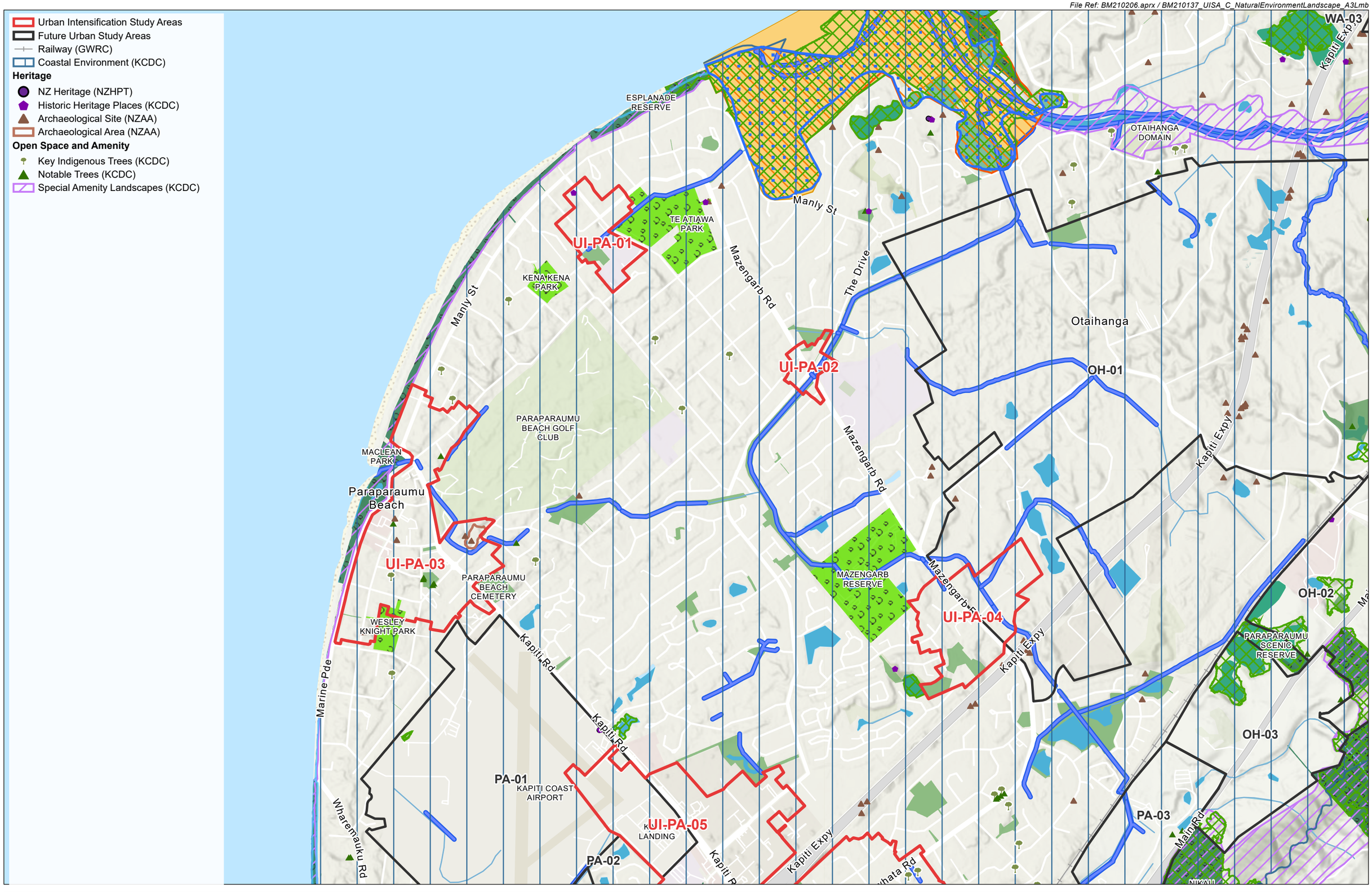

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape

Urban Intensification Study: Paraparaumu Local

Date: 02 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.4.C

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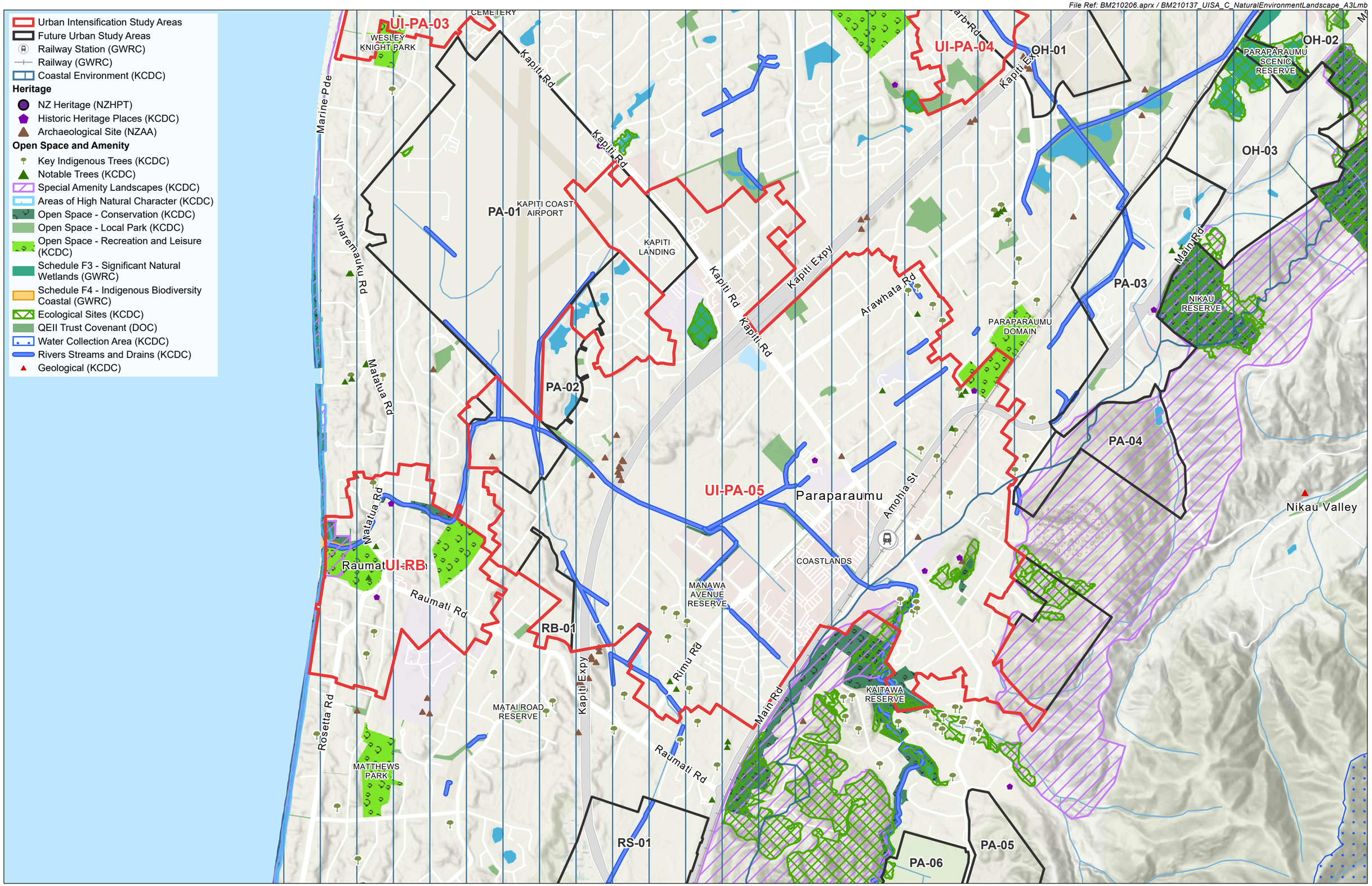

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape
Urban Intensification Study: Paraparaumu

Date: 02 August 2021 | Revision: 0

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UI.5.C

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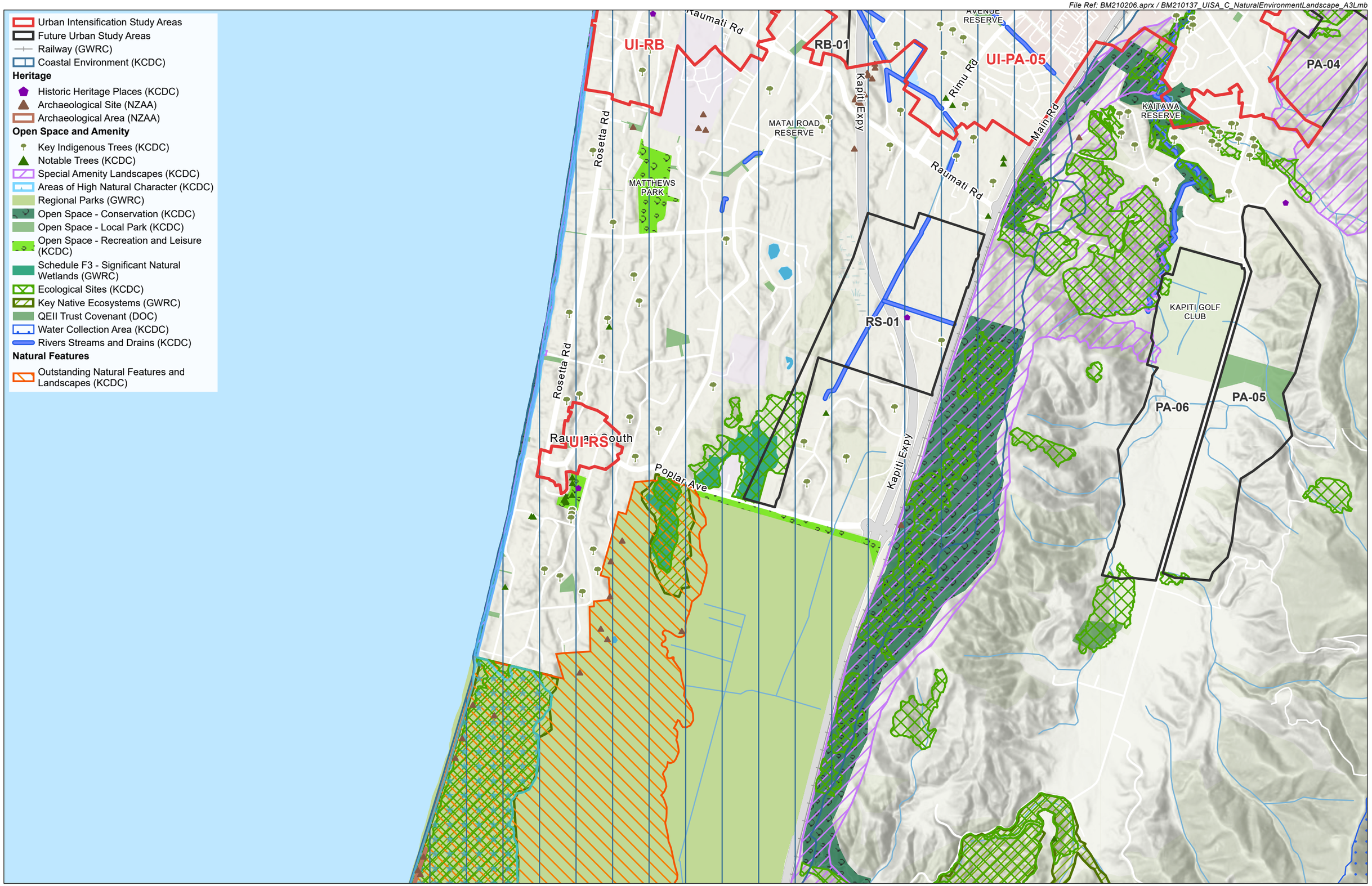

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape
Urban Intensification Study: Raumati South

Date: 02 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.6.C

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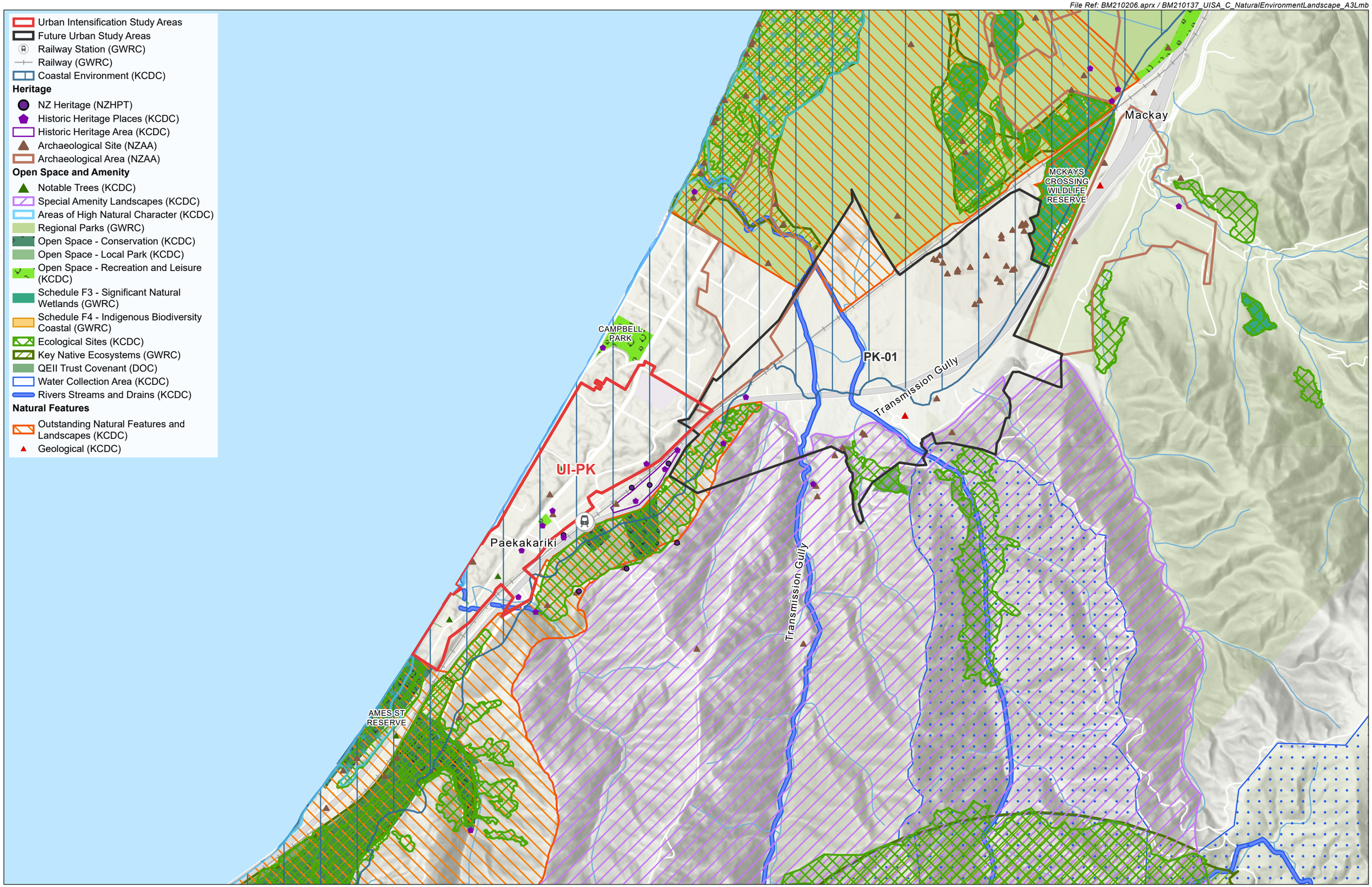

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape
Urban Intensification Study: Paekakariki Station

Date: 02 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.7.C

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Urban Intensification Study Area
Spatial Influences and Constraints Mapping

Land Development Constraints

Boffa Miskell

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0 4 km

1:125,000 @ A3

Data Sources: KCDC, BML, Earthstar Geographics

Projection: NZGD 2000 New Zealand Transverse Mercator

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Map Index

Urban Intensification Study Areas

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Intensification Study Area Mapbook

Date: 02 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

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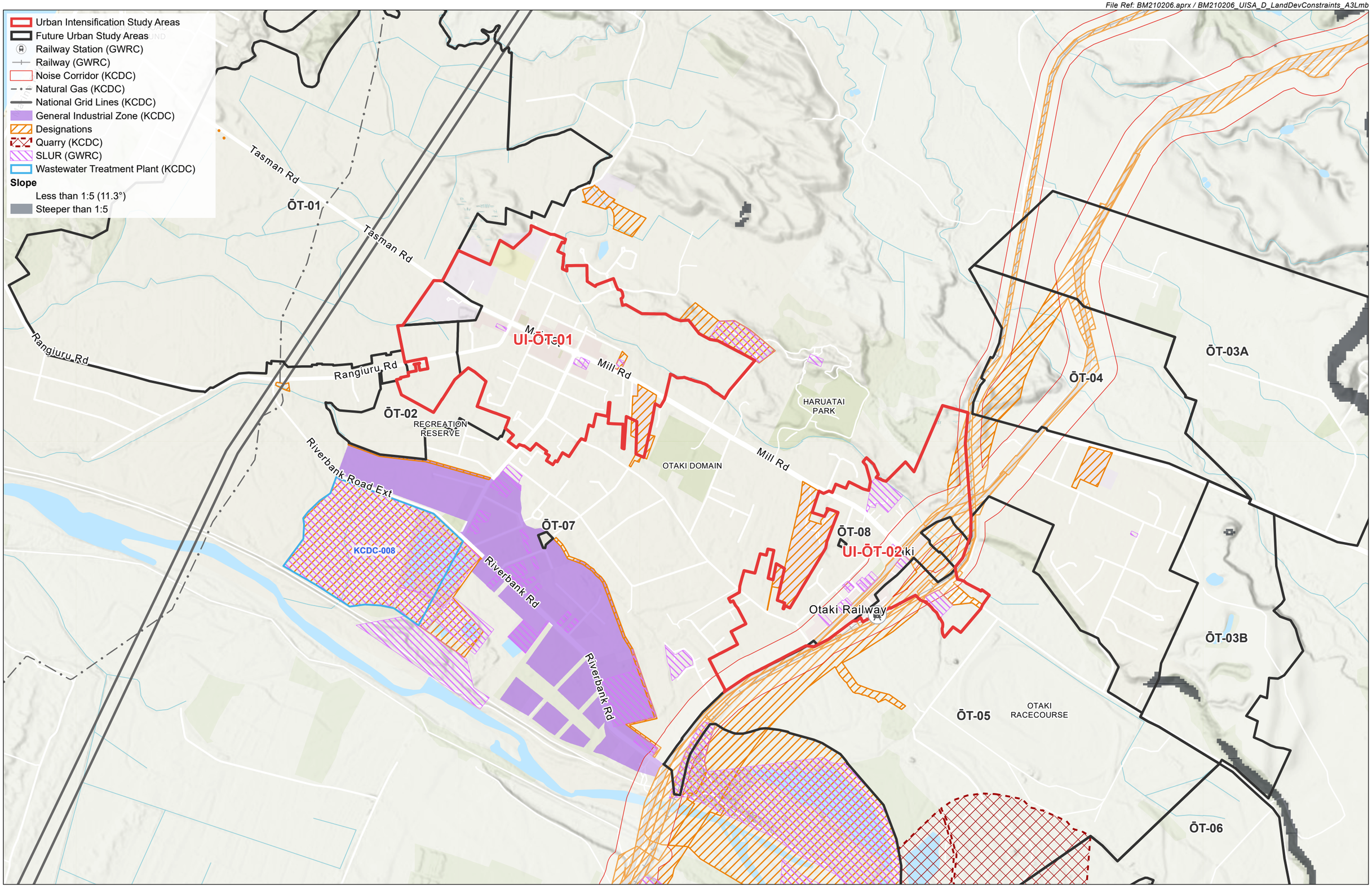

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Land Development Constraints
Urban Intensification Study: Otaki Centre

Date: 09 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.1.D

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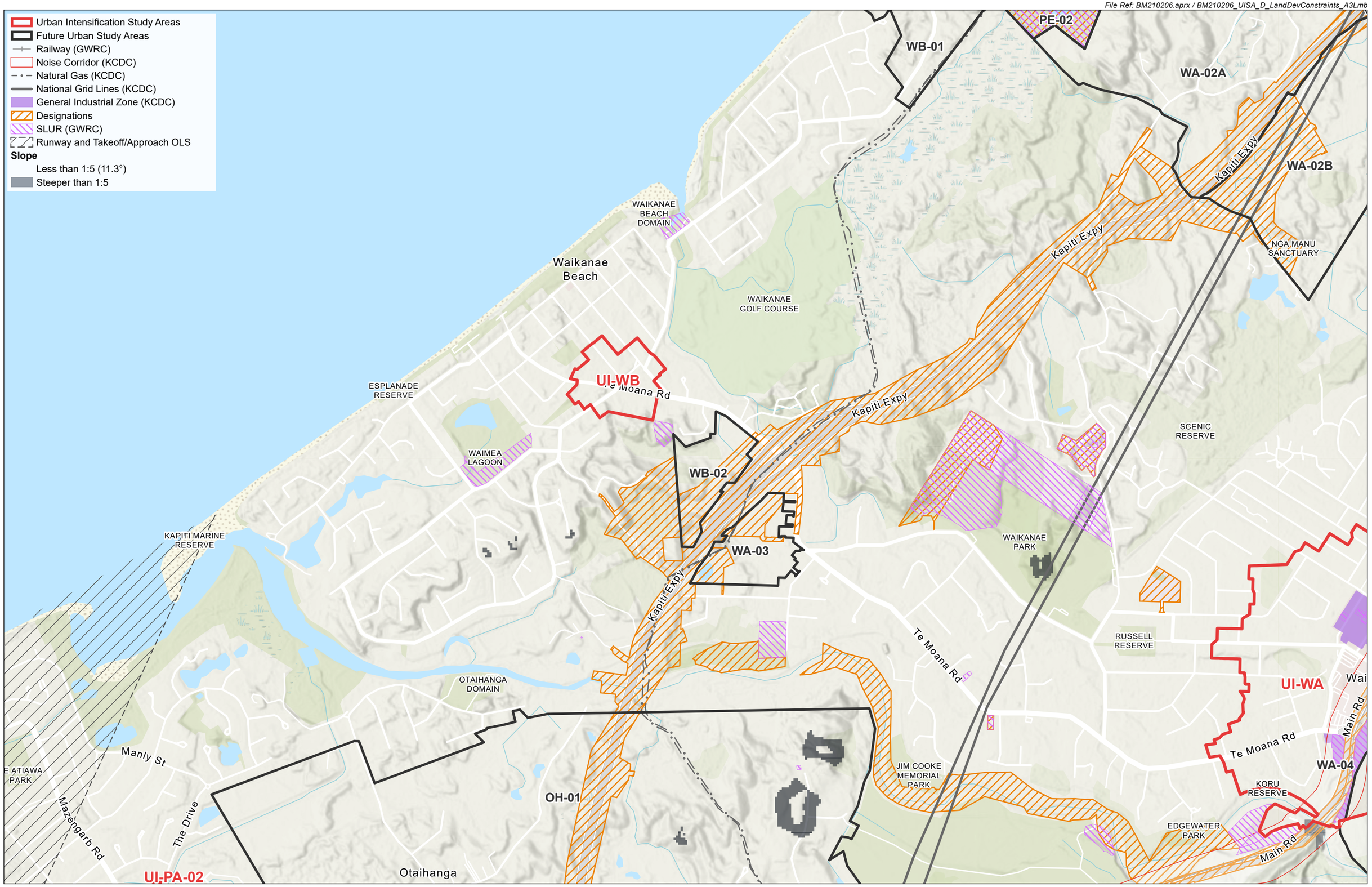

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Land Development Constraints
Urban Intensification Study: Waikanae Beach

Date: 09 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.2.D

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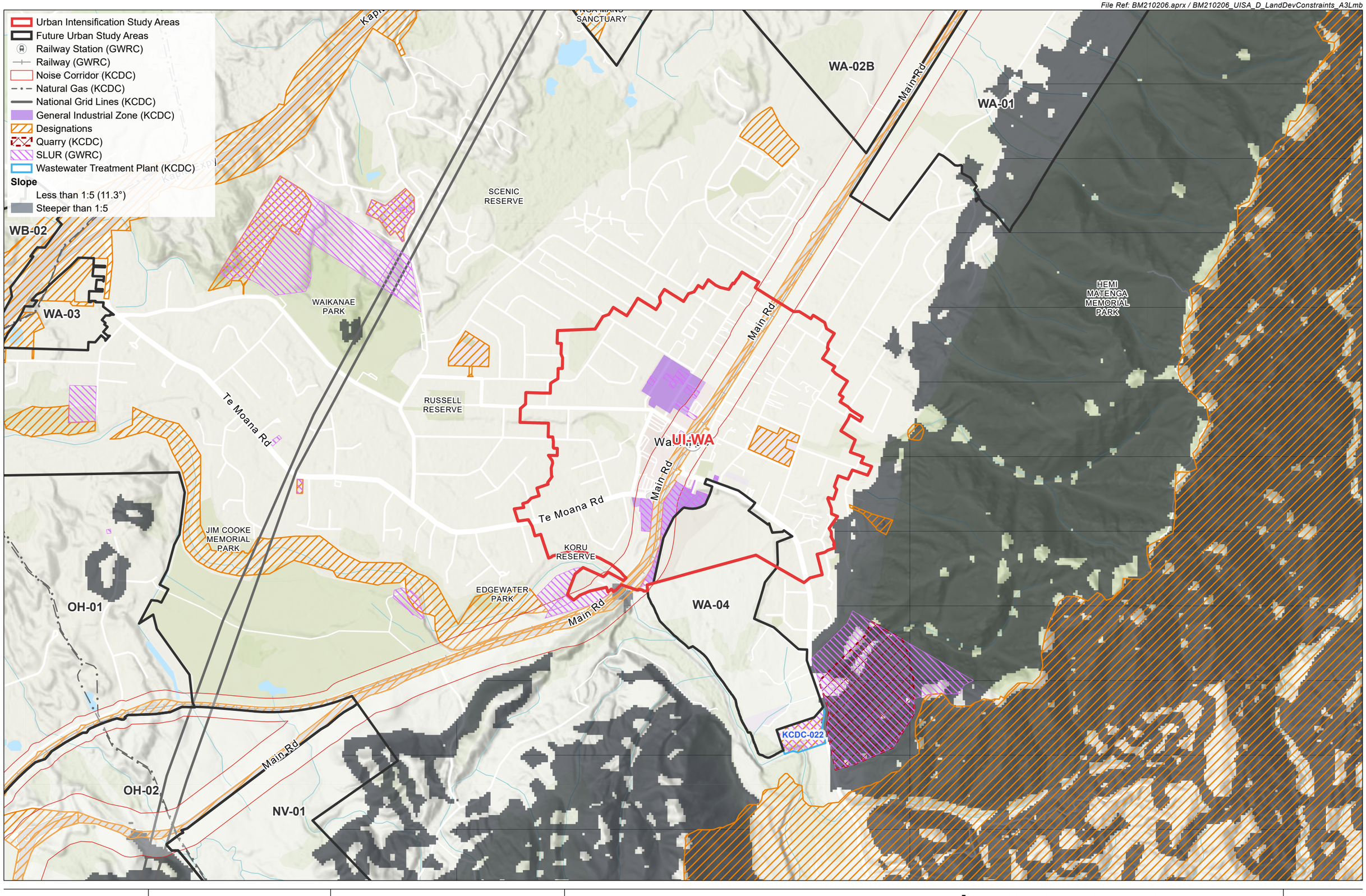

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Land Development Constraints
Urban Intensification Study: Waikanae Centre

Date: 09 August 2021 | Revision: 0

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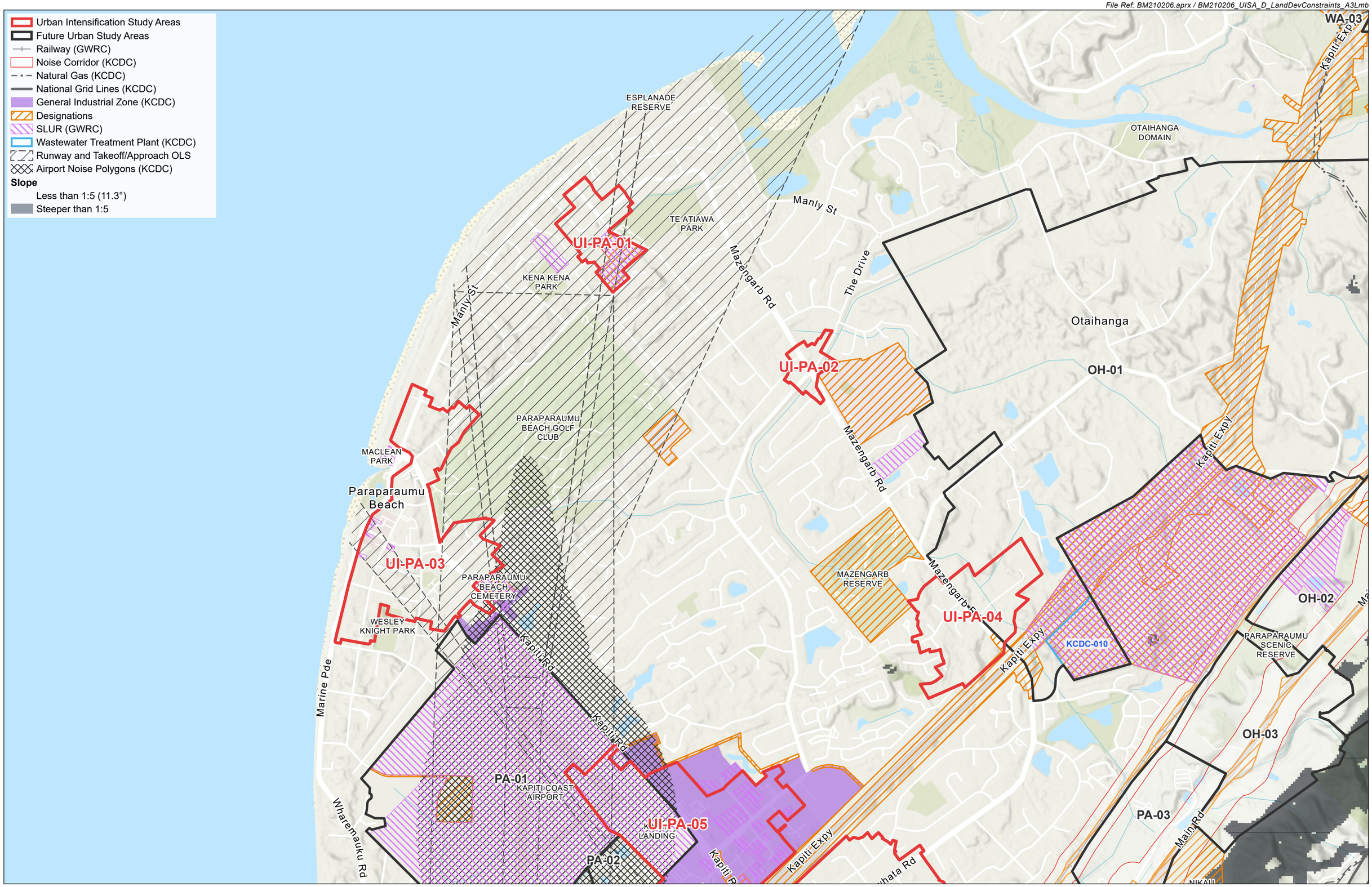
UI.3.D

DRAFT



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Land Development Constraints
Urban Intensification Study: Paraparaumu Local

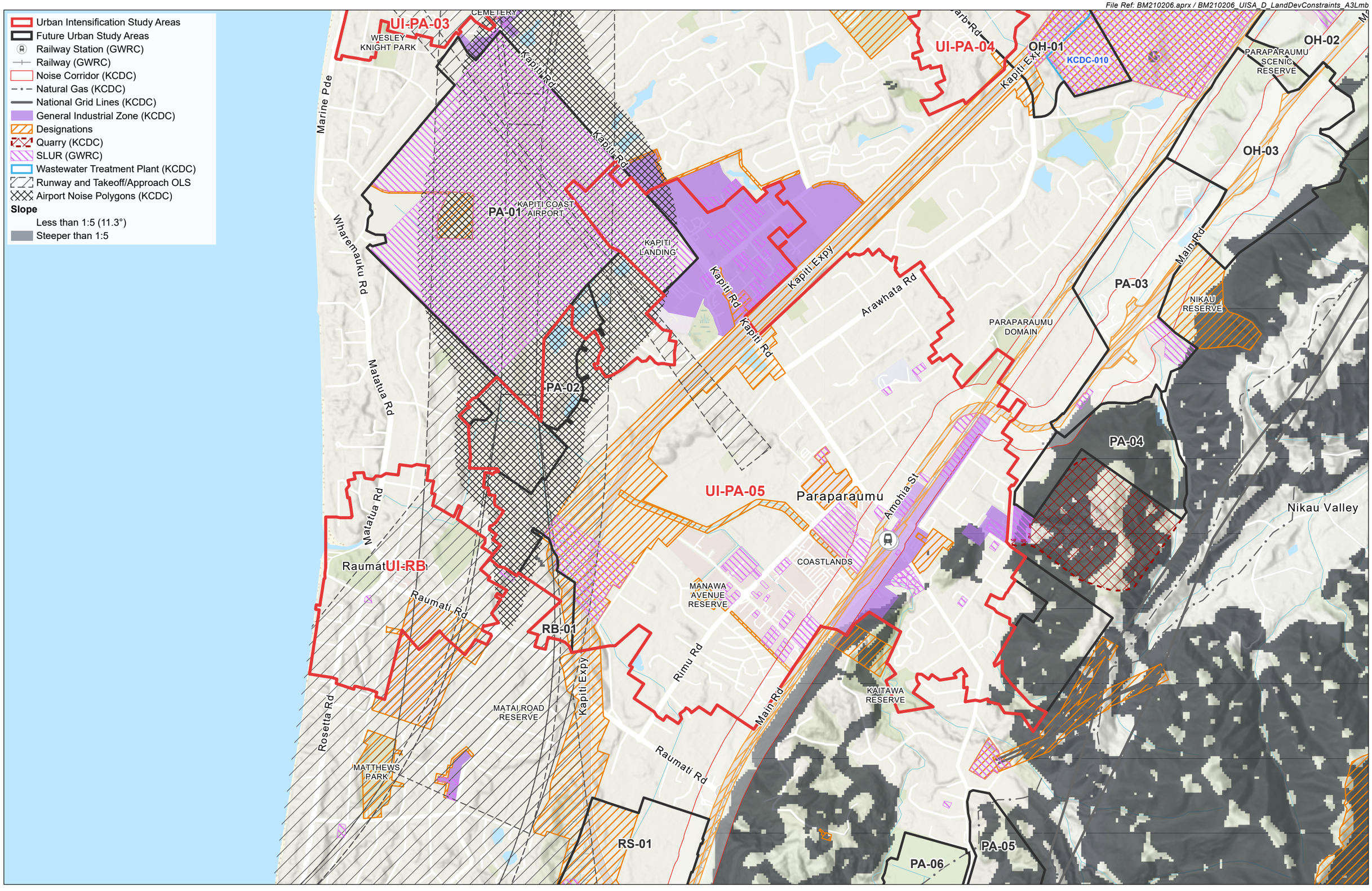
Date: 09 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.4.D

DRAFT



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Land Development Constraints
Urban Intensification Study: Paraparaumu

Date: 09 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

UI.5.D

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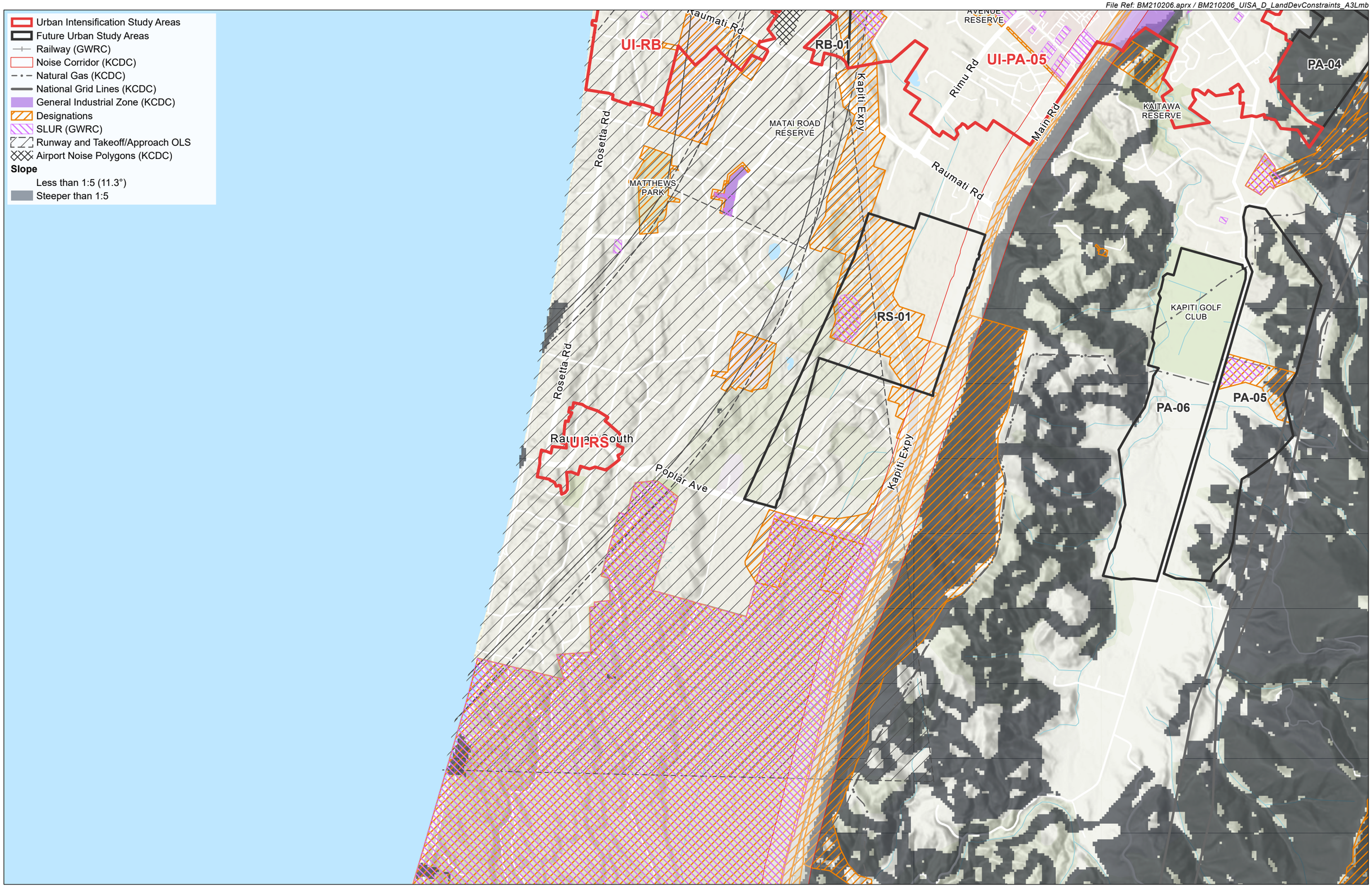

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Land Development Constraints
Urban Intensification Study: Raumati South

Date: 09 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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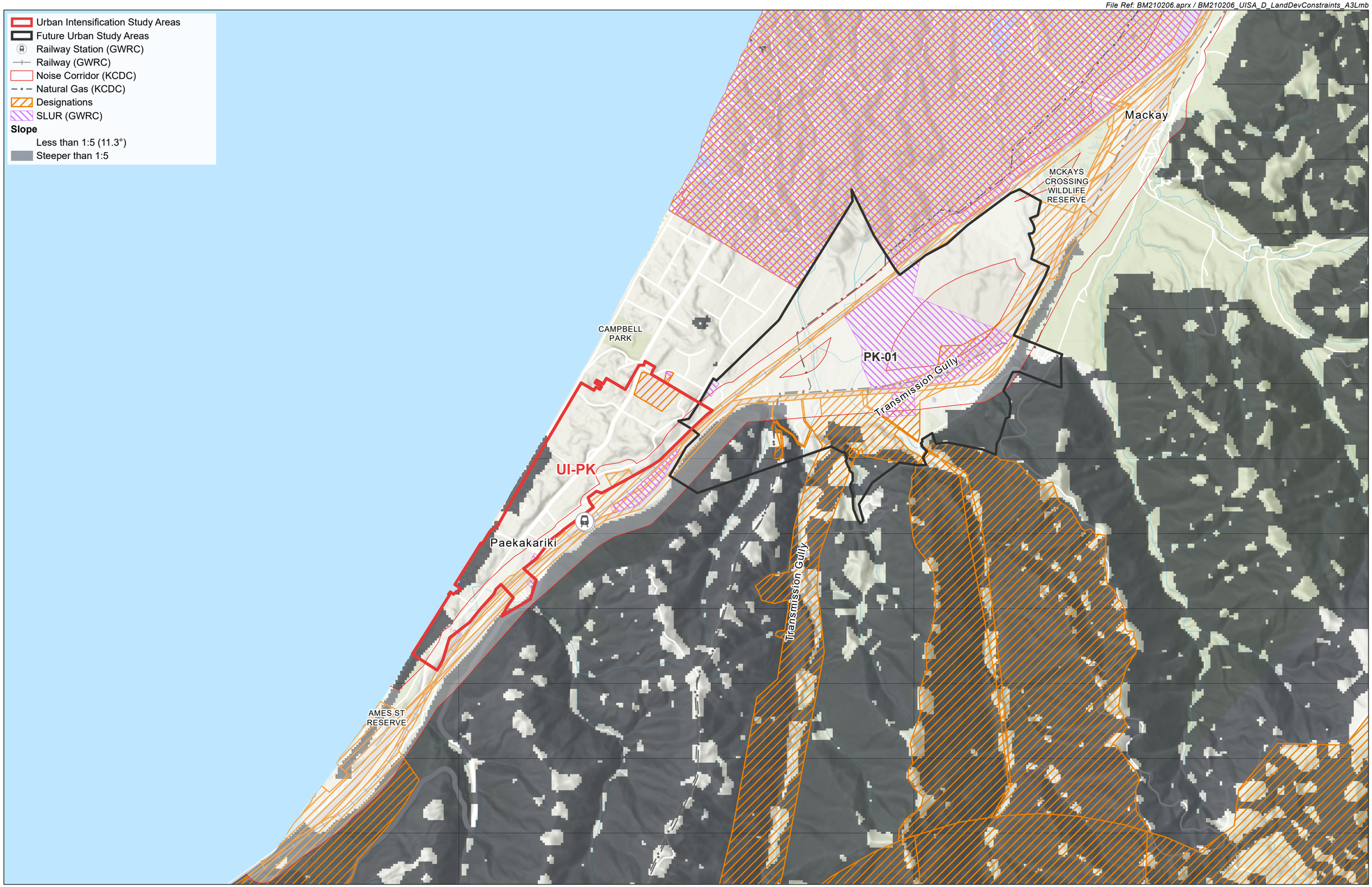

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Land Development Constraints
Urban Intensification Study: Paekakariki Station

Date: 09 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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Urban Intensification Study Area
Spatial Influences and Constraints Mapping

Hazards

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Map Index

Urban Intensification Study Areas

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Intensification Study Area Mapbook

Date: 02 August 2021 | Revision: 0

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UISA

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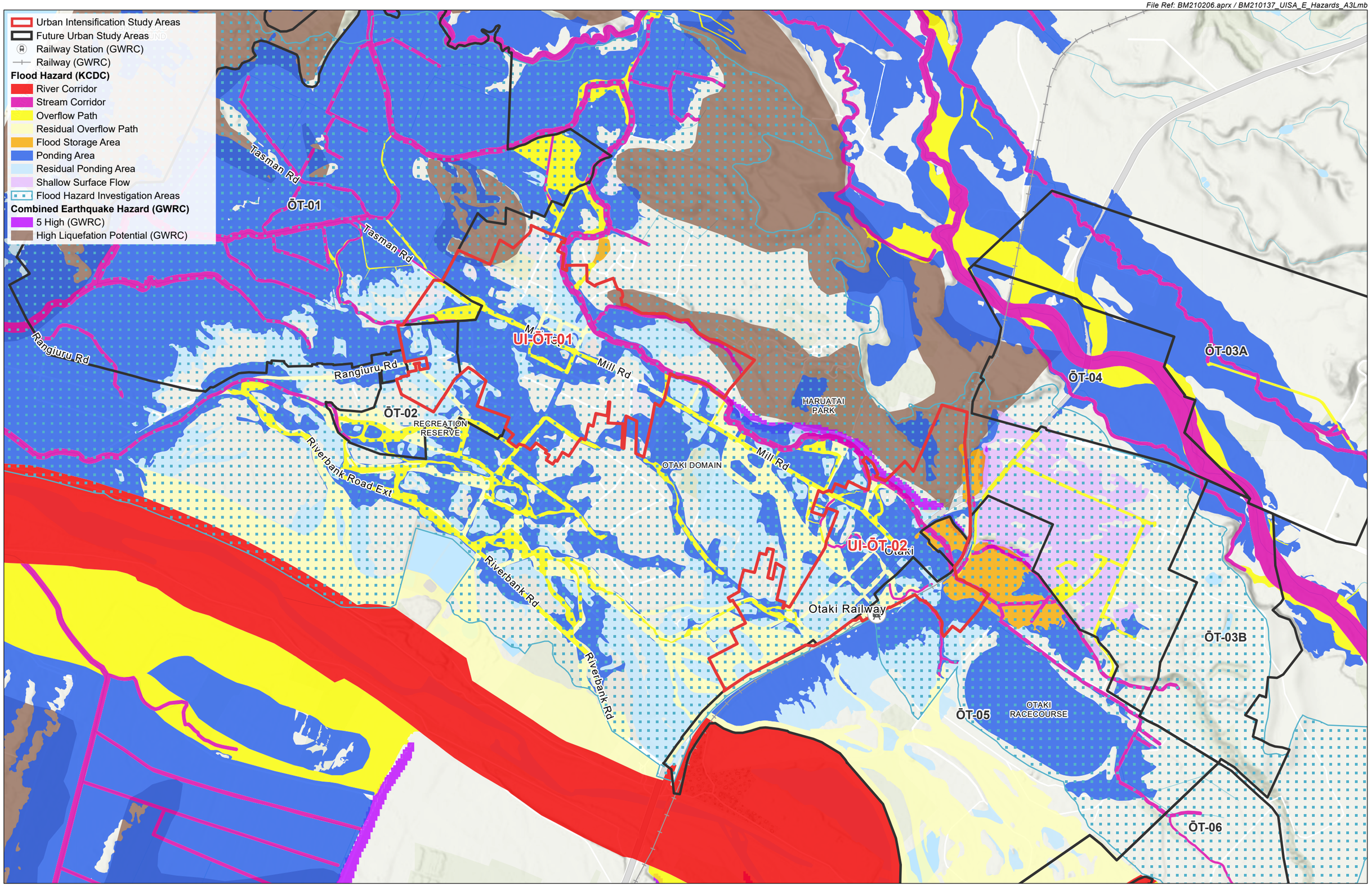

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Hazards

Urban Intensification Study: Otaki Centre

Date: 02 August 2021 | Revision: 0

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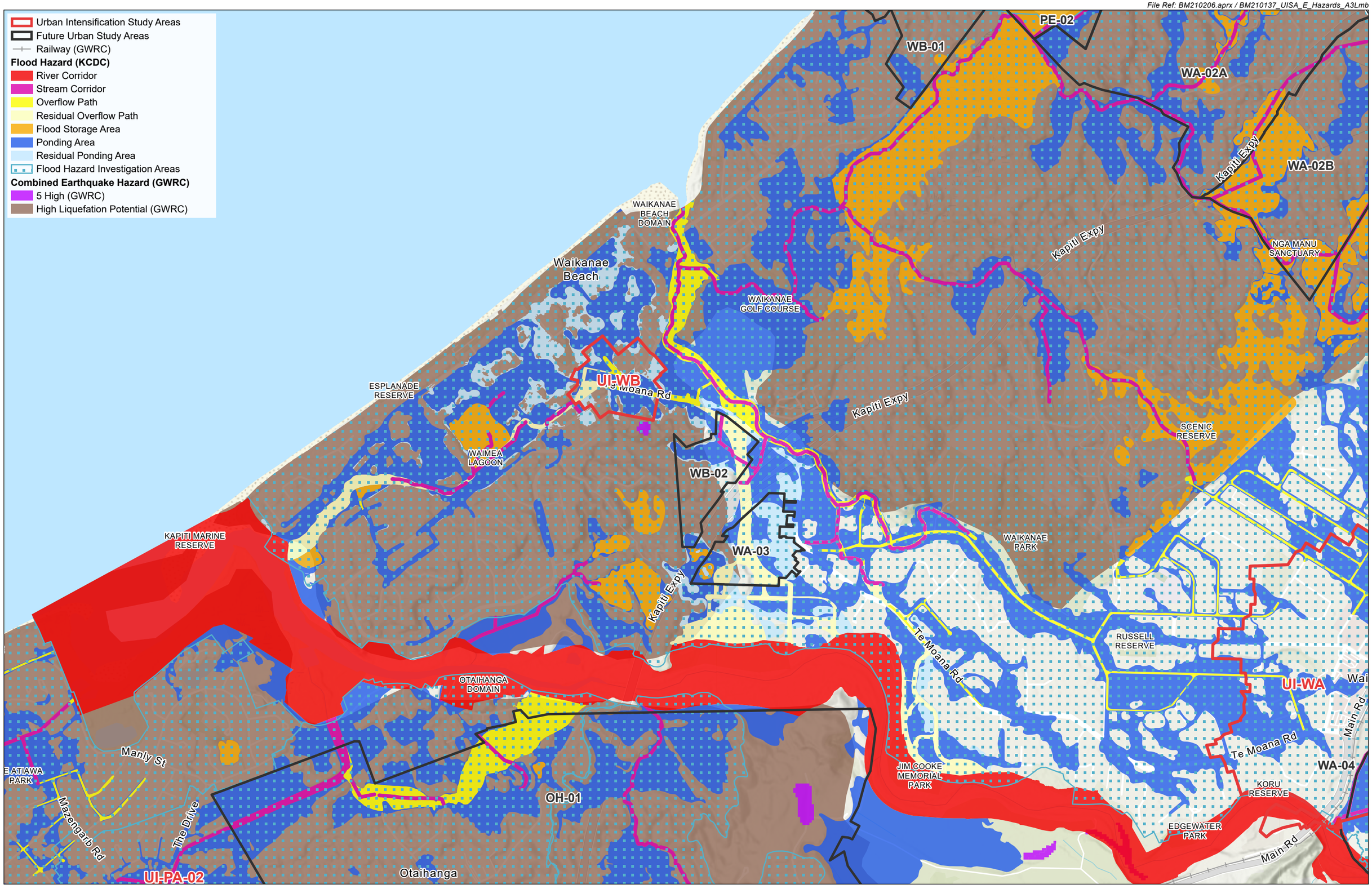

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Hazards

Urban Intensification Study: Waikanae Beach

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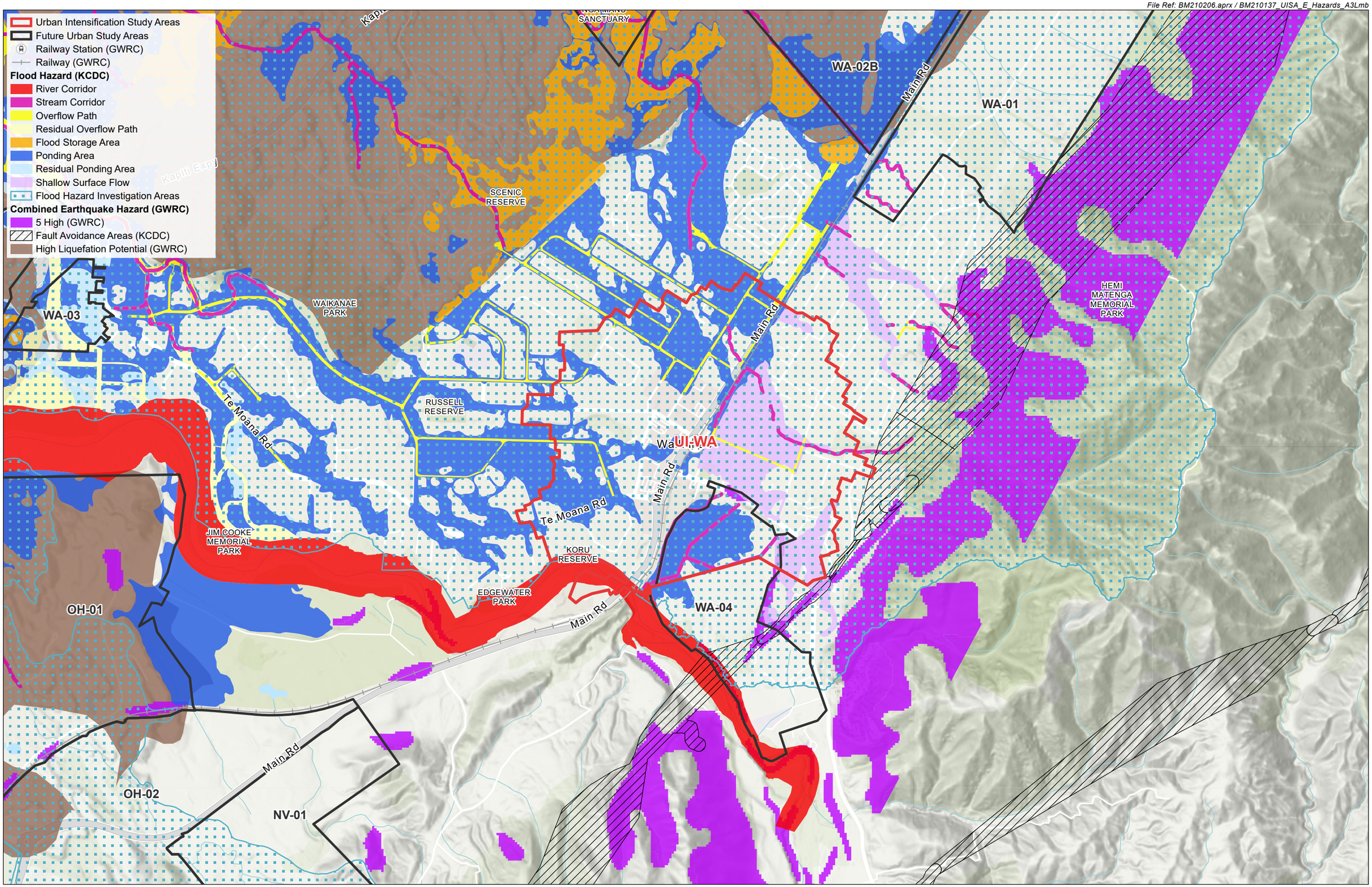

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Hazards

Urban Intensification Study: Waikanae Centre

Date: 02 August 2021 | Revision: 0

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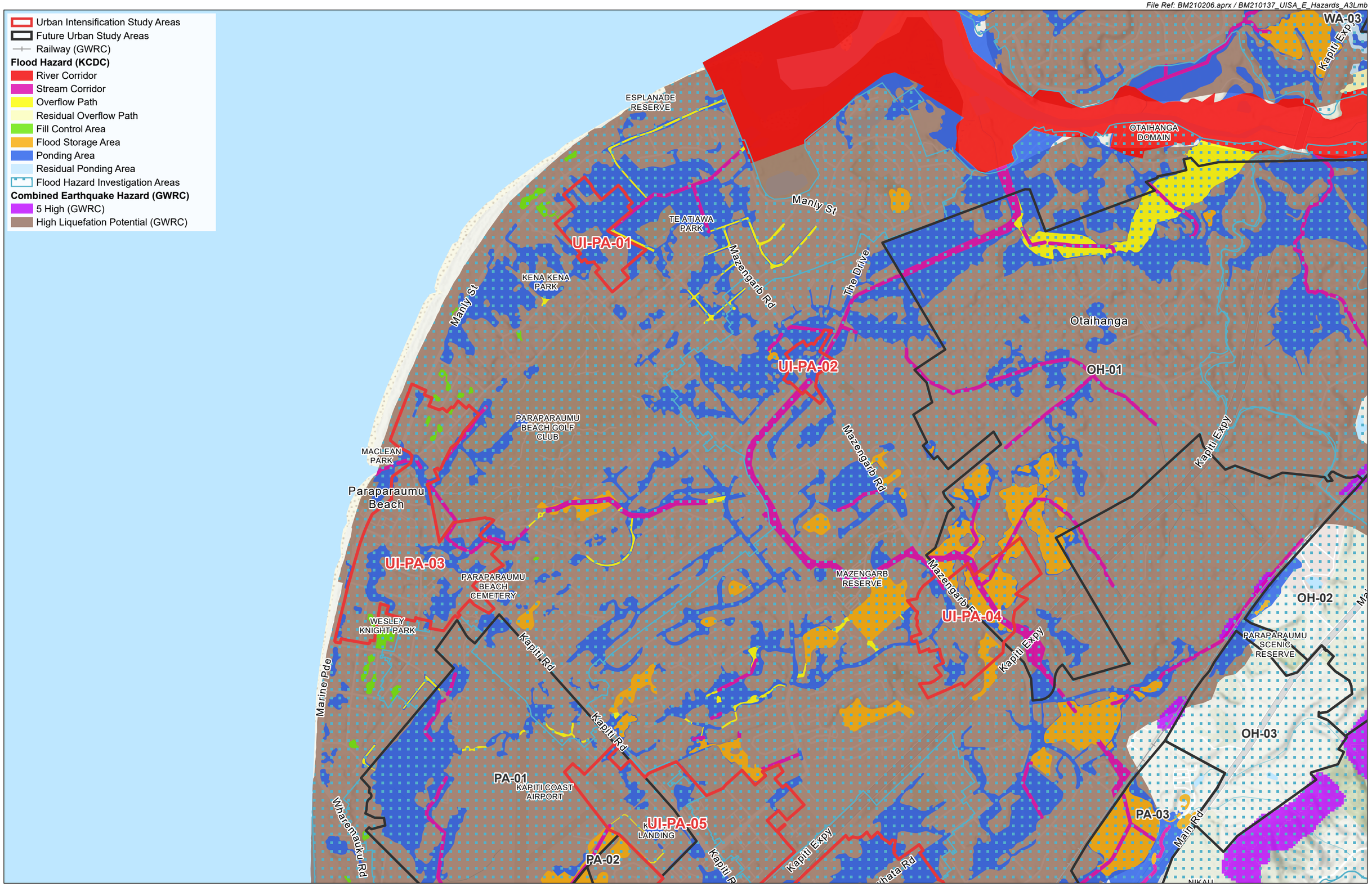

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Hazards

Urban Intensification Study: Paraparaumu Local

Date: 02 August 2021 | Revision: 0

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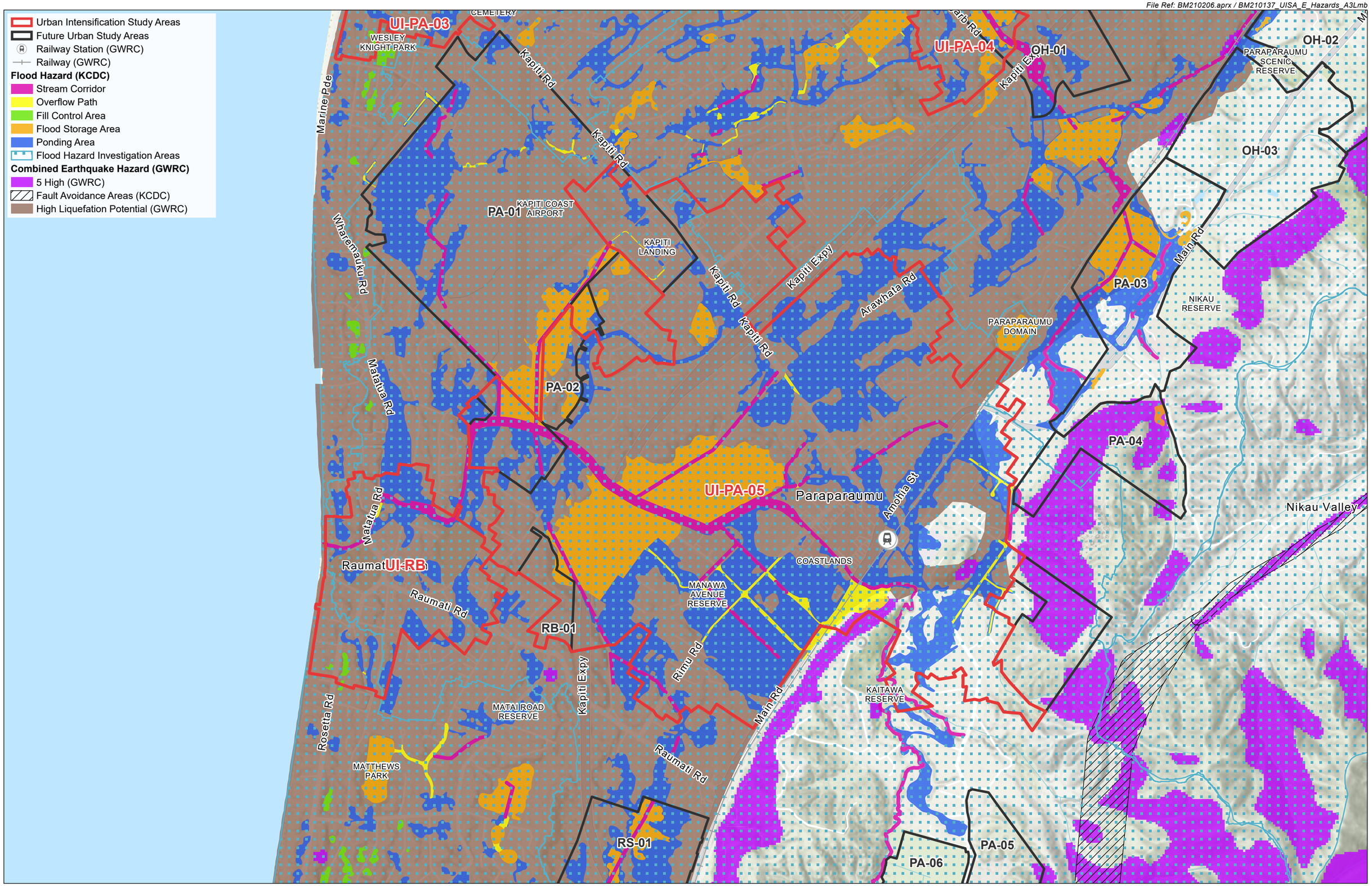

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Hazards

Urban Intensification Study: Paraparaumu

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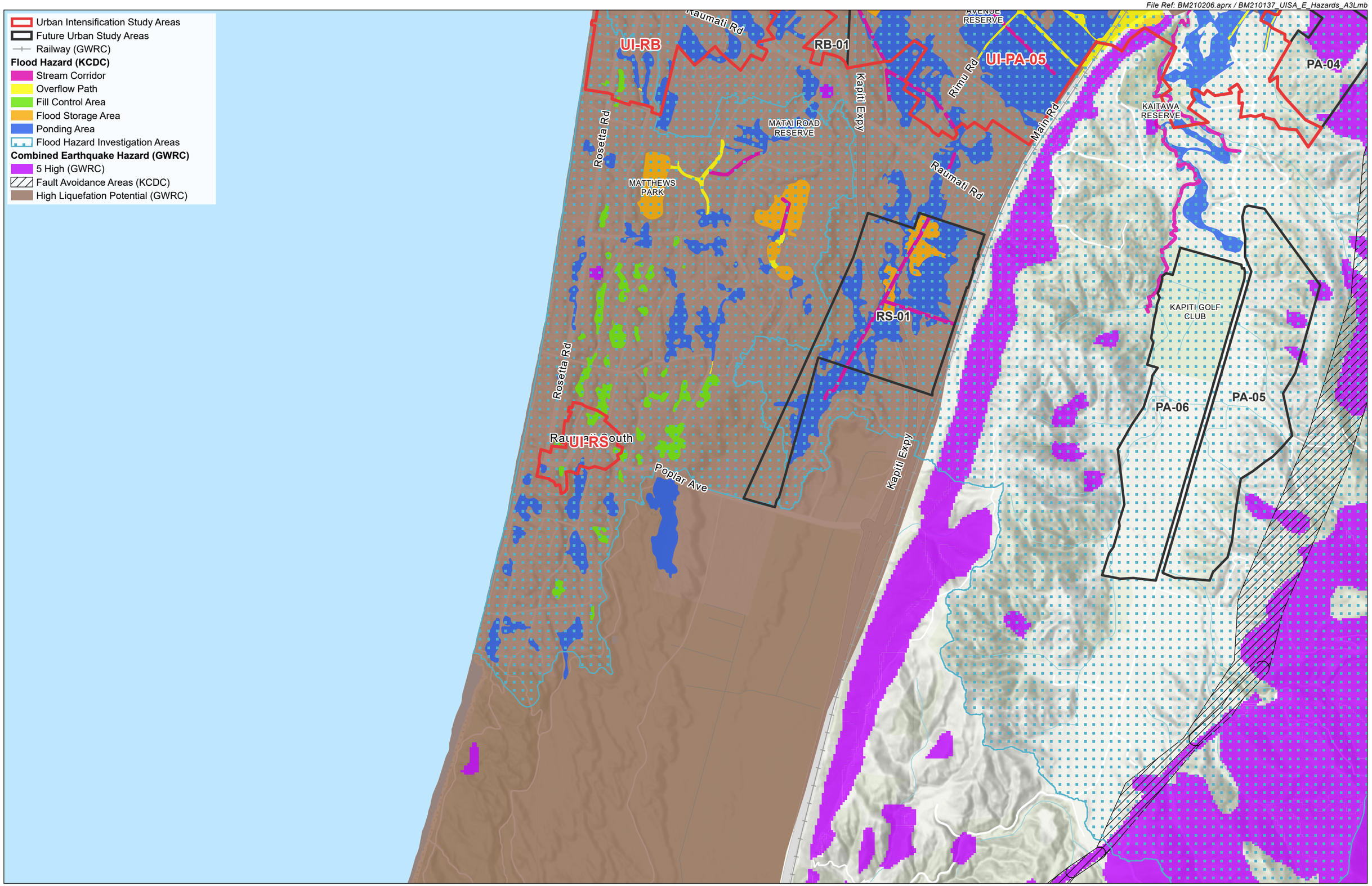

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Hazards

Urban Intensification Study: Raumati South

Date: 02 August 2021 | Revision: 0

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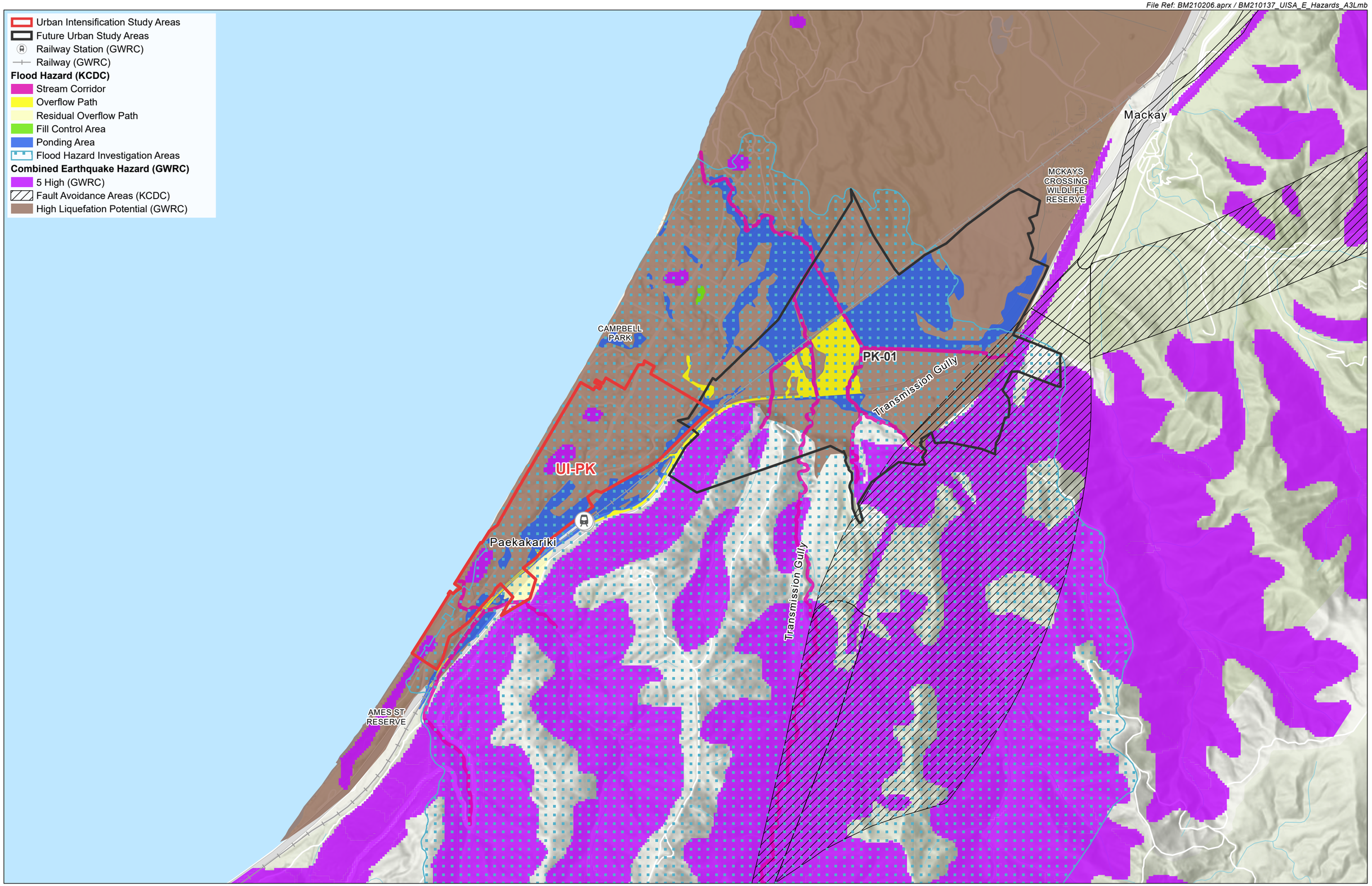

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Hazards

Urban Intensification Study: Paekakariki Station

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Urban Intensification Study Area
Spatial Influences and Constraints Mapping

Mana Whenua

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Data Sources: KCDC, BML, Earthstar Geographics

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Map Index

Urban Intensification Study Areas

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Intensification Study Area Mapbook

Date: 02 August 2021 | Revision: 0

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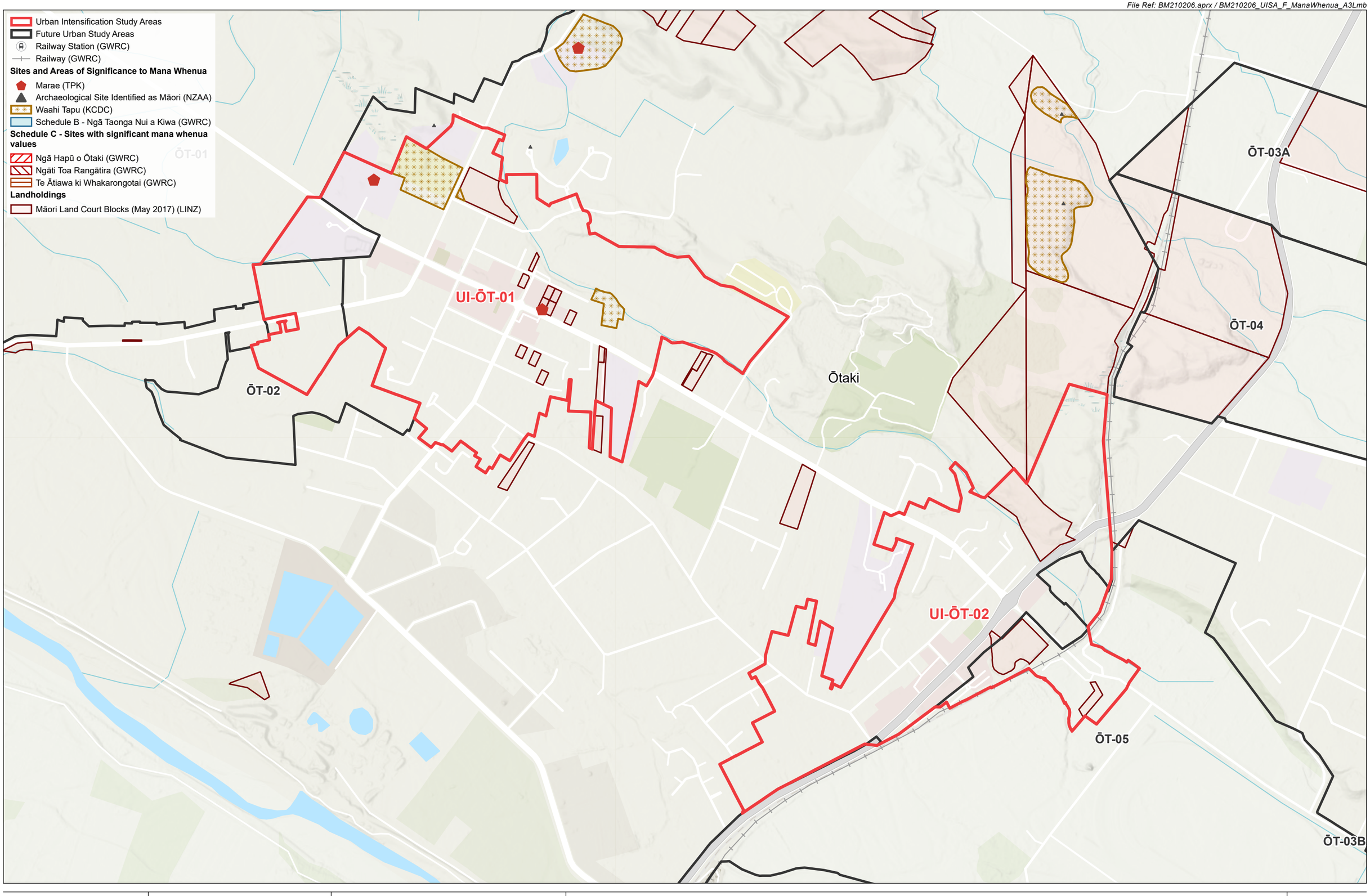

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Mana Whenua

Urban Intensification Study: Otaki Centre

Date: 01 September 2021 | Revision: 0

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Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

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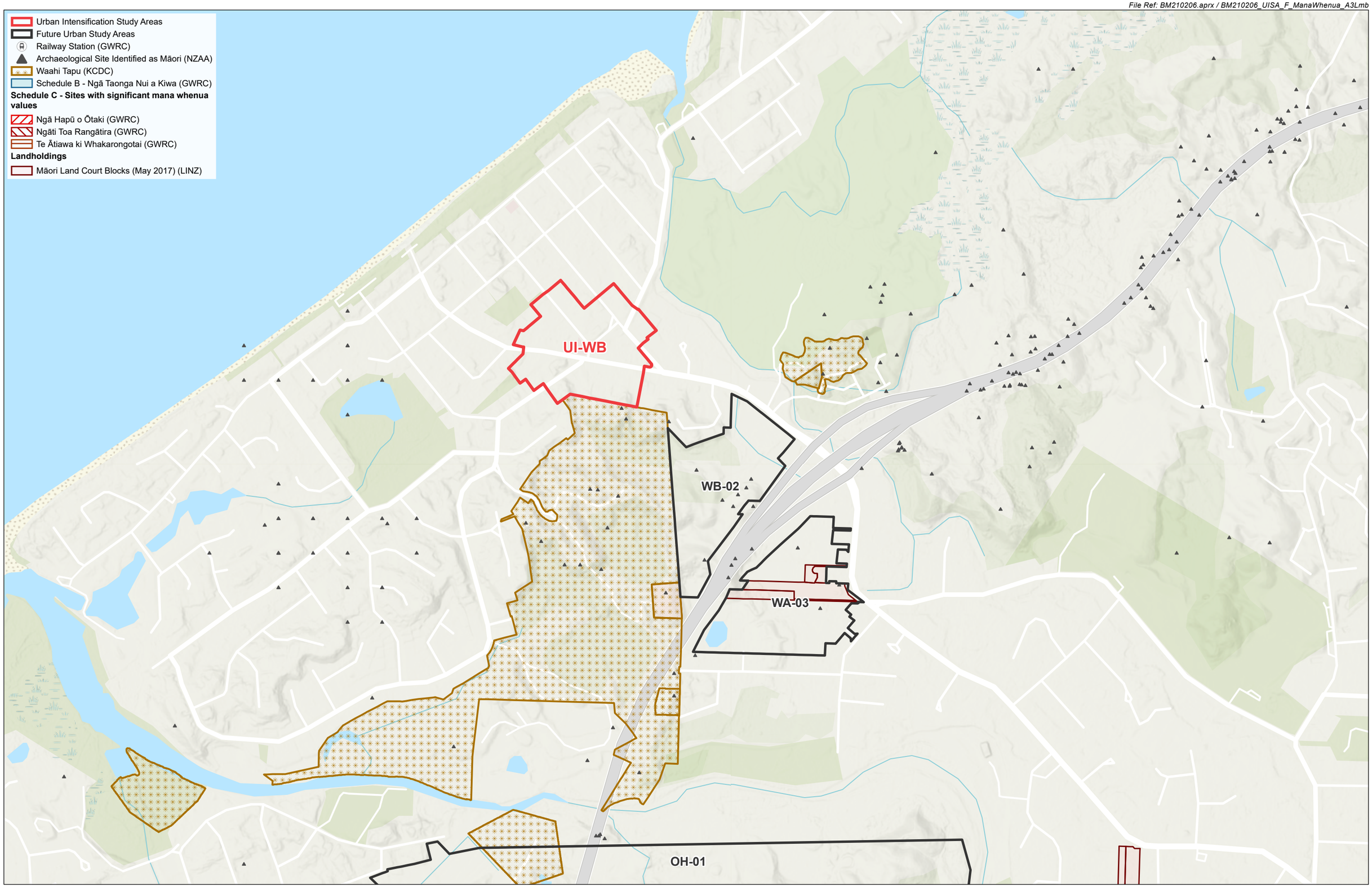
- Urban Intensification Study Areas
- Future Urban Study Areas
- Railway Station (GWRC)
- Archaeological Site Identified as Māori (NZAA)
- Waahi Tapu (KCDC)
- Schedule B - Ngā Taonga Nui a Kiwa (GWRC)

Schedule C - Sites with significant mana whenua values

- Ngā Hapū o Ōtaki (GWRC)
- Ngāti Toa Rangātira (GWRC)
- Te Ātiawa ki Whakarongotai (GWRC)

Landholdings

- Māori Land Court Blocks (May 2017) (LINZ)



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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Mana Whenua

Urban Intensification Study: Waikanae Beach

Date: 01 September 2021 | Revision: 0

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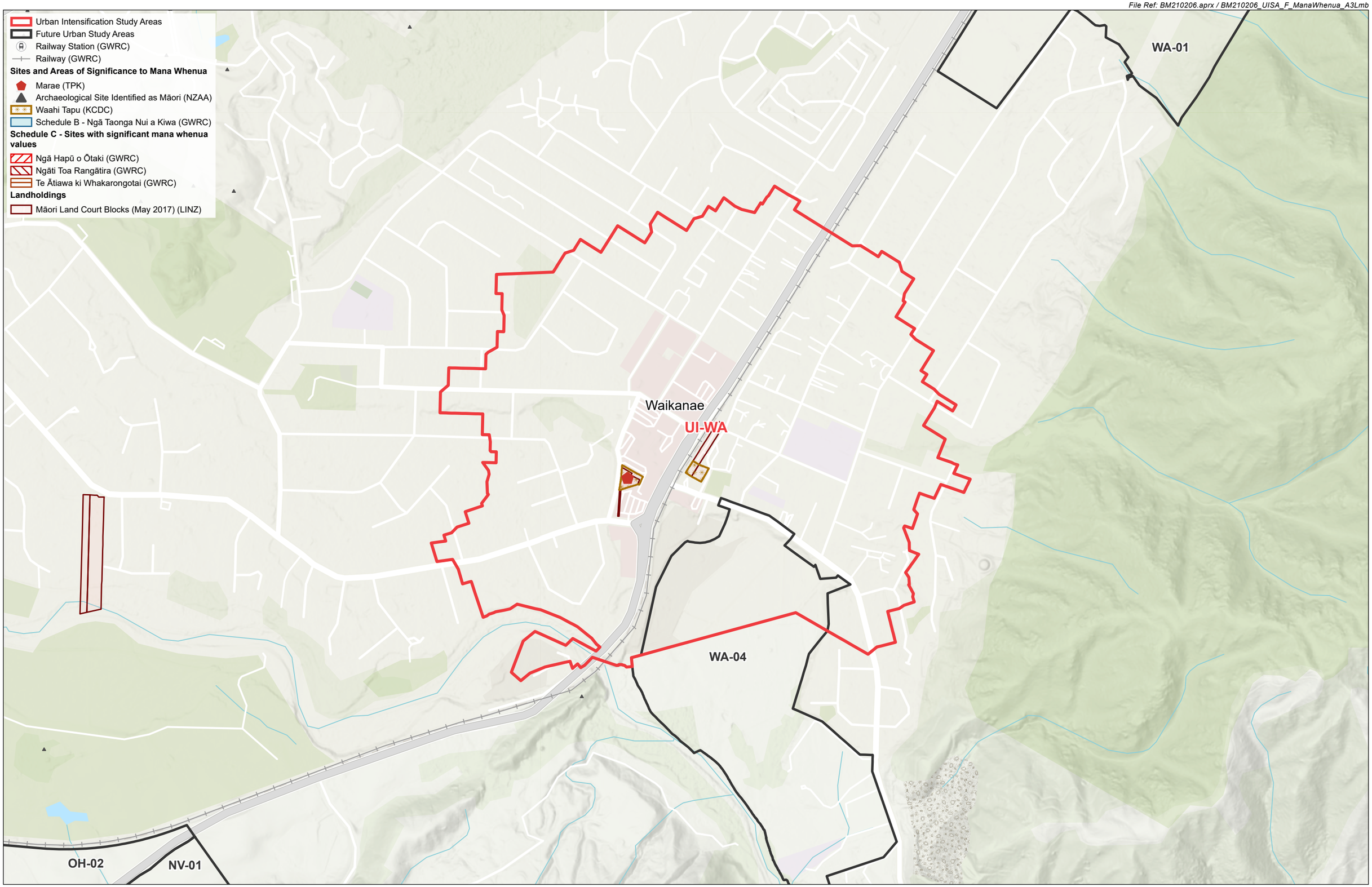

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Mana Whenua

Urban Intensification Study: Waikanae Centre

Date: 01 September 2021 | Revision: 0

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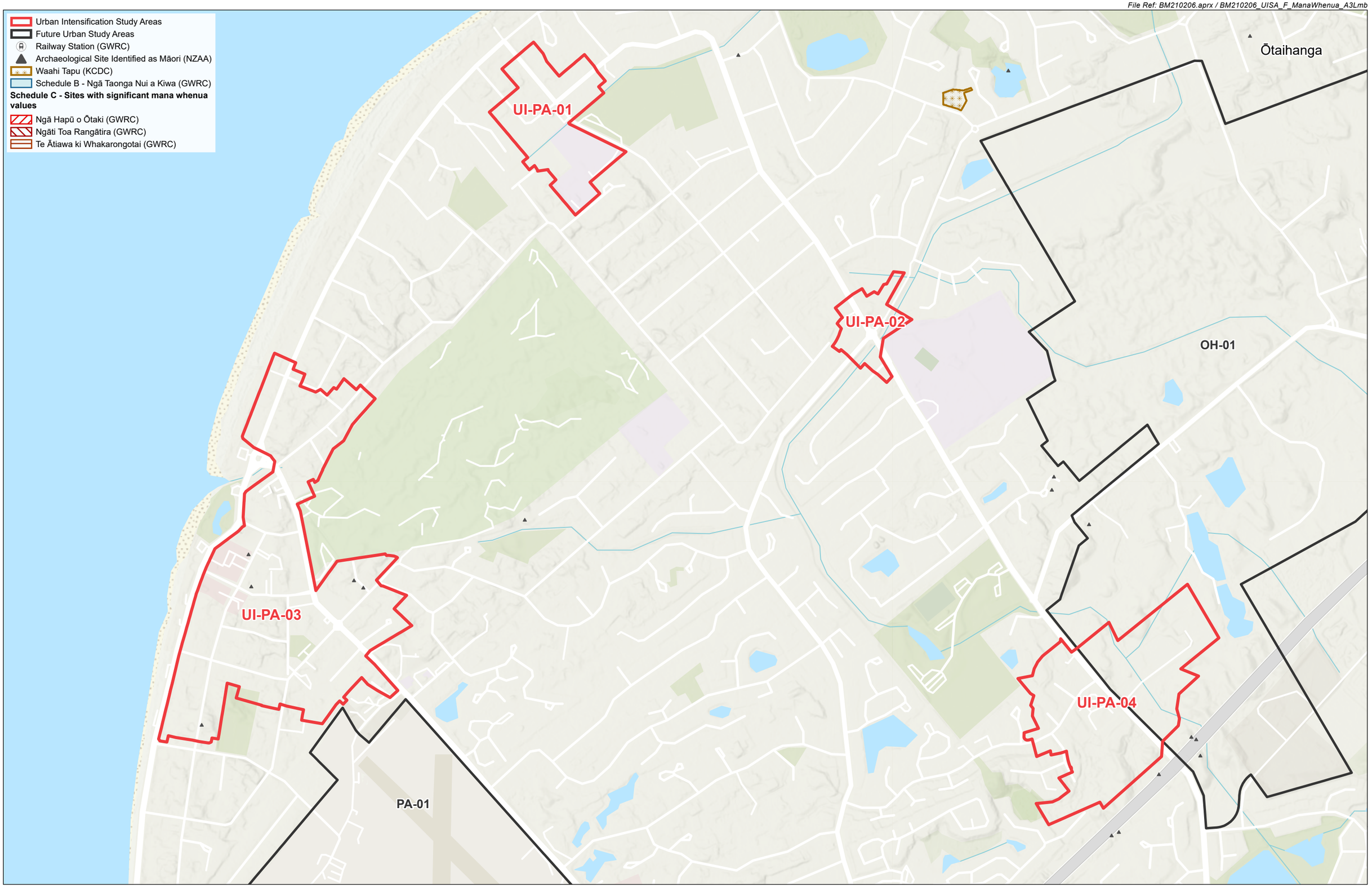

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Mana Whenua
Urban Intensification Study: Paraparaumu Local

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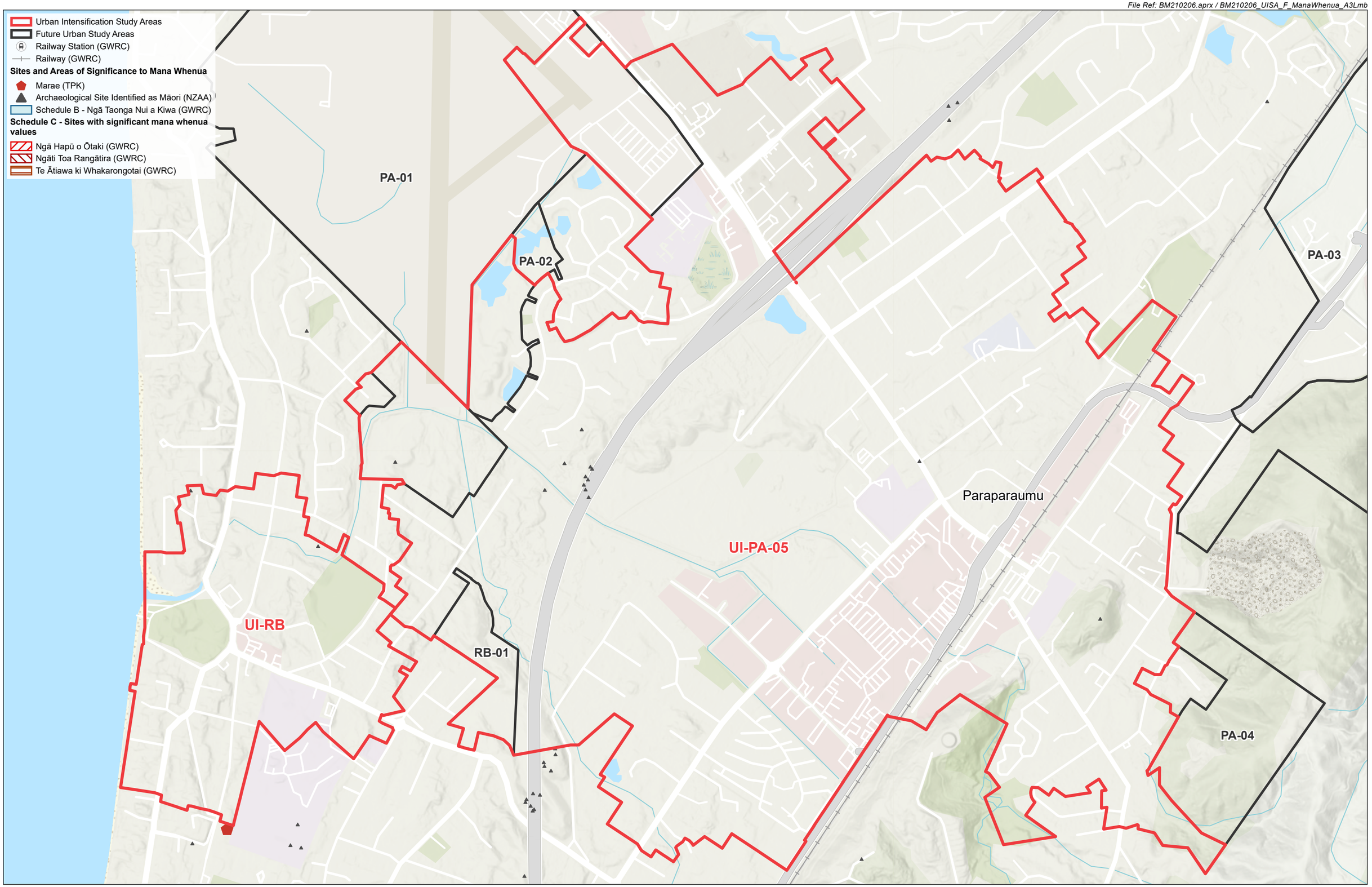

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Mana Whenua

Urban Intensification Study: Paraparaumu

Date: 01 September 2021 | Revision: 0

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Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

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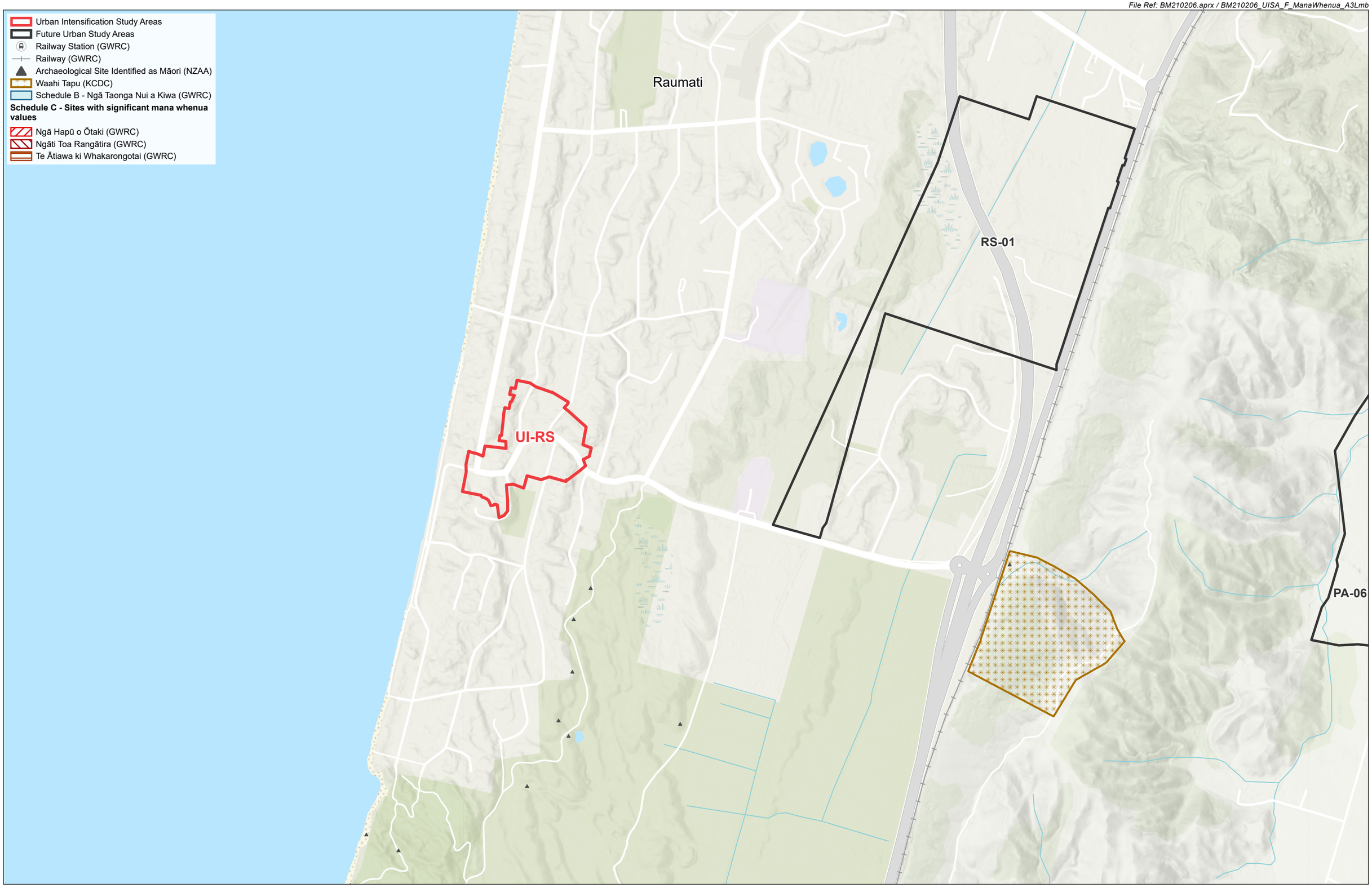

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Mana Whenua
Urban Intensification Study: Raumati South

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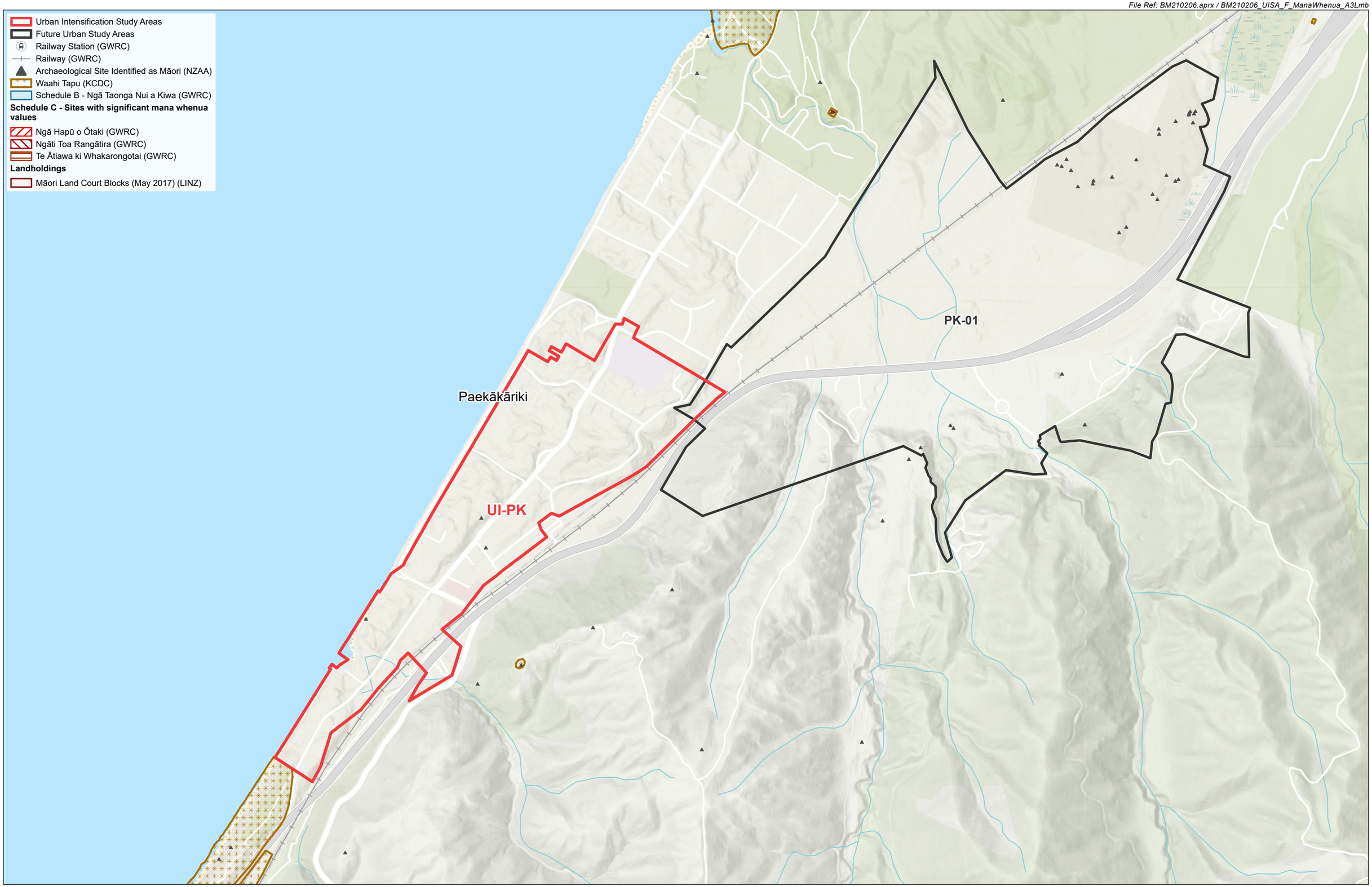

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Mana Whenua
Urban Intensification Study: Paekakariki Station

Date: 01 September 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

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Appendix 3A: Assessment of Potential Intensification 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	Mana whenua values	Iwi development aspirations	Urban form	Local neighbourhoods	Activity centres	Residential development	Business land	Transport networks	Infrastructrure & 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, mixed use and centres zones)	Overall assessment
UI-ŌT-1	Ōtaki Main Street/Mill Road	• Infrastructure, particularly a constrained water supply. • Extensive flood hazard. • Historic heritage. • Wāhi tapu. • Poor access to public transport. • Discharges to Haruātai stream.	• Good access to local services. • Intensification could support existing and new activities and services on Main Street/Mill Road. • Relatively flat.		●			●	●	●				●	●		TBC	TBC																2,133	2,412	2B
UT-ŌT-1	Ōtaki Railway	• Infrastructure, particularly a constrained water supply. • Extensive flood hazard. • Earthquake hazard and liquefaction. • Poor access to public transport. • Discharges to Haruātai stream.	• Good access to local services. • Intensification could support existing and new activities and services around old SH1. • Improve existing neighbourhood character, particularly the pedestrian environment around old SH1.		●			●	●	●	●		●	●	●		TBC	TBC																1,149	1,437	2A
UI-WB	Waikanae Beach Local Centre	• Poor access to a range of commercial activities and community services. • Extensive flood hazard. • High liquefaction potential. • Proximity to the Takamore wāhi tapu area.	• Opportunity to improve the legibility and vibrancy of the Waikanae Beach local centre through intensification. • Area is relatively flat.					●		●							TBC	TBC																367	371	2A
UI-WA	Waikanae Town Centre	• Coordinating intensification with low-density industrial land. • Flood hazard. • Steeper topography in the eastern extent of the area.	• Opportunity to improve the legibility and vibrancy of the Waikanae town centre through intensification. • Proximity to rapid transit. • Good access to a range of commercial activities, community services, employment and public open spaces.		●	●	●	●	●	●	●		●	●	●	●	TBC	TBC																4,095	4,403	2A
UI-PA-1	Kena Kena Local Centre	• Low lying land near the coast. • Flood hazard. • Distance from Papararaumu station and metropolitan centre. • High liquefaction potential.	• Opportunity to improve the legibility and vibrancy of the Kena Kena local centre through intensification. • Excellent access to public and coastal open space. • The area is flat.				●		●	●		●		●	●		TBC	TBC																67	78	2A
UI-PA-2	Mazengarb Local Centre	• Poor access to a range of community services and commercial activities (except Paraparaumu college). • Flood hazard. • Distance from Papararaumu station and metropolitan centre. • High liquefaction potential.	• The area is flat.		●		●			●				●	●		TBC	TBC																28	47	2B
UI-PA-3	Paraparaumu Beach Town Centre	• Coastal hazard and effects of climate change. • Congestion on Kāpiti Road. • High liquefaction potential.	• Excellent access to a range of commercial services and community activities, as well as coastal amenity and open space. • Intensification could further support a well established town centre. • The area is flat.	●	●		●	●	●			●		●	●		TBC	TBC																309	602	1
UI-PA-4	Meadows Local Centre	• Poor access to a range of community services and commercial activities. • Liquefaction potential.	• Development opportunity associated with undeveloped parts of the area. • The area is relatively flat.		●								●	●	●		TBC	TBC																143	275	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	Mana whenua values	Iwi development aspirations	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, mixed use and centres zones)	Overall assessment
UI-PA-5	Paaparaumu Metropolitan Centre	• Coordinating intensification with low-density industrial land. • Flood hazard and liquefaction potential. • Management of a range of potential reverse sensitivity issues.	• 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. • Increased height and density commensurate with the role of the area as the primary centre within the district.		●		●	●	●	●	●		●	●	●	●	TBC	TBC															6,190	12,556	2B
UI-RB	Raumati Beach Town Centre	• Coastal hazard and effects of climate change. • High liquefaction potential.	• Excellent access to a range of commercial services and community activities, as well as coastal amenity and open space. • Intensification could further support a well established town centre.	●	●		●	●	●	●		●		●	●		TBC	TBC															436	555	2A
UI-RS	Raumati South Local Centre	• High liquefaction potential. • Relative distance to Paraparaumu metropolitan centre and railway station.	• Good access to local commercial activity, amenity and coastal open space. • Intensification could further support a well established local centre.						●					●			TBC	TBC															81	915	1
UI-PK	Paekakariki Local Centre and Railway Station	• Distance from commercial activities and community services at Paraparaumu. • High liquefaction potential and areas of combined earthquake hazard. • Lack of reticulated stormwater and wastewater infrastructure. • Safety issues with the Beach Road intersection. • Significant alteration of existing neighbourhood character. • Complex topography. • Increased coastal hazard associated with climate change.	• Good access to local shops, amenity and coastal open space. • Good access to public transport.		●			●	●	●	●	●	●	●	●		TBC	TBC															1,311	1,361	2B

Appendix 3B: Detailed Assessment of Potential Intensification Areas

KAPITI COAST INTENSIFICATION ANALYSIS

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KAPITI COAST INTENSIFICATION

Date: 13 August 2021 Revision: 0

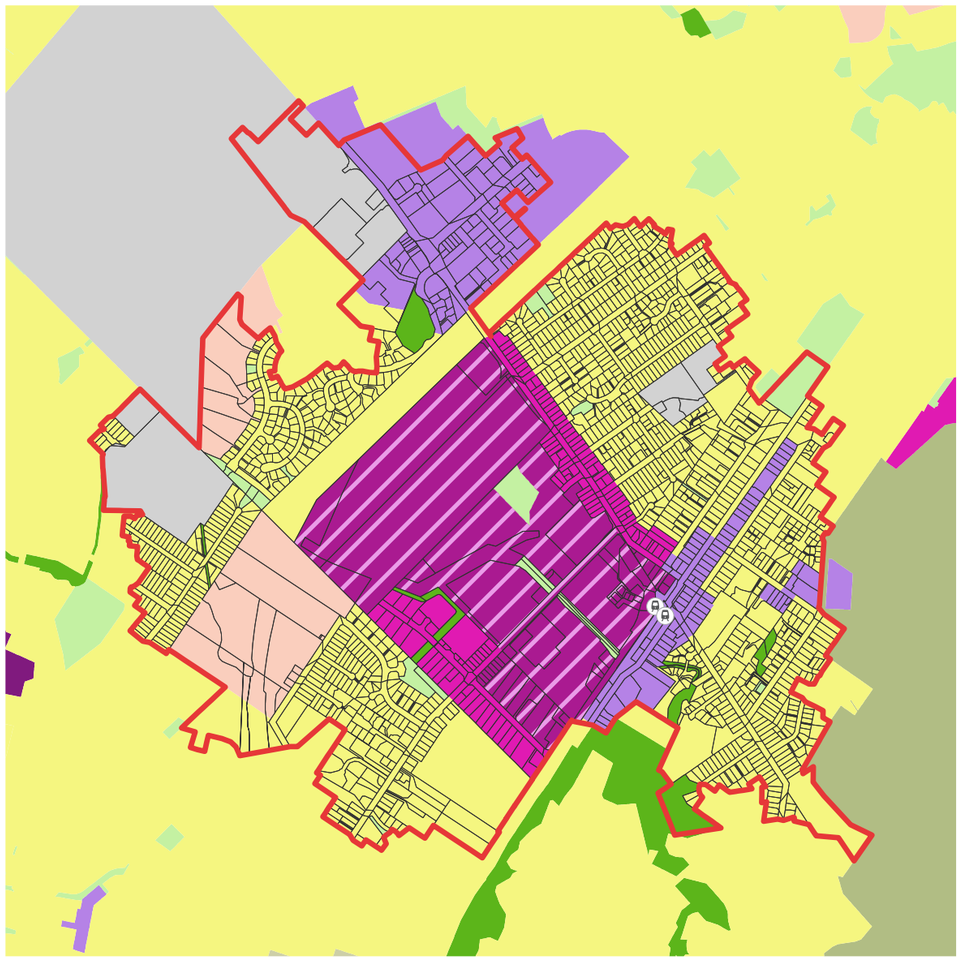
Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

PARAPARAUMU METROPOLITAN CENTRE

AERIAL

ZONING



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

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KAPITI COAST INTENSIFICATION

Paraparaumu Metropolitan Centre

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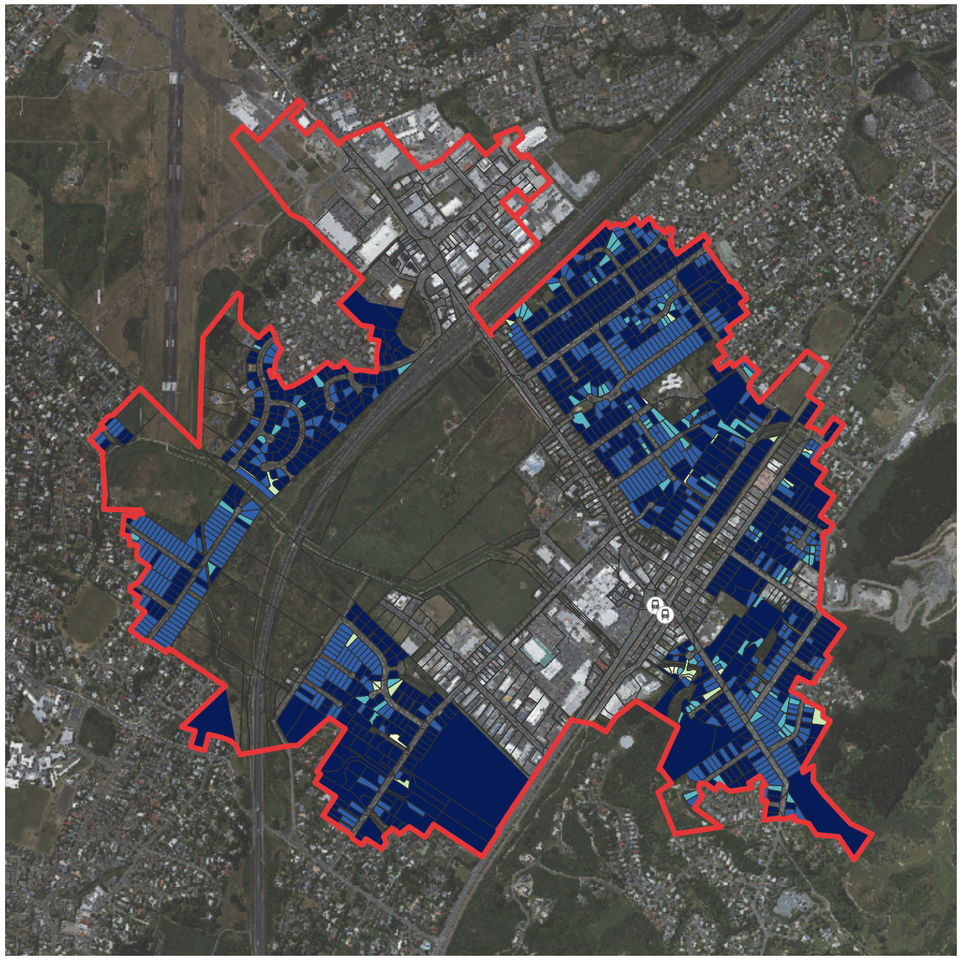
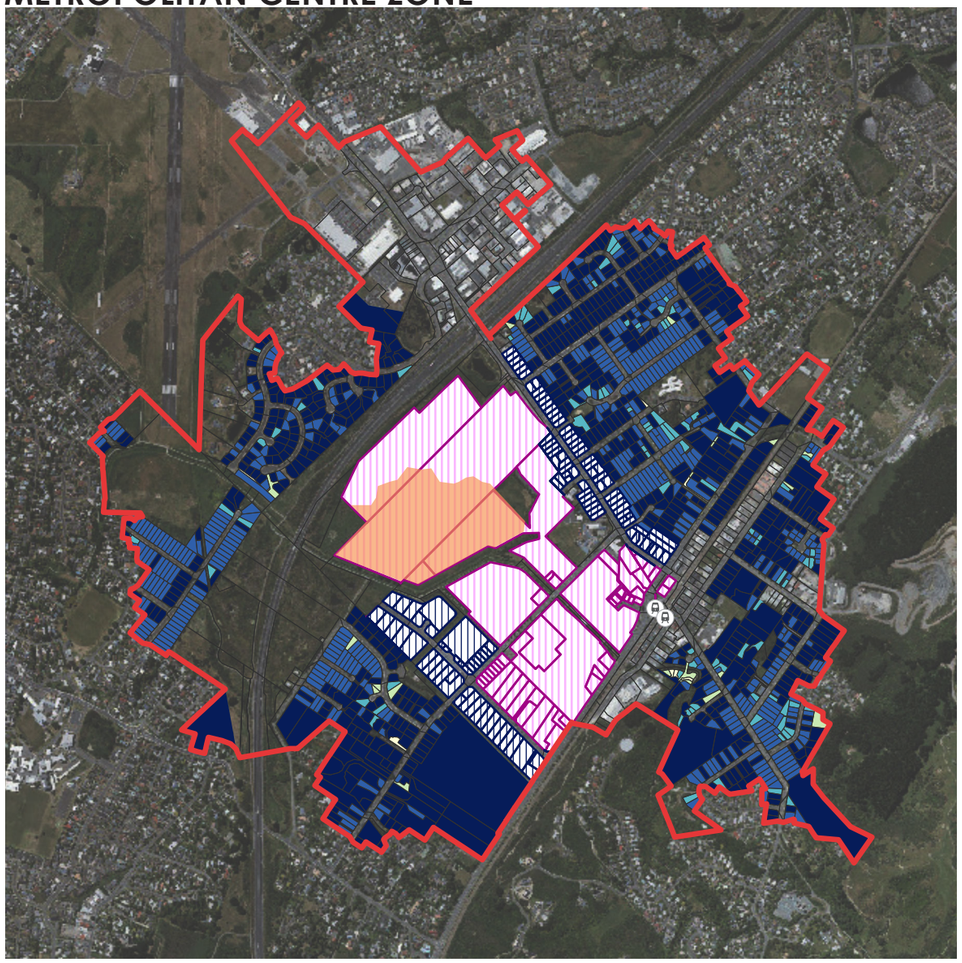
YIELD IN RESIDENTIAL AREA



SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m	15	up to 2	0.38	20	8
6.5m - 11m	46	3	1.29	30	39
11m - 14.5m	75	4	5.64	40	226
14.5m - 18m	313	5	34.88	50	1,744
18m <	887	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



SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m	15	up to 2	0.38	20	8
6.5m - 11m	46	3	1.29	30	39
11m - 14.5m	75	4	5.64	40	226
14.5m - 18m	313	5	34.88	50	1,744
18m <	887	6	91.84	60	5,510
Mixed use zone	0	6	14.70	60	882
Metropolitan zone	0	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.

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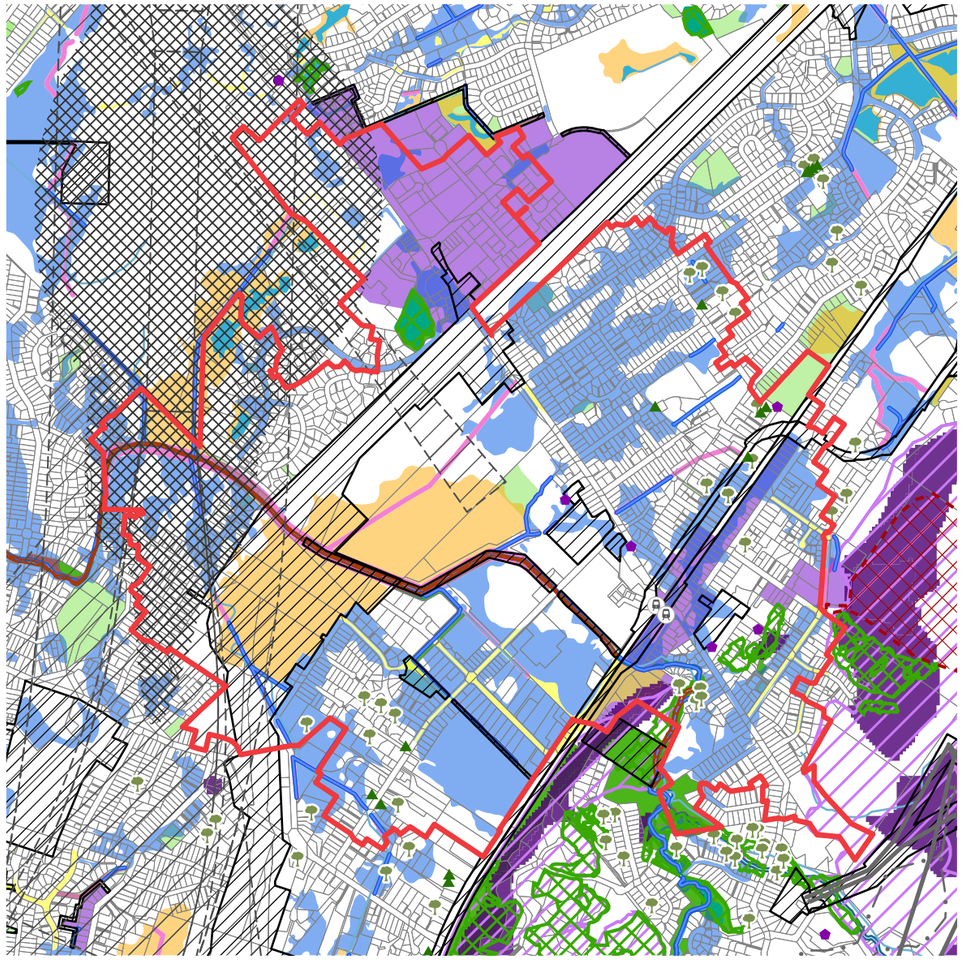
PARAPARAUMU METROPOLITAN CENTRE

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)

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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

Paraparaumu Metropolitan Centre

Date: 13 August 2021 Revision: 0

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Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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
• Coordinating intensification with low-density industrial land. • Flood hazard and liquefaction potential. • Management of a range of potential reverse sensitivity issues.	• 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. • Increased height and density commensurate with the role of the area as the primary centre within the district.

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 values	• The Wharemauku stream is identified as a site of significance to Te Ātiawa ki Whakarongotai. • There are a number of archaeological sites (associated with middens) located in the area around where the Expressway passes over the Wharemauku stream.	TBC
Iwi development aspirations		TBC
Urban form	• Increased height and building density could be appropriate within and around the Metropolitan Centre Zone. • Increased density of urban form will improve the legibility of the area as the primary urban centre within the Kāpiti Coast. • 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. • The presence of Coastlands mall may challenge the development of height and density in the short to medium term.	
Local neighbourhoods	• 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. • 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. • 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. • 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. • 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. • 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.	

Criteria	Observations	Rating
Activity centres	• The area has excellent access to range of commercial activities and community services, including shops, cafes and entertainment, supermarkets, schools, and other community facilities. • 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.	
Residential development	• Intensification in the area in the could contribute significany to dwelling supply. • High levels of access to commercial activities, community services and public transport could encourage the development of higher density typologies.	
Business land	• There are significant areas of General Industrial zoned land located within the area. Residential intensification may put pressure on these uses to relocate elsewhere.	
Transport networks	• The area has direct access to the Expressway. • Kāpiti Road is the most congested road in the district, and development in the area could exacerbate this. • The area has good access to public transport and is within a walkable catchment of Paraparaumu railway station. • The area has good access to active modes along the Expressway.	
Infrastructure and servicing	• Water and wastewater reticulation is generally integrated into the existing street network. • The area of greenfield land in the northern extent of the Metropolitan Centre zone would require the development of an internal reticulation network. • 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. • 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.	
Natural ecosystem values	• There is an ecological site associated with a wetland located to the north-west of the interchange between the Expressway and Kāpiti Road. • There are a number of ecological sites and key indigenous trees located in the area to the south-east of the railway line.	
Water bodies	• The Wharemauku stream and a number of tributary drains flow through the area. Intensification in the area could increase discharges to the Wharemauku stream. • There is a wetland located to the north-west of the interchange between the Expressway and Kāpiti Road. • There is a stormwater pond located to the south-west of the interchange between the Expressway and Kāpiti Road. • There are areas of stormwater retention identified within the Metropolitan Centre structure plan that could be associated with wetlands.	
Landscape and open space values	• 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. • There are areas of sand dune protection identified within the Metropolitan Centre structure plan. • There are special amenity landscapes associated with the hills along the south-eastern edge of the area. • There are a small number of notable trees located throughout the area.	
Heritage values	• There are a small number of heritage listed buildings located throughout the area. • Risk of archaeological discovery given the archaeological sites associated with the Expressway	
Topography	• The majority of the area is relativey flat. • The area to the south-east of the railway station gently slopes up to the south-east.	
Natural hazards and land risks (including effects of climate change)	• 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. • 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. • There are small extents of area to the south-east of the railway line subject to high combined earthquake hazard. • There are numerous sites on the SLUR, particularly around Coastlands and the General Industrial areas.	
Land use compatibility	• Potential for reverse sensitivity effects on the Expressway. • Potential for reverse sensitivity effects on low-density industrial uses in the area. • Potential for reverse sensitivity effects on schools in the area. • Potential for reverse sensitivity effects on the railway corridor. • Parts of the area are covered by the airport air noise boundary and obstacle limitation surfaces. • There are a range of designations associated with the Expressway, schools, drainage and open space, telecommunications and the railway corridor.	
Climate change (low-carbon futures)	• Intensification in the area would have good access to a range of community services, commercial activities, shops, and centres of employment. • The area has good access to active modes along the Expressway. • The area has good access to public transport and is within a walkable catchment of the Paraparaumu Railway station. • Intensification in the area could promote reduced-emission choices. • Good access to community services, commercial activities and other amenity may encourage the development of more energy efficient, higher density dwelling typologies.	

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KAPITI COAST INTENSIFICATION

Paraparaumu Metropolitan Centre

Date: 13 August 2021 Revision: 0

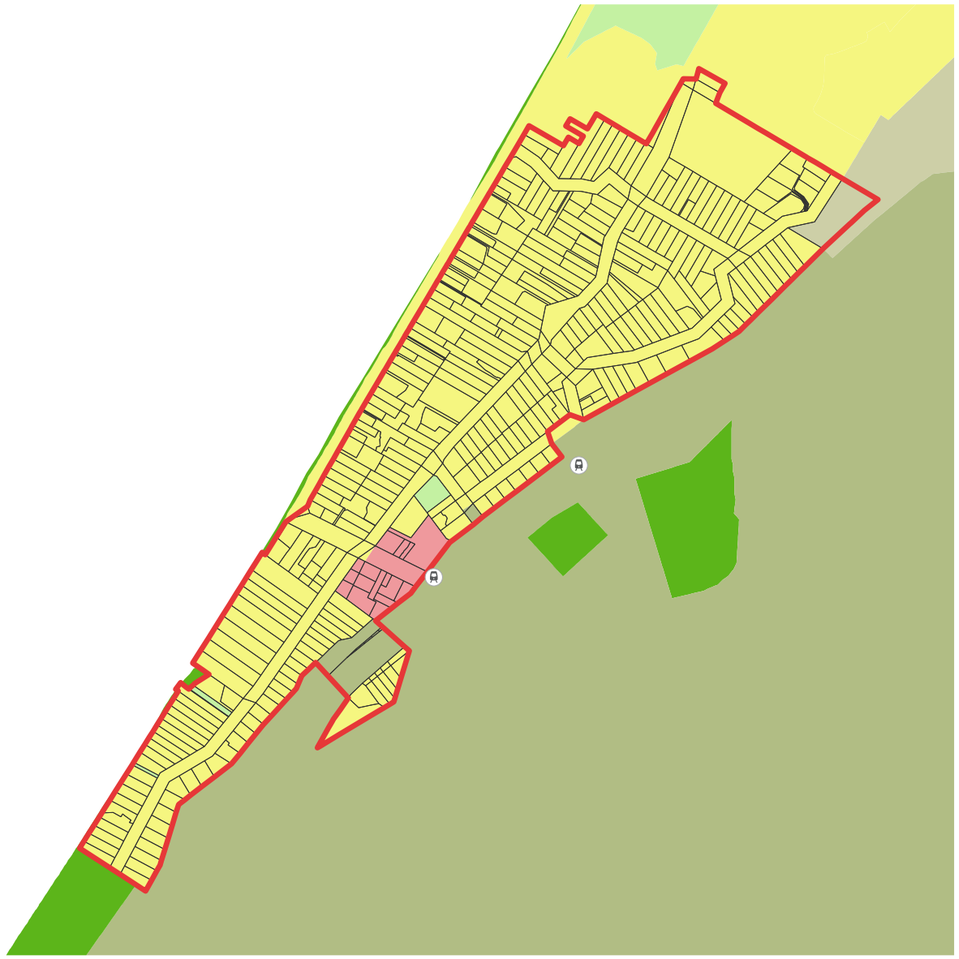
Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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

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KAPITI COAST INTENSIFICATION

Paekakariki Local Centre and Railway Station

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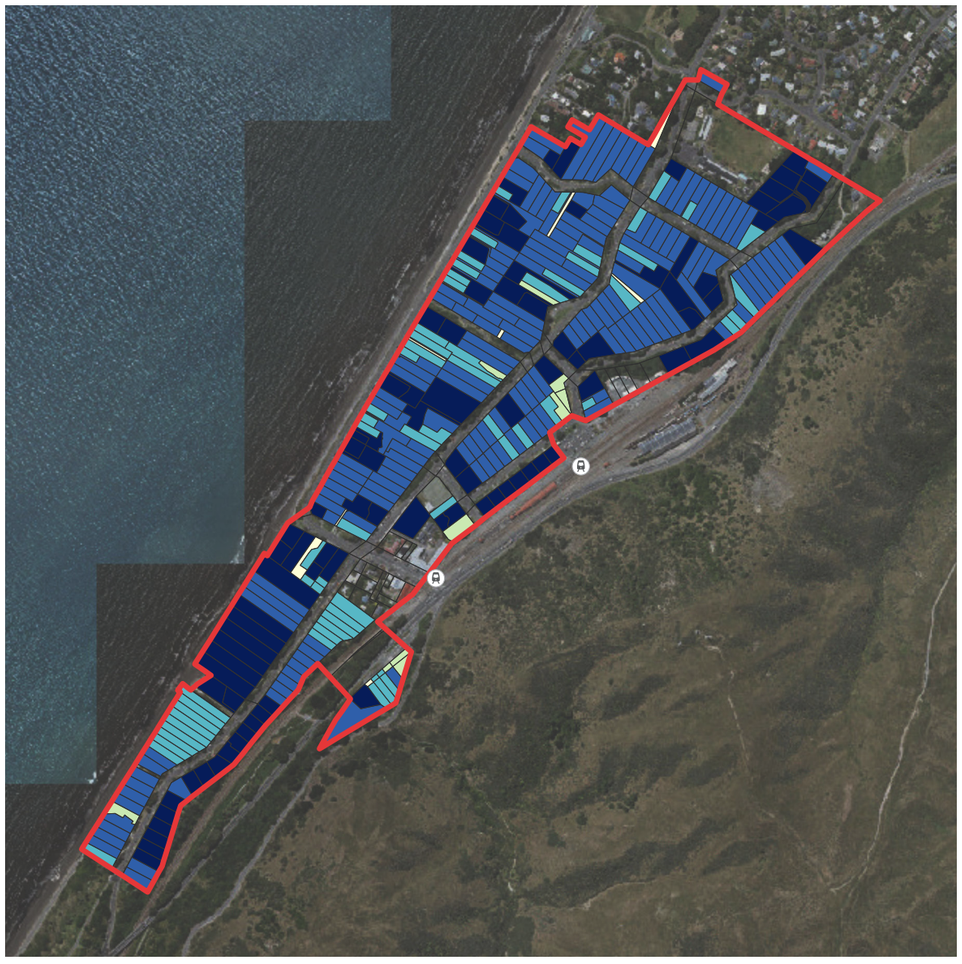
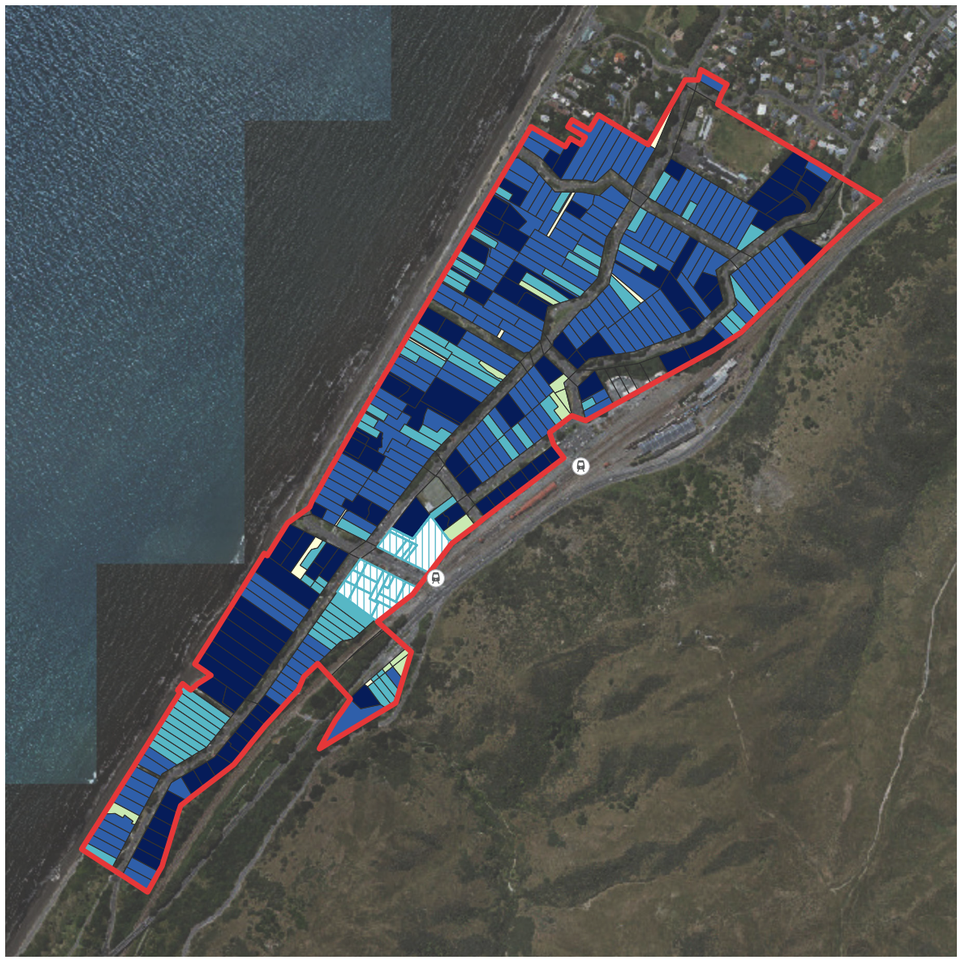
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

YIELD IN RESIDENTIAL AREA



SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m	2	up to 2	0.31	20	6
6.5m - 11m	2	3	0.57	30	17
11m - 14.5m	59	4	4.56	40	182
14.5m - 18m	140	5	15.50	50	775
18m <	103	6	10.61	60	637
	306		31.55		1,617
Additional dwellings (yield minus existing residential units)					**1,311**

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE



SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m	2	up to 2	0.31	20	6
6.5m - 11m	2	3	0.57	30	17
11m - 14.5m	59	4	4.56	40	182
14.5m - 18m	140	5	15.50	50	775
18m <	103	6	10.61	60	637
Local centre zone*		6	1.24	60	74
	306		32.79		1,691
Additional dwellings (yield minus existing residential units)					**1,385**

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

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KAPITI COAST INTENSIFICATION

Paekakariki Local Centre and Railway Station

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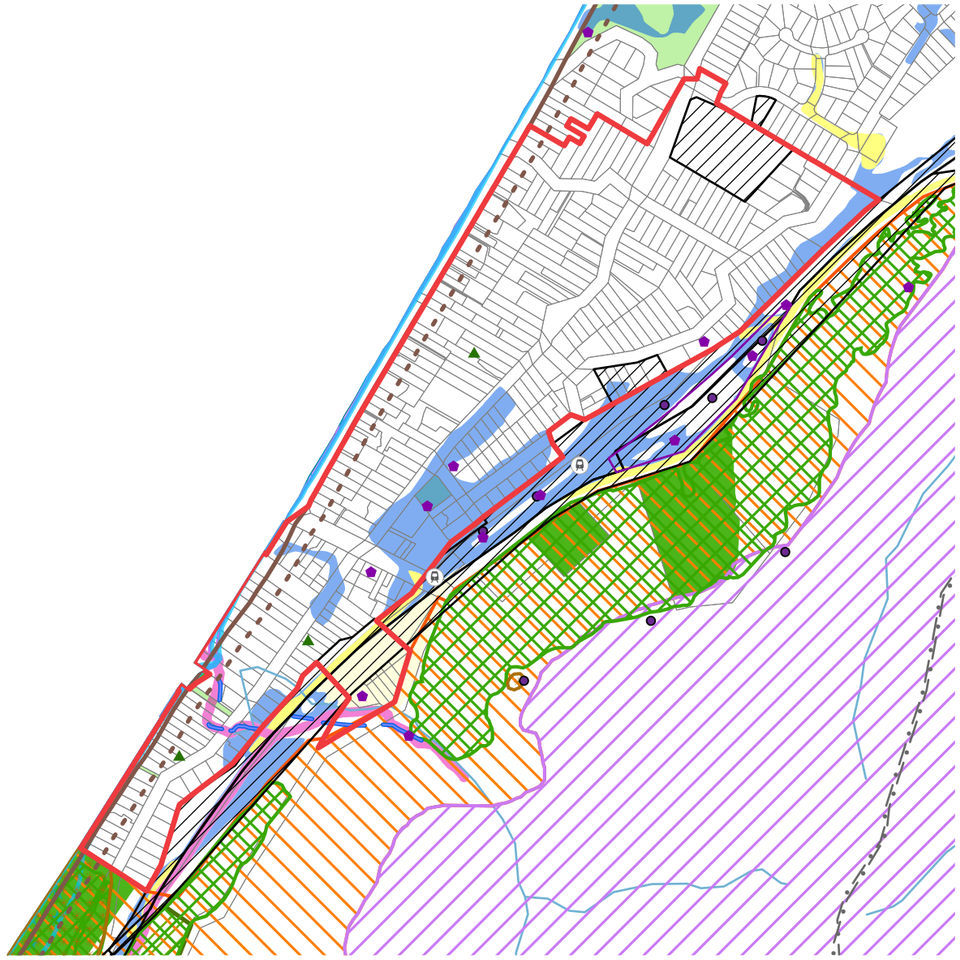
PAEKAKARIKI LOCAL CENTRE AND RAILWAY STATION

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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

Paekakariki Local Centre and Railway Station

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Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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
• Distance from commercial activities and community services at Paraparaumu. • High liquefaction potential and areas of combined earthquake hazard. • Lack of reticulated stormwater and wastewater infrastructure. • Safety issues with the Beach Road intersection. • Significant alteration of existing neighbourhood character. • Complex topography. • Increased coastal hazard associated with climate change.	• Good access to local shops, amenity and coastal open space. • Good access to public transport.

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 values	• Paekakariki urupā is located to the south of the area. • There are a number of archaeological sites associated with middens located throughout the area.	TBC
Iwi development aspirations		TBC
Urban form	• 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.	
Local neighbourhoods	• The full extent of the area is located within the Paekakariki Special Character Area. • The local centre zone around Beach Road is defined by a mix of one, two and three storey buildings with a mix of uses. • 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.	
Activity centres	• 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. • Services such as supermarkets and high schools are not located in the area, and require trips to Paraparaumu. • There is a primary school located within the area. • The area is relativey distant to Paraparaumu metropolitan centre.	
Residential development	• Intensification in the area could contribute to dwelling supply. • Access to local amenity and proximity to the railway station could encourage a range of dwelling typologies and densities.	
Business land	• There is no General Industrial zoned land in the area.	
Transport networks	• 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. • Intensification in the area will put additional pressure on the level railway crossing at Beach Road. • The area has good access to public transport at Paekakariki station.	

Criteria	Observations	Rating
Infrastructure and servicing	• Water reticulation is generally integrated into the existing street network. • 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 the coastal marine area. • Lack of stormwater reticulation may require on-site solutions. • 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. • On-site solutions for wastewater may be possible, although this may significantly reduce development density.	
Natural ecosystem values	• There are no mapped ecological sites located within the area.	
Water bodies	• A stream passes through the southern extent of the area.	
Landscape and open space values	• 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. • The area has good access to coastal open space. • The underlying dune topography and the steep hills to the east influence the landscape character of the area. • There are a number of notable trees located within the area. • 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.	
Heritage values	• There are a number of listed heritage buildings within the area. • The railway sheds adjacent to the area is identified as a heritage area. • There are a number of archaeological sites associated with middens located throughout the area.	
Topography	• The area is relatively undulating, and there are areas of steep topography on the coastal side of the area.	
Natural hazards and land risks (including effects of climate change)	• There is an area of flood ponding located to the west of the railway station. • The entire area is subject to high liquefaction potential. • There are a number of areas of high combined earthquake hazard located throughout the area. • The area adjacent to the coast is likely to be subject to increased natural hazard risk associated with climate change.	
Land use compatibility	• Potential for reverse sensitivity associated with the railway line and the state highway. • Potential for reverse sensitivity effects on the school. • There are designations assocaited with the railway corridor, state highway and school located in the area.	
Climate change (low-carbon futures)	• 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. • The area is relatively distant to Paraparaumu metropolitan centre and railway station. This may promote private vehile commuting.	

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KAPITI COAST INTENSIFICATION

Paekakariki Local Centre and Railway Station

Date: 13 August 2021 Revision: 0

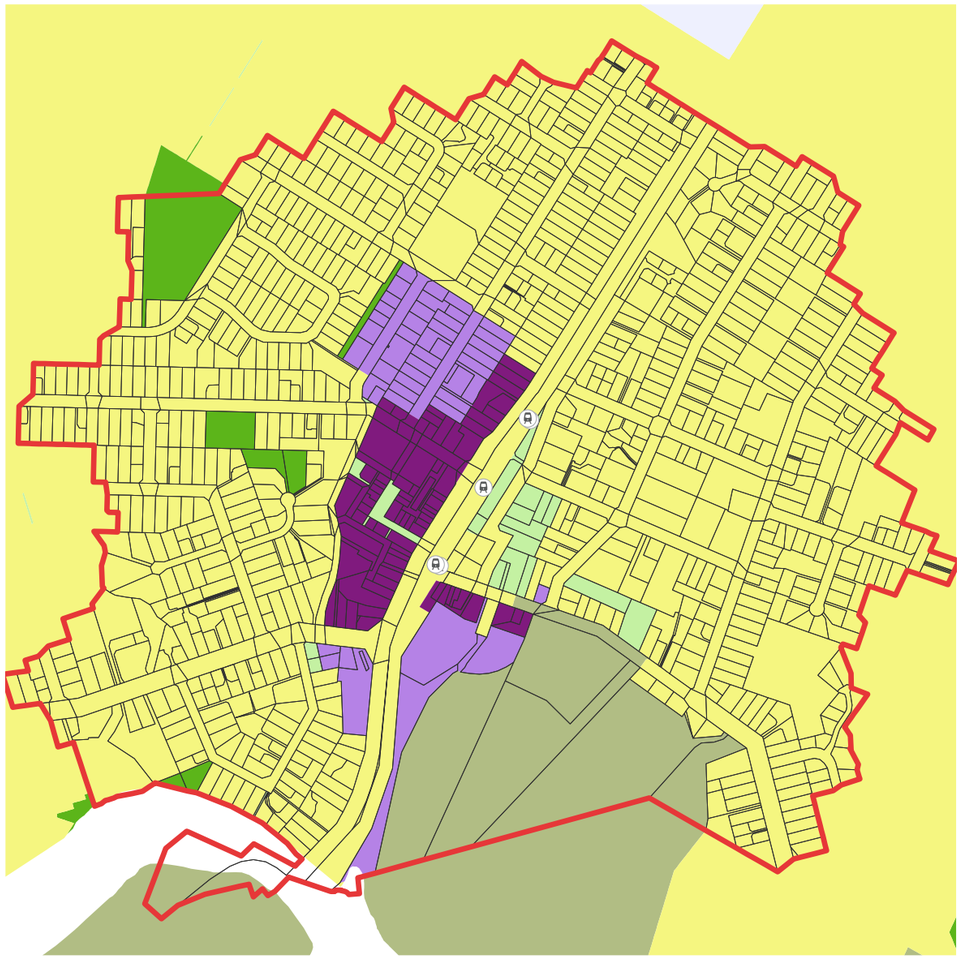
Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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

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KAPITI COAST INTENSIFICATION

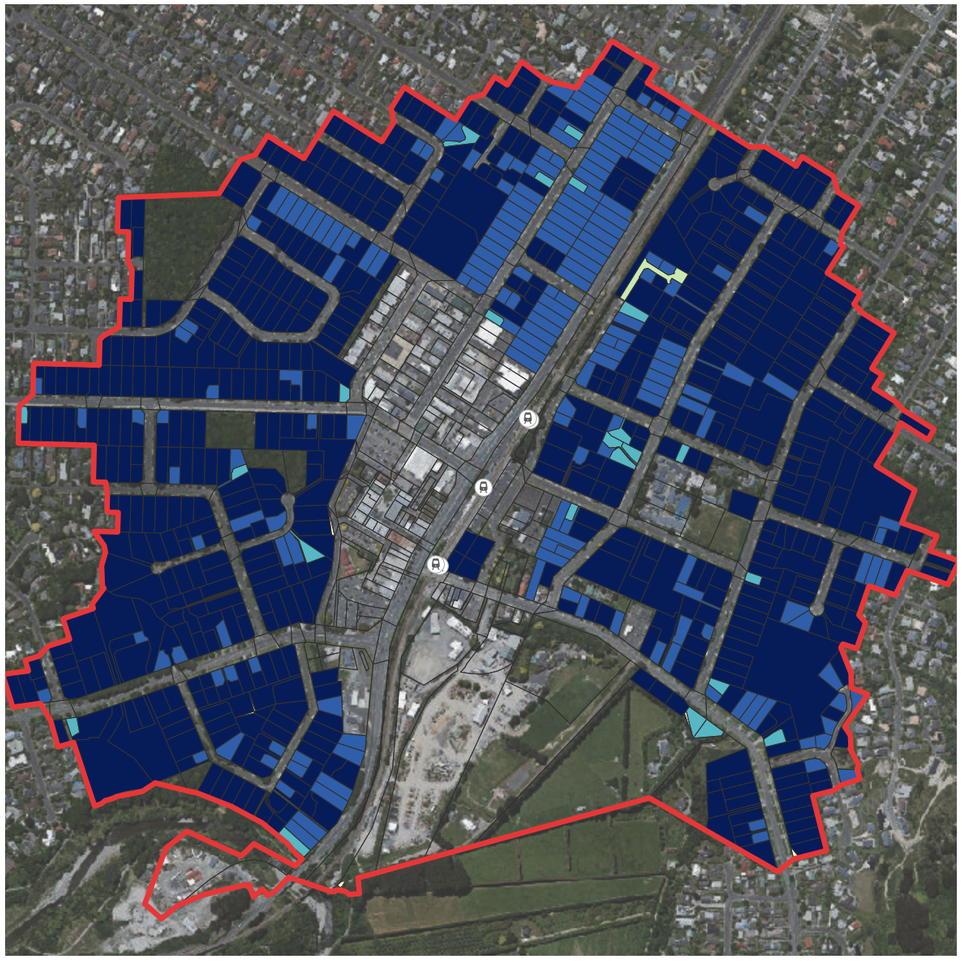
Waikanae Town Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

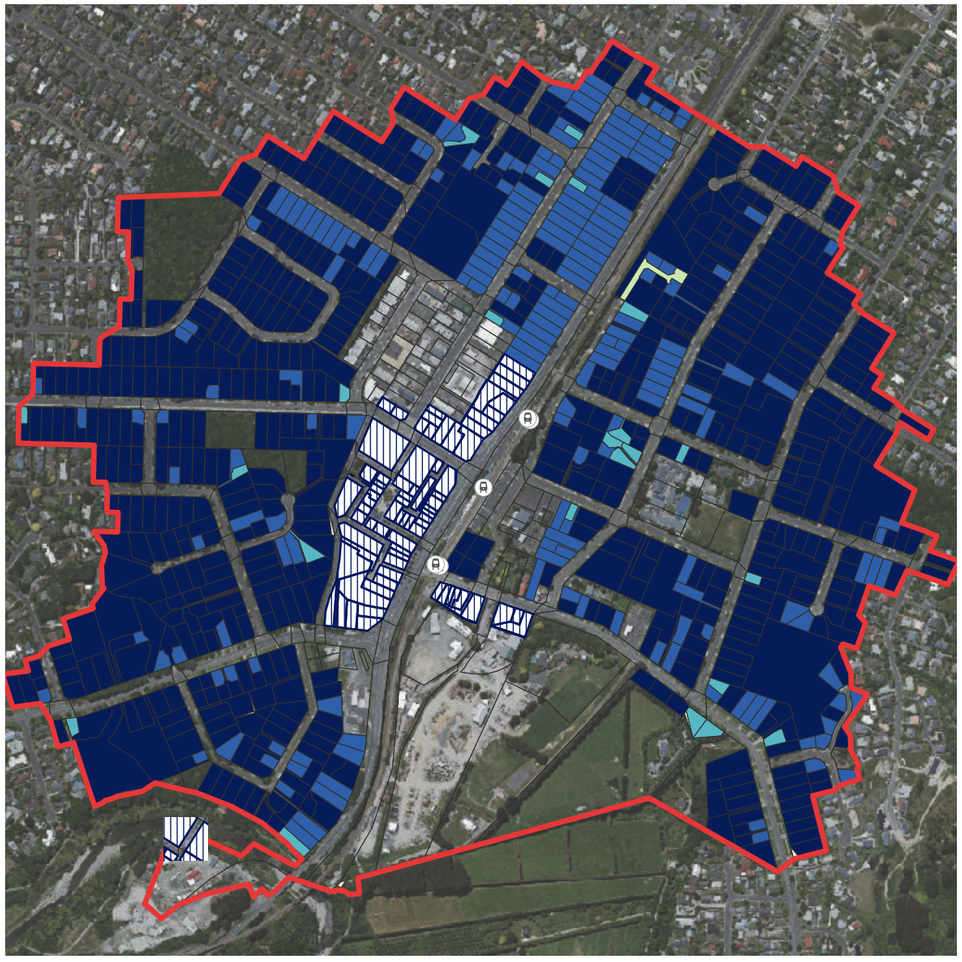
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

YIELD IN RESIDENTIAL AREA



SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 6.5m	6	up to 2	0.05	20	1
6.5m - 11m	25	3	0.16	30	5
11m - 14.5m	27	4	1.32	40	53
14.5m - 18m	137	5	14.38	50	719
18m <	566	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	6	up to 2	0.05	20	1
6.5m - 11m	25	3	0.16	30	5
11m - 14.5m	27	4	1.32	40	53
14.5m - 18m	137	5	14.38	50	719
18m <	566	6	67.97	60	4,078
Town centre zone		6	5.14	60	
	761		89.01		5,164
Additional dwellings (yield minus existing residential units)					**4,403**

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KAPITI COAST INTENSIFICATION

Waikanae Town Centre

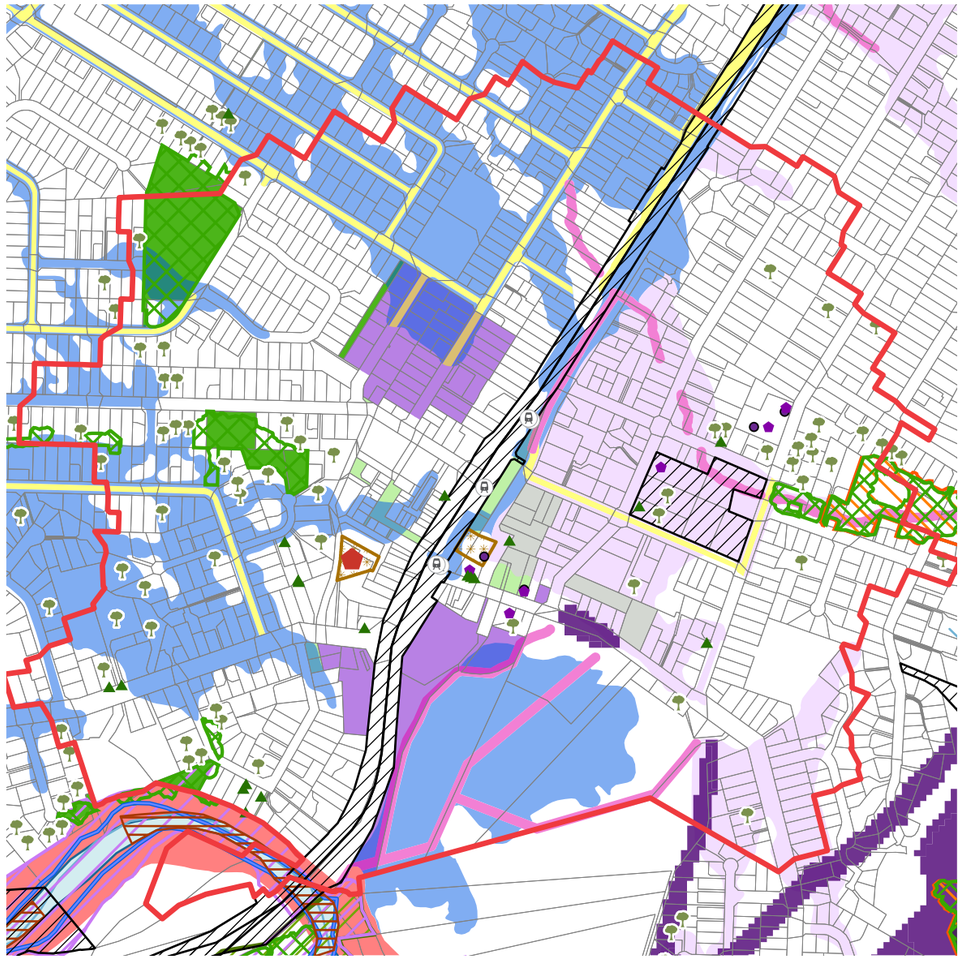
Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

WAIKANAE TOWN CENTRE

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)

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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

Waikanae Town Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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
• Coordinating intensification with low-density industrial land. • Flood hazard. • Steeper topography in the eastern extent of the area.	• Opportunity to improve the legibility and vibrancy of the Waikanae town centre through intensification. • Proximity to rapid transit. • Good access to a range of commercial activities, community services, employment and public open spaces.

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 margins of the Waikanae river run along the southern extent of the area.
Outstanding natural features and landscapes	●	ONL associated with Hemi Matenga Memorial Park in the eastern extent of the area.
Significant indigenous vegetation and significant habitats of indigenous fauna	●	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	●	Whakarongotai marae and Ruakohatu urupā.
Historic heritage	●	Several listed buildings located in the east of the area.
Significant risk from flood hazard	●	Areas of ponding, shallow surface flow, overland flow and stream corridors.
Significant risk from earthquake hazard	●	Small areas of high combined earthquake hazard around Elizabeth Street.
Significant risk from coastal hazard		
Nationally significant infrastructure	●	The railway line runs through the area.
Public open space	●	Several public open spaces located throughout the area.
Designations	●	School and rail corridor designations.
Business land for low density uses	●	General Industrial zoned land to the north and south of the Town Centre.

Criteria	Observations	Rating
Mana whenua values	• Whakarongotai marae is located on Marae Lane to the west of the Town Centre. • There is a wāhi tapu site associated with the Whakarongotai marae. • There is a wāhi tapu site associated with Ruakohatu urupā to the north of Elizabeth Street.	TBC
Iwi development aspirations	• The Waikanae Station park and ride car park (to the west of the station) is identified as Māori freehold land.	TBC
Urban form	• Increased height and building density could be appropriate within and around the Town Centre zone. • Increased density of urban form will improve the legibility of the area as the centre of Waikanae. • 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.	
Local neighbourhoods	• 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. • The residential area to the west and north of the Town Centre is predominantly defined by single storey residential dwellings. • 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. • Intensification could improve the existing neighbourhood environment within the existing Town Centre zone. • Intensification could alter existing residential neighbourhood environments around the Town Centre, given their existing low-density scale of built form.	
Activity centres	• The area has good access to range of commercial activities and community services, including shops, cafes and entertainment, supermarkets, schools, and other community facilities. • The General Industrial areas function as centres of employment. • Intensification could support existing commercial and community activity within the town centre.	
Residential development	• Intensification in the area could contribute significantly to dwelling supply. • High levels of access to commercial activities and community services could encourage the development of higher density typologies.	
Business land	• 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.	
Transport networks	• 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. • The area is within a walkable catchment of the Waikanae railway station.	
Infrastructure and servicing	• Water and wastewater reticulation is generally integrated into the existing street network. • 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. • 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.	
Natural ecosystem values	• There are several ecological sites located in the eastern and western extents of the area. • There are numerous listed indigenous trees located throughout the area.	
Water bodies	• The Waikanae river runs along the southern extent of the area. • A stream associated with the stormwater network runs through the northern extent of the area and discharges in to the Ngarara stream. • Reticulated stormwater discharges in to the Waikanae river and Ngarara streams, so intensification within the area could increase discharges to these waterbodies.	
Landscape and open space values	• 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. • There is an Outstanding Natural Landscape associated with Hemi Matenga Memorial Park located at the eastern extent of the area. • There are several notable trees located throughout the area.	
Heritage values	• There are several listed heritage buildings located in the east of the area, around Elizabeth Street, Seddon Street and Winiata Ave. • There are several notable trees located throughout the area.	
Topography	• The area to the west of the railway line is largely flat. • The area to the east of the railway line progressively increases in slope to the east.	
Natural hazards and land risks (including effects of climate change)	• 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. • There are some areas of high combined earthquake hazard located to the south of Elizabeth Street. • There are sites on the SLUR located on both sides of Main Road in the southern extent of the area.	
Land use compatibility	• Potential for reverse sensitivity effects on the railway line. • Potential for reverse sensitivity effects on industrial land uses. • Potential for reverse sensitivity effects on the school. • A school designation and the rail corridor designation run through the area.	
Climate change (low-carbon futures)	• Intensification in the area would have good access a range of community services, commercial activities, shops, employment and public open space. • The area has good access to active modes along Main Road. • The area is within a walkable catchment of the Waikanae Railway station. • Intensification in the area could promote reduced-emission choices. • Good access to community services, commercial activities and other amenity may encourage the development of more energy efficient, higher density dwelling typologies.	

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KAPITI COAST INTENSIFICATION

Waikanae Town Centre

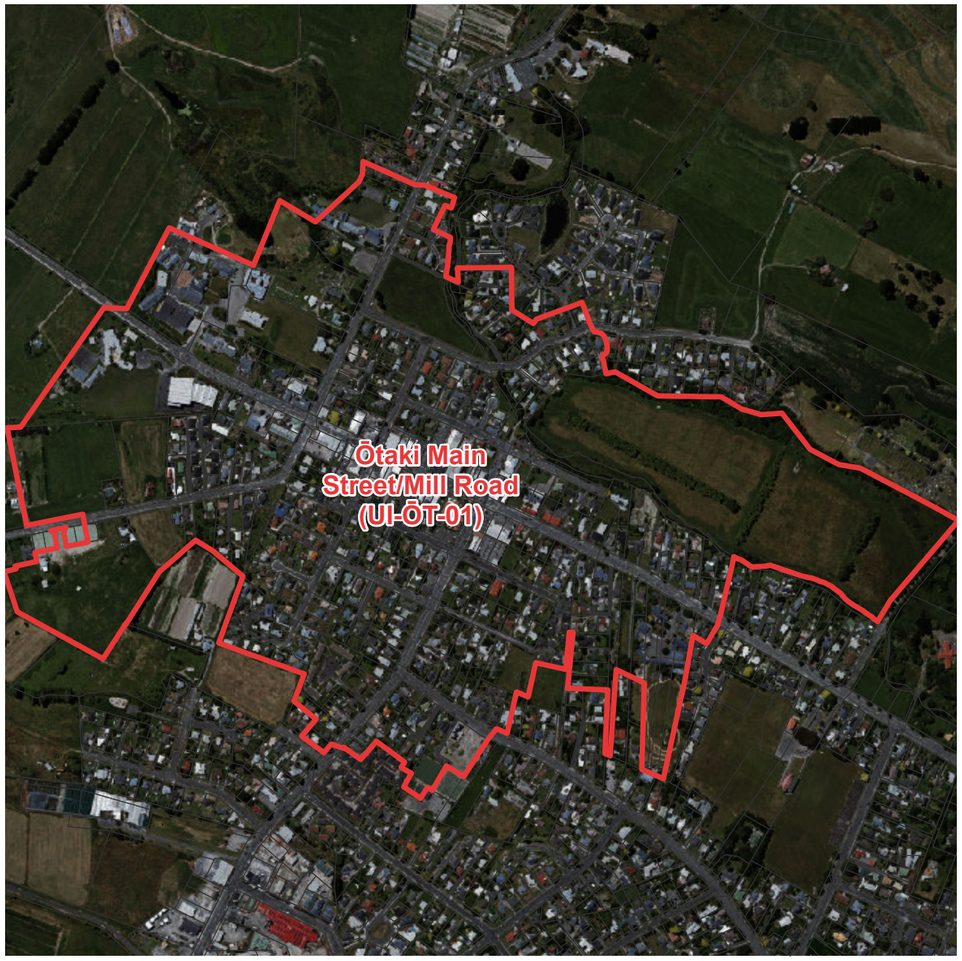
Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

ŌTAKI MAIN STREET/MILL ROAD

AERIAL



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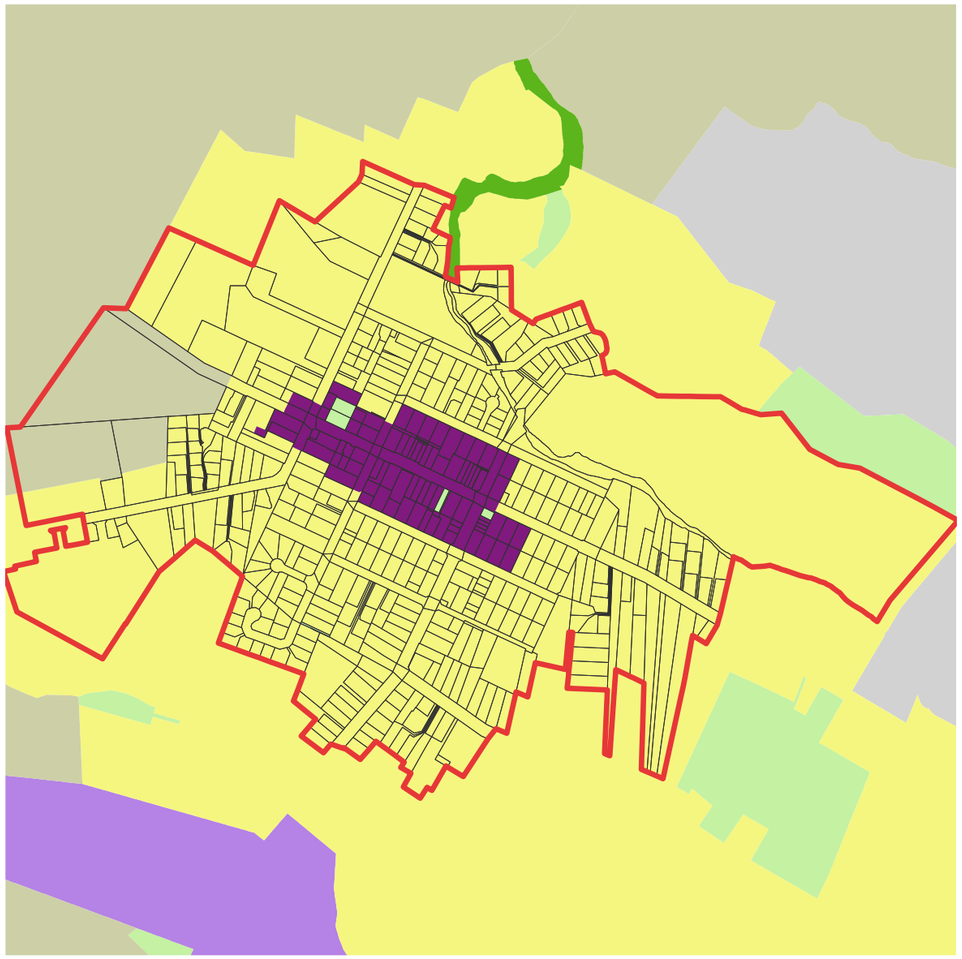

Urban Intensification Study Areas
General Residential Zone
General Rural Zone
Town Centre Zone
General Industrial Zone
Natural Open Space Zone
Open Space Zone
Future Urban Zone

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KAPITI COAST INTENSIFICATION

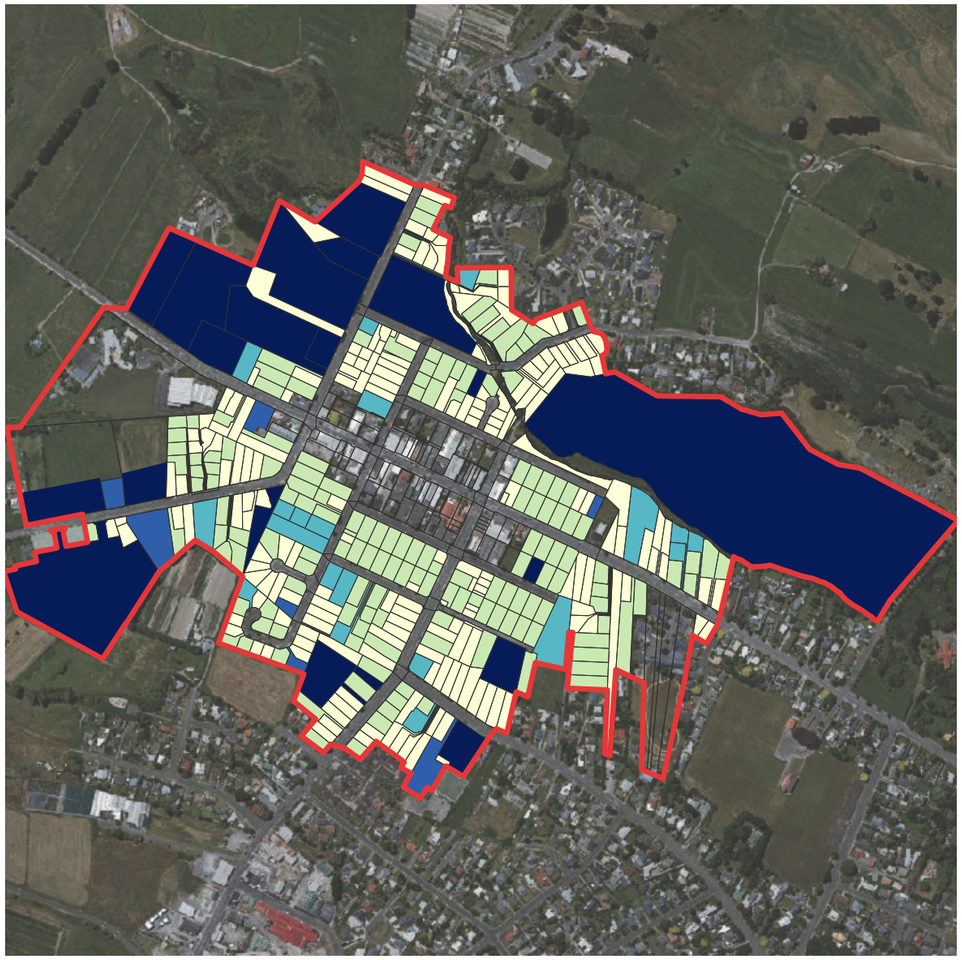
Ōtaki Main Street/Mill Road

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

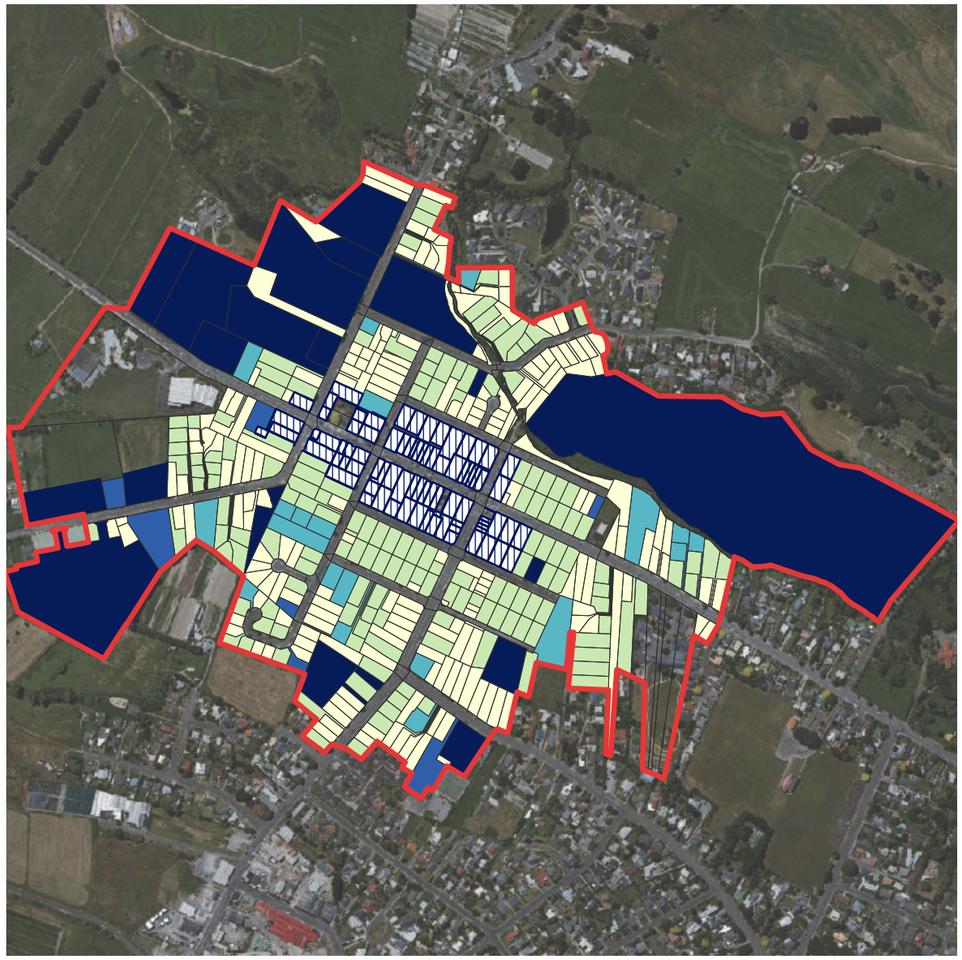
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

YIELD IN RESIDENTIAL AREA



SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 18.5m	151	up to 2	13.98	20	280
18.5m - 25m	142	3	13.43	30	403
25m - 31.5m	31	4	3.13	40	125
31.5m - 38m	7	5	1.34	50	67
38m <	28	6	26.96	60	1,618
	359		58.84		2,492
Additional dwellings (yield minus existing residential units)					**2,133**

YIELD IN RESIDENTIAL + TOWN CENTRE ZONE



SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 18.5m	151	up to 2	13.98	20	280
18.5m - 25m	142	3	13.43	30	403
25m - 31.5m	31	4	3.13	40	125
31.5m - 38m	7	5	1.34	50	67
38m <	28	6	26.96	60	1,618
Town centre zone			4.65		279
	359		63.49		2,771
Additional dwellings (yield minus existing residential units)					**2,412**

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KAPITI COAST INTENSIFICATION

Ōtaki Main Street/Mill Road

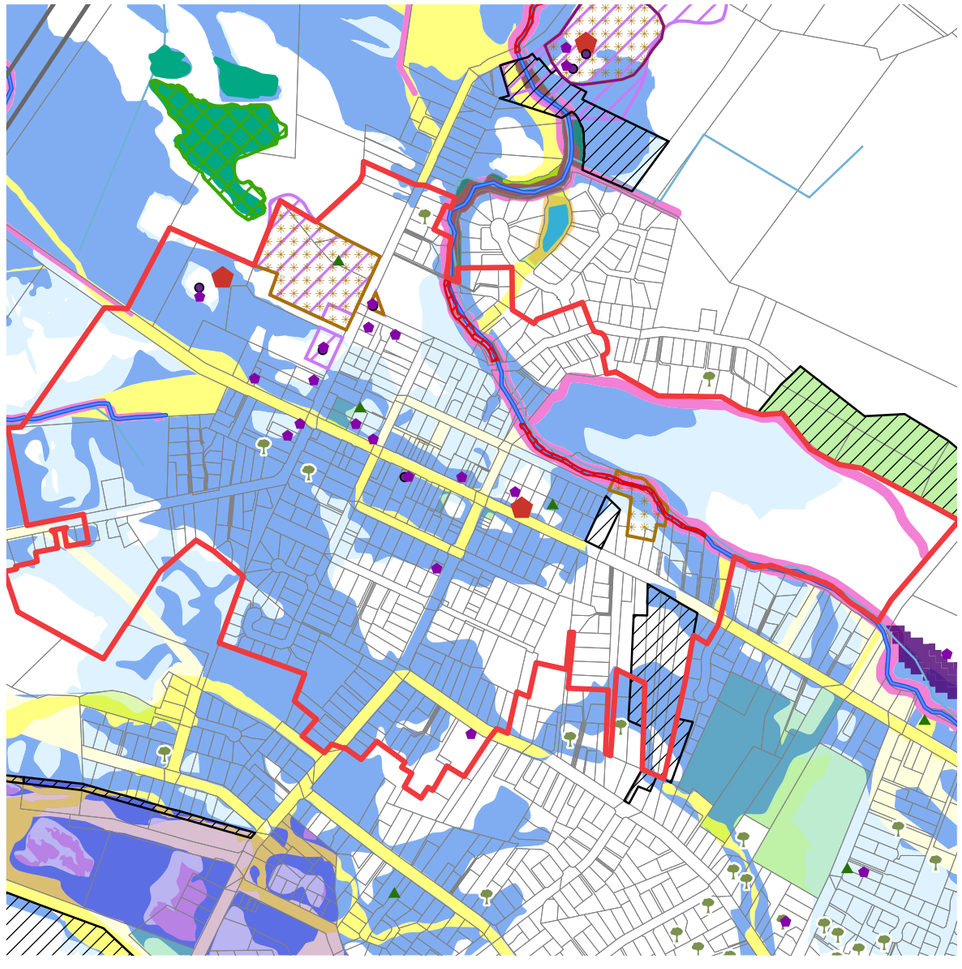
Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

Ōtaki Main Street/Mill Road

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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

Key constraints	Key opportunities
• Infrastructure, particularly a constrained water supply. • Extensive flood hazard. • Historic heritage. • Wāhi tapu. • Poor access to public transport. • Discharges to Haruātai stream.	• Good access to local services. • Intensification could support existing and new activities and services on Main Street/Mill Road. • Relatively flat.

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 Haruātai stream passes 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	●	Three wāhi tapu sites (two urupā and a monument). Two marae sites. A number of Māori 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
Mana whenua values	• There are two urupā wāhi tapu sites located within the area. • The Haruātai stream is recognised as a site of significance to Ngā Hapū o Ōtaki. • There are two marae identified in the area.	TBC
Iwi development aspirations	• There are several Māori freehold land blocks located within the area. • Te Wānanga o Raukawa campus is located on the western edge of the area around Tasman Road.	TBC
Urban form	• Increased building height and density could be appropriate around Main Street/Mill Road, which is the main thoroughfare. • 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.	
Local neighbourhoods	• Main Street/Mill Road is defined by predominatly by single story buildings, with some two storey buildings. The blocks to the north and south of Mill Road are predominantly single storey dwellings. • 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. • Intensification in the area beyond two storeys could significantly alter the character of the existing neighbourhood. • The area is not within an established Special Character Area.	
Activity centres	• There is a good variety of activity around Mill Road, including a museum, library, medical centre, churches, schools and supermarkets.	
Residential development	• Intensification in the area could contribute modestly to dwelling supply. • Low access to public transport may limit the development of higher density typologies.	
Business land	• There is no General Industrial zoned land within the area. • Existing business uses are likely to be supported by residential intensification.	
Transport networks	• Significant growth may put pressure on existing east-west connectivity across Ōtaki. • While there is no dedicated cycleway, Ōtaki railway station is accessible by active modes along Mill Road. • There is an existing bus route that runs along Mill Road, however all areas in Ōtaki have poor access to regional public transport.	

Criteria	Observations	Rating
Infrastructure and servicing	• Reticulated water supply is generally integrated into the existing street network. • Storm water reticulation is only integrated into key streets such as Main Street/Mill Road and Aotaki Street. • Intensification in Ōtaki may trigger town-wide upgrades to the water supply, particularly reservoir storage. • Intensification in Ōtaki may put pressure on already constrainted wastewater reticulation networks and pump stations.	
Natural ecosystem values	• There are three identified key indigenous trees located in the area. • There are no ecological sites identified in the area.	
Water bodies	• The Haruātai stream runs through the area, to the north of Mill Road and Raukawa Street. Reticulated stormwater appears to discharge in to this stream, so intensification within the area could increase discharges of water directly to the stream.	
Landscape and open space values	• There are a number of small civic open spaces integrated into Main Street/Mill Road. • There are no playgrounds located in the area. • The area around the church, urupā and monument on Te Rauparaha Street are recognised as special amenity landscapes. • There are a number of notable trees identified in the area. • Ōtaki Domain is relatively accessible to the area.	
Heritage values	• There are a significant number of heritage listed buildings located on Main Street/Mill Road and on Te Rauparaha Street. • There is an archaeological site associated with a colonial hotel located on the corner of Mill Road and Aotaki Street.	
Topography	• The area is relatively flat.	
Natural hazards and land risks (including effects of climate change)	• 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 Haruātai stream corridor. • There are a four sites identified on the SLUR in the area.	
Land use compatibility	• The existing school may be sensitive to residential intensification in close proximity. • There is a school designation and telecommunications designation located in the area.	
Climate change (low-carbon futures)	• Intensification in the area would have direct access to a wide range of commercial activities, community services, schools and open spaces. • Poor access to regional public transport may increase reliance on private vehicle transport.	

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KAPITI COAST INTENSIFICATION

Ōtaki Main Street/Mill Road

Date: 13 August 2021 Revision: 0

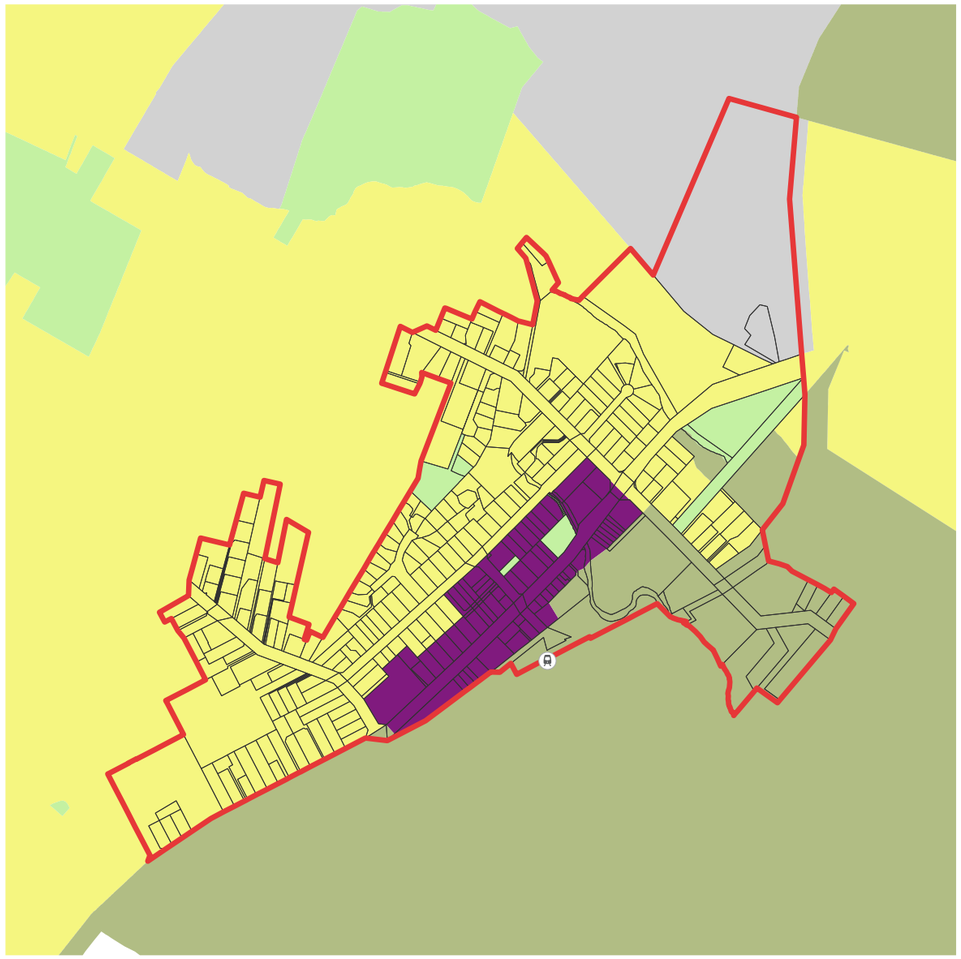
Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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

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KAPITI COAST INTENSIFICATION

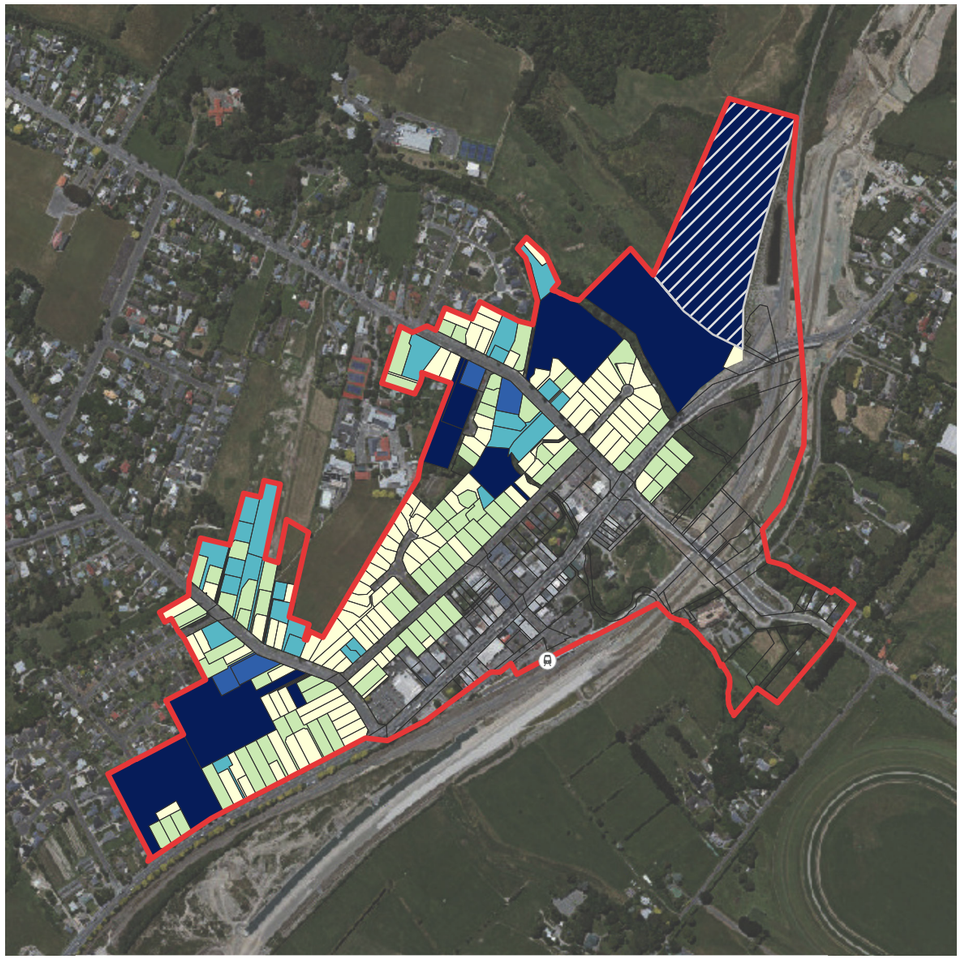
Ōtaki Railway

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

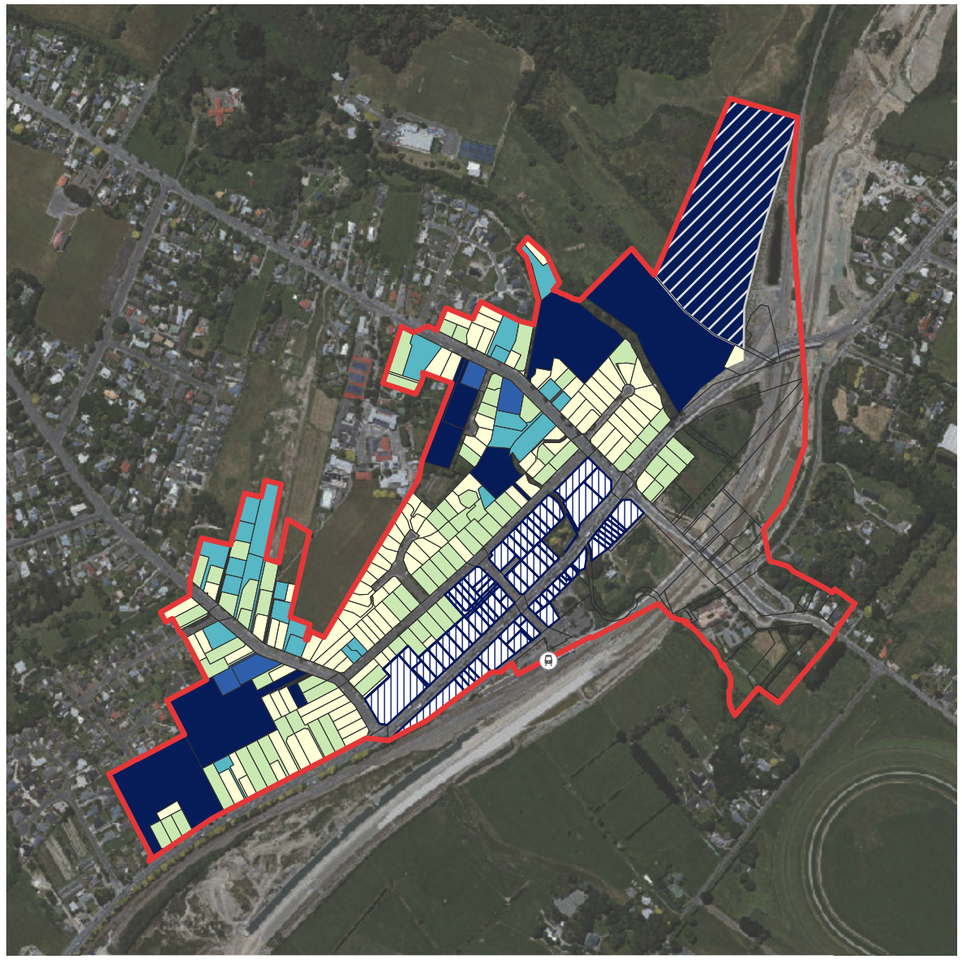
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

YIELD IN RESIDENTIAL AREA



	SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
	< 18.5m	68	up to 2	7.75	20	155
	18.5m - 25m	68	3	6.65	30	200
	25m - 31.5m	18	4	3.24	40	130
	31.5m - 38m	3	5	0.64	50	32
	38m <	12	6	8.50	60	510
	Future urban zone	0	6	4.86	60	291
		169		31.65		1,318
	Additional dwellings (yield minus existing residential units)					**1,149**

YIELD IN RESIDENTIAL + TOWN CENTRE ZONE



	SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
	< 18.5m	68	up to 2	7.75	20	155
	18.5m - 25m	68	3	6.65	30	200
	25m - 31.5m	18	4	3.24	40	130
	31.5m - 38m	3	5	0.64	50	32
	38m <	12	6	8.50	60	510
	Future urban zone		6	4.86	60	291
	Town centre zone		6	4.80	60	288
		169		31.65		1,606
	Additional dwellings (yield minus existing residential units)					**1,437**

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KAPITI COAST INTENSIFICATION

Ōtaki Railway

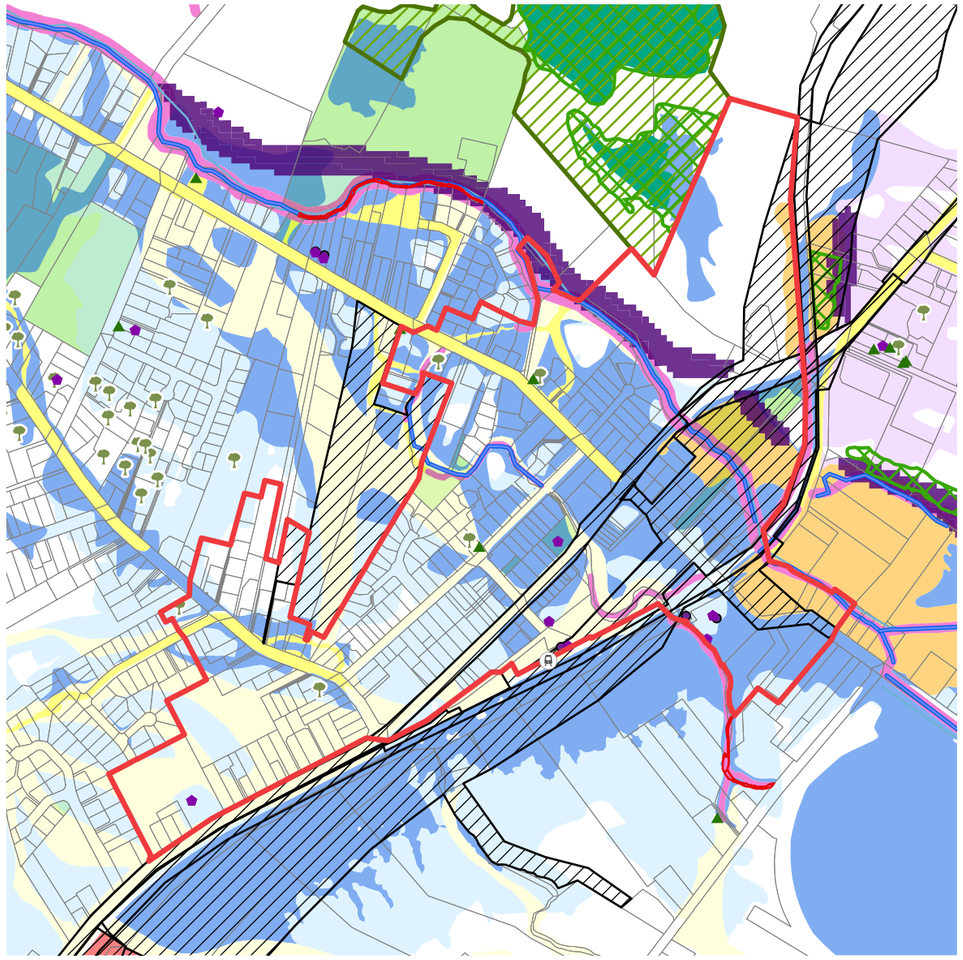
Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

ŌTAKI RAILWAY

POTENTIAL QUALIFYING MATTERS



- Urban Intensification Study Areas
- Notable Trees (KCDC)
- Historic Heritage Places (KCDC)
- NZ Heritage (NZHPT)
- Key Indigenous Trees (KCDC)
- Designation (KCDC)
- Designation (KCDC)
- Designation (KCDC)
- Designation (KCDC)
- Site of Significance Ngā Hapū o Ōtaki (GWRC)
- Rivers Streams and Drains (KCDC)
- Ecological Sites (KCDC)
- Key Native Ecosystems (GWRC)
- Significant Natural Wetlands (GWRC)
- Rivers (LINZ)
- High Combined Earthquake Hazard (GWRC)
- Flood Hazard River Corridor (KCDC)
- 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)
- Flood Hazard Shallow Surface Flow (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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

Ōtaki Railway

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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

Key constraints	Key opportunities
• Infrastructure, particularly a constrained water supply. • Extensive flood hazard. • Earthquake hazard and liquefaction. • Poor access to public transport. • Discharges to Haruātai stream.	• Good access to local services. • Intensification could support existing and new activities and services around old SH1. • Improve existing neighbourhood character, particularly the pedestrian environment around old SH1.

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 Haruātai stream and a tributarty 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	●	There are two large Māori freehold land block located in the area.
Historic heritage	●	There are a small number of listed heritage buildings.
Significant risk from flood hazard	●	Extensive flood hazard.
Significant risk from earthquake hazard	●	High combined earthquake hazard to the north of the Haruātai Steam.
Significant risk from coastal hazard		
Nationally significant infrastructure	●	The railway line runs through the area.
Public open space	●	There are a number of public open spaces located in the area.
Designations	●	Expressway designation, railway designation and high school designation.
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua values	• There are no mapped sites of significance identified in the area, however the Haruātai stream runs through the northern extent of the area, and this is recognised downstream as a site of significance to Ngā Hapū o Ōtaki.	TBC
Iwi development aspirations	• There are two large Māori freehold land blocks located in the east and north of the area.	TBC
Urban form	• Increased building height and density could be appropriate in the area, particularly focussed on Old SH 1, the block back to Dunstant Street, the area around the intersection with Mill Road, and the area around the railway station.	
Local neighbourhoods	• 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. • 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. • The area is not within an established Special Character Area.	
Activity centres	• There is a good variety of activity within the area, including shops and local services, a supermarket and Ōtaki.	
Residential development	• Intensification in the area could contribute modestly to dwelling supply. • Low access to public transport may limit the development of higher density typologies.	
Business land	• There is no General Industrial zoned land within the area. • Existing business uses are likely to be supported by residential intensification.	
Transport networks	• The area has good access to the Expressway. • Ōtaki railway station is located in the area (although services to Wellington do not extent do Ōtaki). • While there are bus routes that service the area, all areas in Ōtaki have poor access to regional public transport.	
Infrastructure and servicing	• Water and wastewater reticulation is generally integrated into the existing street network. • There is storm water reticulation integrated into some streets including Dinstant Street, Waerenga Road, Mill Road, and part of Old State Highway 1. Old State Highway 1 has no stormwater reticulation south of Arthur Street.. • Intensification in Ōtaki may trigger town-wide upgrades to the water supply, particularly reservoir storage. • Intensification in Ōtaki may put pressure on already constrainted wastewater reticulation networks and pump stations.	

Criteria	Observations	Rating
Natural ecosystem values	• There are five identified key indigenous trees located in the area. • 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.	
Water bodies	• The Haruātai 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. • 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.	
Landscape and open space values	• There are several public open spaces located in the area. • There is a small playground located at Centennial Park on Old State Highway 1. • There are no special amenity landscapes identified in the area. • There are a number of notable trees identified in the area. • Haruatai Park is relatively accessible to the area.	
Heritage values	• There are a number of heritage listed buildings located in the area, including the Ōtaki Railway Station, • There is an archaeological site associated with a house located to the north-east of the railway station.	
Topography	• The area to the south of the Harūatai stream is relatively flat. • The area to the north of the stream is relatively steep.	
Natural hazards and land risks (including effects of climate change)	• 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. • The area to the north of the Harūatai stream is subject to high liquefaction potential. • There is an area to the north of the Harūatai stream subject to high combined earthquake hazard. • There are a two sites identified on the SLUR in the area.	
Land use compatibility	• Intensification may have reverse sensitivity effects on the Expressway and railway corridor. • Ōtaki College may be sensitive to intensification. • Designations in the area are associated with the Expressway, the railway corridor and Ōtaki college.	
Climate change (low-carbon futures)	• Intensification in the area would have direct access to a wide range of commercial activities, community services, schools and open spaces. • Poor access to regional public transport may increase reliance on private vehicle transport.	

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KAPITI COAST INTENSIFICATION

Ōtaki Railway

Date: 13 August 2021 Revision: 0

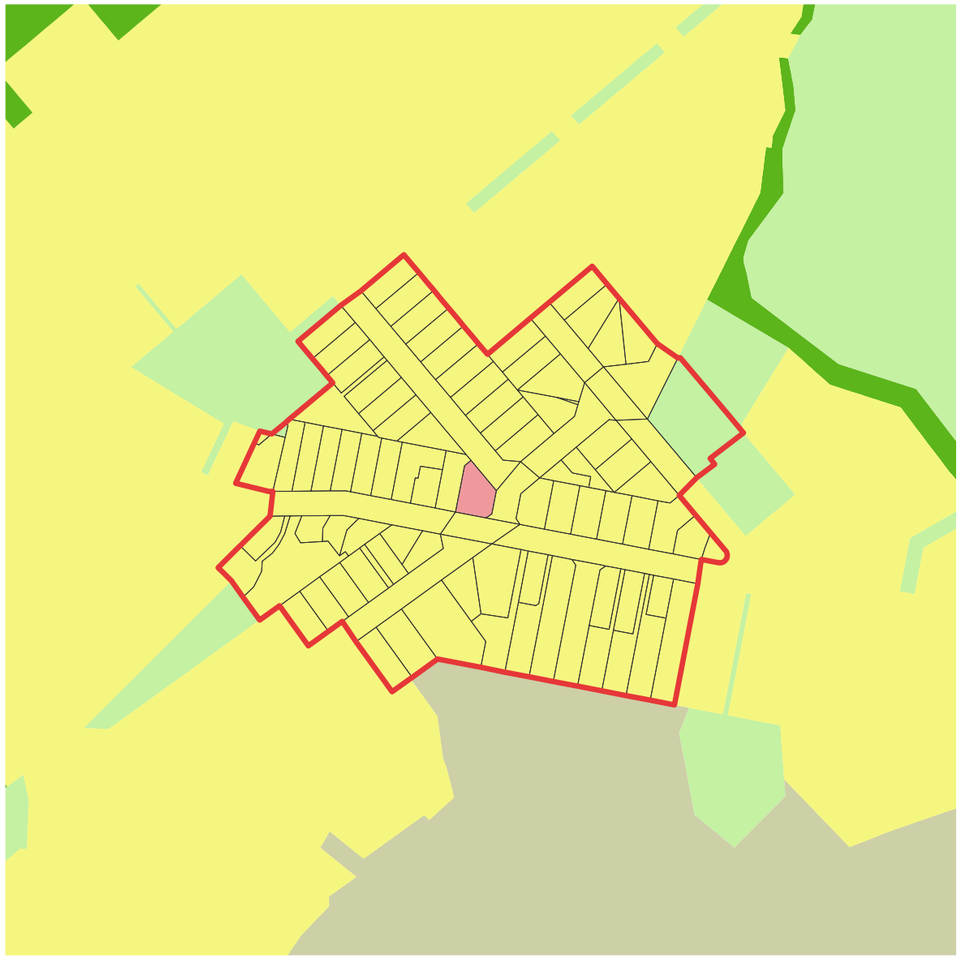
Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

WAIKANAE 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

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KAPITI COAST INTENSIFICATION

Waikanae Beach Local Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

YIELD IN RESIDENTIAL AREA

SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 18.5m	23	up to 2	5.40	20	108
18.5m - 25m	38	3	7.97	30	239
25m - 31.5m	7	4	0.44	40	18
31.5m - 38m	0	5	0	50	0
38m <	5	6	1.06	60	64
	61		14.87		428
Additional dwellings (yield minus existing residential units)					**367**

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE

SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 18.5m	23	up to 2	5.40	20	108
18.5m - 25m	37	3	7.97	30	239
25m - 31.5m	7	4	0.44	40	18
31.5m - 38m	1	5		50	0
38m <	5	6	1.06	60	64
Local centre		4	0.1	40	4
	61		14.97		432
Additional dwellings (yield minus existing residential units)					**371**

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KAPITI COAST INTENSIFICATION

Waikanae Beach Local Centre

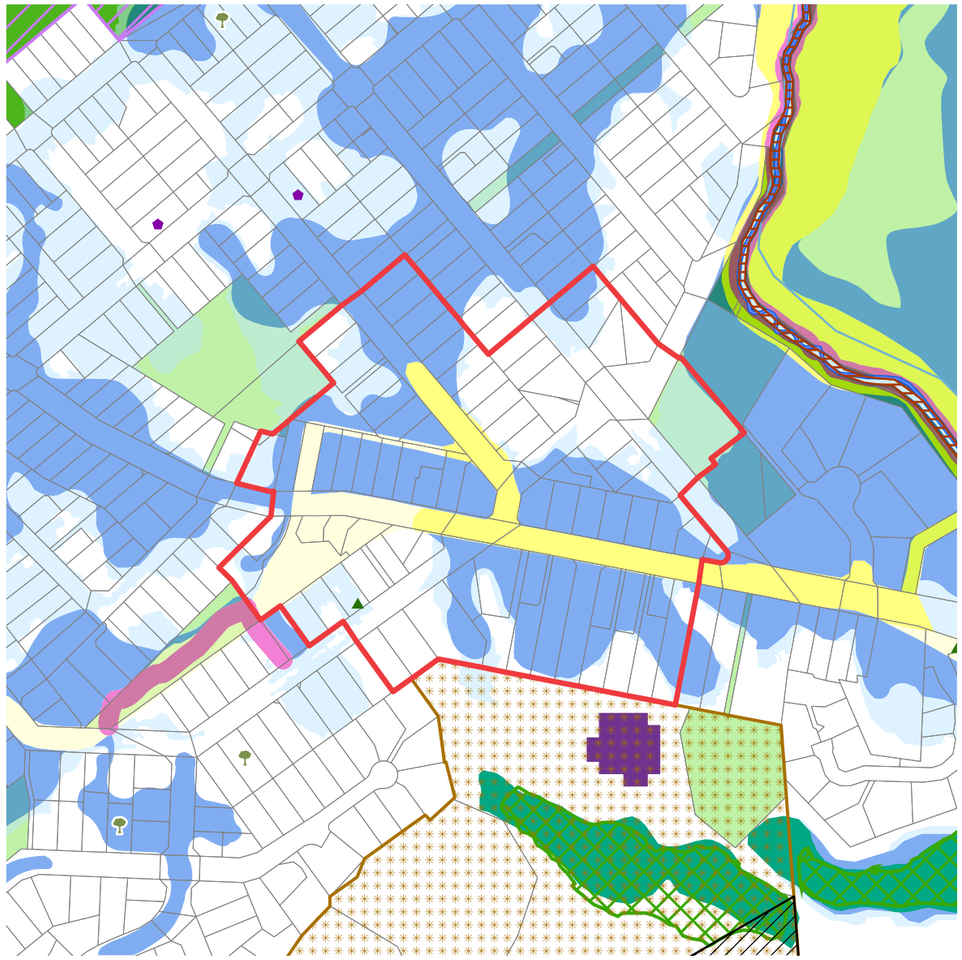
Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

Waikanae Beach Local Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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
• Poor access to a range of commercial activities and community services. • Extensive flood hazard. • High liquefaction potential. • Proximity to the Takamore wāhi tapu area.	• Opportunity to improve the legibility and vibrancy of the Waikanae Beach local centre through intensification. • Area is relatively flat.

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	●	The Takamore wāhi tapu site is located to the south of the area.
Historic heritage		
Significant risk from flood hazard	●	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 values	• The Takamore wāhi tapu area is located immediately to the south of the area.	TBC
Iwi development aspirations		TBC
Urban form	• 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.	
Local neighbourhoods	• The area is predominantly defined by single storey dwellings with larger yards. • 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. • The western half of the area is located within the Waikanae Beach Special Character Area.	
Activity centres	• The existing shops within the local centre comprise a dairy and a cafe. Intensification could support the existing shops. • The area has a low degree of access to commercial activites and community services (including schools), most of which are located in Waikanae or Paraparaumu.	
Residential development	• Intensification in the area could contribute modestly to dwelling supply. • Low access to commercial activities and community services may limit the development of higher density typologies.	
Business land	• There is no General Industrial zoned land within the area. • Existing business uses are likely to be supported by residential intensification.	
Transport networks	• The area has immediate access to the Expressway via the adjacent interchange. • There is an existing bus route that runs along Te Moana Road. • 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. • Some parts of Te Moana Road include a cycle lane. • The area has good access to active modes of transport associated with the Expressway. • Some streets in the area have a footpath on only one side.	
Infrastructure and servicing	• Water and wastewater reticulation is generally integrated into the existing street network. • Stormwater reticulation is integrated into the street network to the west of the shops. This discharges in to the Waimea Lagoon and Waikanae Estuary. • 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.	

Criteria	Observations	Rating
Natural ecosystem values	• There are no ecological sites identified in the area.	
Water bodies	• There are no waterbodies that pass through the area. • Reticulated stormwater discharges to the Waimea Lagoon and Waikanae Estuary, so intensification within the area could increase discharges to these waterbodies.	
Landscape and open space values	• There are no open spaces located within the area, although the Rangihiroa street reserve is located to the north-west of the area. • There are no special amenity landscapes identified in the area. • There is one notable tree identified in the area. • The area has good access to surround public open space an coastal open space.	
Heritage values	• There are no listed heritage items in the area.	
Topography	• The area is relatively flat, aside from some areas of gentle dune mounding.	
Natural hazards and land risks (including effects of climate change)	• The area is extensively covered by flood hazard. This is comprised of ponding areas and overland flow paths. • The the full extent of the area is subject to high liquefaction potential. • The area relatively low lying and close to the coast, so may be subject to increased natural hazard risk associated with climate change. • There is one SLUR site located on the eastern edge of the area.	
Land use compatibility	• There are no notable reverse sensitivity issues associated with the area. • There are no designations in the area.	
Climate change (low-carbon futures)	• 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. • The area has good access to active modes of transport associated with the Expressway. • While the area is generally accessible to Waikanae railway station, distance from the station may encourage private vehicle commuting.	

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KAPITI COAST INTENSIFICATION

Waikanae Beach Local Centre

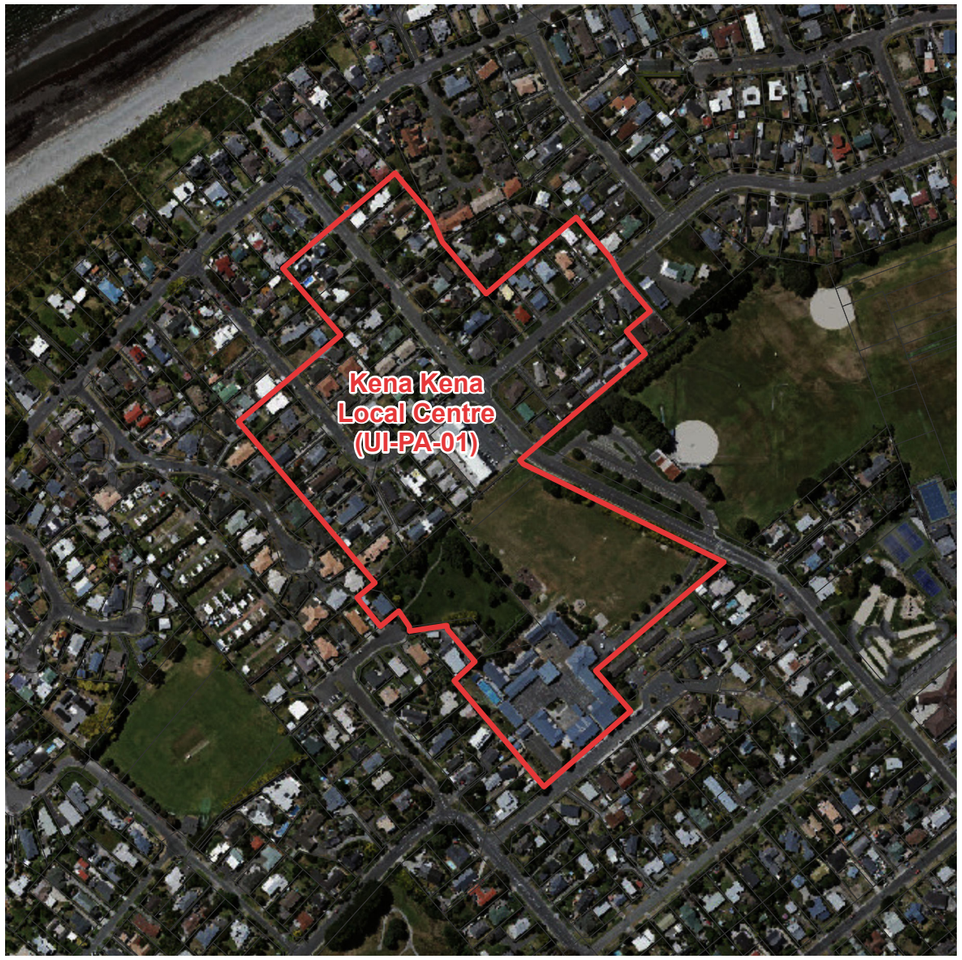
Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

KENA KENA LOCAL CENTRE

AERIAL



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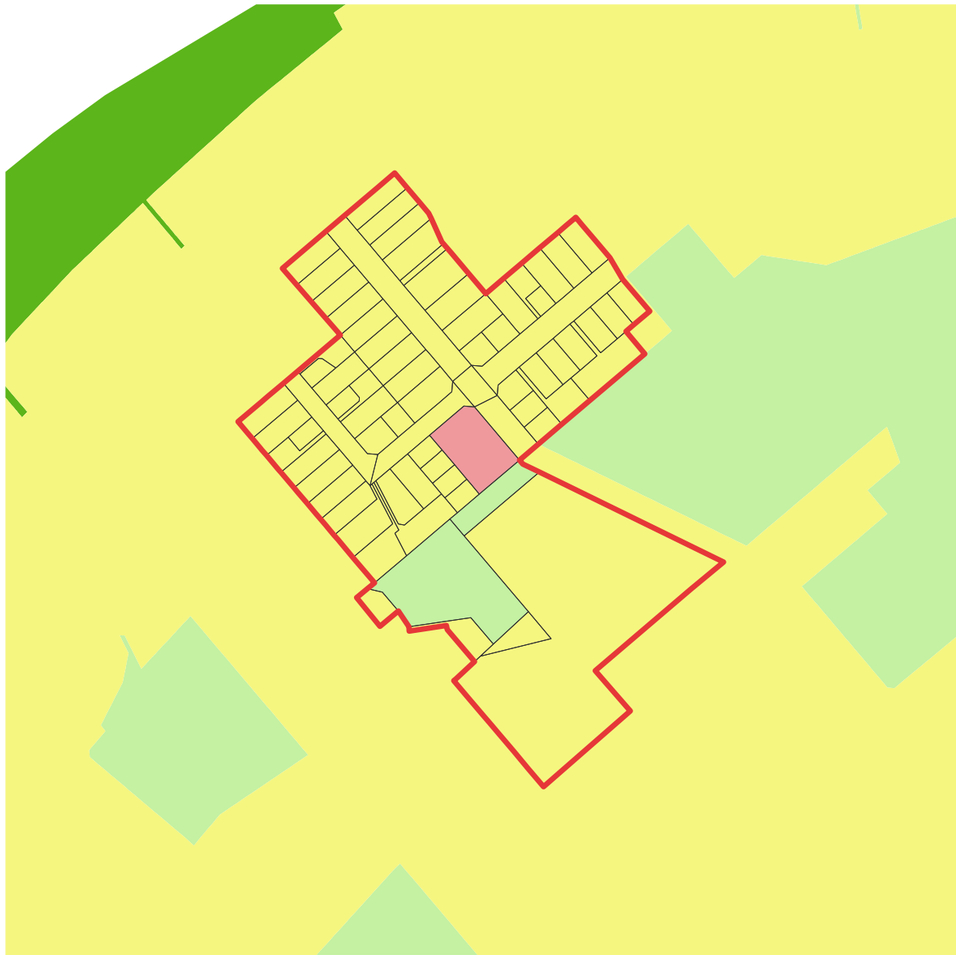

Urban Intensification Study Areas
General Residential Zone
Local Centre Zone
Natural Open Space Zone
Open Space Zone

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KAPITI COAST INTENSIFICATION

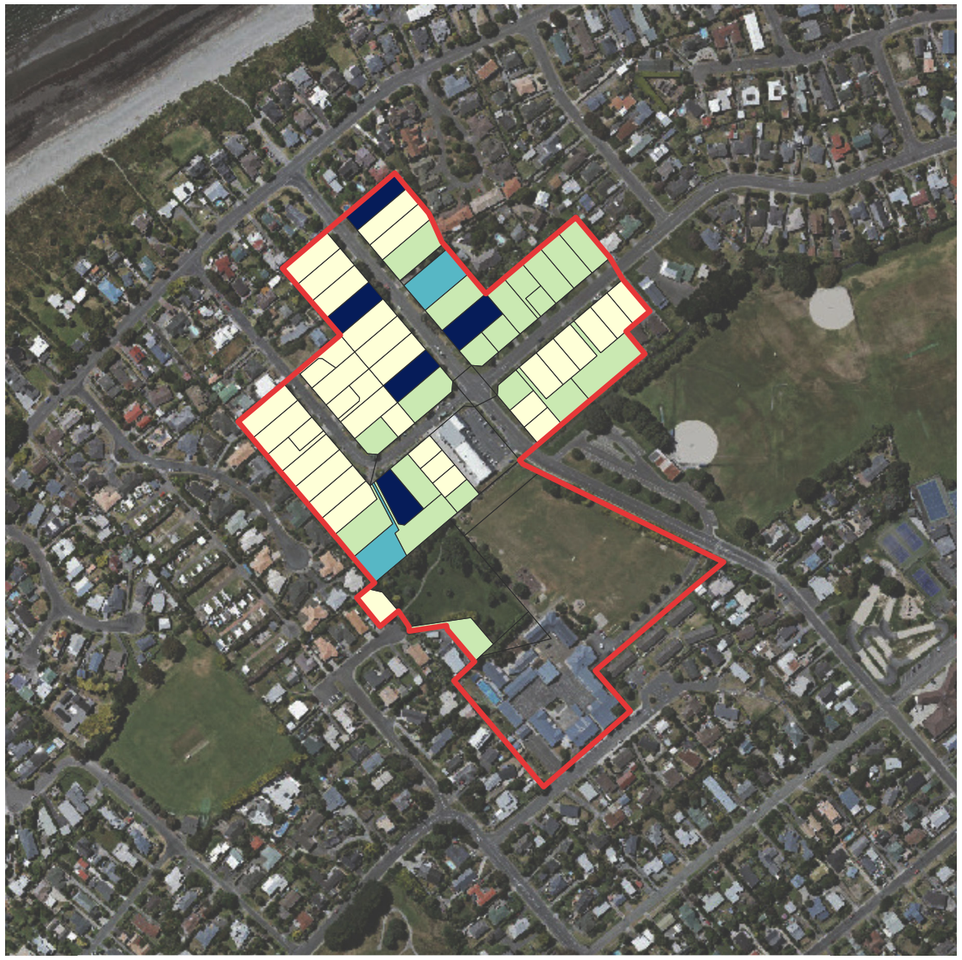
Kena Kena Local Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

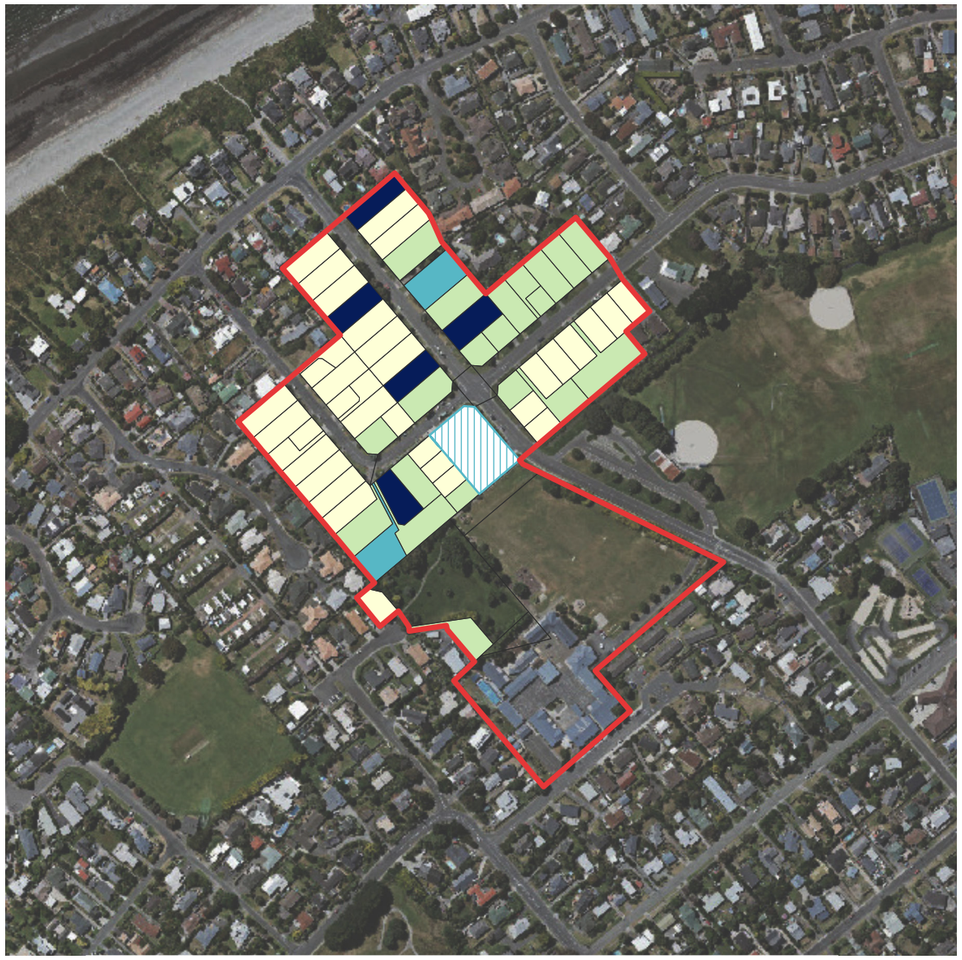
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

YIELD IN RESIDENTIAL AREA



SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 18.5m	43	up to 2	2.23	20	45
18.5m - 25m	17	3	1.60	30	48
25m - 31.5m	0	4	0.24	40	9
31.5m - 38m	0	5	0	50	0
38m <	1	6	0.43	60	23
	61		4.50		128
Additional dwellings (yield minus existing residential units)					**67**

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE



SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 18.5m	43	up to 2	2.23	20	45
18.5m - 25m	17	3	1.60	30	48
25m - 31.5m	0	4	0.24	40	9
31.5m - 38m	0	5	0	50	0
38m <	1	6	0.43	60	23
Local centre		4	0.27	40	**11**
		4		40	
	61		4.77		139
Additional dwellings (yield minus existing residential units)					**78**

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KAPITI COAST INTENSIFICATION

Kena Kena Local Centre

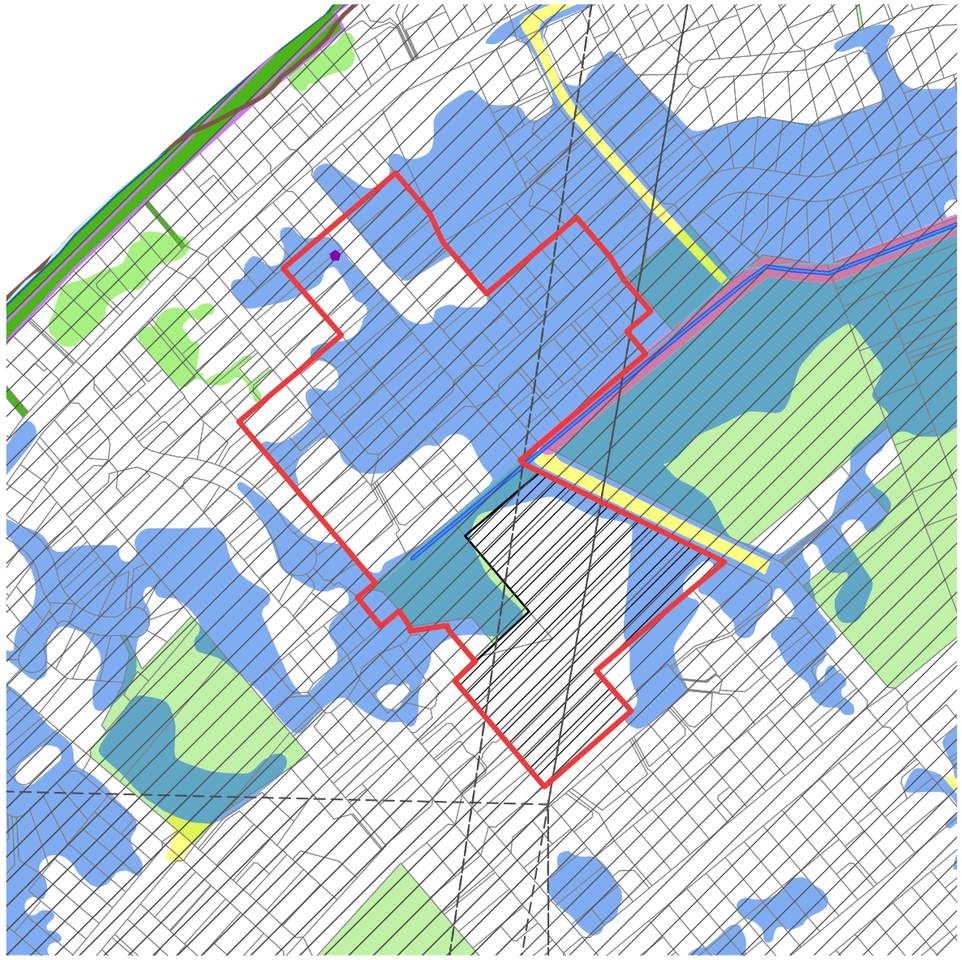
Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

KENA KENA LOCAL CENTRE

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)

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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

Kena Kena Local Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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
• Low lying land near the coast. • Flood hazard. • Distance from Papararaumu station and metropolitan centre. • High liquefaction potential.	• Opportunity to improve the legibility and vibrancy of the Kena Kena local centre through intensification. • Excellent access to public and coastal open space. • The area is flat.

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	●	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	●	Hertiage listed building on Ngapotiki street.
Significant risk from flood hazard	●	Flood ponding hazard to a significant extent of the area.
Significant risk from earthquake hazard		
Significant risk from coastal hazard	●	Low lying area in close proximity to the coast.
Nationally significant infrastructure		
Public open space	●	Public open space located to the north of the school, and Te Atiawa Park.
Designations	●	School designation.
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua values	• 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 Ātiawa ki Whakarongotai.	TBC
Iwi development aspirations		TBC
Urban form	• 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.	
Local neighbourhoods	• Kāpiti island is visible from a number of streets in the area. Intensification may obstruct some local and private views of the island. • 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).	
Activity centres	• There are a number of commercial activities located within the Kena Kena shops. Intensification could support the existing shops. • The area is accessible to a number of schools. • The area is relativey distant to Paraparaumu town centre.	
Residential development	• Intensification in the area could contribute modestly to dwelling supply.	
Business land	• There is no General Industrial zoned land within the area. • Existing business uses are likely to be supported by residential intensification.	
Transport networks	• Intensification of the area may put pressure on existing east-west connectivity across northern Paraparaumu. • There is an existing bus route that runs along Te Kupe Road and down Mazengarb Road. • 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.	
Infrastructure and servicing	• Water and wastewater reticulation is generally integrated into the existing street network. • 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. • 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.	
Natural ecosystem values	• 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.	
Water bodies	• A drain that discharges into the Waikanae saltmarsh wetlands runs through the area, along Te Atiawa park. • Intensification within the area could increase discharges to the Waikanae saltmarsh wetlands.	

Criteria	Observations	Rating
Landscape and open space values	• The area has excellent access to public open space at Te Atiawa Park. • The area has good access to coastal open space. • There are no identified special amenity landscapes within the area.	
Heritage values	• There is a heritage listed building located in the north of the area on Ngapotiki street.	
Topography	• The area is flat.	
Natural hazards and land risks (including effects of climate change)	• Flood hazard covers the a significant extent of the central and northern portion of the area. This is identified as ponding hazard. • The the full extent of the area is subject to high liquefaction potential. • The area relatively low lying and close to the coast, so may be subject to increased natural hazard risk associated with climate change. • The school site is identified on the SLUR as an old landfill.	
Land use compatibility	• Potential for reverse sensitivity effects on the school. • The area is located underneath the airport approach path, although this is unlikely to affect building heights in the area. • A school designation is located in the south of the area.	
Climate change (low-carbon futures)	• 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. • Distance to Paraparaumu station may encourage private vehicle commuting. • Good access to coastal amenity may encourage the development of more energy efficient, higher density dwelling typologies.	

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KAPITI COAST INTENSIFICATION

Kena Kena Local Centre

Date: 13 August 2021 Revision: 0

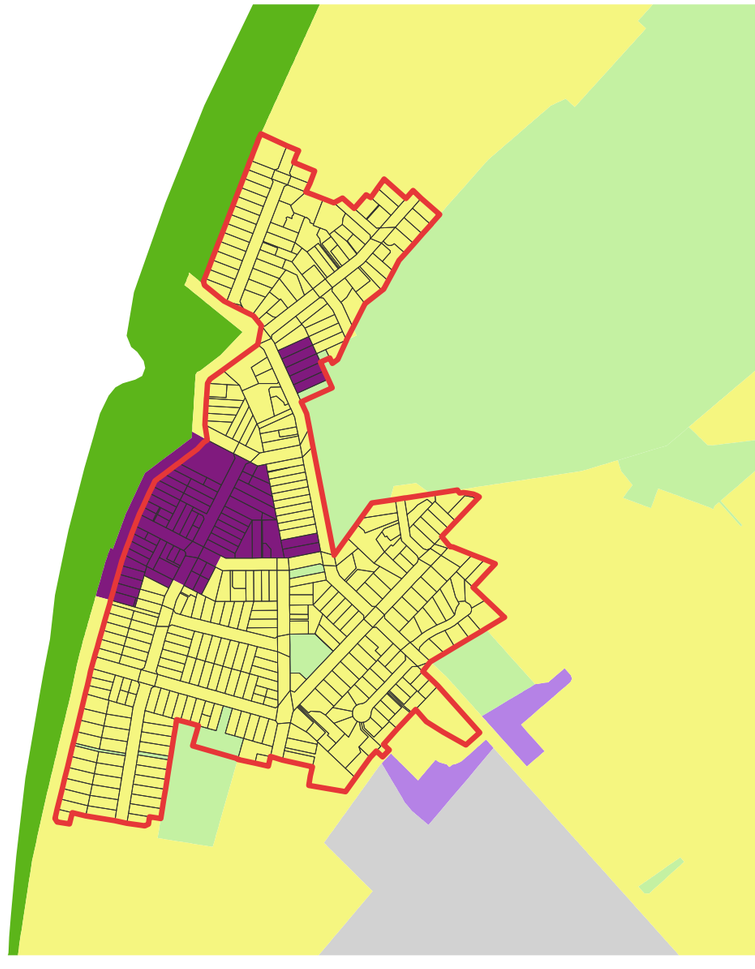
Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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

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KAPITI COAST INTENSIFICATION

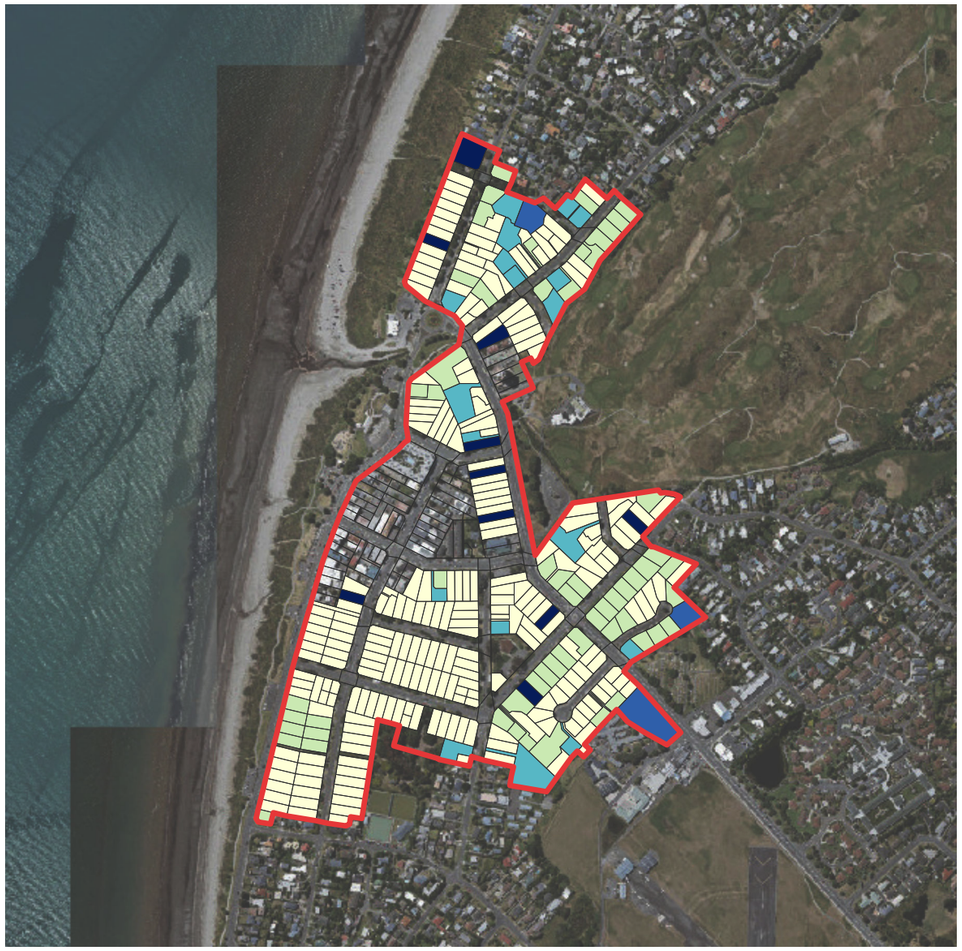
Paraparaumu Beach Town Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

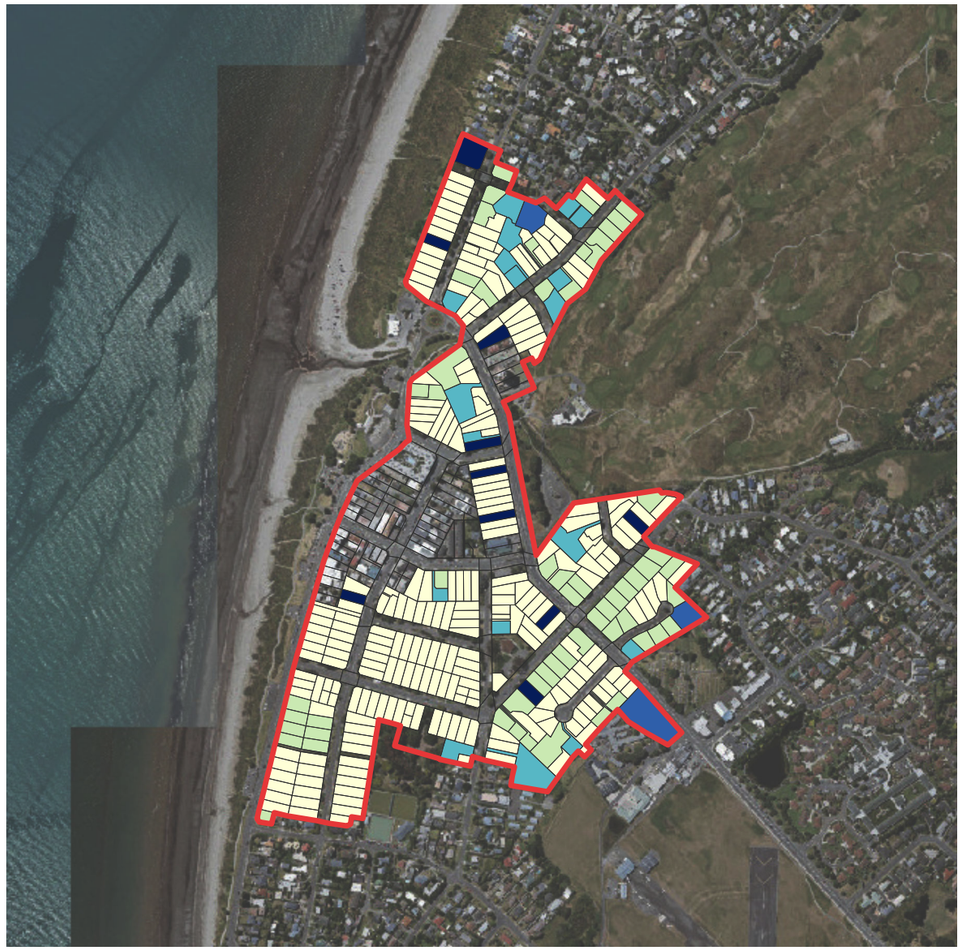
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

YIELD IN RESIDENTIAL AREA



	SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
	< 18.5m	220	up to 2	15.96	20	319
	18.5m - 25m	58	3	5.04	30	151
	25m - 31.5m	21	4	2.22	40	89
	31.5m - 38m	13	5	0.8	50	40
	38m <	33	6	0.92	60	55
		345		24.94		654
	Additional dwellings (yield minus existing residential units)					**309**

YIELD IN RESIDENTIAL + TOWN CENTRE ZONE



	SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
	< 18.5m	220	up to 2	15.96	20	319
	18.5m - 25m	58	3	5.04	30	151
	25m - 31.5m	21	4	2.22	40	89
	31.5m - 38m	13	5	0.8	50	40
	38m <	33	6	0.92	60	55
	Town centre zone		6	4.22	60	253
		345		29.16		907
	Additional dwellings (yield minus existing residential units)					**562**

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KAPITI COAST INTENSIFICATION

Paraparaumu Beach Town Centre

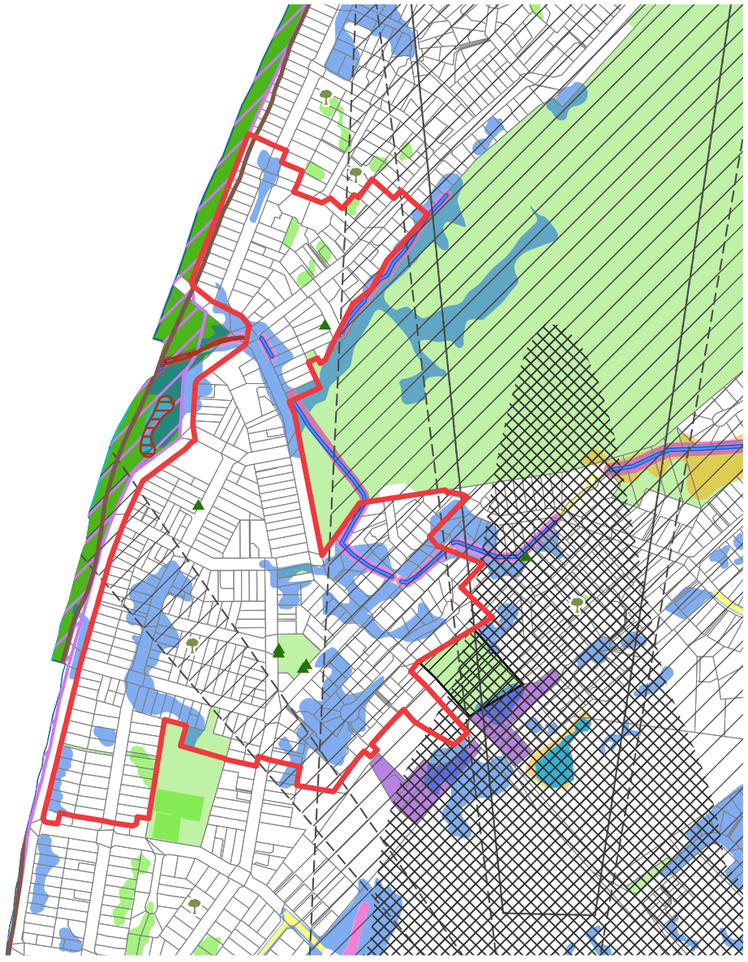
Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

PARAPARAUMU BEACH TOWN CENTRE

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)

Areas of High Natural Character

- 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)

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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

Paraparaumu Beach Town Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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
• Coastal hazard and effects of climate change. • Congestion on Kāpiti Road. • High liquefaction potential.	• Excellent access to a range of commercial services and community activities, as well as coastal amenity and open space. • Intensification could further support a well established town centre. • The area is flat.

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 values	• The Tikotu Stream is identified as a site of significance to Te Ātiawa ki Whakarongotai and Ngāti Toa Rangatira. • The Te Uruhi lagoon and the Paraparaumu coastal margin are identified as sites of significance to Te Ātiawa ki Whakarongotai. • There are a number of archaeological sites located within and around the town centre, associated with middens, burial sites and kāinga.	TBC
Iwi development aspirations		TBC
Urban form	• 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. • 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.	
Local neighbourhoods	• Intensification within the town centre could be consistent with established patterns of development within the area. • 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.	
Activity centres	• The area has access to a range of commercial activities and community services, including shops, cafes and entertainment, and other community facilities. • Intensification could support existing commercial and community activity within the town centre.	
Residential development	• Intensification in the area is likely to contribute to dwelling supply. • High levels of access to a range of activities and coastal amentiy may encourage the development of higher density typologies.	
Business land	• There is no General Industrial zoned land within the area.	
Transport networks	• Kāpiti Road is the most congested road in the district, and development in the area could exacerbate this. • 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. • Distance to Paraparaumu railway station may promote vehicle commuting, although there is a cycleway incorporated into Kāpiti Road.	

Criteria	Observations	Rating
Infrastructure and servicing	• Water and wastewater reticulation is generally integrated into the existing street network. • 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. • 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.	
Natural ecosystem values	• There are no mapped ecological sites located within the area. • There is one key indigenous tree located in the area.	
Water bodies	• The Tikotu stream runs through the area. • Intensification in the area could increase discharges to the the Tikotu stream and directly into the coastal marine area.	
Landscape and open space values	• The area has excellent access to coastal open space, which includes a playground located in Maclean Park. • There are a number of smaller public open spaces located within the area. • There are a number of notable trees located within the area. • 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.	
Heritage values	• There are no heritage buildings located in the area. • There are a number of archaeological sites located throughout the area, and there is an archaeological area identified on Ocean road.	
Topography	• The area is flat.	
Natural hazards and land risks (including effects of climate change)	• 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. • The the full extent of the area is subject to high liquefaction potential. • The area relatively low lying and adjacent to the coast, so will be subject to increased natural hazard risk associated with climate change. • There are a number of sites on the SLUR located within the Town Centre.	
Land use compatibility	• 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. • There are no designations located within the area, although there is a cemetary designation located adjacent the area.	
Climate change (low-carbon futures)	• 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. • 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. • Good access to community services, commercial activities and other amenity may encourage the development of more energy efficient, higher density dwelling typologies.	

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KAPITI COAST INTENSIFICATION

Paraparaumu Beach Town Centre

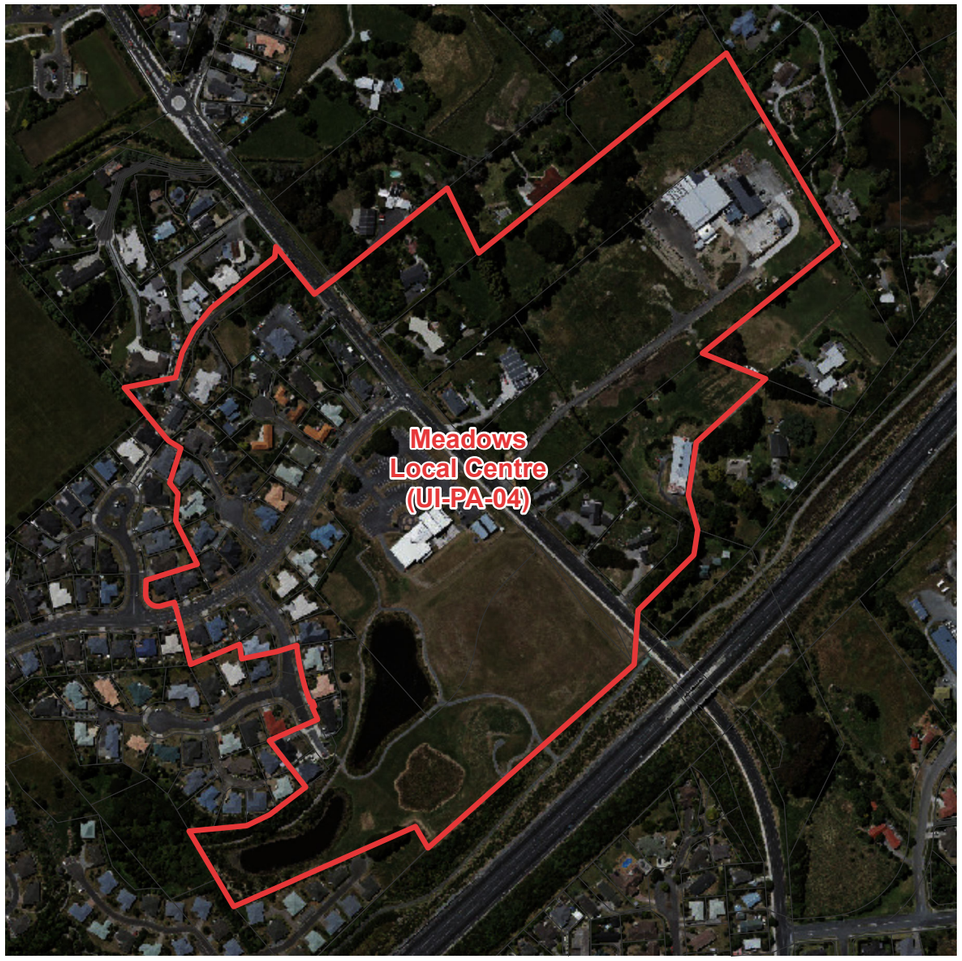
Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

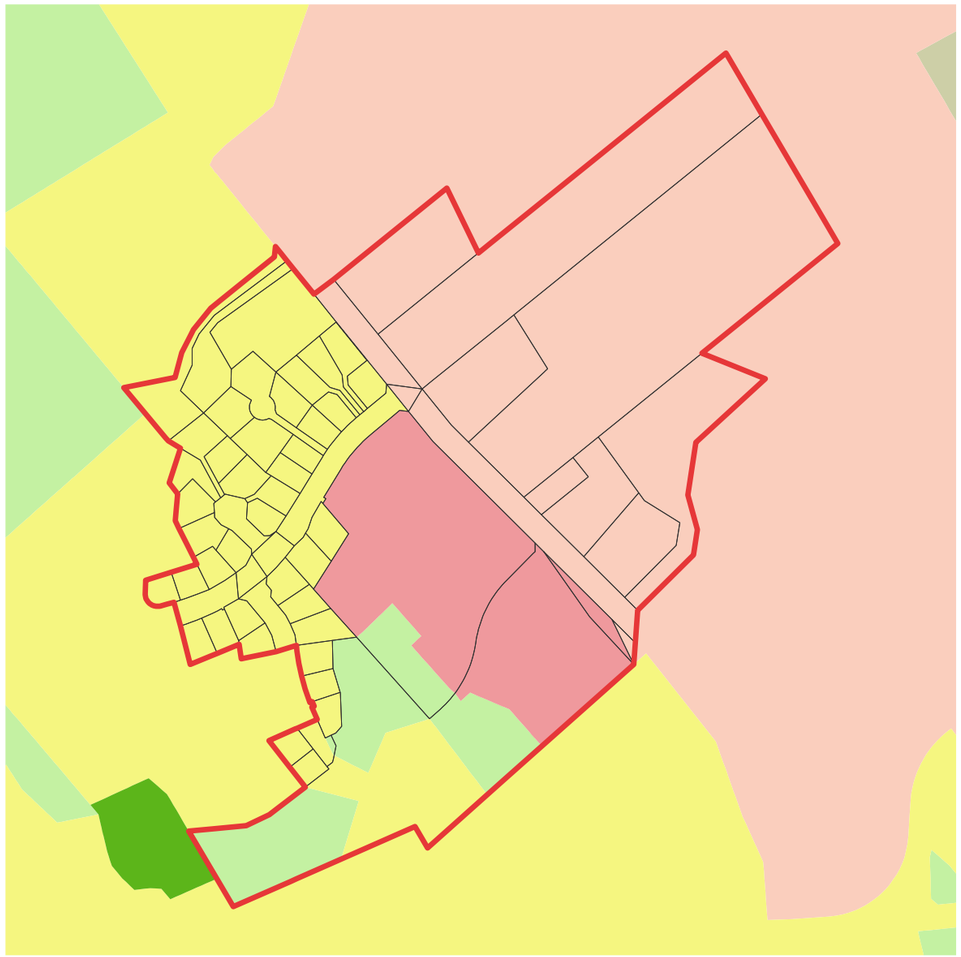
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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

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KAPITI COAST INTENSIFICATION

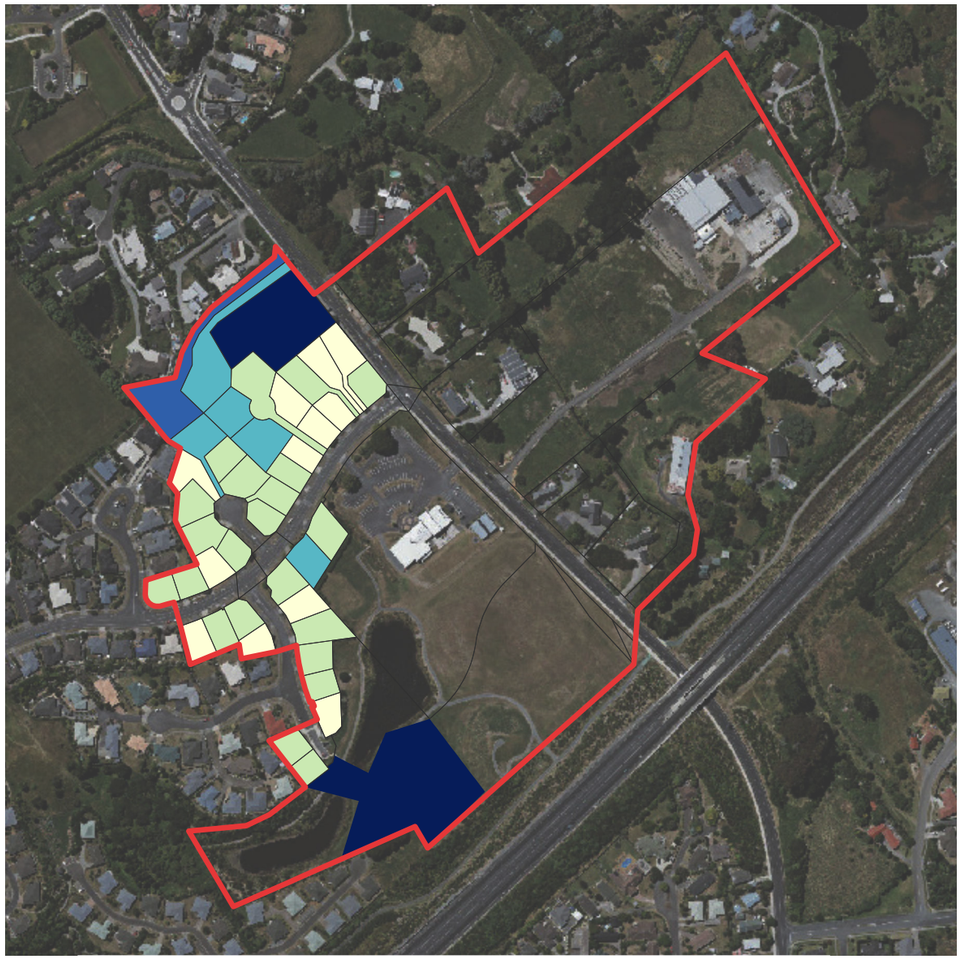
Meadows Local Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

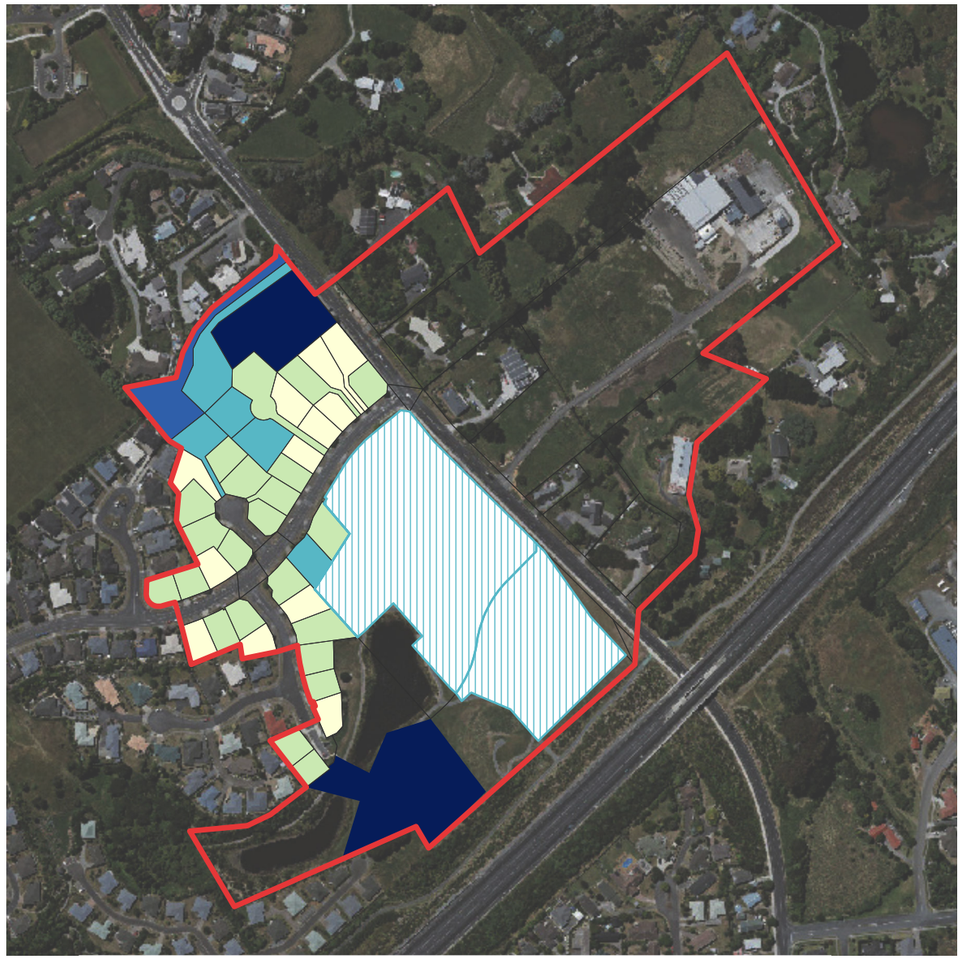
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

YIELD IN RESIDENTIAL AREA



	SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
	< 18.5m	13	up to 2	0.84	20	17
	18.5m - 25m	11	3	1.62	30	49
	25m - 31.5m	15	4	0.64	40	25
	31.5m - 38m		5	0.28	50	14
	38m <		6	1.29	60	77
		39		4.66		182
	Additional dwellings (yield minus existing residential units)					**143**

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE



	SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
	< 18.5m	13	up to 2	0.84	20	17
	18.5m - 25m	11	3	1.62	30	49
	25m - 31.5m	15	4	0.64	40	25
	31.5m - 38m		5	0.28	50	14
	38m <		6	1.29	60	77
	Local centre		4	3.31	40	132
		39		7.97		314
	Additional dwellings (yield minus existing residential units)					**275**

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KAPITI COAST INTENSIFICATION

Meadows Local Centre

Date: 13 August 2021 Revision: 0

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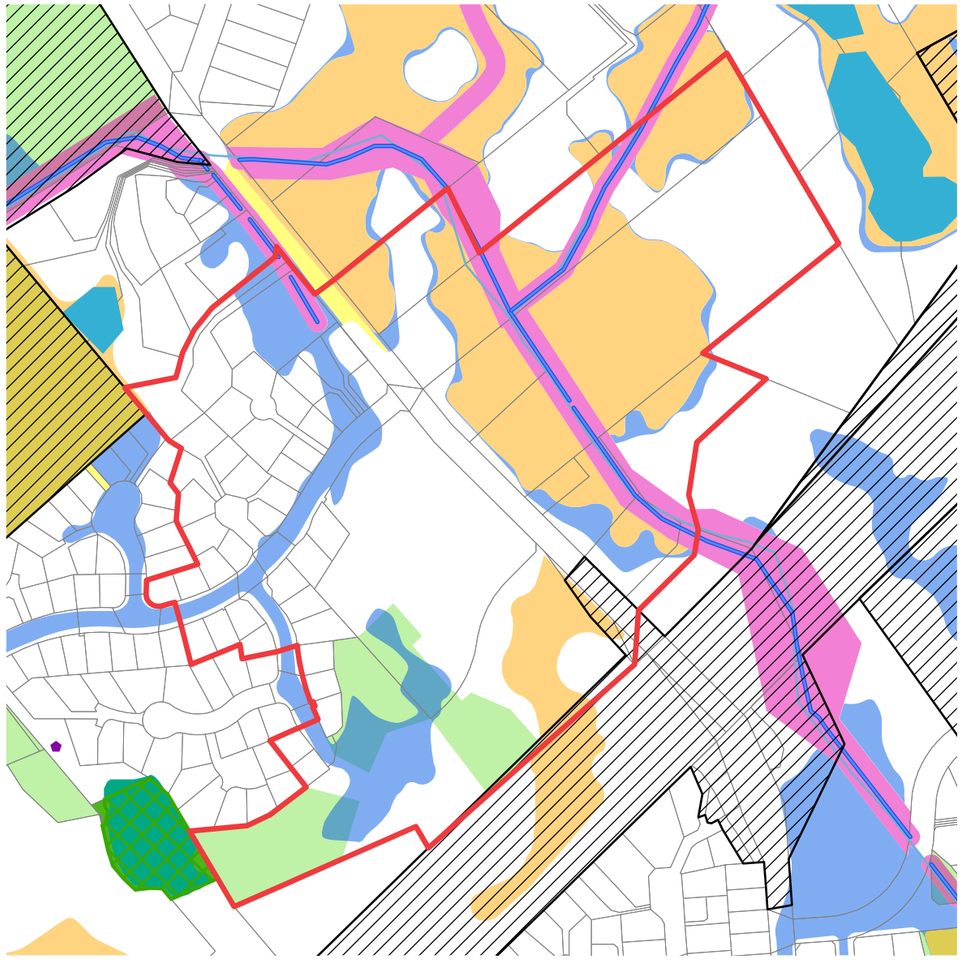
MEADOWS LOCAL CENTRE

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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

Meadows Local Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

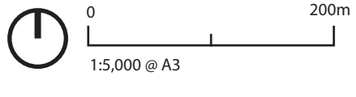
UI-PA-4 (Meadows Local Centre)	
Locality	Paraparaumu
Location	The area around the corner of Mazengarb Road and Realm Drive.
Extent	Approximate 200m walking distance from the Meadows precinct local centre zone. Excludes the extent to the north of Mazengarb Road, which is associated with Future Urban Study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

Key constraints	Key opportunities
• Poor access to a range of community services and commercial activities. • Liquefaction potential.	• Development opportunity associated with undeveloped parts of the area. • The area is relatively flat.

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	●	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	●	Expressway located adjacent to the area.
Public open space	●	Several public open spaces located throughout the area.
Designations	●	The Expressway designation extends in to the area.
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua values	• 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.	TBC
Iwi development aspirations		TBC
Urban form	• 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.	
Local neighbourhoods	• The area is relatively undeveloped, and defined predominatly by the Expressway to the south and rural residential activity within the rural zone to the east. • 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.	
Activity centres	• The local centre is not significant in the scale of its amenity (although this may change over time) • There are limited commercial activities located in the surrounding area. • Paraparaumu College is located approximately 1km to the north of the area.	
Residential development	• Intensification in the area in the area could contribute minimally to dwelling supply. • Low access to commercial activities and community services may limit the development of higher density typologies.	
Business land	• There is no General Industrial zoned land within the area.	
Transport networks	• The area does not have direct access to the Expressway. • The area has good access to active modes along the Expressway. • Distance to Paraparaumu railway station may promote vehicle commuting.	
Infrastructure and servicing	• Water and wastewater reticulation is integrated into Realm Drive and Mazengarb Road to the north of Realm Drive. • 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. • 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.	
Natural ecosystem values	• 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.	

Criteria	Observations	Rating
Water bodies	• A tributary to the Mazengarb Stream originates in the north of the area. • There are two ponds located in public open spaces to the south of the area. • Intensification in the area could increase discharges to the Mazengarb Stream.	
Landscape and open space values	• The area has good access to public open spaces, both within the area, and at Mazengarb Reserve to the north of the area. • There are no special amenity landscapes located within the area.	
Heritage values	• There are no heritage buildings located in the area. • Given the archaeological sites associated with the Expressway, there could be the possibility of discovery within the area.	
Topography	• The area is relativey flat.	
Natural hazards and land risks (including effects of climate change)	• There are small areas of flood hazard located to the south of Mazengarb Road. This includes areas of ponding and flood storage. • The area to the north of Mazengarb Road (outside the extent of the study area) is subject to extensive flood hazard. • The the full extent of the area is subject to high liquefaction potential.	
Land use compatibility	• Potential for reverse sensitivity effects on the Expressway. • The Expressway designation extends along Mazengarb Road into the area.	
Climate change (low-carbon futures)	• 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. • The area has good access to active modes along the Expressway, which provide access to Paraparaumu metropolitan centre. • While the area is generally accessible to Paraparaumu railway station, distance from the station may encourage private vehicle commuting.	



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KAPITI COAST INTENSIFICATION

Meadows Local Centre

Date: 13 August 2021 Revision: 0

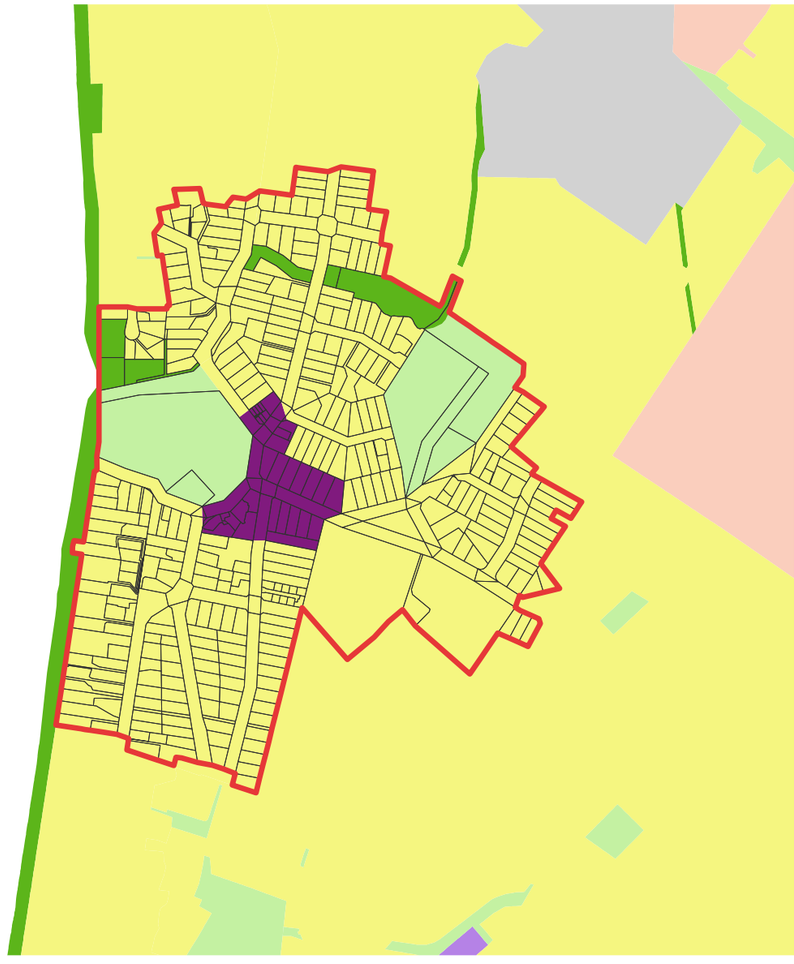
Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

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

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KAPITI COAST INTENSIFICATION

Raumati Beach Town Centre

Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

YIELD IN RESIDENTIAL AREA

SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 18.5m	161	up to 2	27.58	20	317
18.5m - 25m	69	3	7.42	30	223
25m - 31.5m	41	4	2.26	40	90
31.5m - 38m	9	5	0.98	50	49
38m <	27	6	1.06	60	64
	307		27.58		743
Additional dwellings (yield minus existing residential units)					**436**

YIELD IN RESIDENTIAL + TOWN CENTRE ZONE

SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 18.5m	161	up to 2	15.87	20	42
18.5m - 25m	69	3	7.42	30	223
25m - 31.5m	41	4	2.26	40	90
31.5m - 38m	9	5	0.98	50	49
38m <	27	6	1.06	60	64
Town centre		6	1.99	60	119
	307		29.57		862
Additional dwellings (yield minus existing residential units)					**555**

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KAPITI COAST INTENSIFICATION

Raumati Beach Town Centre

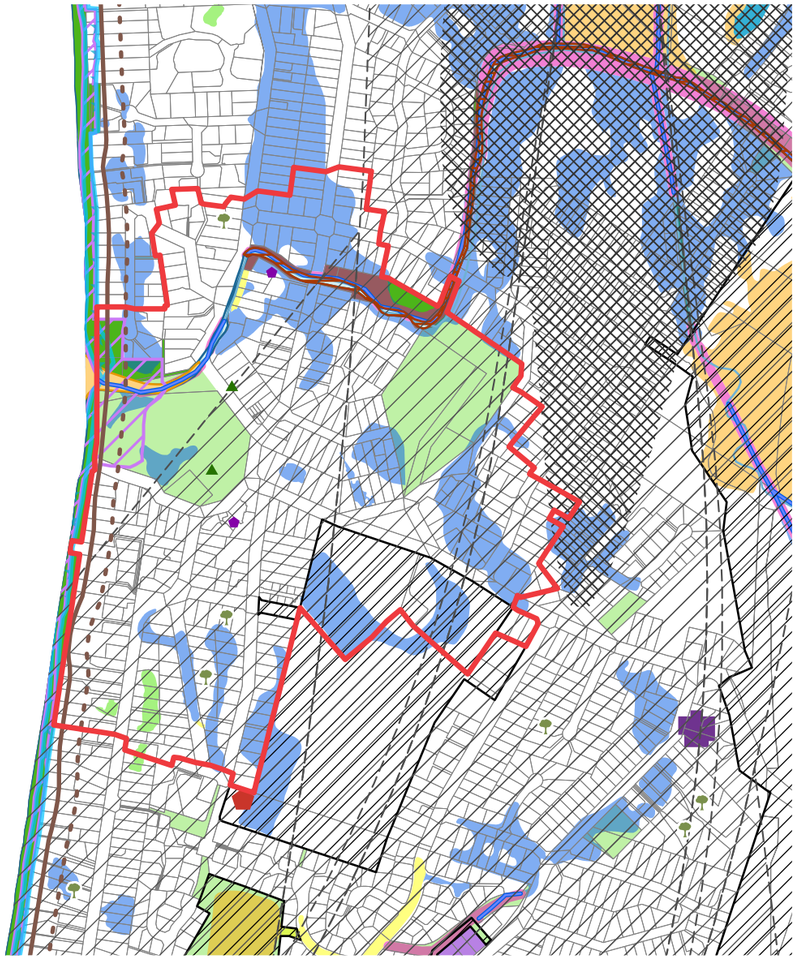
Date: 13 August 2021 Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

RAUMATI BEACH TOWN CENTRE

POTENTIAL QUALIFYING MATTERS



Urban Intensification Study Areas
Notable Trees (KCDC)
Historic Heritage Places (KCDC)
Marae (TPK)
Key Indigenous Trees (KCDC)
Coastal Hazard 20m Building Line Restriction (KCDC)
Coastal Hazard 30m Relocatable Area (KCDC)
Designation (KCDC)
Designation (KCDC)
Designation (KCDC)
Site of Significance Te Ātiawa ki Whakarongotai (GWRC)
Rivers Streams and Drains (KCDC)
Areas of High Natural Character (KCDC)
Special Amenity Landscapes (KCDC)

Areas of High Natural Character

Indigenous Biodiversity Coastal (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)

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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

Raumati Beach Town Centre

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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
• Coastal hazard and effects of climate change. • High liquefaction potential.	• Excellent access to a range of commercial services and community activities, as well as coastal amenity and open space. • Intensification could further support a well established town centre.

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 values	• The Wharemauku stream is identified as a site of significance to Te Ātiawa ki Whakarongotai. • An archaeological site associated with the Wharemauku pā is located in the north of the area.	TBC
Iwi development aspirations		TBC
Urban form	• 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. • Increased height and density in and around the town centre would help strengthen the areas legibility as the centre of Raumati Beach.	
Local neighbourhoods	• The town centre area and the residential area surrounding the town centre is composed of a mixture of activites 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. • 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. • 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.	
Activity centres	• The area has good access to range of commercial activities and community services, including shops, cafes, schools, and other community facilities. • Intensification would be likely to support existing activities in the area.	
Residential development	• Intensification in the area is likely to contribute to dwelling supply. • High levels of access to a range of activities and coastal amentiy may encourage the development of higher density typologies.	
Business land	• There is no General Industrial zoned land in the area.	
Transport networks	• There is a bus route on Raumati Road. • The area is well connected by active modes to Paraparaumu district centre and relatively accessible to Paraparaumu railway station.	
Infrastructure and servicing	• Water and wastewater reticulation is generally integrated into the existing street network. • 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. • 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.	

Criteria	Observations	Rating
Natural ecosystem values	• The area around the mouth of the Wharemauku stream is identified as an area of indigenous coastal biodiversity. • There are three identified key indigenous trees located in the area.	
Water bodies	• The Wharemauku stream flows through the area. Intensification in the area could increase discharges to the Wharemauku stream.	
Landscape and open space values	• The area has excellent access to public open space, including at Weka Park and Raumati Beach park. • The underlying dune topography had an infuence on the landscape of the area. • The coastal edge and the area around the Raumati Beach park are identified as a special amenity landscape. • There are two notable trees identified in the area.	
Heritage values	• There are two listed heritage buildings located within the area. • There are two archaeological sites identified in the area.	
Topography	• The area is relatively undulating, and topography increases in steepness on the coastal side of the area.	
Natural hazards and land risks (including effects of climate change)	• 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. • The coastal margin and low lying areas around the Wharemauku stream are likely to be subject to increased risk from climate change. • The entire area is subject to high liquefaction potential.	
Land use compatibility	• Parts of the area are located beneath the airport obstable limitation surface, although these are unlikey to affect building heights in the area. • Potential for reverse sensitivity effects on the school. • There is a school designation located in the south of the area.	
Climate change (low-carbon futures)	• 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. • The area has resonable access by active modes to Paraparaumu metropolitan centre. • Good access to community services, commercial activities and other amenity may encourage the development of more energy efficient, higher density dwelling typologies.	

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KAPITI COAST INTENSIFICATION

Raumati Beach Town Centre

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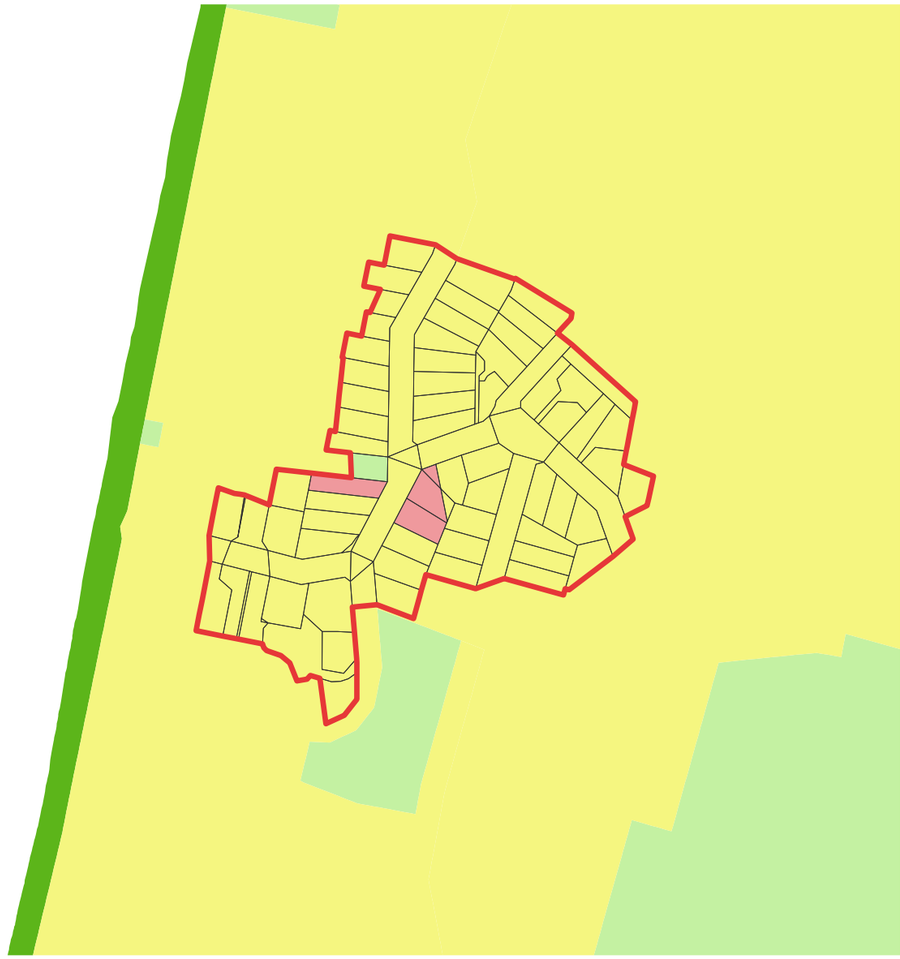
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

RAUMATI SOUTH LOCAL CENTRE

AERIAL

ZONING



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

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KAPITI COAST INTENSIFICATION

Raumati South Local Centre

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YIELD IN RESIDENTIAL AREA

SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 18.5m	24	up to 2	2.10	20	42
18.5m - 25m	26	3	2.63	30	79
25m - 31.5m	7	4	0.35	40	14
31.5m - 38m	5	5	0.12	50	6
38m <	3	6	0.09	60	5
	65		5.27		146
Additional dwellings (yield minus existing residential units)					**81**

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE

SITE WIDTH	EXISTING # RESIDENTIAL UNITS	CAPACITY # STOREYS	AREA IN HA	APPLIED DENSITY DW/HA	APPROX YIELD
< 18.5m	24	up to 2	2.10	20	42
18.5m - 25m	26	3	2.63	30	79
25m - 31.5m	7	4	0.35	40	14
31.5m - 38m	5	5	0.12	50	6
38m <	3	6	0.09	60	5
Local centre		4	0.25	40	10
	65		5.52		156
Additional dwellings (yield minus existing residential units)					**91**

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KAPITI COAST INTENSIFICATION

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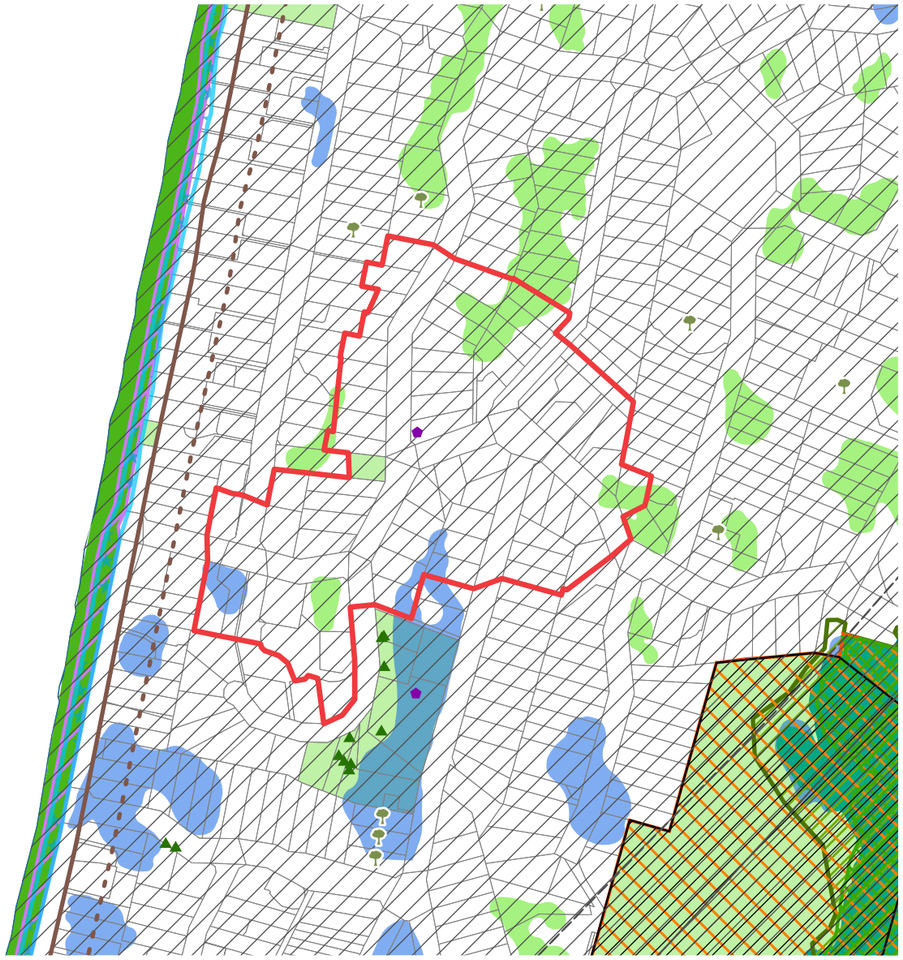
RAUMATI SOUTH LOCAL CENTRE

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)

Areas of High Natural Character

- 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)

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 denisty as a part of this assessment. Refer to the covering report for discussion on potential qualifying matters.

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KAPITI COAST INTENSIFICATION

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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
• High liquefaction potential. • Relative distance to Paraparaumu metropolitan centre and railway station.	• Good access to local commercial activity, amenity and coastal open space. • Intensification could further support a well established local centre.

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	•	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	•	One public open space located within the area.
Designations		
Business land for low density uses		

Criteria	Observations	Rating
Mana whenua values		TBC
Iwi development aspirations		TBC
Urban form	• 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.	
Local neighbourhoods	• 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. • 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.	
Activity centres	• There are a number of commercial activities located within the Raumati South shops. Intensification could support existing commercial activity within the area. • 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. • The area is relatively accessible to Raumati South school. • The area is relativey distant to Paraparaumu town centre.	
Residential development	• Intensification in the area could contribute modestly to dwelling supply. • High levels of access to a range of activities and coastal amentiy may encourage the development of higher density typologies.	
Business land	• There is no General Industrial zoned land in the area.	
Transport networks	• There is a bus route on Poplar Ave. • The area is not well served by active mode access to Paraparaumu metropolitan centre or Paraparaumu railway station. • Distance to Paraparaumu Station is likely to promote private vehicle commuting and put pressure on park and ride facilities at the train station.	
Infrastructure and servicing	• Water and wastewater reticulation is generally integrated into the existing street network. • 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. • 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.	
Natural ecosystem values	• There are no mapped ecological sites identified within the area.	
Water bodies	• There are no waterbodies located within or adjacent to the area.	

Criteria	Observations	Rating
Landscape and open space values	• 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. • The area has good access to coastal open space to the west. • The area is accessible to Queen Elizabeth Park. • The underlying dune topography had an infuence on the landscape of the area. • There are no special amenity landscapes identified within the area.	
Heritage values	• The building located on the corner of Poplar Ave and Renown Road is a listed heritage building.	
Topography	• The area is relatively undulating, and topography increases in steepness on the coastal side of the area.	
Natural hazards and land risks (including effects of climate change)	• There are some small extents of flood hazard located within the area. • The entire area is subject to high liquefaction potential.	
Land use compatibility	• There are no notable reverse sensitivity issues in the area. • There are no designations in the area.	
Climate change (low-carbon futures)	• 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. • The area is relatively distant to Paraparaumu metropolitan centre and railway station. This may promote private vehile commuting.	

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KAPITI COAST INTENSIFICATION

Raumati South Local Centre

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METHODOLOGY

GENERAL METHODOLOGY AND ASSUMPTIONS

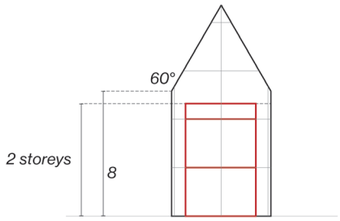
- Walkable catchments have been mapped by KCDC, to the following specification: 800m from the edge of the metropolitan centre zone and rapid transit stops; 400m from town centres and 200m from local centres. Properties that fall within these walkable catchments have been assessed.
- Roads, open space, 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 storys	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	3m vertical at the boundary with 45 degree recession plane

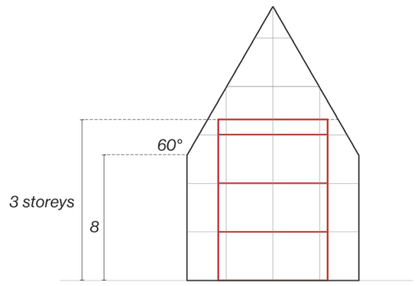
- Recession plane assumptions have been derived from the Auckland Unitary Plan's Mixed Housing Urban and Terrace House and Apartment Building Zones.
- Based on applied recession planes, the minimum site width required to acheive certain buildings heights was calculated (refer diagrams shown).
- A minimum 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.

DENSITY, HEIGHT AND RECESSION PLANE ASSUMPTIONS - RESIDENTIAL ZONES WITHIN WALKABLE CATCHMENT OF THE METROPOLITAN CENTRE AND RAPID TRANSIT STOPS

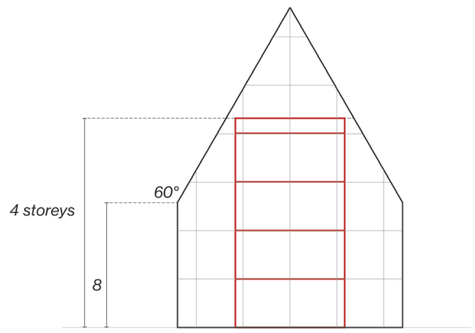
2 STOREY - 20 DW/HA
UP TO 6.5M WIDE



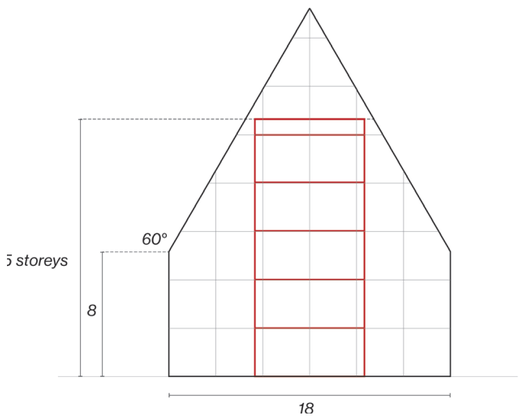
3 STOREY - 30 DW/HA
BETWEEN 6.5M AND 11M WIDE



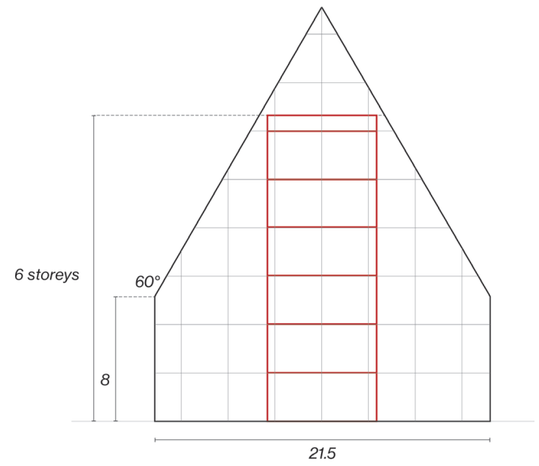
4 STOREY - 40 DW/HA
BETWEEN 11M AND 14.5M WIDE



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



6 STOREY - 60 DW/HA
WIDER THAN 18M



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KAPITI COAST INTENSIFICATION

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Date: 13 August 2021 Revision: 0

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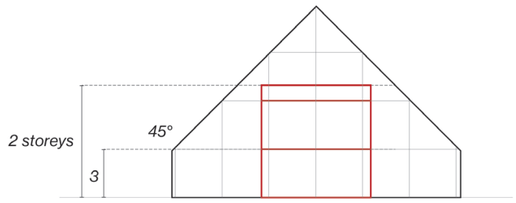
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

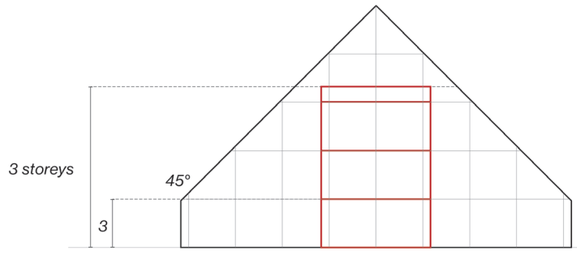
METHODOLOGY

DENSITY, HEIGHT AND RECESSION PLANE ASSUMPTIONS - RESIDENTIAL ZONES AROUND TOWN AND LOCAL CENTRES

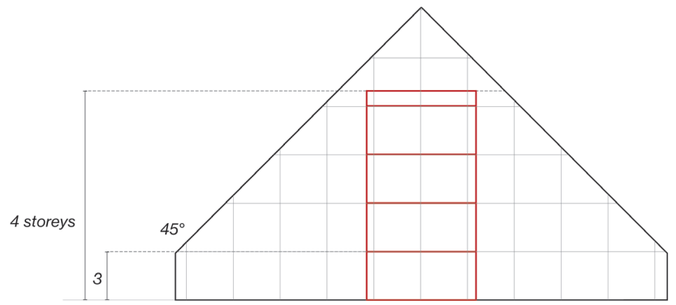
2 STOREY - 20 DW/HA
UP TO 18.5M WIDE



3 STOREY - 30 DW/HA
BETWEEN 18.5M AND 25M WIDE



4 STOREY - 40 DW/HA
BETWEEN 25M AND 31.5M WIDE



5 STOREY - 50 DW/HA
BETWEEN 31.5M AND 38M WIDE

6 STOREY - 60 DW/HA
WIDER THAN 38M

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KAPITI COAST INTENSIFICATION

Paraparaumu Metropolitan Centre

Date: 13 August 2021 Revision: 0

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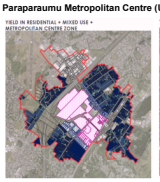
Project Manager: Marc.Baily@boffamiskell.co.nz | Drawn: HHm | Checked: JCo

Appendix 4: Aurecon Three-Waters Infrastructure Assessment

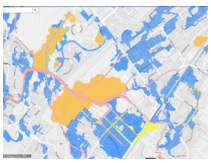
KCDC Masterplanning

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 Wharemaku 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 predesigntaed flood storage area, unlikely to progress significant development in area without establishment of compensatory storage and/ or upstream attentuation. 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

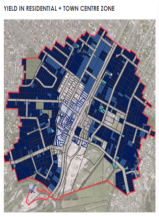
1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

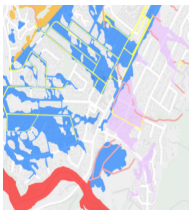
The absence of a formalised sewer network would present a significant issue if looking to up densities in the area. The establishment of a new treatment plant or a major pumpstation and transmission main would lkely be required. This would also trigger establishment of a localised gravity connection 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 prohibative to development.

WaikanaeTown Centre(UI-WA)

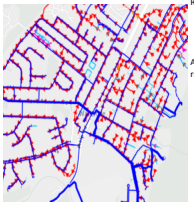




Significant secondary flow through northern part of town and kohekohe road area

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

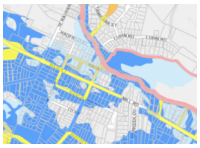
1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

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 imrove 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 MainStreet/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 treatm plant is close, existing network known to be performaing 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 Otaki 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 requirments for bulk water known to be close to limits. Extensive flooding through area (being in part asissted 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.

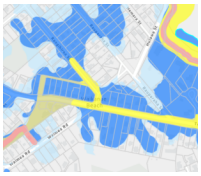
2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

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

Waikanae BeachLocal Centre(UI-WB)

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE

AERIAL



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 tranfer 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.

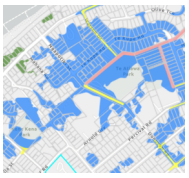
2. Commentary on the implications of these issues (i.e. what might need to be considered in terms of infrastructure planning to enable intensification).

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

Kena KenaLocal Centre(UI-PA-01)

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE

AERIAL



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;

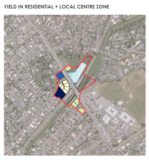
Significant issues with stormwater management in the area low lying area likely to subject to the influence of sea level rise. Relatively well served by water and wastewater networks.

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)

YIELD IN RESIDENTIAL + LOCAL CENTRE ZONE



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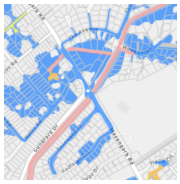


Flood sensitive, need for compensatory storage
Compensatory storage likely required for proposed development

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 BeachTown Centre(UI-PA-03)

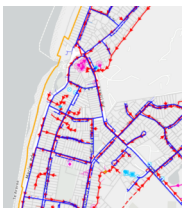
YIELD IN RESIDENTIAL + TOWN CENTRE ZONE

AERIAL

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

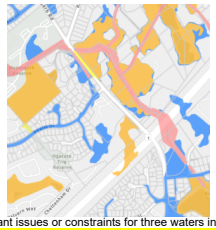
1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

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).

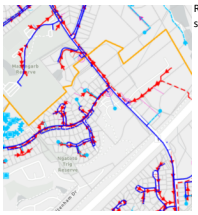
Given pre-existing nature of flooding, compensatory storage likely required in designated flood areas.

MeadowsLocal Centre(UI-PA-04)



pre-defined storage areas

constraints adjacent to stream designated stoarge area



Reasonably well connected for water supply

Good connection in close proximity to WWTP

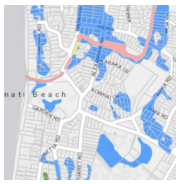
1. Commentary on whether there are likely to be any significant issues or constraints for three waters infrastructure as a result of the increase in dwelling numbers identified by the theoretical yield;

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 accomodated into design.

Raumati BeachTown Centre(UI-RB)



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)

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 chanied 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.

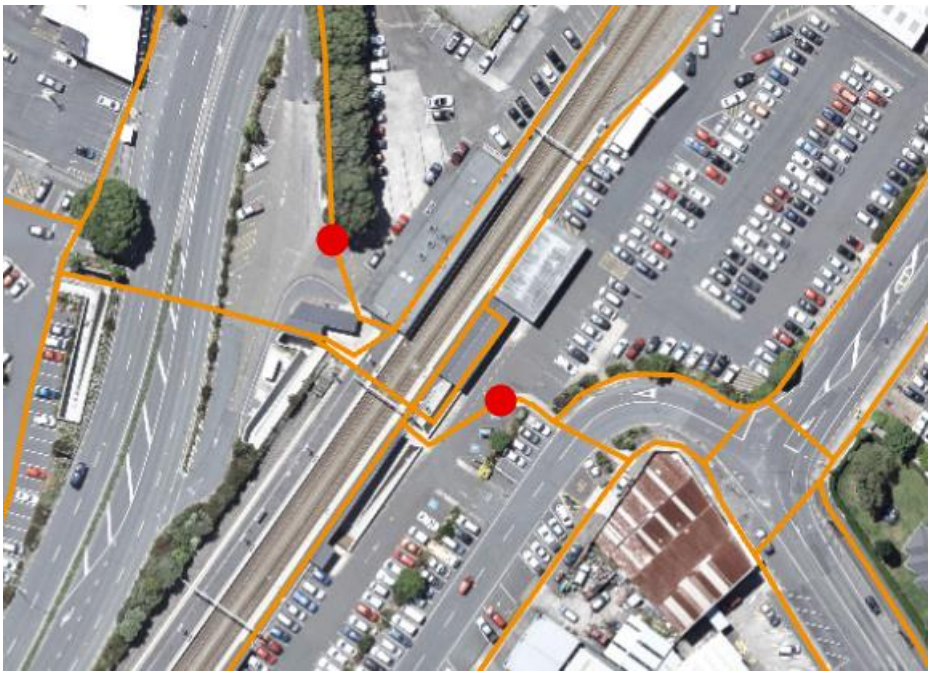


Figure 2 - Starting Points for Paraparaumu Train Station

- **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.

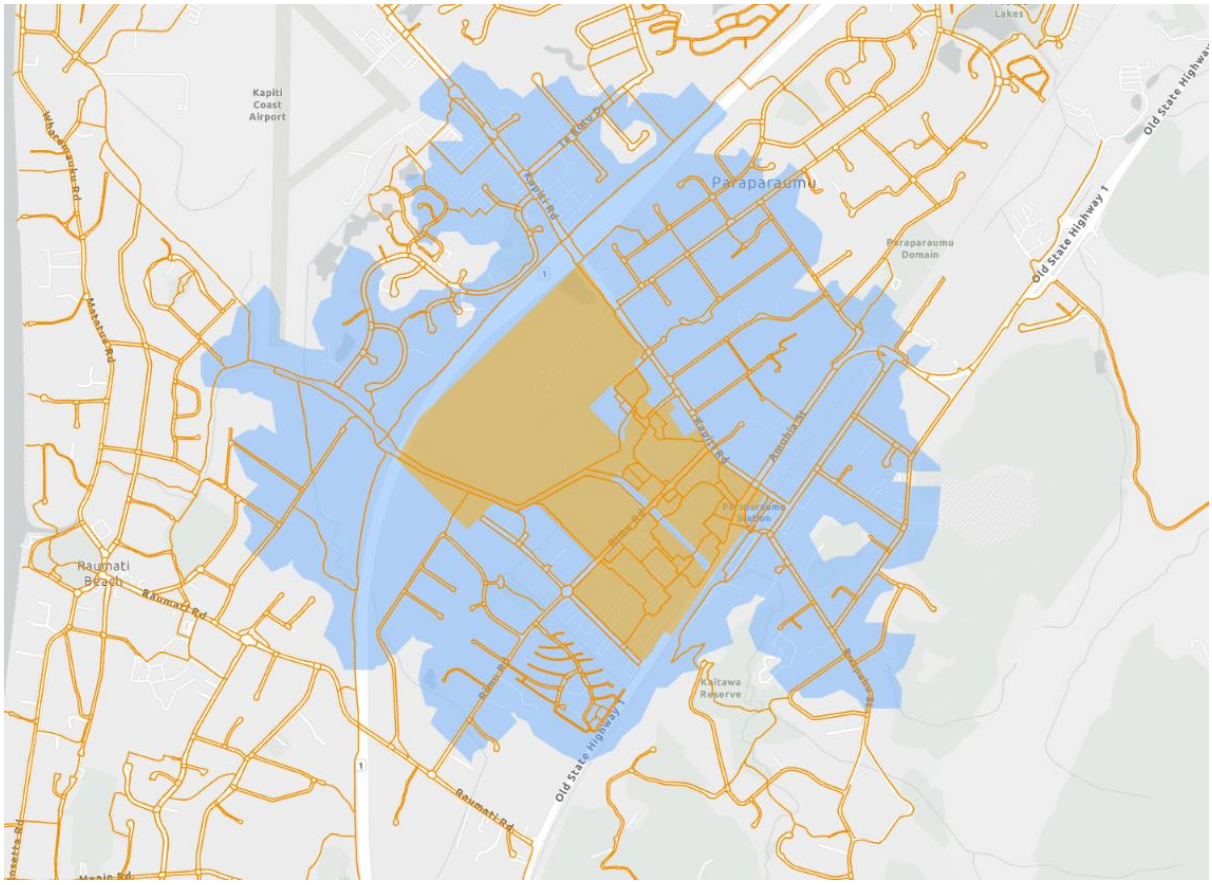
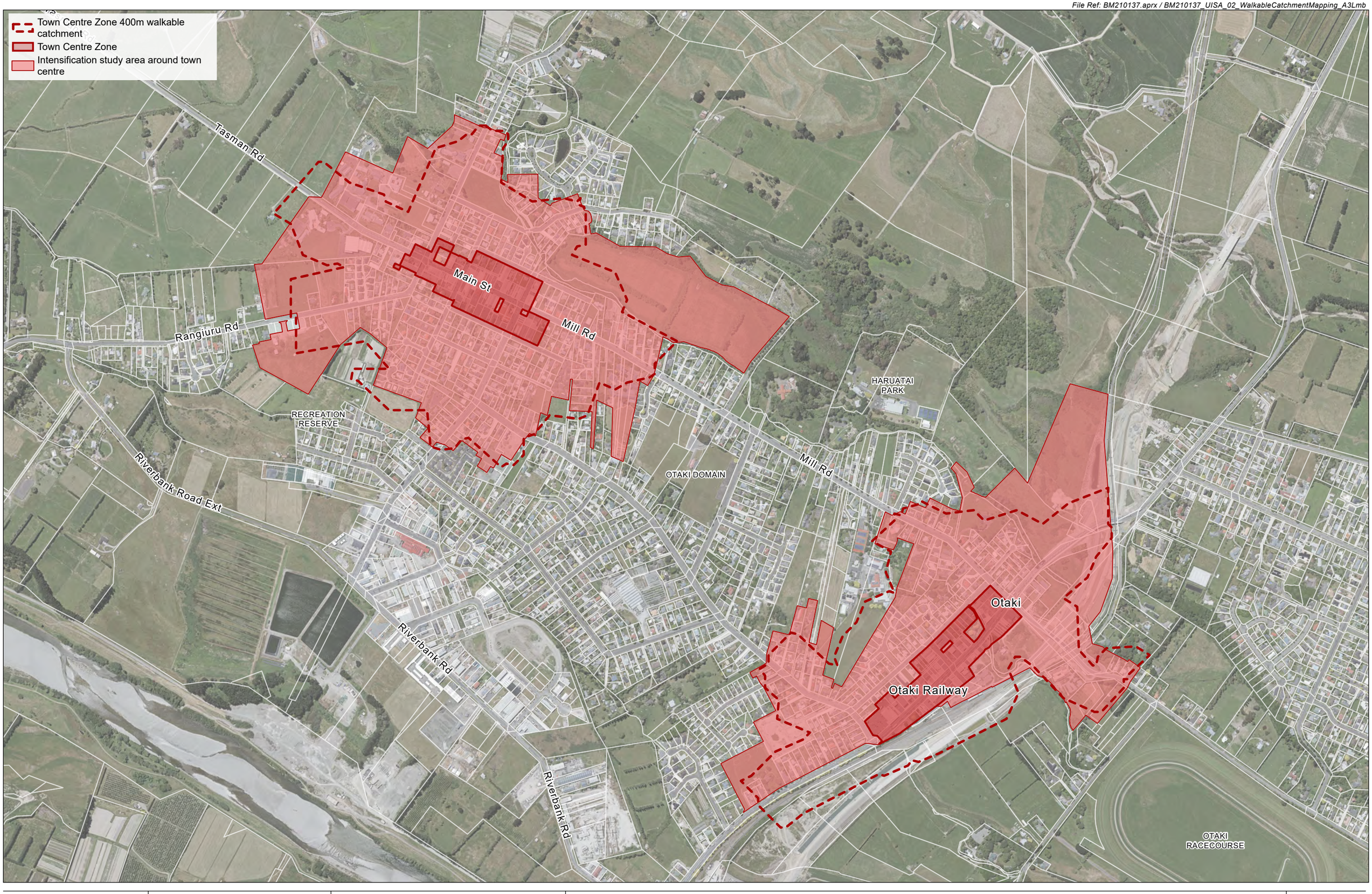


Figure 4 - Walking Catchment (blue) for the Metropolitan Centre Zone (orange)



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Data Sources: KCDC, BML, Additional Basemap Imagery: Esri Community Maps Contributors, LINZ, Stats NZ, Eagle Technology, Esri, HERE, Garmin, METI/NASA, USGS

Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Walkable Catchment Mapping

Otaki Centre

Date: 14 October 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: ABa/HHu | Checked: ABa

UI.1.WC

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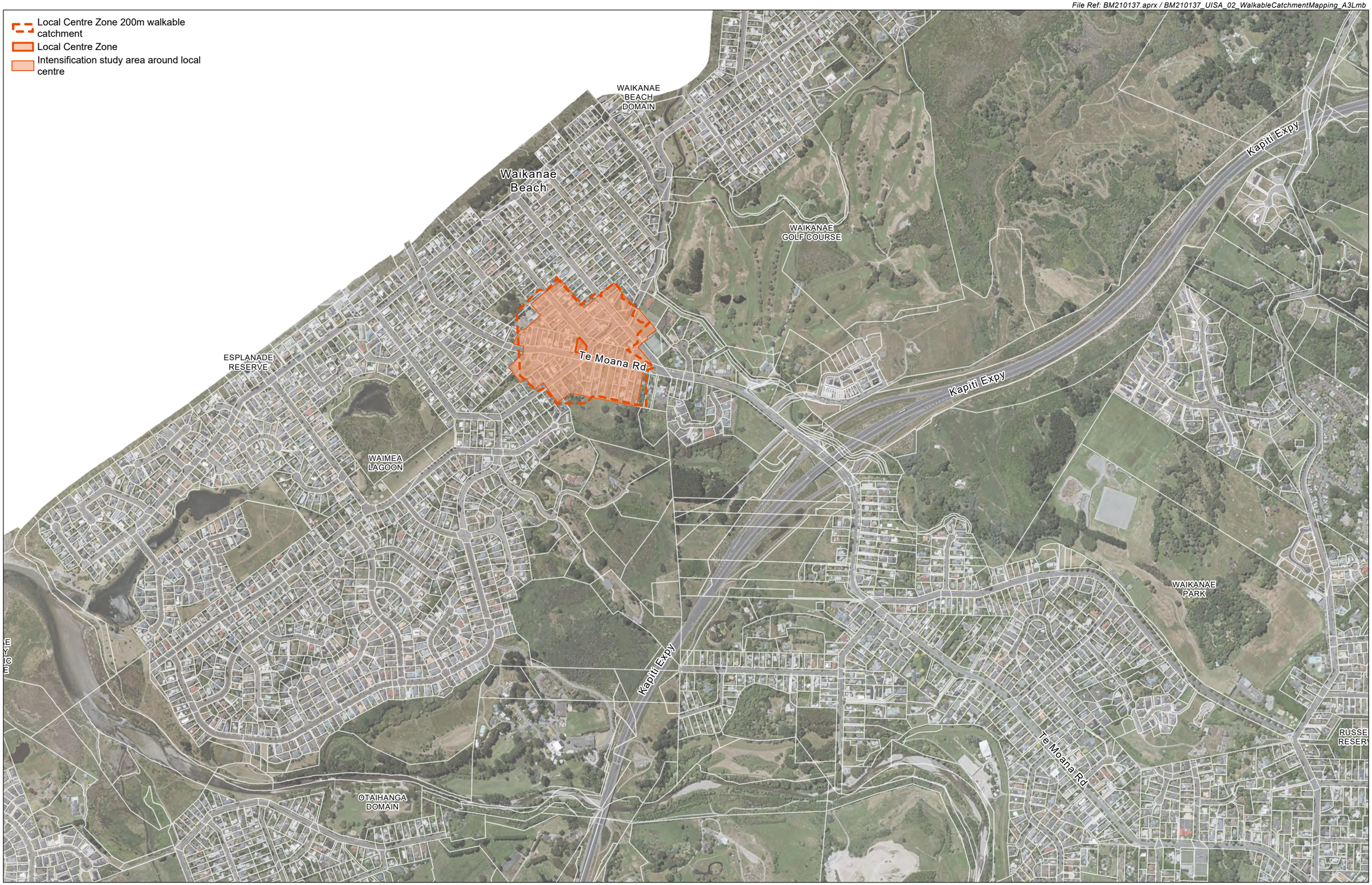

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Walkable Catchment Mapping

Waikanae Beach

Date: 14 October 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: ABa/HHu | Checked: ABa

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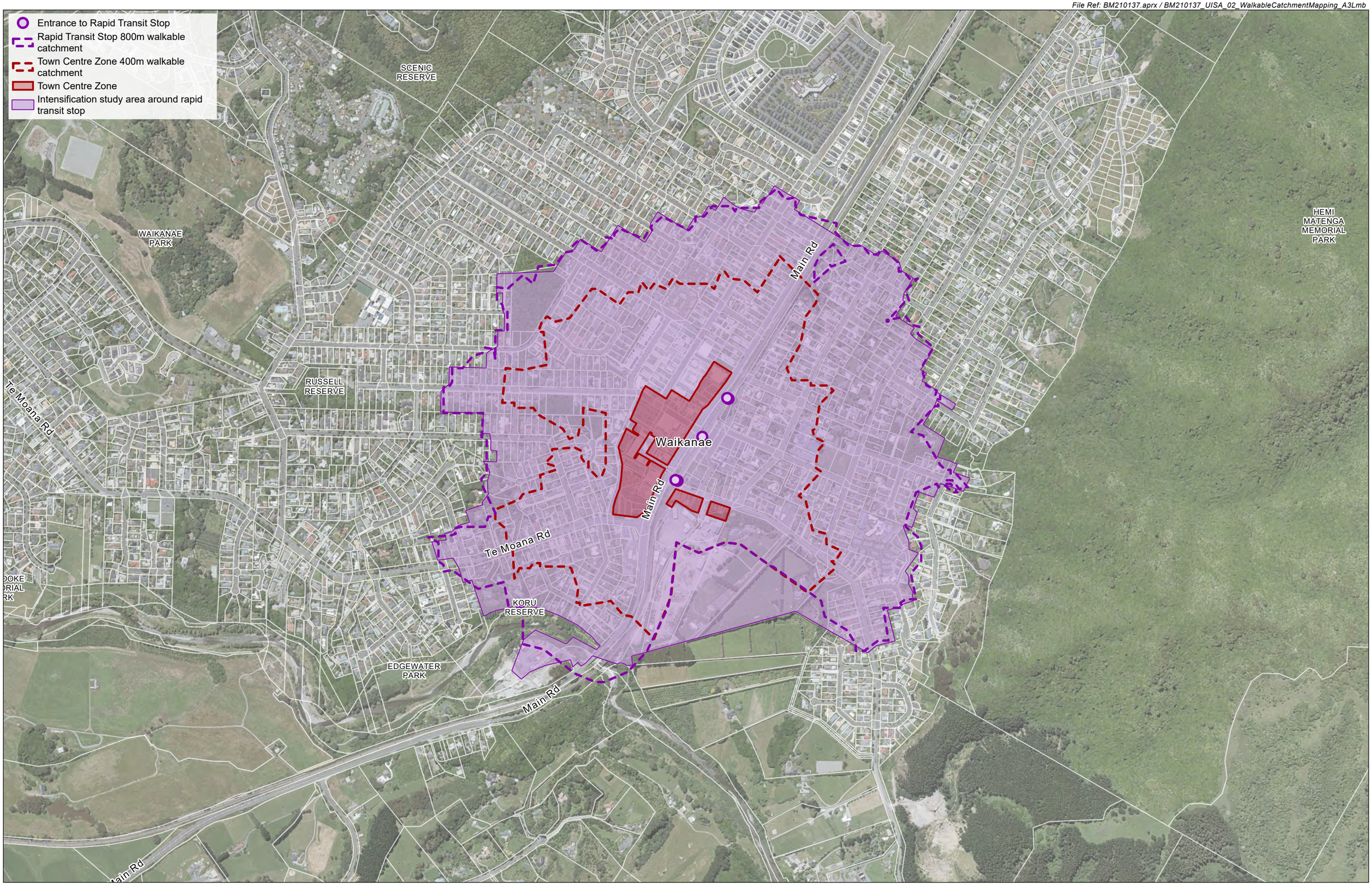

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Walkable Catchment Mapping
Waikanae Centre

Date: 14 October 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: ABa/HHu | Checked: ABa

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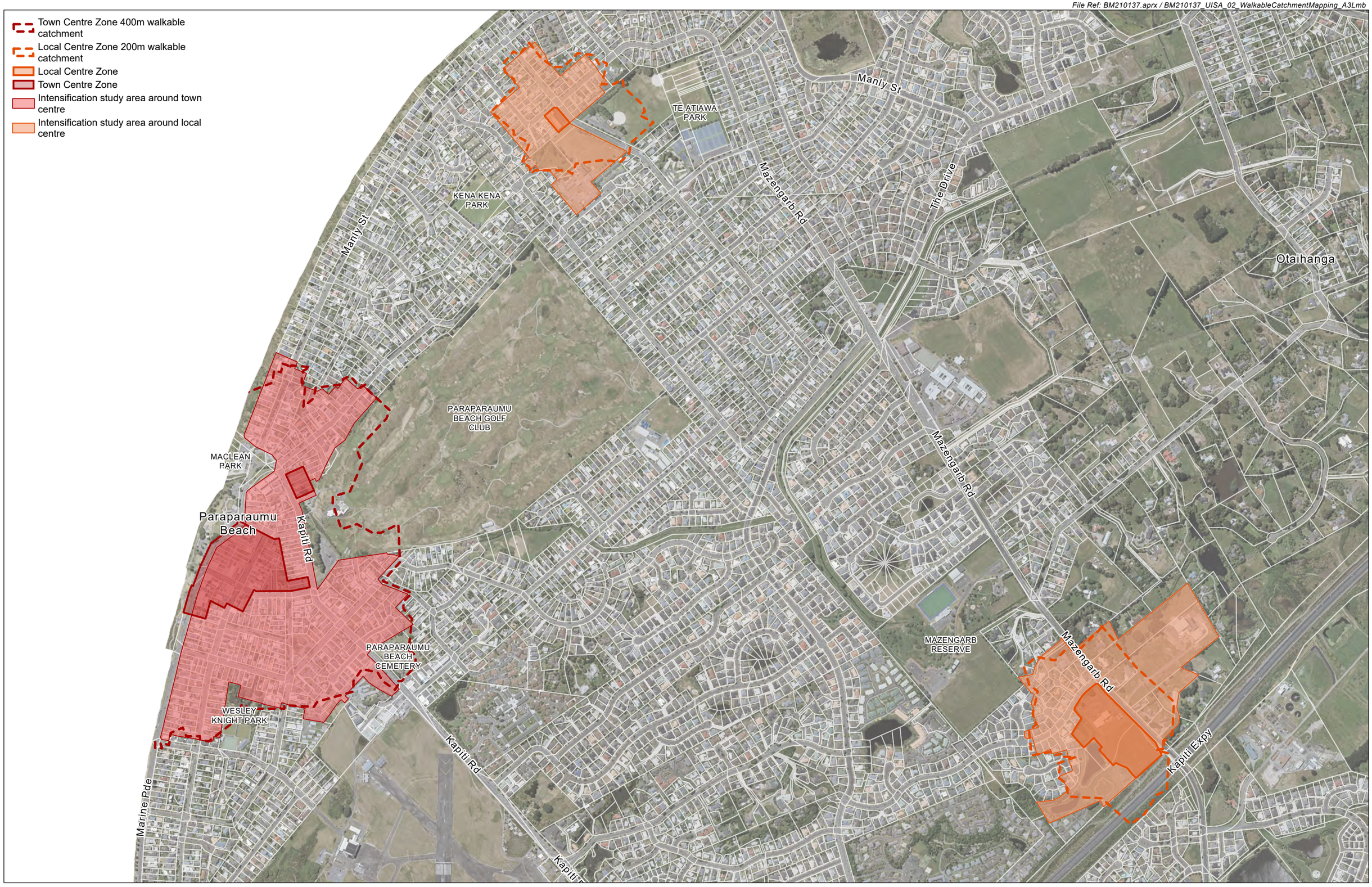

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Walkable Catchment Mapping
Paraparaumu Local Centres

Date: 14 October 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: ABa/HHu | Checked: ABa

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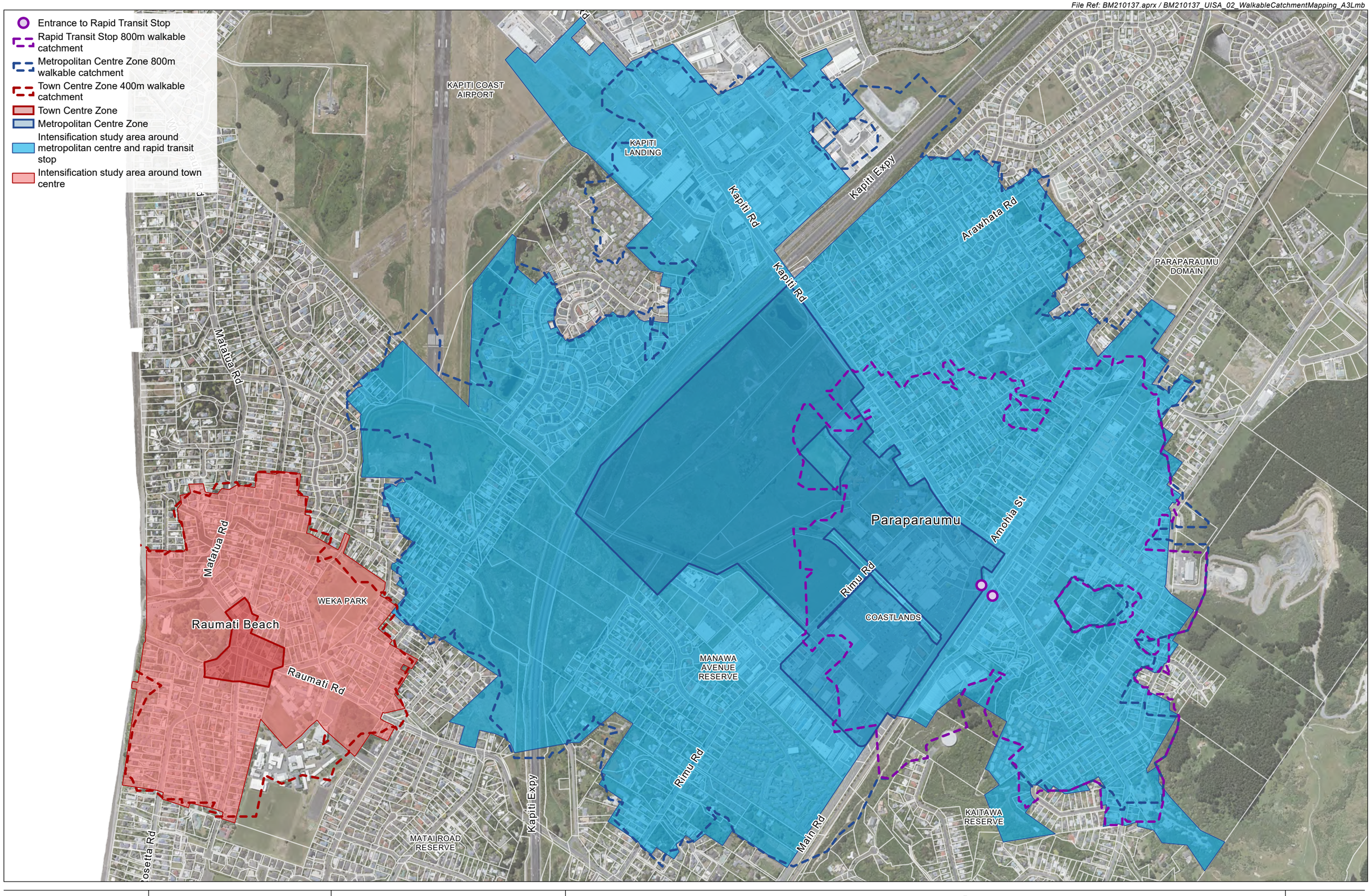

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Walkable Catchment Mapping
Paraparaumu Centre

Date: 14 October 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: ABa/HHu | Checked: ABa

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Walkable Catchment Mapping

Raumati South

Date: 14 October 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: ABa/HHu | Checked: ABa

UI.6.WC

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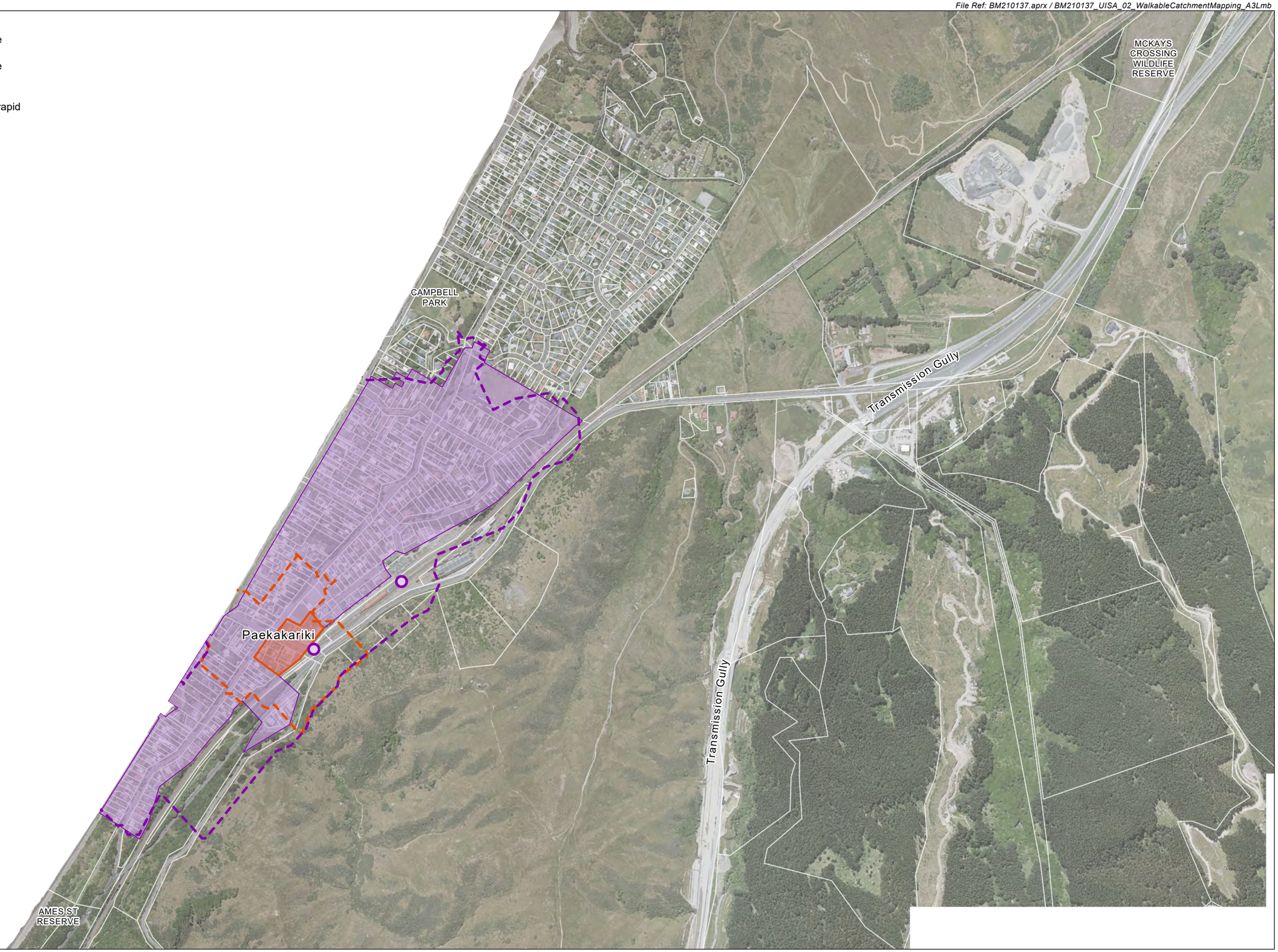
- Entrance to Rapid Transit Stop
- Rapid Transit Stop 800m walkable catchment
- Local Centre Zone 200m walkable catchment
- Local Centre Zone
- Intensification study area around rapid transit stop



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Walkable Catchment Mapping
Paekakariki Station

Date: 14 October 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

Project Manager: marc.baily@boffamiskell.co.nz | Drawn: ABa/HHu | Checked: ABa

UI.7.WC

DRAFT

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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