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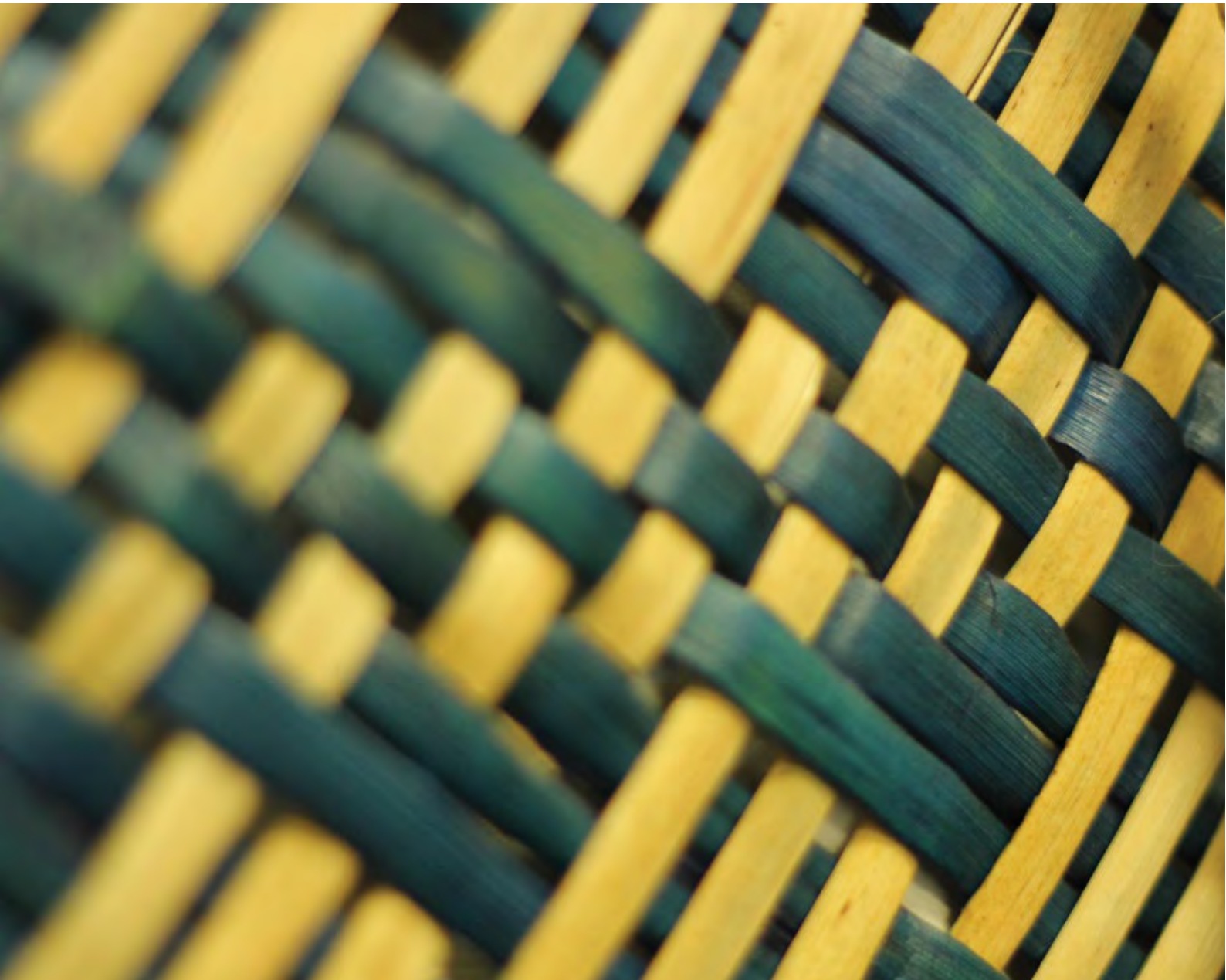
Kāpiti Coast Urban Development Greenfield Assessment

Prepared for Kāpiti Coast District Council

7 July 2022



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Prepared by:	Andrew Banks Planner, Senior Professional Boffa Miskell Limited	
Reviewed by:	Hamish Wesney, Planner, Partner Boffa Miskell Limited	
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Executive Summary

The population of the Kāpiti Coast district is expected to increase by approximately 32,000 people by the year 2051, and this population increase is expected to result in demand for an additional 16,185 dwellings over the same period[1]. 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 greenfield development to address some of this demand.

This assessment has been prepared to inform the development of future changes to the district plan. The assessment finds that there is an estimated 54,680[2] dwellings that could be enabled across all 32 study areas. Based on an assessment of constraints and opportunities each area has been grouped into a "priority" group, as outlined in the following table, and in figure 1:

Priority group	Description	Theoretical dwelling estimate
1	The area is a good candidate for short or medium term urban development.	2,550 dwellings[2]
2A	The area is a candidate for medium or long term urban development, although there are a number of constraints that need to be overcome.	11,830 dwellings
2B	The area is a potential candidate for medium or long term urban development, however there are several constraints to overcome that may require significant strategic decision-making.	28,720 dwellings
3	The area is an unlikely candidate for long term urban development, on the basis that there are numerous and significant constraints that are unlikely to be overcome.	11,850 dwellings
	Total theoretical dwelling estimate	**54,680[2] dwellings**

All of the greenfield study areas[3] assessed were found to be subject to unique combinations of constraints that would need to be overcome in some way to enable their development.

There are a number of key issues that would apply to the development of most or all of the greenfield study areas covered by this assessment. These include:

- **Flood hazard and storm water management.** The estimates of theoretical development capacity outlined in this assessment assumes new urban

[1] Kāpiti Coast District Council and Greater Wellington Regional Council (2022). *Kāpiti Coast District Council Regional Housing and Business Development Capacity Assessment.*

[2] Note that this assessment considers two development scenarios for the airport site (referred to as scenarios A and B). The figures noted in the table include the theoretical dwelling estimate for scenario A. Under scenario B, the figure for priority group 1 would be 3,950 dwellings, and the total theoretical dwelling estimate figure would be 56,080 dwellings.

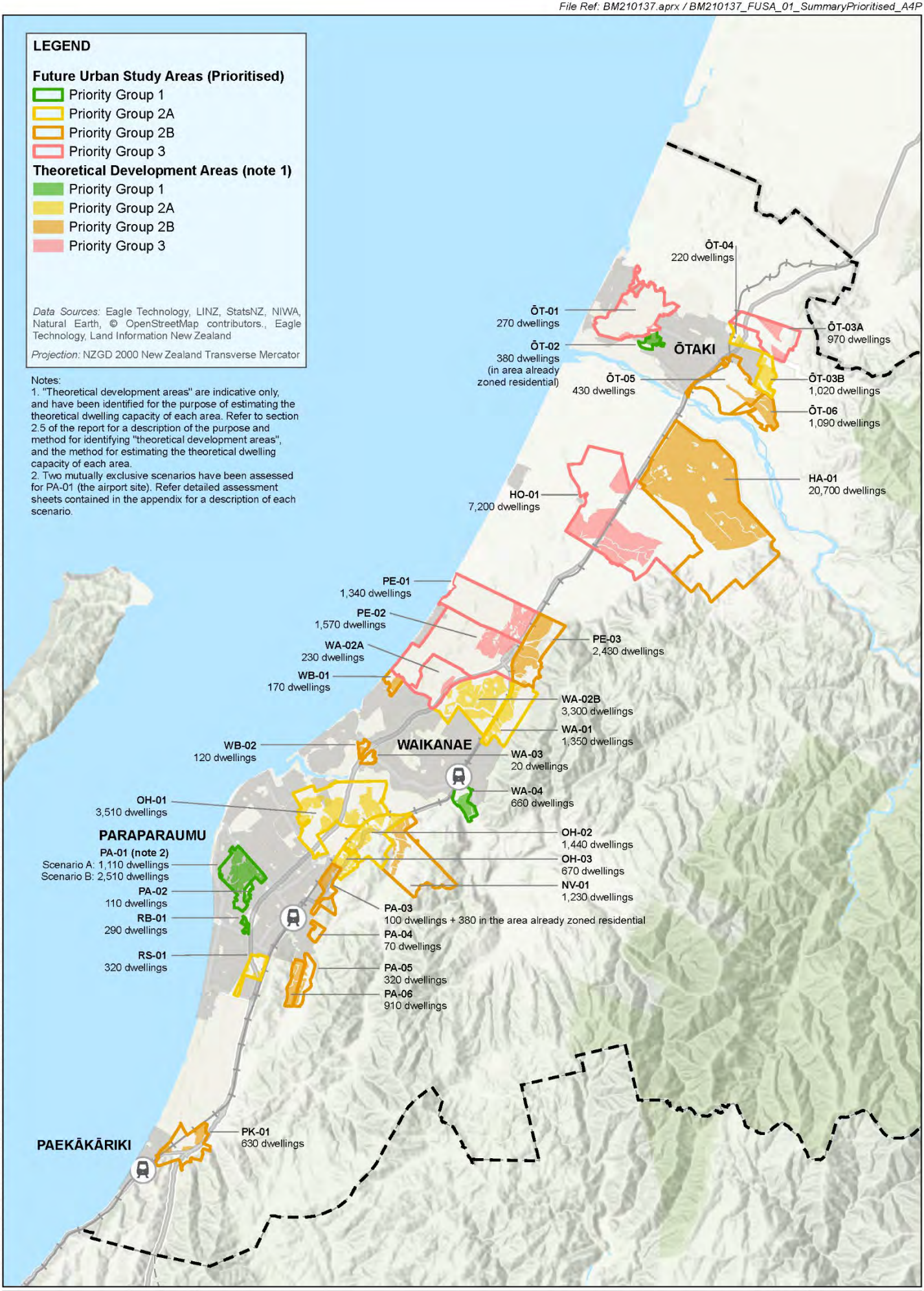
[3] The terms "greenfield study areas", "greenfield area" and "future urban study areas" are used interchangeably throughout this report.

development would not be exposed to currently mapped flood hazard. It was noted that the potential quantity and quality of storm water runoff is a matter that will require further investigation as part of the development of each area. Council is currently updating the existing flood hazard modelling to account for the effects of climate change.

- **Waterbodies.** There is an extensive network of rivers, steams, drains and wetlands that will need to be carefully managed in the context of urban development. Development near existing waterbodies is likely to trigger a range of rules in the District Plan, the Greater Wellington Regional Council Proposed Natural Resources Plan, and the National Environmental Standards for Freshwater.
- **Water and wastewater infrastructure.** Any new greenfield area will require the provision of reticulated water and wastewater infrastructure. Existing capacity is relatively constrained and additional greenfield growth could trigger local or system-wide upgrades and/or necessitate the development of new assets (such as new water sources and/or new wastewater treatment facilities).
- **Transport.** Congestion in some parts of the road network may need to be addressed to accommodate future growth. In addition to this, a key issue is the poor access to public transport north of Waikanae. Growth in this area without the extension of the commuter rail network is likely to involve increased reliance on private vehicle trips and put significant pressure on park and ride facilities in Waikanae.
- **Highly productive land.** There are large areas of cohesive, highly productive land, particularly to the north of Waikanae. Development of greenfield land will require a trade-off between the benefits of urban growth and the benefits of retaining the land in productive use.
- **Liquefaction.** Large parts of the district are subject to a high risk of liquefaction. This can be seen as a proxy for poor ground conditions, and while this assessment assumes these can be overcome through engineering, this could impact on development costs.
- **Responding to climate change.** The assessment has assumed that new urban areas should not be located next to the coastline, however the extent of coastal hazard is still being modelled, and the assessment may need to be updated in future to account for this. In addition to this, new urban areas will need to consider the degree to which they are located and designed to meet the district's emissions reduction aspirations.

The prioritisation of areas outlined in this assessment is based on a qualitative assessment of the relative degree of constraints associated with each area. As a result, developing those areas identified as priority 1 and 2A would result in the following overall approach to urban form:

- Consolidation of existing urban areas by developing greenfield sites located within existing urban areas (such as the airport site);
- Incremental extension of existing urban environments to the north and east of Paraparaumu, to the north-east of Waikanae and to the east of Ōtaki.



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KĀPITI URBAN DEVELOPMENT

Future Urban Study Areas Summary Prioritised

Date: 07.07.2021 | Revision: 3

Plan prepared for Kāpiti Coast District Council by Boffa Miskell Limited

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

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1.0 Purpose

The population of the Kāpiti Coast district is expected to increase by approximately 32,000 people by the year 2051, and this population increase is expected to result in demand for an additional 16,185 dwellings over the same period. However, under the provisions of the operative District Plan, there is projected to be a shortfall in development capacity of approximately 8,400 dwellings over the long term[4]. 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 residential development capacity associated with a series of potential greenfield growth areas identified throughout the district.

In addition to this, the purpose of this report is also to:

- Identify preliminary "prioritisation" of potential greenfield growth areas based on the identification of constraints and opportunities associated with each area;
- Provide a basis for identifying areas that could be considered as part of a future urban development plan change.

A separate report addresses the potential for intensification within existing urban areas, taking in to account the intensification policies associated with the National Policy Statement on Urban Development.

[4] Kāpiti Coast District Council and Greater Wellington Regional Council (2022). *Kāpiti Coast District Council Regional Housing and Business Development Capacity Assessment.*

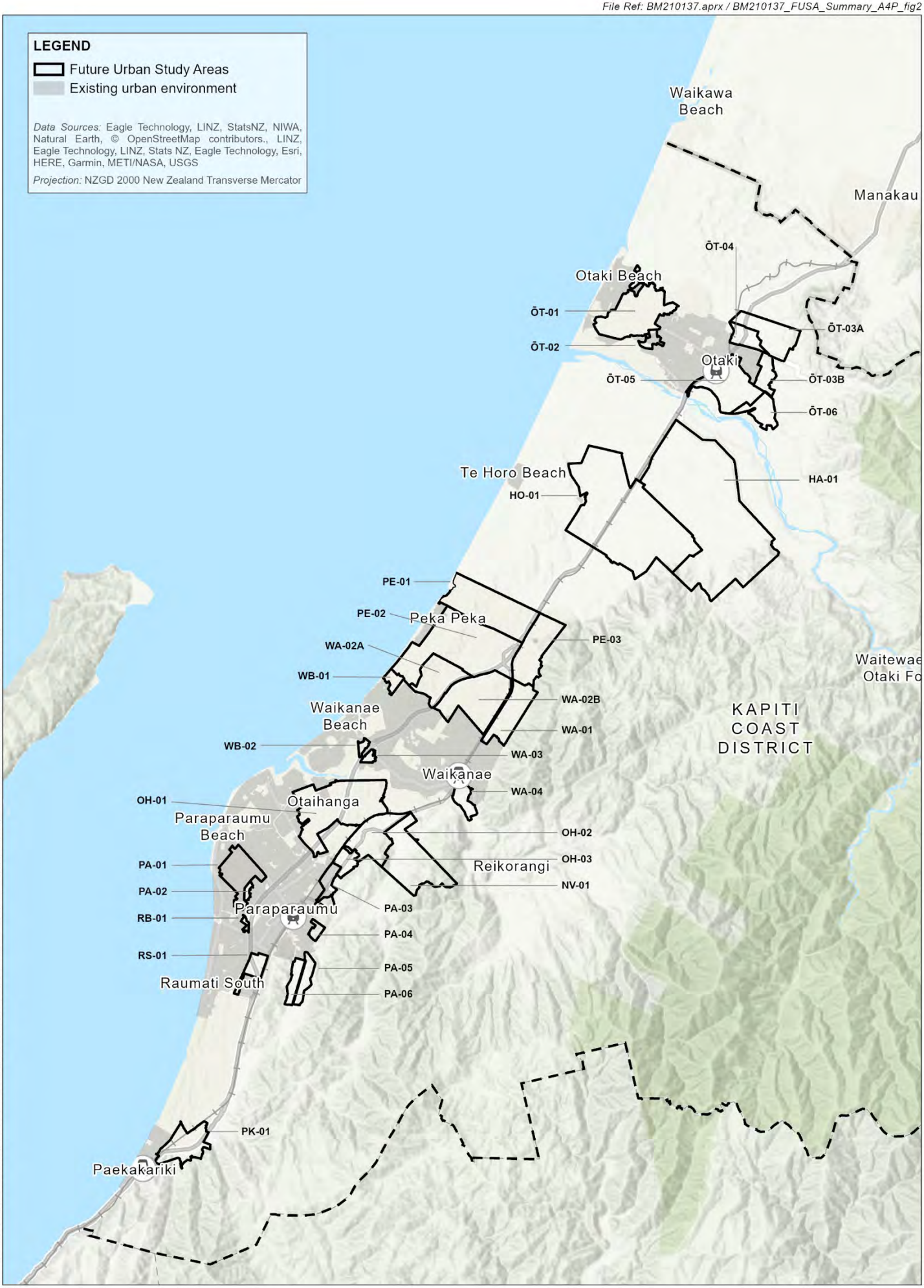

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Figure 2

2.0 Methodology

2.1 Identification of areas for assessment

32 areas for assessment were identified by Council (refer figure 2).

These areas are subsequently referred to as “Future Urban Study Areas”. The boundaries of these areas are intended to represent the general area for assessment, rather than a proposed area for future urban development or a proposed future urban zoning.

2.2 Assessment framework

Prior to undertaking the assessment, a list of assessment criteria was developed to cover the range of matters relevant to the consideration of urban development within the district. The purpose of the assessment criteria is to provide the terms of reference for the subsequent qualitative assessment. The assessment framework is contained in Appendix 1.

Development of the assessment criteria was informed by a range of strategy and policy documents. A key influence on the development of the assessment criteria was the development of *Te tupu pai, Growing Well,* the District Growth Strategy[5,6]. *Te tupu pai* outlines a series of principles for “growing well”. These are acknowledged in the assessment framework and include[7]:

- Supporting mana whenua aspirations;
- Embracing the opportunities of growth;
- Valuing our environment;
- Encouraging low-carbon living;
- Fostering strong communities;
- Enabling choice.

In addition to *Te tupu pai*, the following policy and strategy documentation also informed the development of the assessment criteria:

- All gazetted National Policy Statements;
- The draft National Policy Statements for Indigenous Biodiversity and Highly Productive Land (to the extent that they have been developed);
- The Wellington Regional Growth Framework (July 2021);
- The Kāpiti Long Term Plan 2021;
- Ināia tonu nei: a low emissions future for Aotearoa (Climate Change Commission, 2021).

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

[6] Kāpiti Coast District Council. (2022). *Te tupu pai*, *Growing Well*.

[7] Kāpiti Coast District Council. (2022). *Te tupu pai*, *Growing Well*. p.7.

2.3 Identification of spatial Influences and constraints

The spatial influences and constraints were assembled into a GIS using ArcGIS Pro, from which spatial influences and constraints maps were produced that covered each study area. To enable the maps to be legible, the maps were organised into themes, with each theme representing multiple 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 Highly productive land Climate change (low-carbon futures)
Mana whenua	Mana whenua Iwi development

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;
- 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 there may

be more sites of significance to mana whenua that are known to them but not identified in publicly available data, and not shown on these maps.

The assessment is based on the information available at the time of the assessment.

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

2.4 Qualitative assessment

Following the development of the assessment framework and spatial influences and constraints mapping, a qualitative assessment of each of the 32 study areas was undertaken. The purpose of the qualitative assessment is to identify the key constraints and opportunities associated with the potential urban development of the area. The assessment process involved:

- Observation on how the urban development of each area might relate to the each criterion withinthe assessment framework;
- On the basis of these observations, identify whether the development of the area would be consistent with the assessment criterion, using a traffic light system of assessment.

The results of the assessment are summarised in the section 3.1, and outlined in detail in Appendix 3A and 3B.

The assessment process involved:

- Desktop review of each of the study areas, based on the mapping of spatial influences and constraints;.
- Recording observations on how the urban development of each area might relate to each criterion within the assessment framework. Observations were supplemented by workshops held with Council officers to provide additional information on particular subject areas;
- On the basis of these observations, identify whether the development of the area would be consistent with the assessment criterion, using a traffic light system of assessment.

The following table describes that traffic light system of assessment used:

Rating	Description
	Development in the area is likely to align with 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.
	Development in the area would be somewhat inconsistent with 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.
	Development in the area is inconsistent with 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 increase the impact of 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 of urban development in each of the study areas.

2.5 Theoretical dwelling estimate

The theoretical dwelling estimate provides a high-level estimate of the number of dwellings that may be able to be accommodated through urban development within the study area. This assessment was undertaken after the preparation of the qualitative assessment, as the qualitative assessment provided a good information basis for understanding the spatial constraints that might influence development within the study area. The results of this assessment are contained within a table in the detailed assessment of each study area (refer Appendix 3B).

The calculation of theoretical dwelling supply is based on the following process:

Step 1: identify "theoretical development areas" within the study area

The starting point for identifying the theoretical dwelling capacity involved identifying "theoretical development areas" within each study area that may be appropriate for urban development. These areas have been represented visually as a hatching within the aerial photograph contained in the detailed assessment of each study area (refer Appendix 3B).

The primary purpose of identifying these areas was to provide a basis for a plausible estimate of the dwelling capacity for each study area. Therefore, the extent and location of these areas should be interpreted as general in nature, and the identification of these areas should not be seen to exclude the possibility of development in other areas. They should also not be interpreted as 'proposed' areas for urban development, as they have not been identified based on a structure planning or similar design process. Notwithstanding this, the areas identified as "theoretical development areas" are a useful proxy for areas of low constraint within each of the study areas.

The identification of "theoretical development areas" involved the high-level identification of approximate areas within each study area that exhibited a low degree of combined constraints (based on the mapping outlined in section 2.3). These areas avoid some (but not all) of the constraints associated with the study area. The following table outlines the constraints that have been avoided, and identifies the reason for doing so. It has been assumed that constraints not identified in the table may be able to be managed through policy, design or engineering solutions.

Constraints avoided in identifying "theoretical development areas"		
Constraint	**Reasoning**	**Spatial reference**
Flood hazard areas	• Policies in the District Plan have the effect of discouraging urban development in areas prone to flood hazard (policy NH-P3). • In the context of comprehensive urban development, it is likely to be difficult to provide flood free building areas in areas subject to flood hazard without altering the downstream effects of flooding (NH-P3 and NH-FLOOD-10, 12 and 13). • Urban development in areas of flood hazard could be considered inappropriate in the	Flood hazard areas identified in the KCDC District Plan. Updated flood hazard modelling for the Muaupoko and Hadfield catchments received from KCDC on the 20th August 2021.

Constraints avoided in identifying "theoretical development areas"		
Constraint	**Reasoning**	**Spatial reference**
	context of the natural hazard policy (policy 51) of the RPS.	
Areas of high combined earthquake hazard	• Combined earthquake hazard (as mapped by the Regional Council), includes the combined considerations of liquefaction hazard, ground shaking and earthquake induced slope failure. • Urban development in areas of high combined earthquake hazard could be considered inappropriate in the context of the natural hazard policy (policy 51) of the RPS.	Combined earthquake hazard as identified by GWRC.
Areas in proximity of the coast	• Urban development in proximity to the coast could be considered inappropriate in the context of the natural hazard policy (policy 51) of the RPS.	Note this only applies to study areas PE-01, PE-02 and WB-01. Approximately 50m from the coastal edge has been assumed based on existing setbacks used in the District Plan.
Areas within 20m of waterbodies, including streams, rivers, drains, lakes, ponds and wetlands	• There is strong policy protection for waterbodies outlined in the National Policy Statement for Freshwater. • A 20m setback is assumed on the basis that the esplanade reserve provisions of the RMA may be triggered (although it is acknowledged that this will vary based on the specific nature of the waterbody).	Rivers, streams and drains identified in the KCDC district plan. Waterbodies (including wetlands) identified in the GWRC Proposed Natural Resources Plan. Waterbodies identified by Land Information New Zealand. Site specific unmapped waterbodies readily identifiable from aerial photography.
Ecological sites, conservation open space and QEII covenant sites	• There is strong policy protection for indigenous vegetation within the District Plan. • Construction of buildings within identified ecological sites is generally a discretionary activity (ECO-R13).	Ecological sites identified in the KCDC District Plan. Conservation open space identified in the KCDC District Plan. QEII sites identified by the Department of Conservation.
Outstanding natural features and landscapes, and special amenity landscapes	• There is strong policy protection for outstanding natural features and landscapes in the District Plan (policy NFL-P1) and the Regional Policy Statement (policy 50); • It is assumed that it will be difficult to maintain or enhance the values associated with special amenity landscapes and undertake comprehensive urban development within those landscapes (policy NFL-P2).	Outstanding natural features and landscapes identified in the GWRC Proposed Natural Resource Plan. Special amenity landscapes identified in the KCDC District Plan.
Areas of topography steeper than 1:5	• The New Zealand Standard for Land Development (NZS4404:2010) specifies a maximum steepness for vehicle access of 1:5.	Slope analysis identifying areas of topography steeper than 1:5.
Areas within 40m of the National Grid	• Strong policy direction within the National Policy Statement for Electricity Transmission to avoid reverse sensitivity effects on the national grid (policy 10).	National grid lines as identified in the KCDC District Plan.
Wāhi tapu sites	• Strong policy protection for wāhi tapu sites in the District Plan (policy SASM-P1).	Wāhi tapu sites identified in the KCDC District Plan.

The resultant areas are identified as a “gross theoretical development area” within the detailed assessment of each study area (refer Appendix 3B).

Step 2: calculation of net theoretical development area

For most areas, it was assumed that approximately 30% of the gross theoretical development area would need to be set aside for public purposes (for example, the formation of roads and other access, the provision of open space or other amenities, or the provision of areas for stormwater management).

Some greenfield areas may require an area or areas set aside for centres or mixed use zoning and/or space provision for other public or community facilities such as schools. The analysis undertaken is not sufficiently detailed to determine the area of land required for these activities, so it is assumed that they will be able to be accommodated in the 30% set aside.

For small areas (less than 1 hectare) with direct access to roads, it was assumed that no area would need to be set aside for public purposes.

Step 3: estimating theoretical dwelling capacity

Estimation of the theoretical dwelling capacity for each area is based on the dwelling densities used to develop *Te tupu pai*[8]. These densities are described in the following table:

Density	Dwellings/hectare	Indicative number of floors
High	100	12 or fewer
Medium-high	80	4 – 6
Medium	60	4 – 6
Medium-low	40	3 or fewer
Low	20	2 or fewer

A density mix is applied to the net theoretical development area in each study area. The mix is recorded in the “theoretical dwelling supply assessment” table contained in the detailed assessment of each study area (refer Appendix 3B), which also records the reasons for adopting the mix. The theoretical dwelling estimate is a simple multiplication of the density mix by the net theoretical development area.

Because of the requirement to incorporate the MDRS into the District Plan, the lowest density used to estimate theoretical dwelling capacity for each area is “medium-low” (40 dwellings/hectare).

Note that the assessment estimates theoretical dwelling capacity, and does not consider the potential for market uptake to result in lower densities.

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

3.0 Assessment

3.1 Observations

The assessment has highlighted the extensive and layered nature of constraints to greenfield development across the district. There are very few greenfield areas that are not constrained in some way, and this may in part explain why these areas have yet to be urbanised.

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

3.1.1 Flood hazard and stormwater management

Based on existing modelling, the presence of flood hazard is extensive, particularly around Ōtaki and coastal areas (to the west of the Expressway) at Te Horo, Peka Peka, Waikanae, Paraparaumu and Paekakariki.

The assessment accounts for flood hazard by identifying the overall areas where flood hazard is a significant constraint as part of the qualitative assessment, and excluding areas subject to flood hazard from the estimate of theoretical dwelling capacity. However, it is noted that the district flood (stormwater) hazard model is presently being updated. Updated flood hazard modelling may alter the appropriateness and capacity of the study areas in relation to this assessment. Updated modelling will be particularly important for large areas that currently appear to be relatively hazard free, such as Hautere. This assessment accounts for updated flood hazard modelling in the Hadfield and Muaupoko catchments, however the assessment may need to be reviewed and revised as further updates to flood hazard modelling become available.

During the assessment process, it was also observed that managing the effects of storm water runoff from new urban areas in a manner that does not increase down-stream flood risk and does not degrade down-stream water quality will need to be considered for any future urban area.

3.1.2 Water bodies and wetlands

There is an extensive network of waterways that traverse the district. In the hill country areas of the district, these manifest as stream headwaters, whereas in the lower lying and flatter areas (particularly to the west of the Expressway) these manifest as networks of drains that feed into tributaries and streams. Alongside these, there are a number of identified wetlands in the district, which typically occur in the low-lying areas to the west of the Expressway. There are also likely to be unmapped wetlands located throughout the lower lying areas of the district.

The National Policy Statement for Freshwater Management and the National Environmental Standards for Freshwater have the combined effect of providing significant policy and regulatory protection to existing water bodies, regardless of whether they have been mapped. The assessment accounts for mapped waterbodies by identifying the degree to which they are present within each of the study areas and excluding areas within a buffer of each waterbody from the dwelling capacity calculation. However, the assessment does not account for

unmapped waterbodies, and for greenfield areas the presence of unmapped wetlands will be a particular issue.

3.1.3 Water and wastewater services

The provision of reticulated potable water supply and wastewater services will be a key issue for the development of any greenfield growth area. While some greenfield growth areas are located next to urban environments with reticulated services, the development of any greenfield growth area will require the establishment of new reticulated services in that area, and connections to the wider reticulated system. As a result, significant growth could trigger the need for local or system-wide upgrades.

Considering water supply, the following issues were observed during the assessment:

- Growth in Ōtaki is likely to trigger upgrades to the town water supply system, which may include introducing reservoir storage to the system and adding an additional supply source;
- Growth in the Hautere area would likely need to be supported by a new water supply from the Ōtaki catchment, in order to avoid inappropriate catchment mixing. Any new water supply would also need to be supported by reservoir storage and reticulation;
- Growth in the areas to the south of Peka Peka is more manageable based on existing supplies at Waikanae and Paekākāriki, however the effects of the growth of each area on the existing town supply system would need to be considered on a case by case basis.

Considering wastewater services, the following issues were observed during the assessment:

- Existing reticulation networks throughout the district are relatively constrained. Where greenfield growth is connected to existing town reticulation networks, this may have flow-on effects on down-stream pipes and pumpstations, which may need to be upgraded as a result. Capacity upgrades at the existing treatment facilities in Ōtaki and Otaihanga may need to be brought forward to accommodate growth.
- Consideration may need to be given to a new wastewater treatment facility to service areas of significant new greenfield growth to the north of Waikanae and in Te Horo/Hautere, if such development were to occur. Avoiding catchment mixing will also be a key consideration for new networks.
- Paekākāriki has no wastewater reticulation, and all treatment and disposal is undertaken on site. Significant growth in the area may require consideration of methods for providing reticulated wastewater infrastructure to the area, including through the provision of a local treatment facility, or by enabling wastewater to be piped to the treatment facility at Otaihanga.

3.1.4 Public transport, active modes and the road network

During the assessment, it was highlighted that areas to the north of Waikanae are poorly served by public transport. The key reason for this is the termination of commuter rail services at Waikanae. As a result, growth in the district to the north of Waikanae could result in both of the following:

- Increased reliance on private vehicle commuter trips for people living to the north of Waikanae;

- Significant increase in pressure on park and ride facilities around the Waikanae railway station.

These issues are compounded by growth within the Horowhenua district to the north of Ōtaki. While there may be a range of solutions to address this, the most obvious solution is to extend commuter rail services beyond Waikanae. This extension would be a particularly important consideration for any areas of significant growth to the north of Waikanae (for example at Hautere).

For any greenfield growth area, provision for active modes of transport within the area, and integration with existing active mode networks may help to improve access to commuter rail services, as well as improve access to established centres within the district. The degree to which this can be achieved through greenfield growth will rely to a certain extent on the location and quality of the existing active mode transport network. A key asset in this regard is the provision for active modes associated with the Kāpiti Expressway, which in effect will (when completed) provide an active mode spine that extends the length of the district. However greenfield growth areas that are not connected to this may need to consider other methods of ensuring that they can be connected by active modes to commuter rail and established centres.

A number of other issues associated with the capacity of the road network were identified during the assessment, however these are generally location specific rather than district wide. These are covered in the assessment of each individual area and would be most effectively addressed on an area-specific basis.

3.1.5 Highly productive land

Large parts of the flatter, non-urban areas within the district would meet the definition of "highly productive land" under the consultation draft of the National Policy Statement for Highly Productive Land[9]. This land classification is particularly the case for the extent of the district to the north of Waikanae. Urbanising areas of highly productive land would have the effect of removing these areas from the primary production capacity of the district, and this is likely to have both economic and food supply impacts.

A National Policy Statement for Highly Productive Land, if gazetted, could alter the policy context for considering the urbanisation of greenfield areas within the district. It is uncertain whether or when gazetting this policy statement may occur.

3.1.6 Liquefaction

In general, almost the entire extent of the district to the west of the Expressway is subject to a high risk of liquefaction. A high risk of liquefaction can be interpreted as a proxy for poor quality ground conditions, which in some parts of Kāpiti can include areas of peat. While the assessment assumes that this constraint could be managed through engineering, such an assumption should be confirmed through technical assessment at a site-specific level.

3.1.7 Responding to climate change

By creating new urban environments, greenfield growth creates path dependencies that 'lock in' lifestyle choices that can contribute to emissions, as well as increasing the exposure of

[9] Generally defined as land classified as LUC 1, 2 or 3 in the New Zealand Land Resource Inventory. Ministry for Primary Industries. (August 2019). *Valuing Highly Productive Land*, p.50.

communities to future risks associated with a changing climate. While overall urban form strategies to reduce emissions and adapt to climate change are most appropriately dealt with at the level of the District Growth Strategy, this assessment has considered each growth area in terms of its potential to contribute to emissions reduction and climate change adaptation efforts.

New developments offer the opportunity to design communities in a way that avoids locking in emissions, if they are planned appropriately[10]. Measures to support emissions reduction include:

- Enabling access to public and active modes of transport;
- Planning new urban environments to ensure that they have good access to local services and amenities can reduce reliance on short vehicle trips;
- Encouraging the development of buildings that are efficient in terms of energy use and embodied emissions;
- Considering the possibility to provide for renewable energy sources.

Adaptation to the effects of climate change involves acknowledging the increased risks associated with development in the coastal area, in addition to increased risk of flooding associated with more frequent rainfall events and rising ground water levels. As part of this assessment, currently modelled areas of flood hazard, and areas within proximity of the coast have been generally avoided in estimating the theoretical dwelling capacity of each area.

Alongside this, it is relevant to consider the long-term impacts of climate change adaptation on the district, in particular the retreat from existing urban areas that are increasingly at risk. In this respect, new low-hazard growth areas may be able to provide development capacity to reduce the need to grow in higher-hazard areas.

3.2 Prioritisation of potential growth areas

The potential greenfield growth areas have been grouped into 'priority' categories. As outlined in the methodology, this grouping was not a linear weighted process, rather an overall judgement based on the nature and degree of constraints and opportunities associated with each individual area. Each priority group (including the total theoretical dwelling estimate for each group) is identified in the table below:

Priority group	Description	Theoretical dwelling estimate
1	**The area is a good candidate for short or medium term urban development.** Development of the area presents the opportunity 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 structure planning and/or other planning mechanisms.	2,550 dwellings[11]

[10] He Pou a Rangi Climate Change Commission. (May 2021). *Ināia tonu nei: a low emissions future for Aotearoa,* pp.255-258.

[11] Note that this assessment considers two development scenarios for the airport site (referred to as scenarios A and B). The figures noted in the table include the theoretical dwelling estimate for scenario A. Under scenario B, the figure for priority group 1 would be 3,950 dwellings, and the total theoretical dwelling estimate figure would be 56,080.

Priority group	Description	Theoretical dwelling estimate
2A	**The area is a candidate for medium or long term urban development, although there are a number of constraints that need to be overcome.** Development of the area presents the opportunity to achieve a range of positive outcomes, however there are a number of constraints that need to be overcome.	11,830 dwellings
2B	**The area is a potential candidate for medium or long term urban development, however there are several constraints to overcome that may require significant strategic decision-making.** Development of the area could contribute to long-term positive outcomes, however there are a number of constraints associated with the area and overcoming them is likely to have an impact on Council's long-term planning and strategic decision-making. OR **The area is likely to only contribute marginally to housing supply.**	28,720 dwellings
3	**The area is an unlikely candidate for long term urban development, on the basis that there are numerous and significant constraints that are unlikely to be overcome.** There are numerous significant constraints to development of the area. Some of these constraints are so significant that they are unlikely to be overcome. These areas could however be considered again in the future if circumstances change.	11,580 dwellings
	Total theoretical dwelling estimate across all study areas	**54,680[13] dwellings**

The following table (and figure 1 at the beginning of the document) summarises estimated theoretical dwelling capacity and priority grouping of each potential greenfield growth area considered as part of this assessment. Appendix 3A provides a more detailed summary, while Appendix 3B provides a detailed assessment of each individual growth area.

Area ref. (refer figure 1)	Locality	Theoretical dwelling estimate	Priority group
ŌTAKI			
ŌT-01	Ōtaki (west)	270	3
ŌT-02*	Ōtaki (west)	380 (already zoned Residential)	1
ŌT-03A	Ōtaki (east)	970	3
ŌT-03B	Ōtaki (east)	1,020	2A
ŌT-04	Ōtaki (east)	220	2A
ŌT-05	Ōtaki (east)	430	2B
ŌT-06	Ōtaki (east)	1,090	2B
TE HORO, PEKA PEKA & WAIKANAE			
HA-01	Hautere	20,700	2B
HO-01	Te Horo	7,200	3
PE-01	Peka Peka (north)	1,340	3
PE-02	Peka Peka (south)	1,570	3
PE-03	Peka Peka (east)	2,430	2B
WA-01	Waikanae (east)	1,350	2A
WA-02A	Waikanae (north-west)	230	3
WA-02B	Waikanae (north-east)	3,300	2A
WA-03	Waikanae (west)	20	2B

Area ref. (refer figure 1)	Locality	Theoretical dwelling estimate	Priority group
WA-04	Waikanae (south)	660	1
WB-01	Waikanae Beach (north)	290	2B
WB-02	Waikanae Beach (east)	120	2B
OTAIHANGA & NIKAU VALLEY			
OH-01	Otaihanga	3,510	2A
OH-02	Otaihanga (east)	1,440	2A
OH-03	Otaihanga (south)	670	2A
NV-01	Nikau Valley (north)	1,230	2B
PARAPARAUMU, RAUMATI & PAEKAKARIKI			
PA-01 A*	Paraparaumu (airport site, scenario A)*	1,110	1
PA-01 B*	Paraparaumu (airport site, scenario B)*	2,510	1
PA-02	Paraparaumu (west)	110	1
PA-03	Paraparaumu (north-east)	100 + 380 (already zone Residential)	2B
PA-04	Paraparaumu (east)	70	2B
PA-05	Paraparaumu (south-east)	320	2B
PA-06	Paraparaumu (south-east)	910	2B
RB-01	Raumati Beach	290	1
RS-01	Raumati South	320	2A
PK-01	Paekakariki (east)	630	2B

Notes:

* These are mutually exclusive development scenarios. Refer to the assessment sheets contained in appendix 3B for further information.

If the development of greenfield growth areas progressed in line with the priority groupings outlined above, this would result in an overall pattern of greenfield growth defined by the following characteristics:

- Consolidation of the existing urban environment through development of greenfield sites within existing urban areas;
- Modest expansion of existing urban environments in areas with relatively low combined constraints;
- Incremental expansion of existing infrastructure networks (although significant upgrades may be required).

Future development within the potential greenfield growth areas outlined in this assessment could contribute to long term demand for development capacity noted the beginning of this report. The extent to which this capacity is incorporated future district plan changes would be determined by the degree to which intensification of existing urban areas is considered as a part of the overall mix of new plan-enabled development capacity.

4.0 Conclusion

The population of the Kāpiti Coast district is expected to increase by approximately 32,000 people by the year 2051, and this population increase is expected to result in demand for an additional 16,185 dwellings over the same period. However, under the provisions of the operative District Plan, there is projected to be a shortfall in development capacity of approximately 8,400 dwellings over the long term[12]. It is possible to meet this shortfall through a mixture of greenfield and intensification development. This assessment addresses the potential for greenfield growth to meet some of this shortfall.

Following a qualitative and quantitative methodology, this assessment has found the following:

- That across all areas studied, there is a theoretical capacity of 54,680 dwellings that could be delivered through a range of dwelling typologies.
- Greenfield areas in the district are constrained to varying degrees. There are no unconstrained areas, and each area is subject to a unique combination of constraints. Key constraints include:
    - Flood hazard and stormwater management;
    - Waterbodies, including rivers, streams drains and wetlands;
    - Capacity of existing water and wastewater infrastructure and the ability to deliver this to new areas;
    - Land risks, in particular liquefaction;
    - Presence of highly productive land;
    - Responding to climate change hazards and emissions reduction.
- After the consideration of constraints, there is a theoretical capacity of 14,380[13] dwellings in areas that exhibit low to moderate degrees of combined constraints (priority groups 1 and 2A), so long as these constraints can be overcome. Development of these areas would result in an urban form characterised by consolidation of existing urban areas, alongside the extension of urban environments around Paraparaumu, Waikanae and Ōtaki.

Overall, where constraints can be overcome it is possible for greenfield growth contribute to addressing the estimated shortfall of dwellings in the district.

[12] Kāpiti Coast District Council and Greater Wellington Regional Council (2022). *Kāpiti Coast District Council Regional Housing and Business Development Capacity Assessment.*

[13] Based on scenario A for the airport site. Under scenario B, this figure would be 15,780 dwellings.

Appendix 1: Assessment Criteria Framework

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Assessment Criteria Framework

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 Wellingon 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		~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021) ~ Housing Strategy (2022)	~ Te Tupu Pai, Growing Well (2022) ~ 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).
Criteria (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; ~ Recongition that urban development may require the establishment of new neighbourhoods to develop.	~ Urban growth in proximity to established district, town and local centres; ~ Recongition 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.
Criteria (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.

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Assessment Criteria Framework

Theme		FUNCTION		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		~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021)	~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021) ~ Infrastructure Strategy (2021)	~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021) ~ Open Space Strategy (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).
Criteria (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.
Criteria (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.

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Assessment Criteria Framework

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		~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021)	~ Wellington Regional Growth Framework (2021)	~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021)	~ Wellington Regional Growth Framework (2021)	~ Te Tupu Pai, Growing Well (2022) ~ 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).
Criteria (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.
Criteria (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.

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BM210137 Kāpiti Urban Development and Intensification

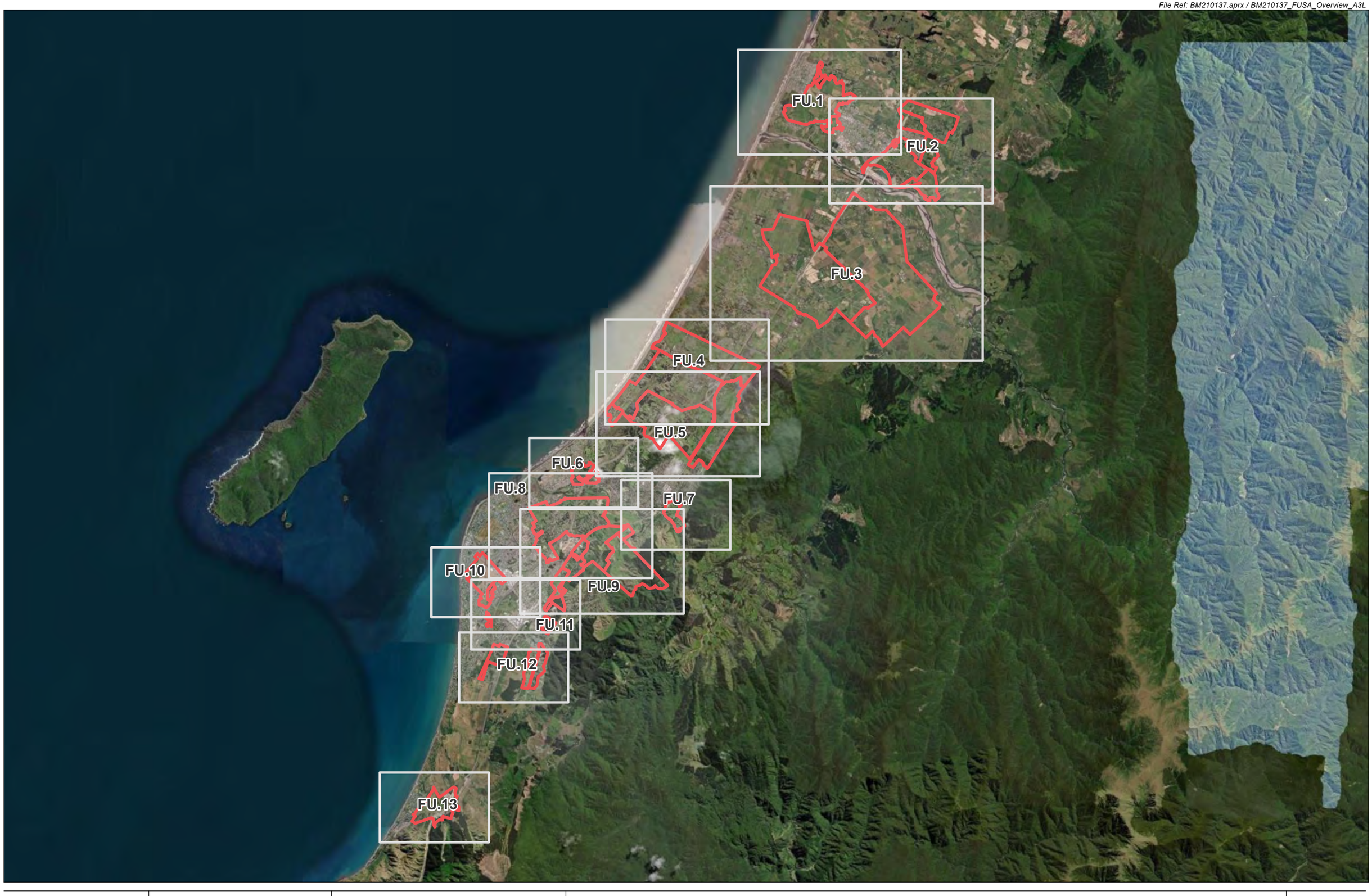
Assessment Criteria Framework

Theme			MANA WHENUA	
Assessment criteria		**Climate change (low-carbon futures)**	**Mana whenua**	**Iwi development**
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 implmentation and monitoring of *Te tupu pau, Growing well* , the District Growth Strategy. Feedback provided by iwi on the development of the district growth strategy identified a number of matters of importance to tangata whenua 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.	The Council is working in partnership with mana whenua to on the implmentation and monitoring of Te tupu pau, Growing well, the District Growth Strategy. Feedback provided by iwi on the development of the district growth strategy identified a number of development 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.
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	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		~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021) ~Ināia tonu nei: a low emissions future for Aoteroa (Climate Change Commission, 2021)	~ Iwi management plans ~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)	~ Iwi management plans ~ Te Tupu Pai, Growing Well (2022) ~ Wellington Regional Growth Framework (2021) ~ Kāpiti Long Term Plan (2021)
Spatial influences and constraints			~ Statutory acknowledgement areas (KCDC and GWRC); ~ Waahi tapu sites (KCDC); ~ Sites of significance to mana whenua (GWRC); ~ Location of marae (Maori Maps).	~ Māori freehold land (Ministry of Justice).
Criteria (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	~ Recognising tangata whenua values and kaupapa ~ Protecting sites and areas of significance to tangata whenua	~ Supporting tangata whenua to provide for their own needs ~ Enabling tangata whenua to meet their economic development and housing aspriations
Criteria (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	~ Recognising tangata whenua values and kaupapa ~ Protecting sites and areas of significance to tangata whenua	~ Supporting tangata whenua to provide for their own needs ~ Enabling tangata whenua to meet their economic development and housing aspriations

Appendix 2: Spatial influences and constraints mapping

Future Urban 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

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Map Index

Future Urban Study Areas

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Future Urban Study Area Mapbook

Date: 15 July 2021 | Revision: 0

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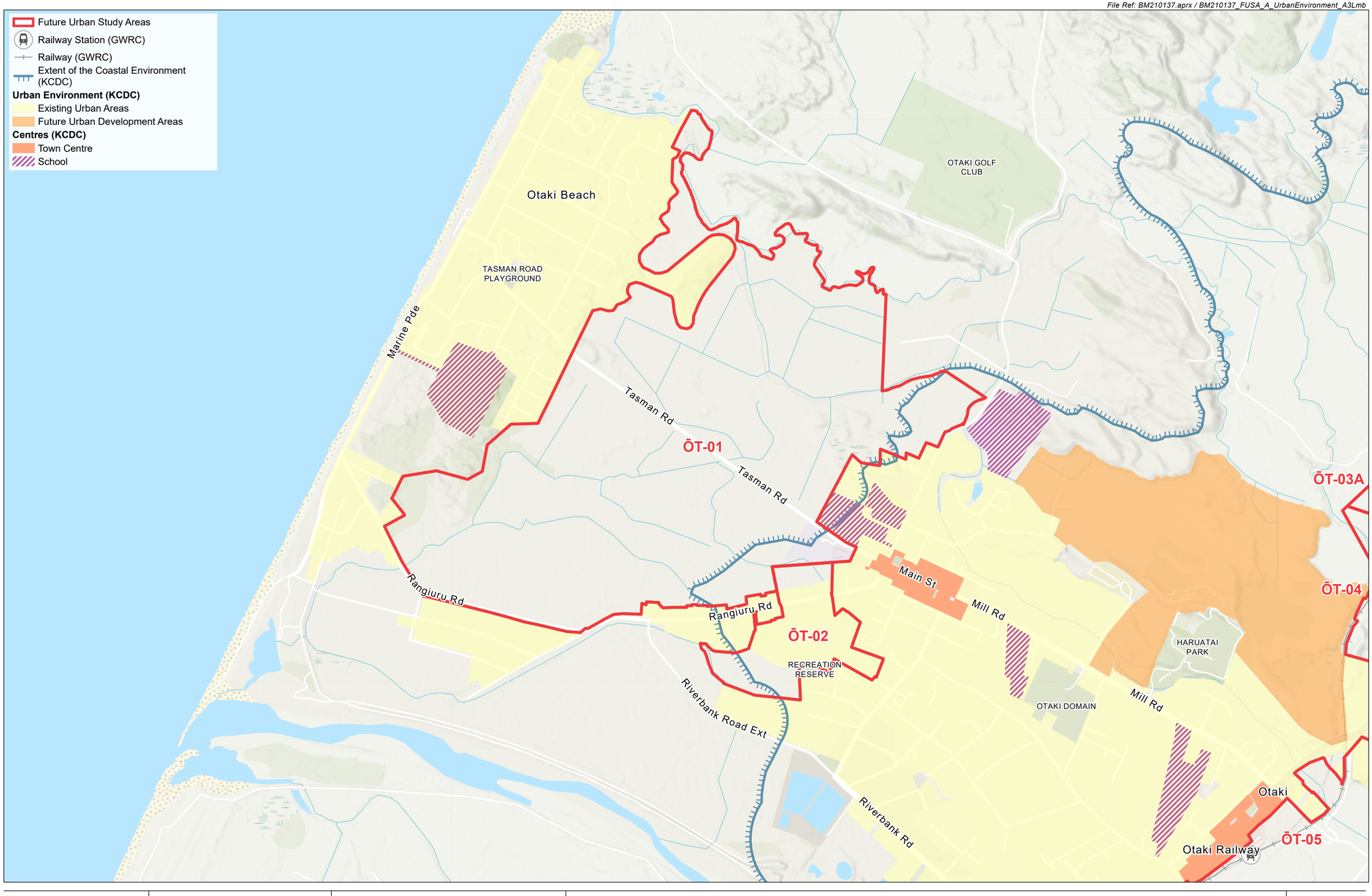
Project Manager: marc.baily@boffamiskell.co.nz | Drawn: HHu | Checked: ABa

FUSA



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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Ōtaki West

Date: 30 July 2021 | Revision: 0

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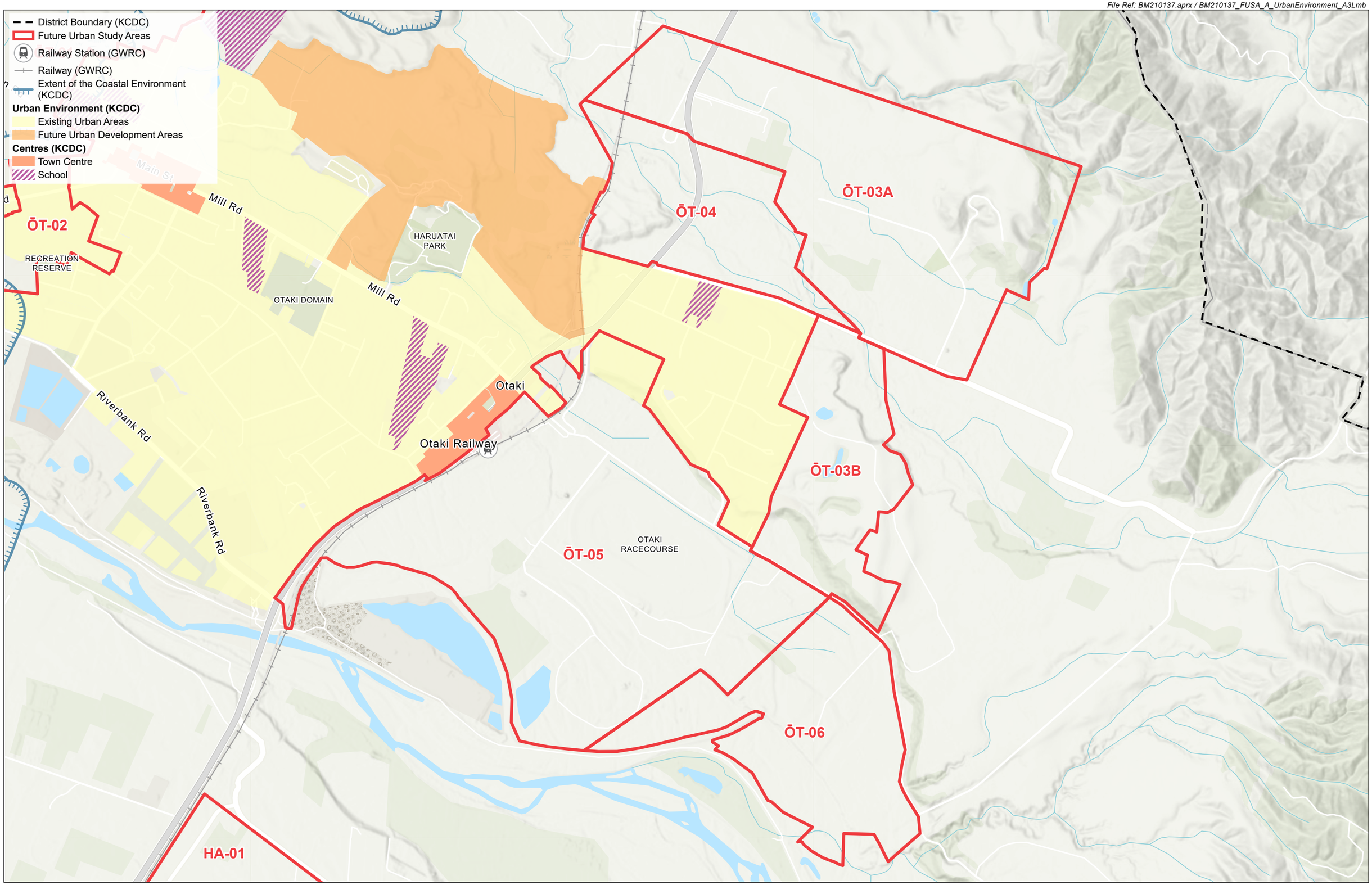

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Ōtaki East

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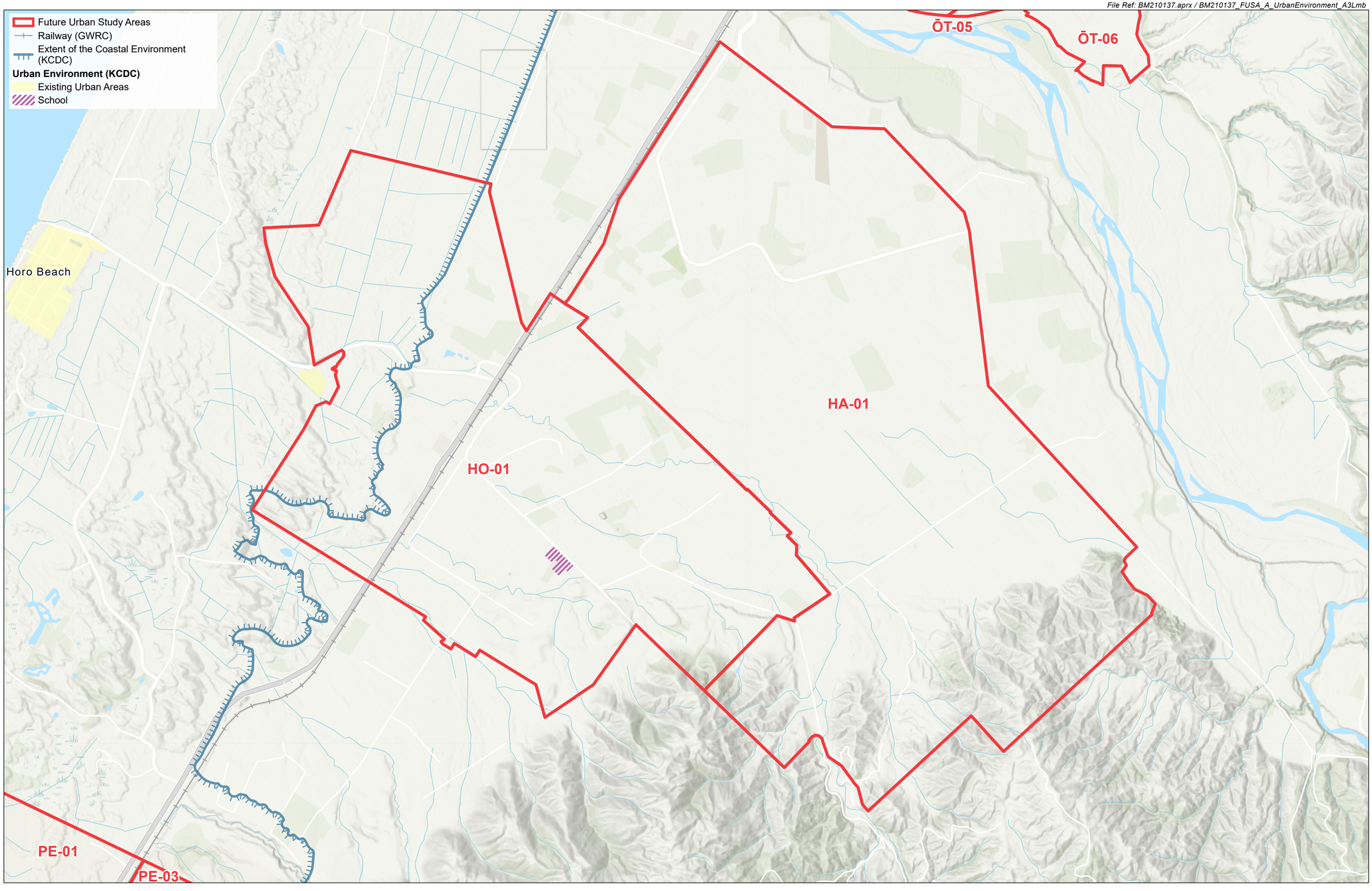

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Te Horo/Hautere

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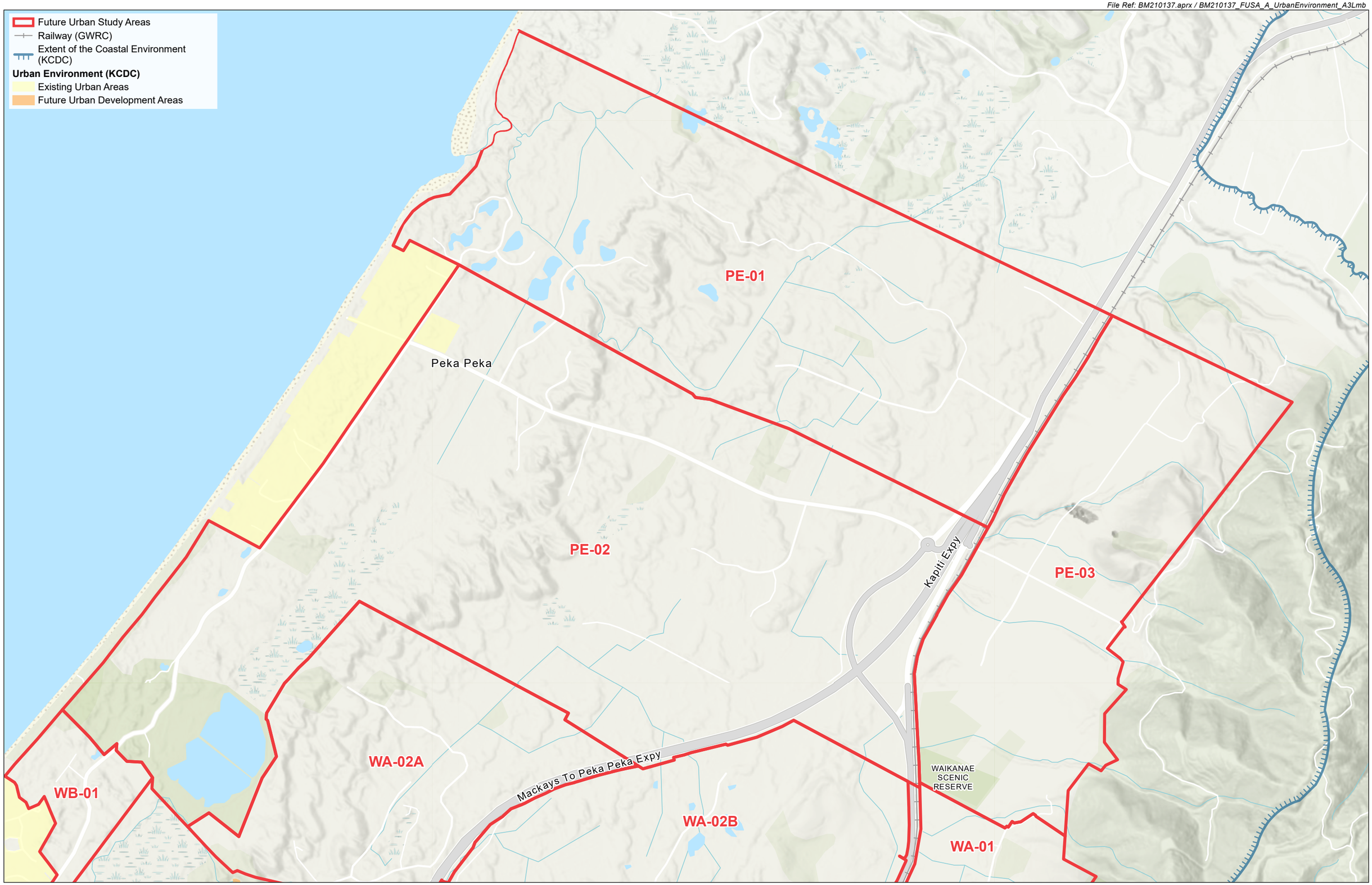

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Peka Peka

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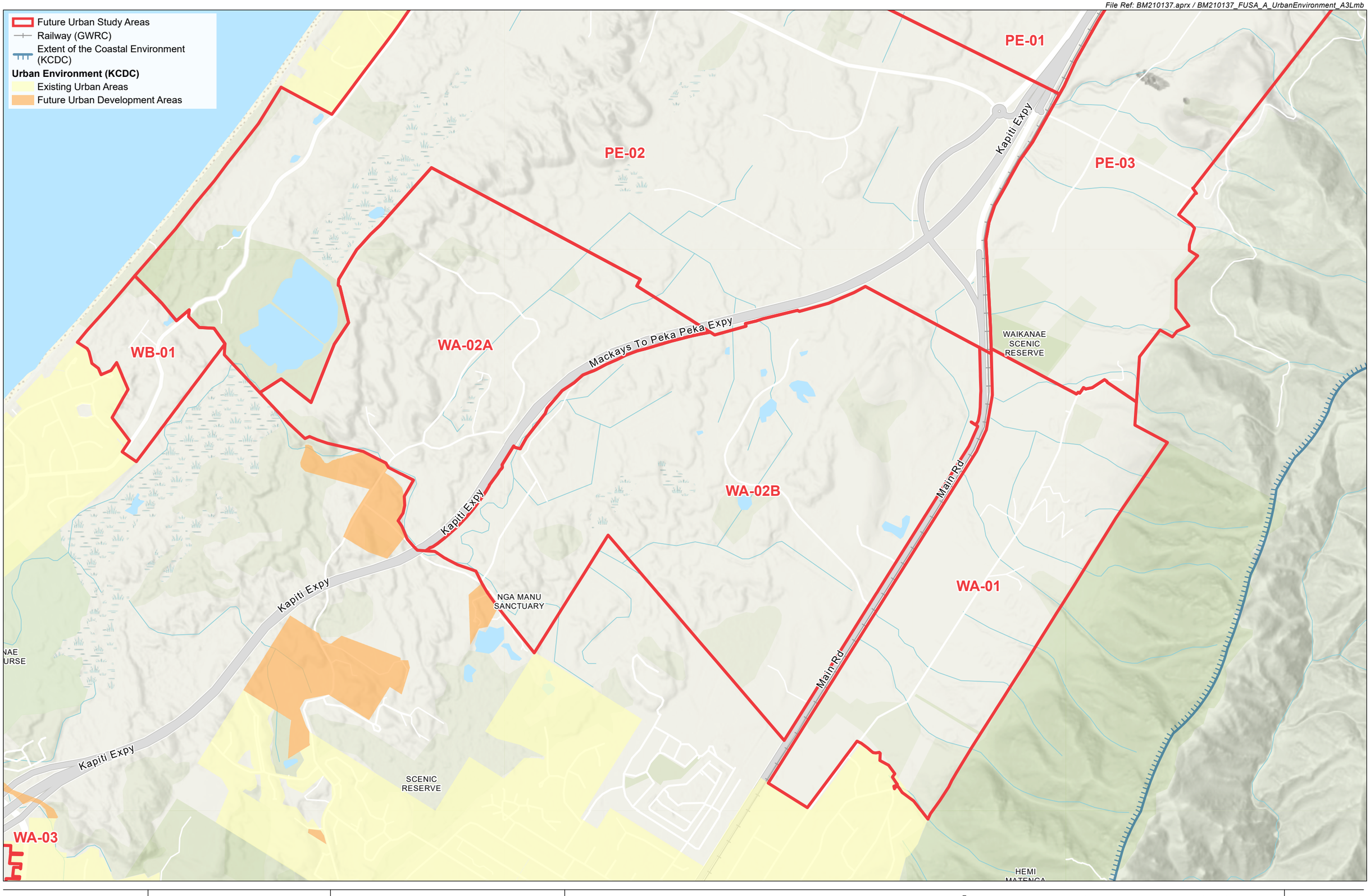

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Waikanae North

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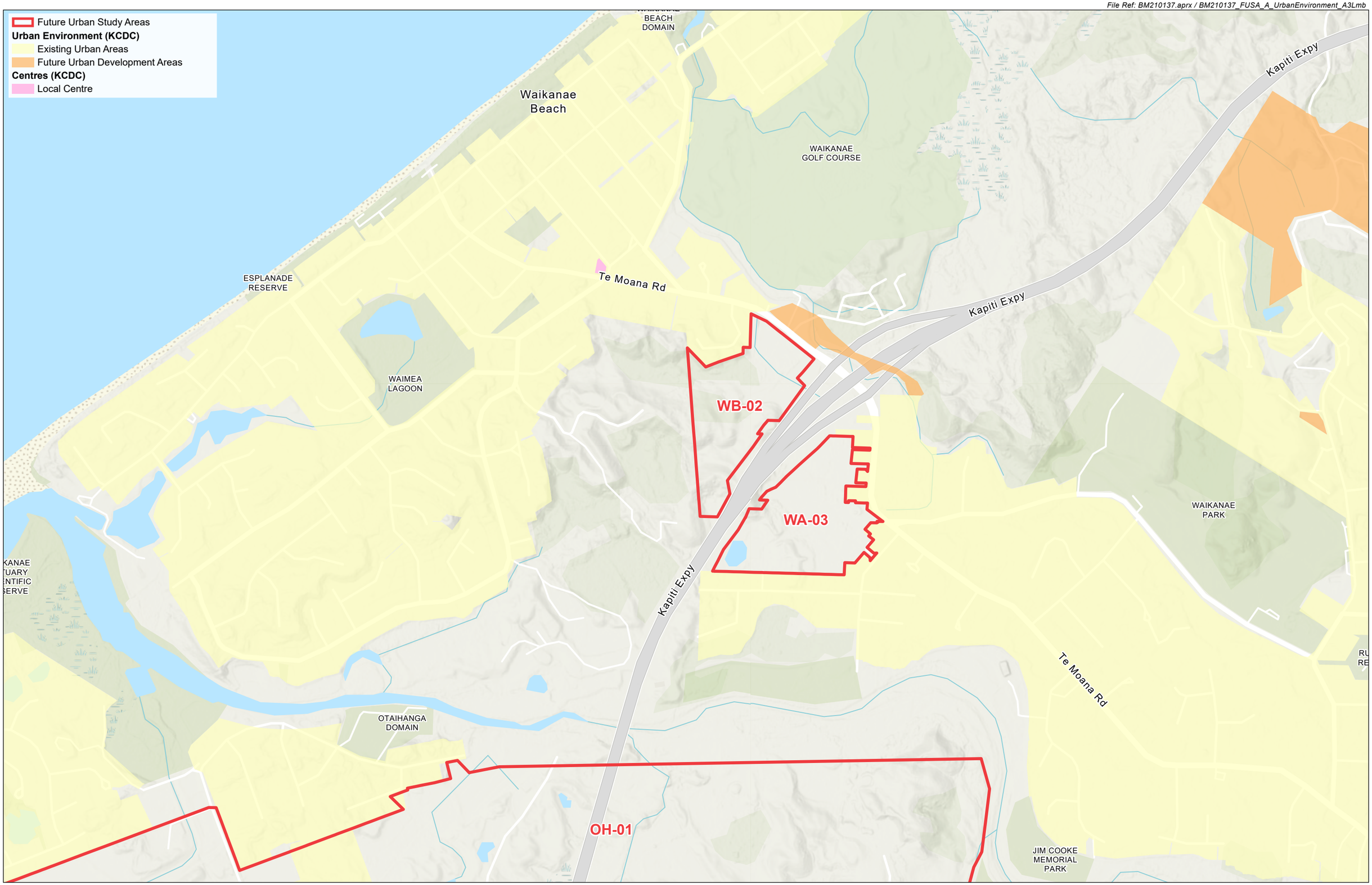

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Waikanae West

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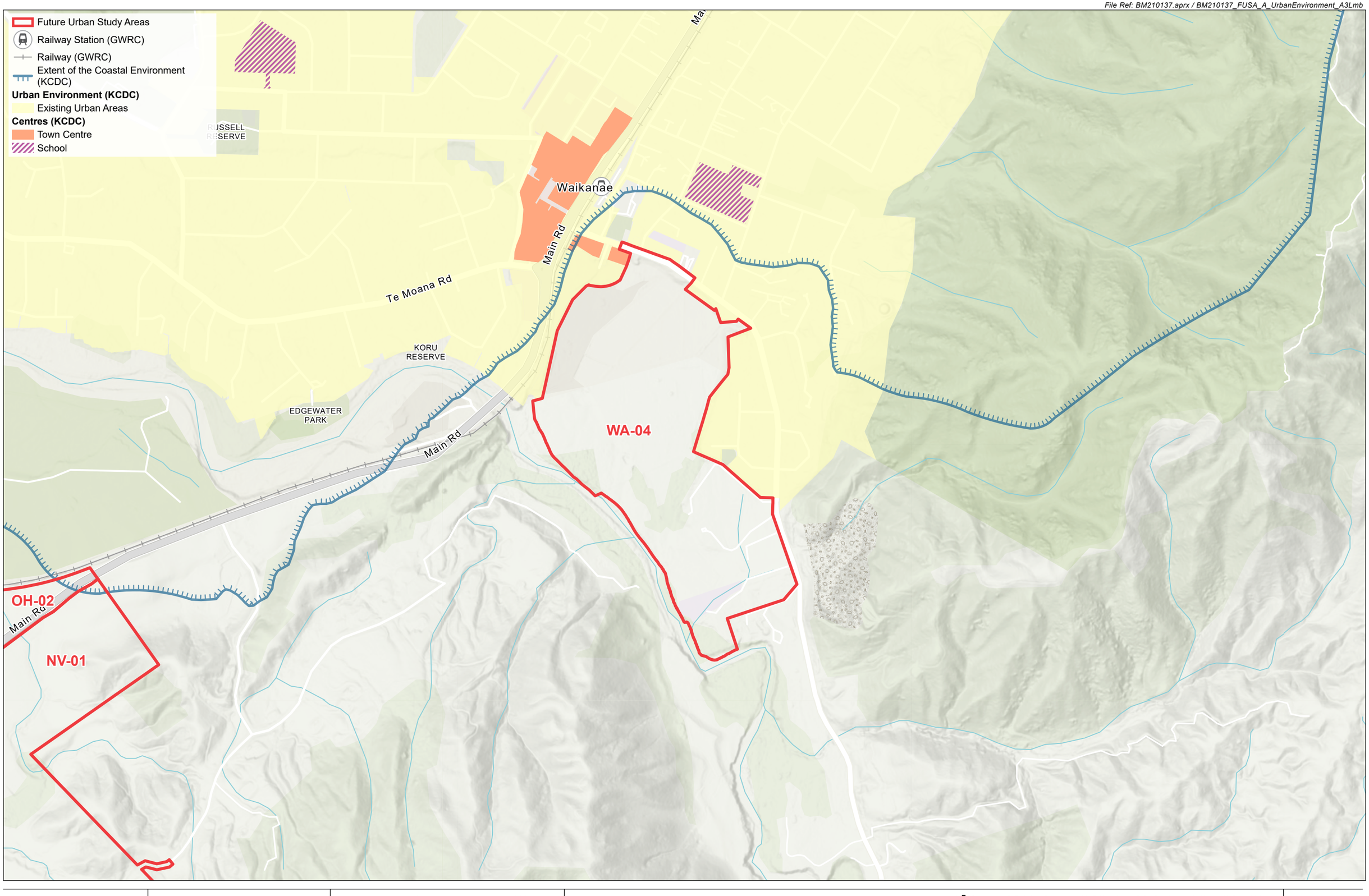

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Waikanae East

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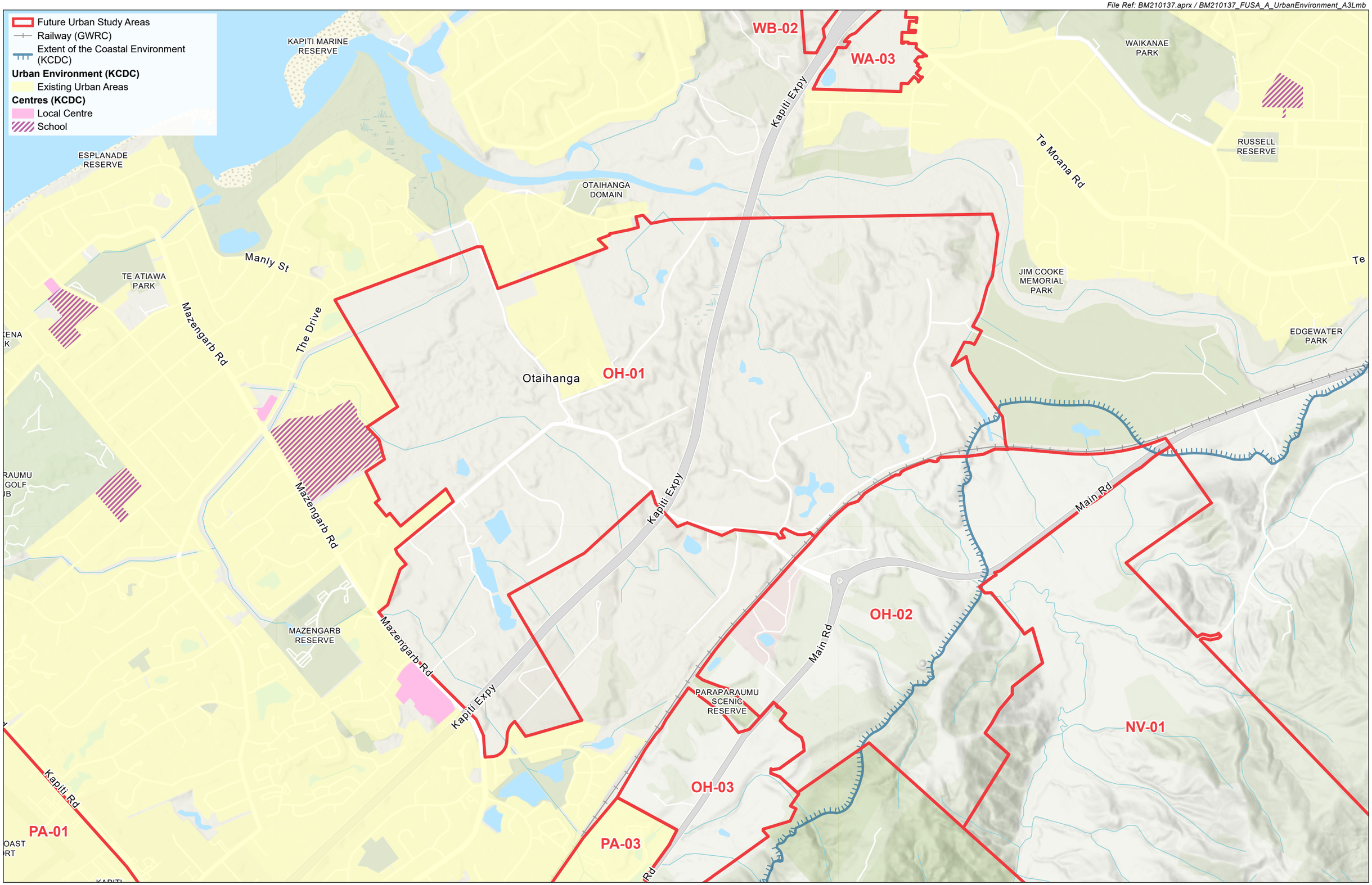

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Otaihanga

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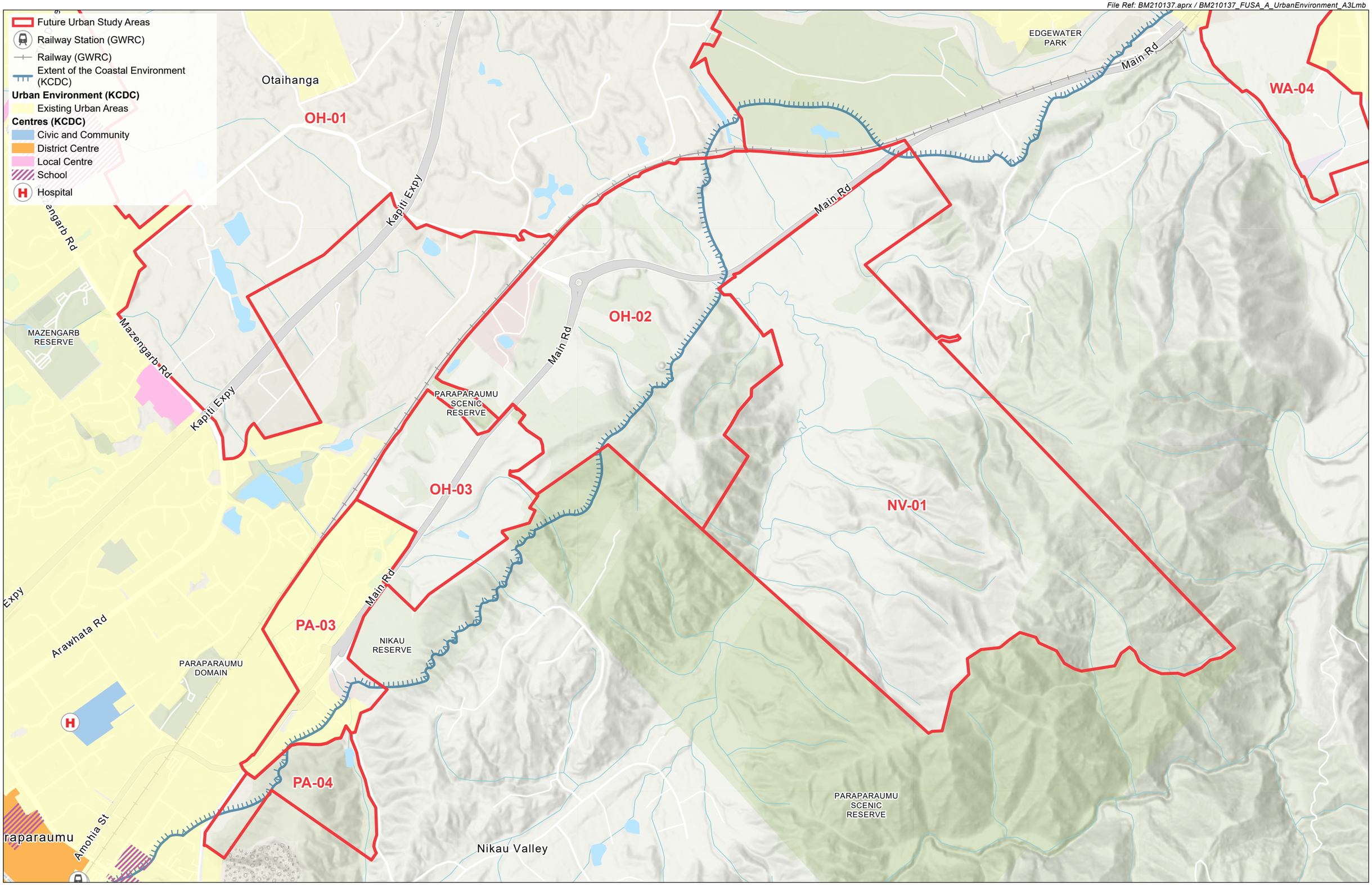

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Otaihanga South-east

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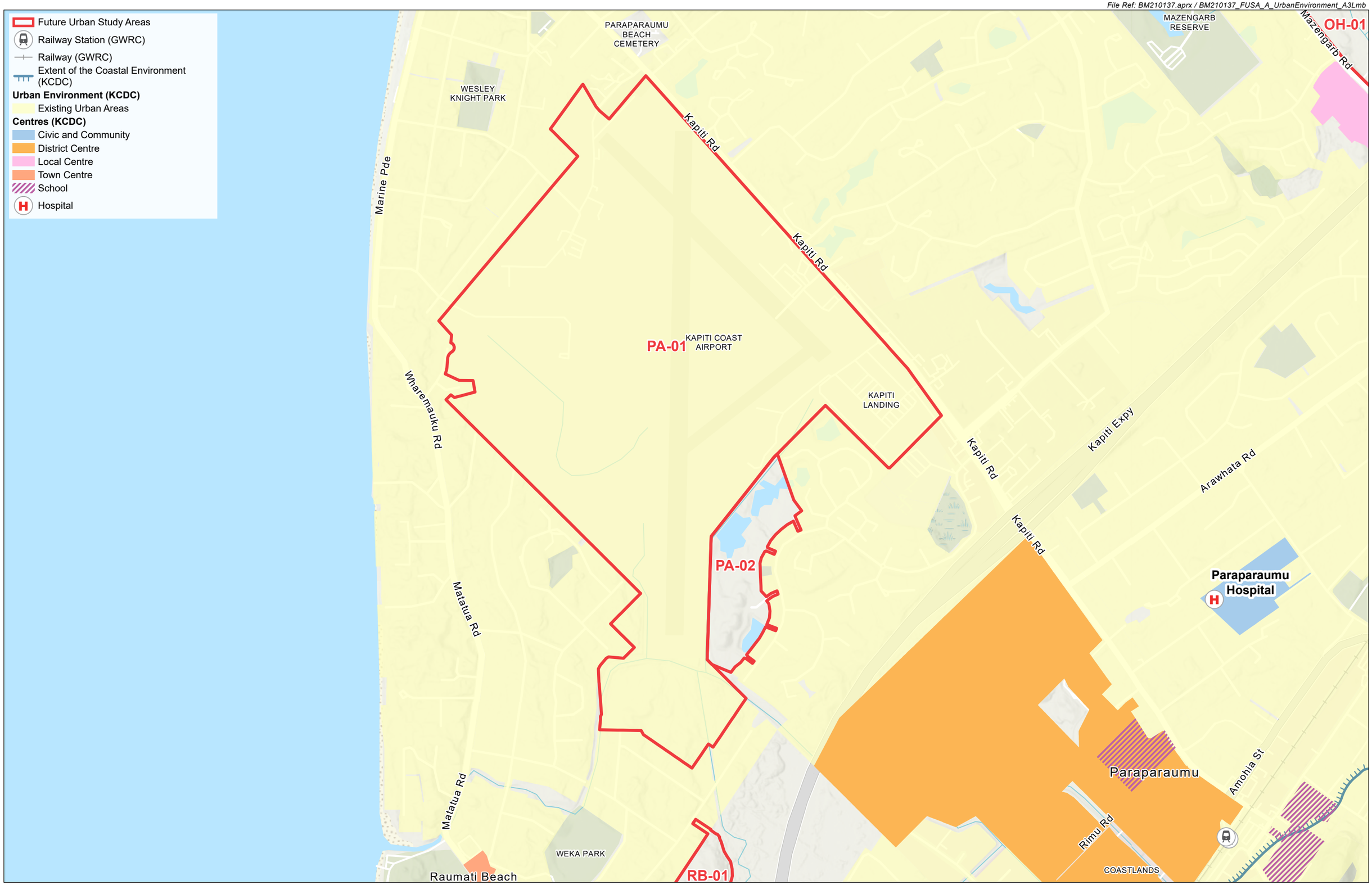

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Paraparaumu Central

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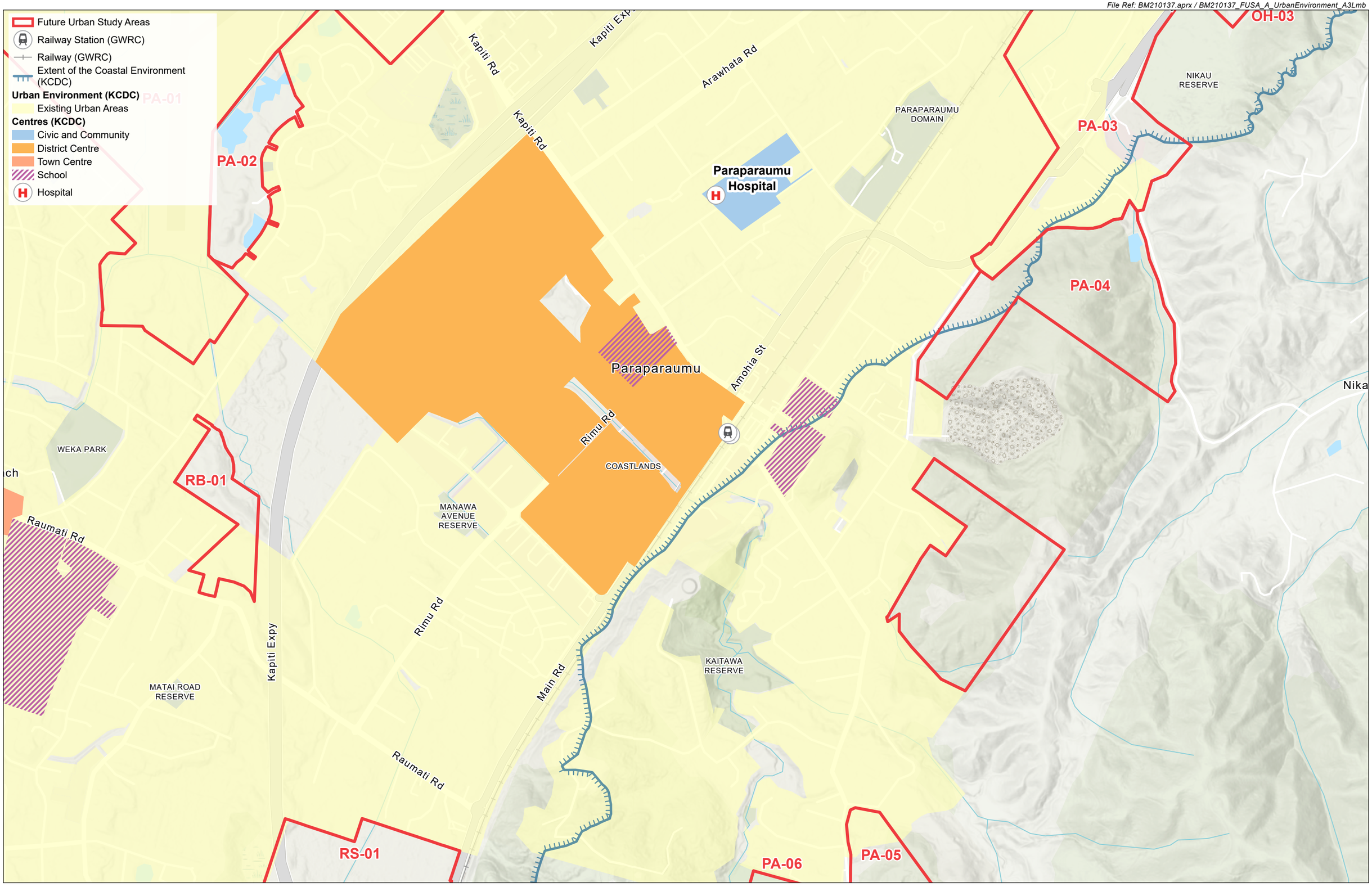

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Paraparaumu East

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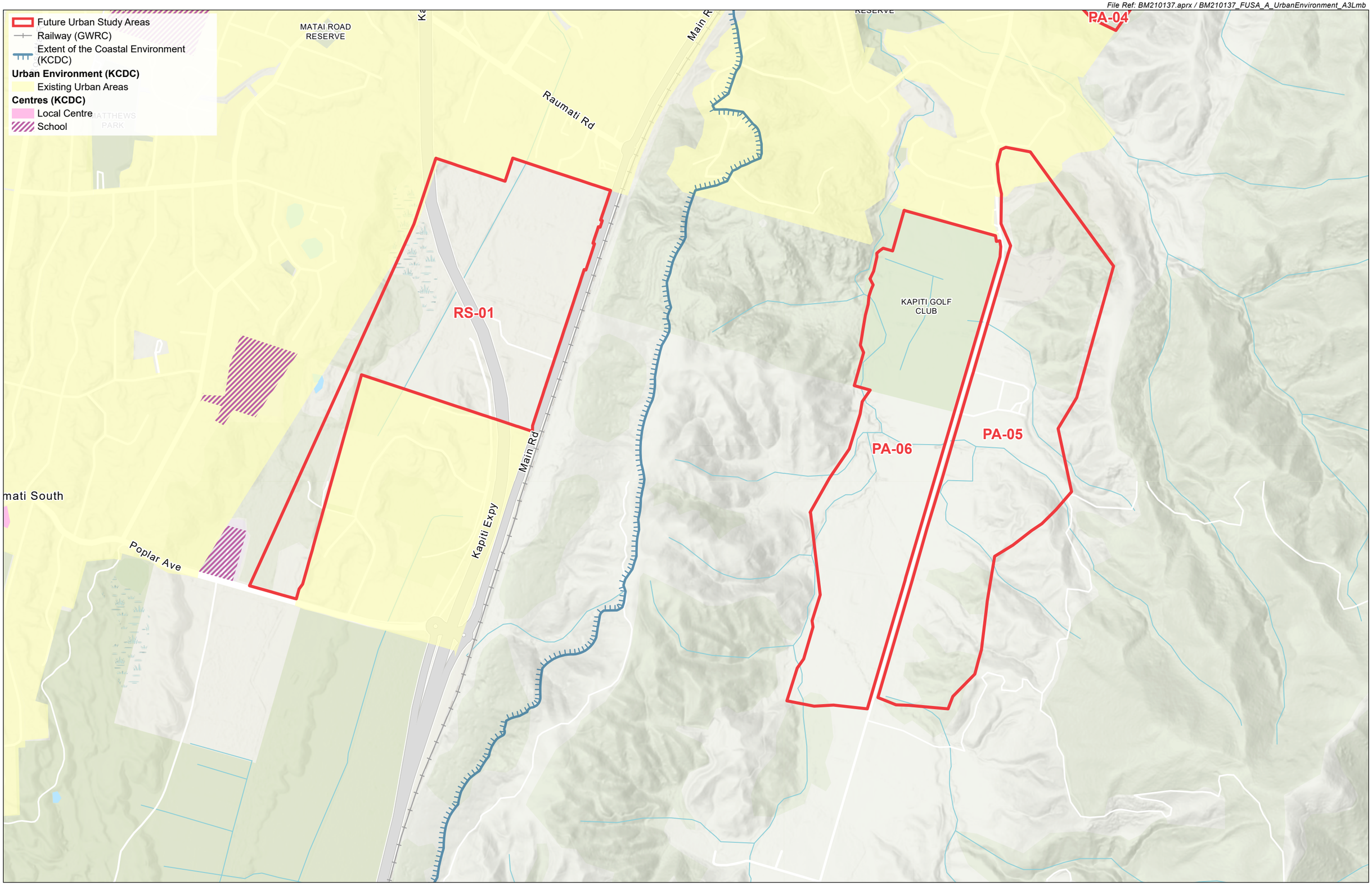

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Paraparaumu South

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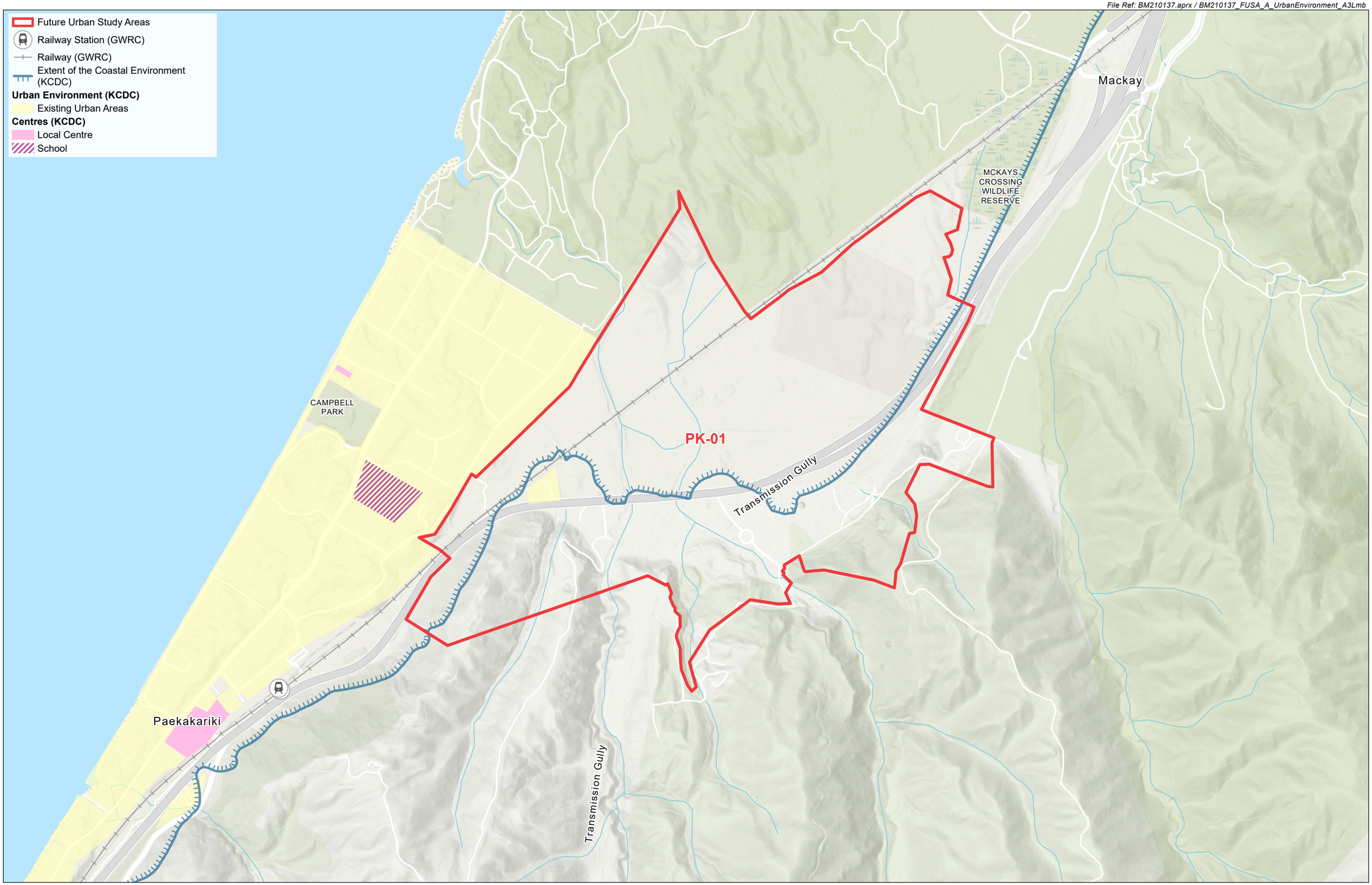

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Environment

Future Urban Study: Paekakariki East

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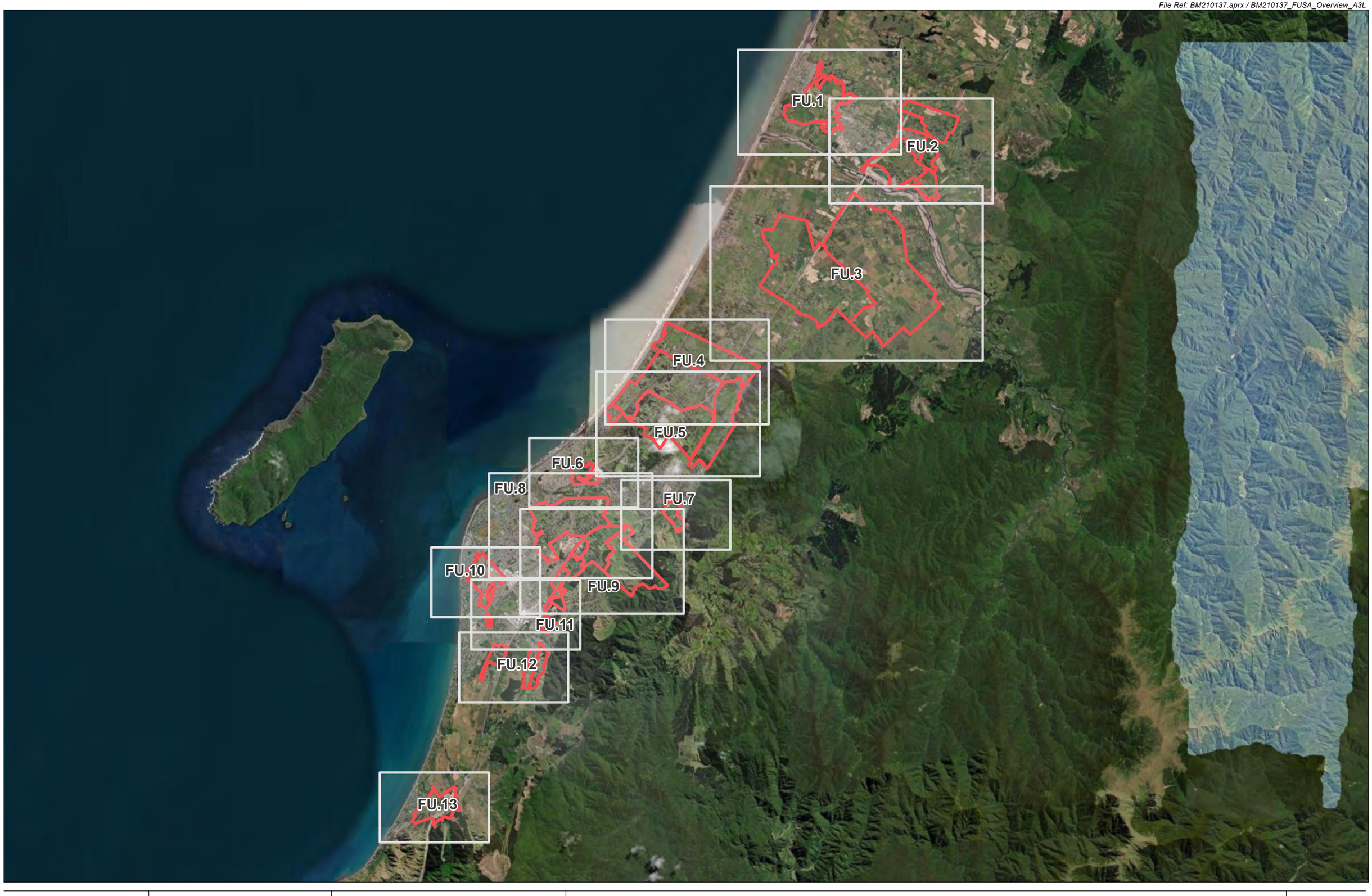
FU.13.A

Future Urban Study Area
Spatial Influences and Constraints
Mapping

Urban Function



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Projection: NZGD 2000 New Zealand Transverse Mercator

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Map Index

Future Urban Study Areas

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Future Urban Study Area Mapbook

Date: 15 July 2021 | Revision: 0

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

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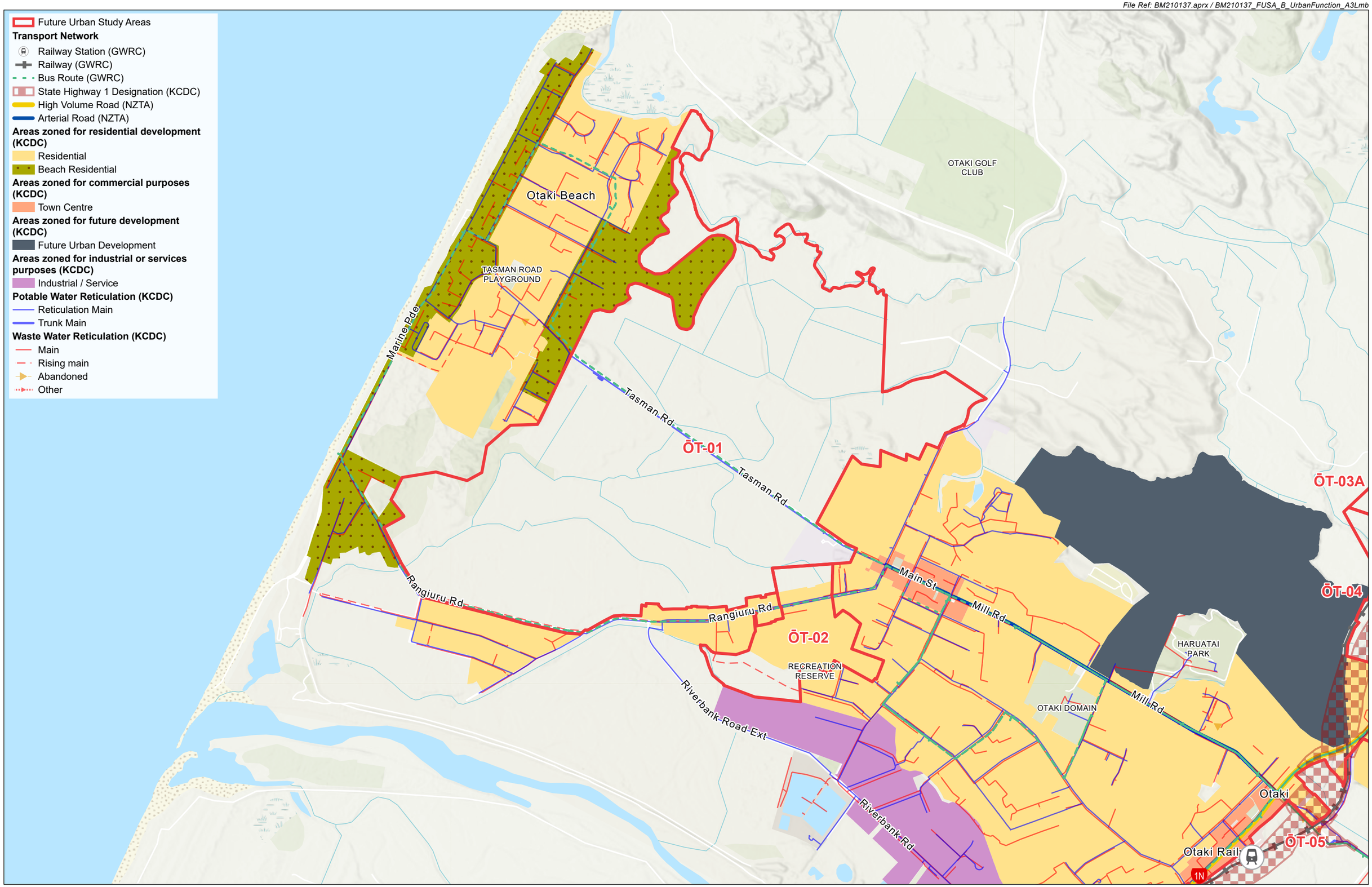

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KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Future Urban Study: Ōtaki West

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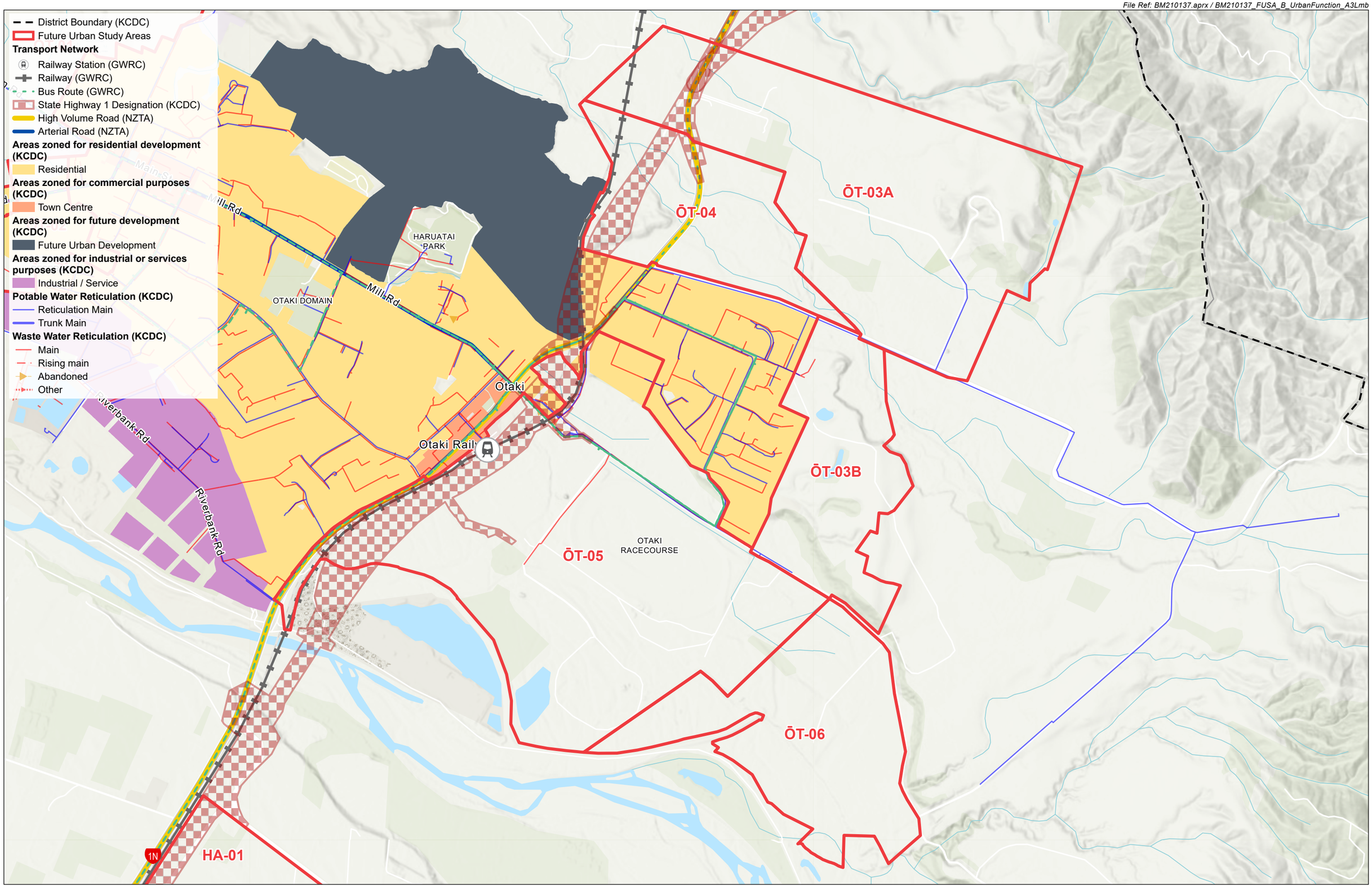

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Future Urban Study: Ōtaki East

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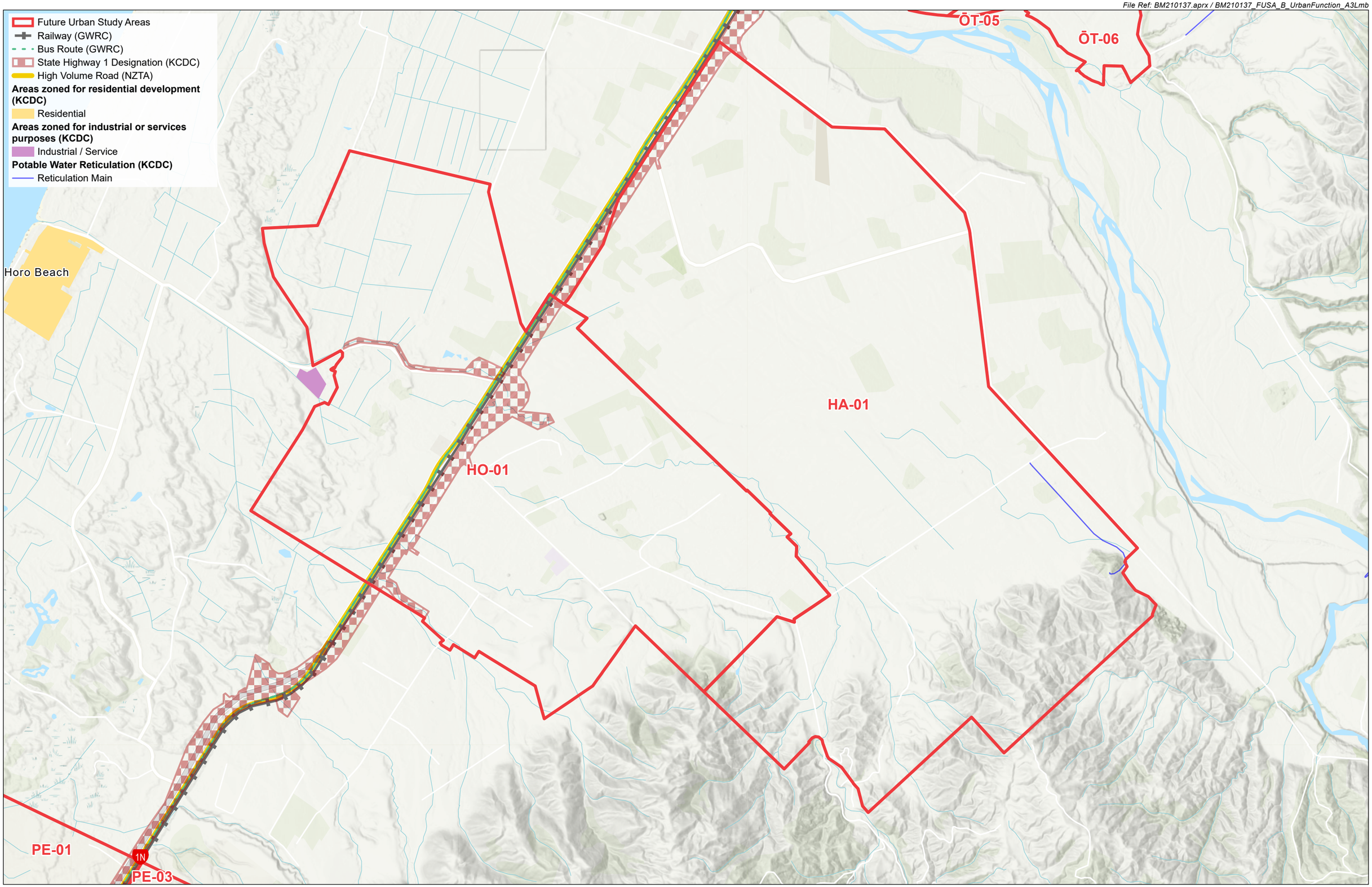

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

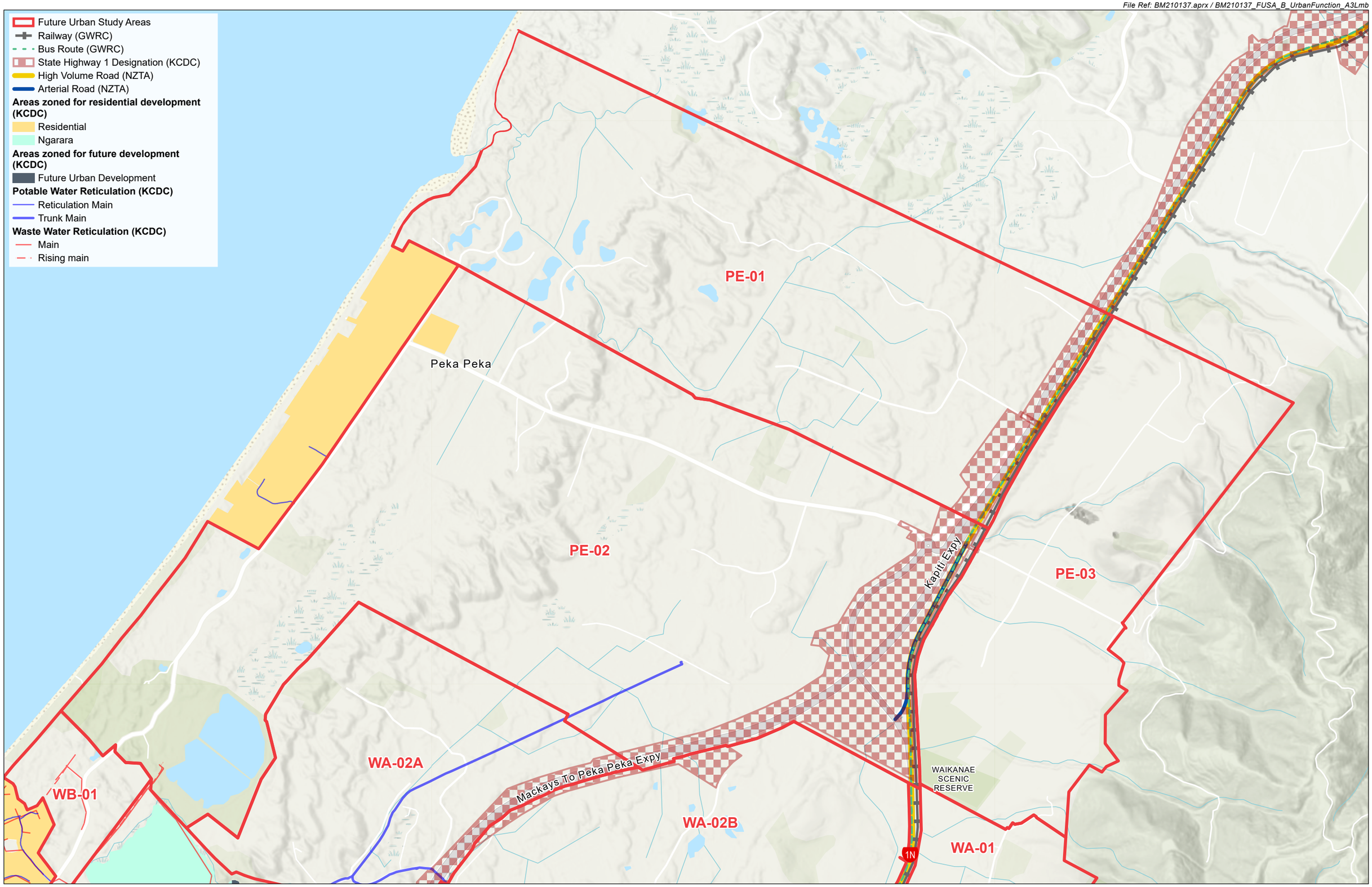
Future Urban Study: Te Horo/Hautere

Date: 30 July 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.3.B



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

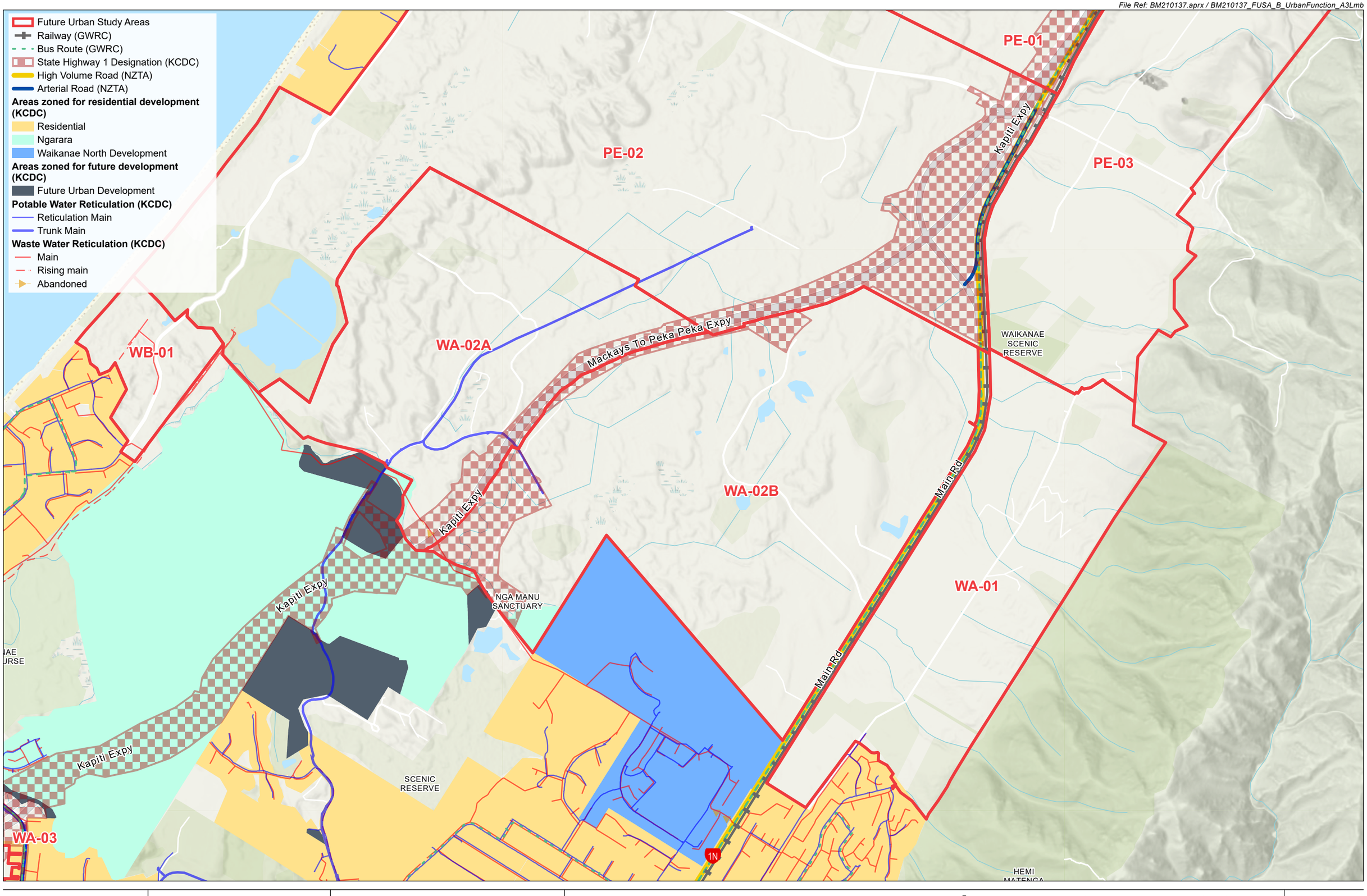
Future Urban Study: Peka Peka

Date: 30 July 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.4.B



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

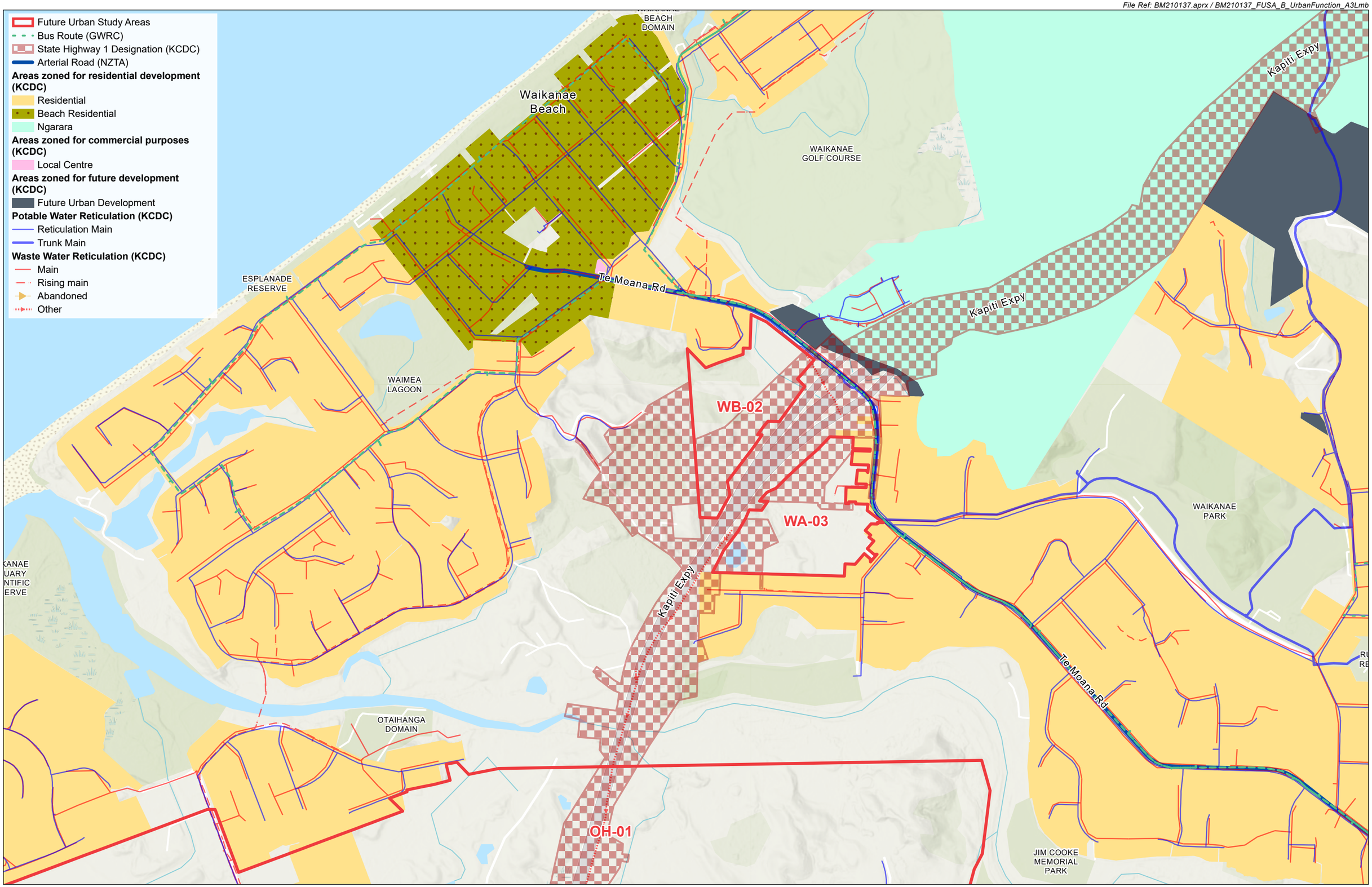
Future Urban Study: Waikanae North

Date: 30 July 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.5.B



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

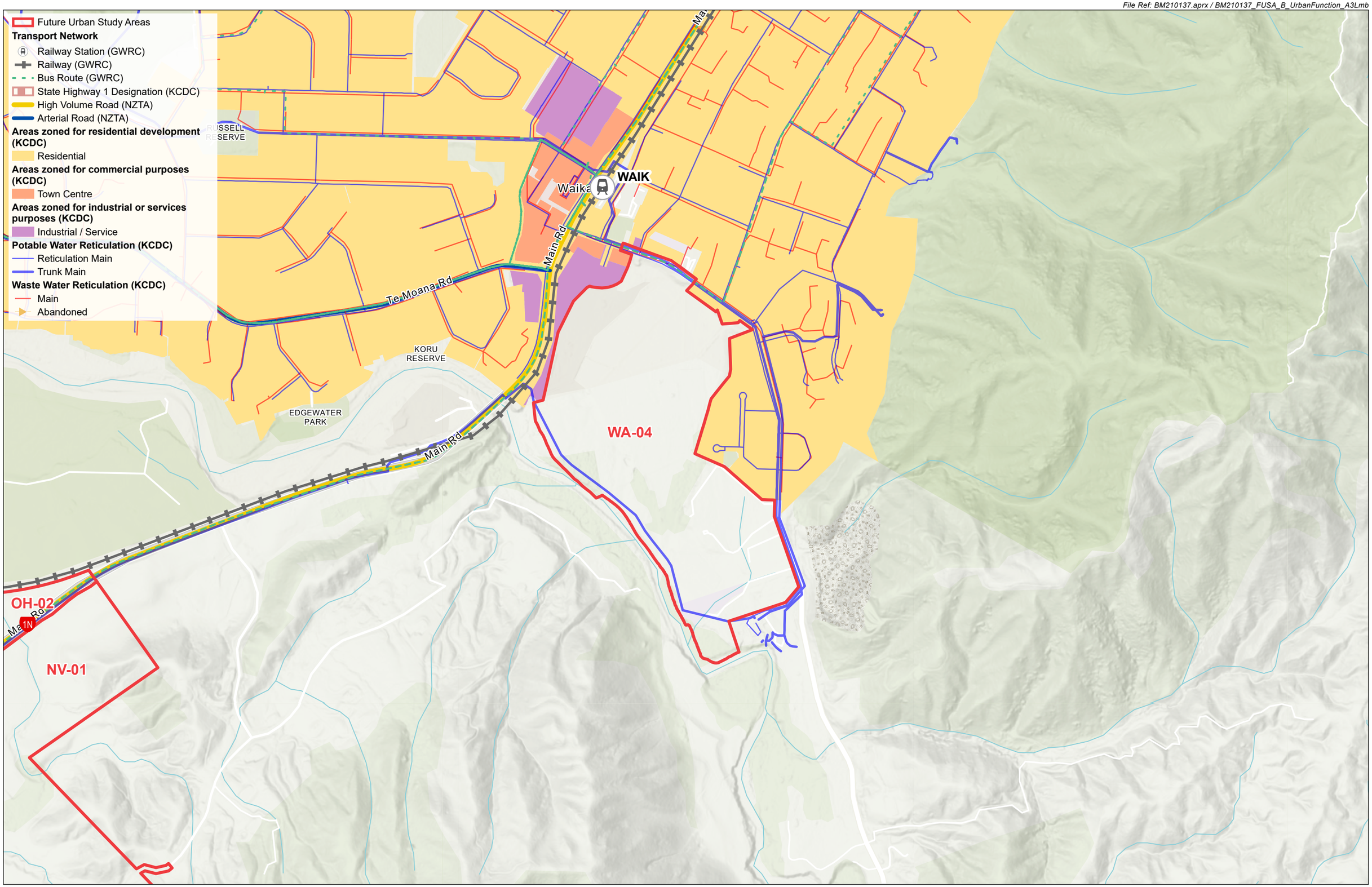
Future Urban Study: Waikanae West

Date: 30 July 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.6.B



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

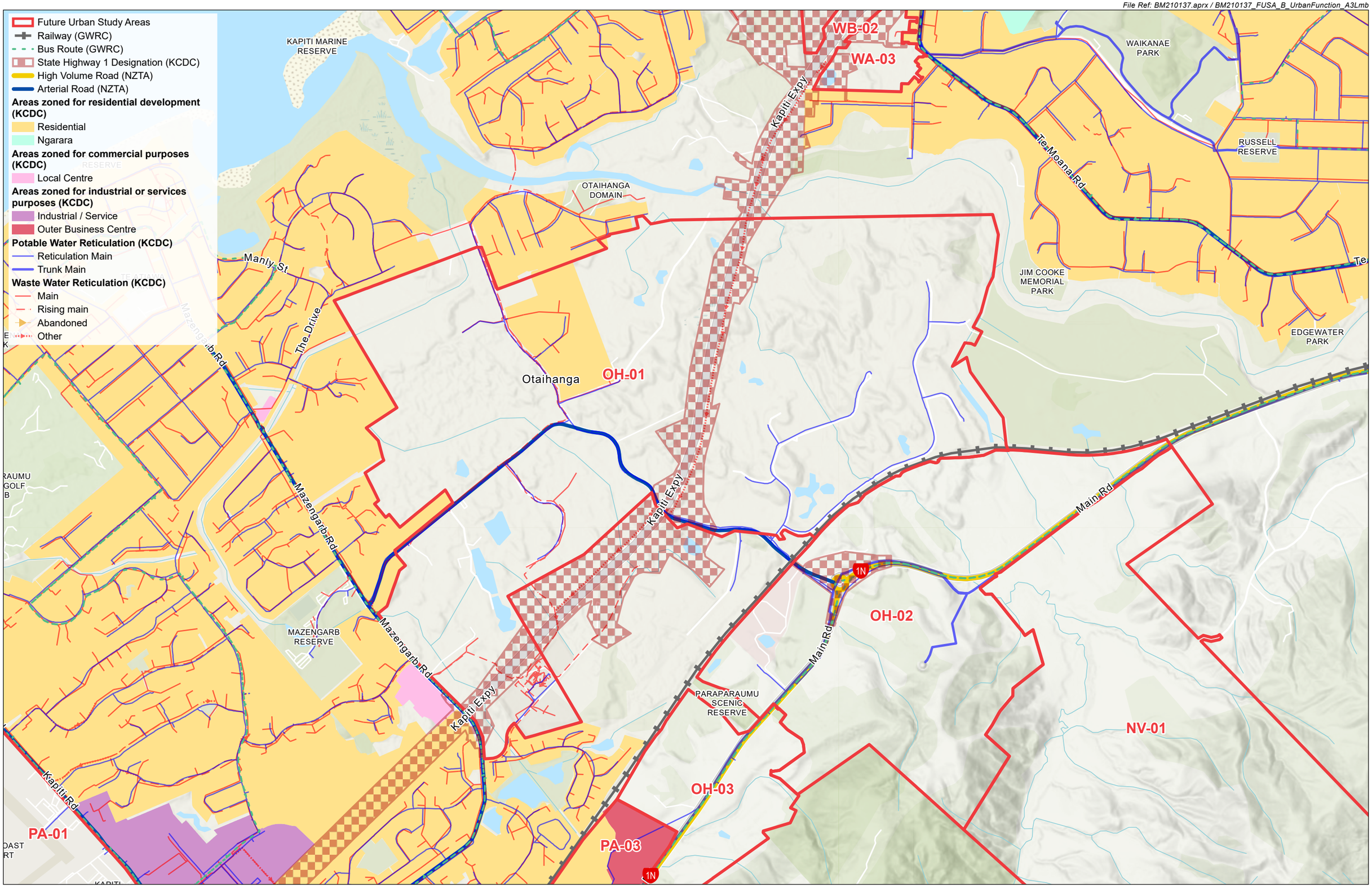
Future Urban Study: Waikanae East

Date: 30 July 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.7.B



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

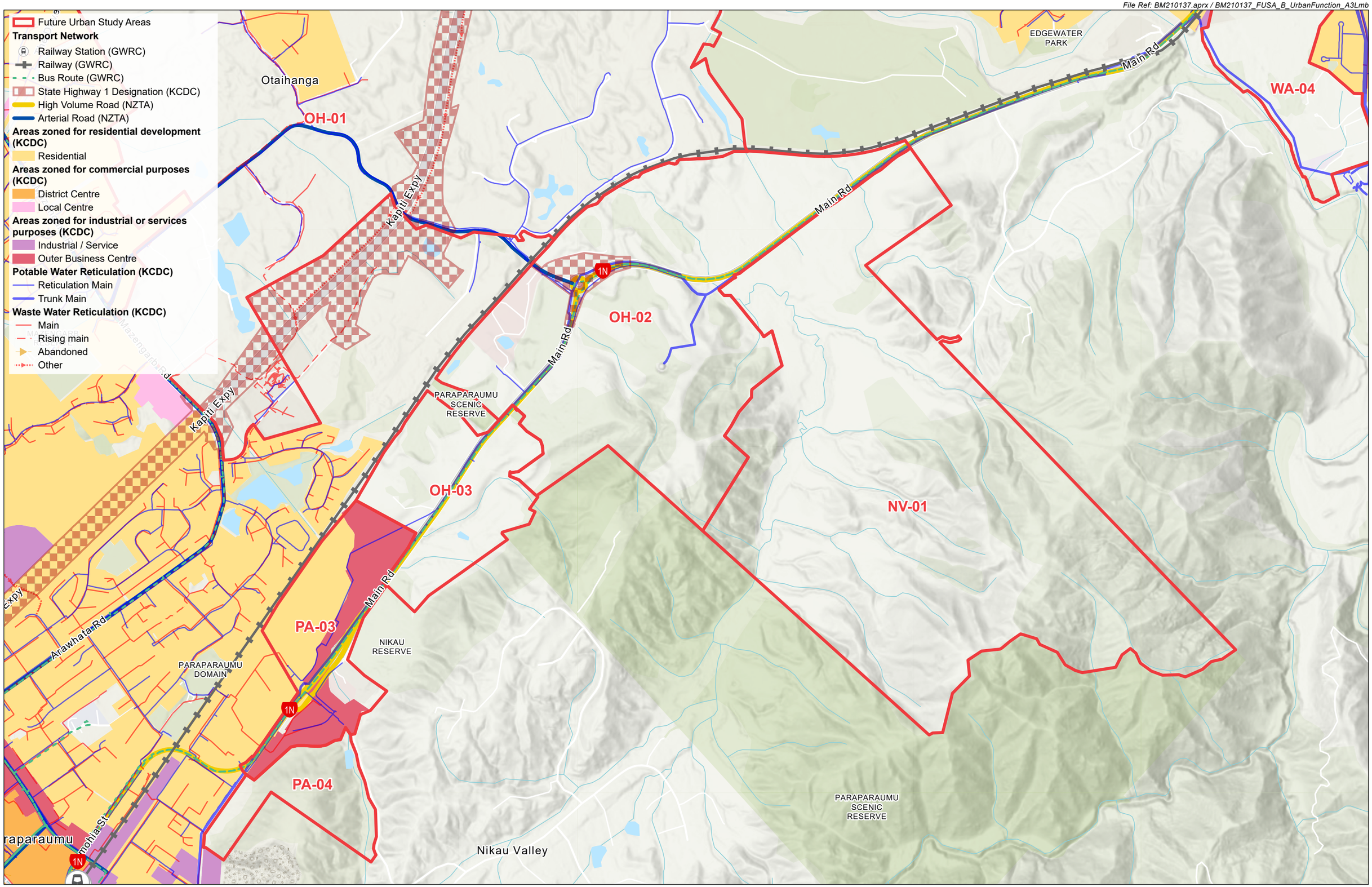
Future Urban Study: Otaihanga

Date: 30 July 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.8.B



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

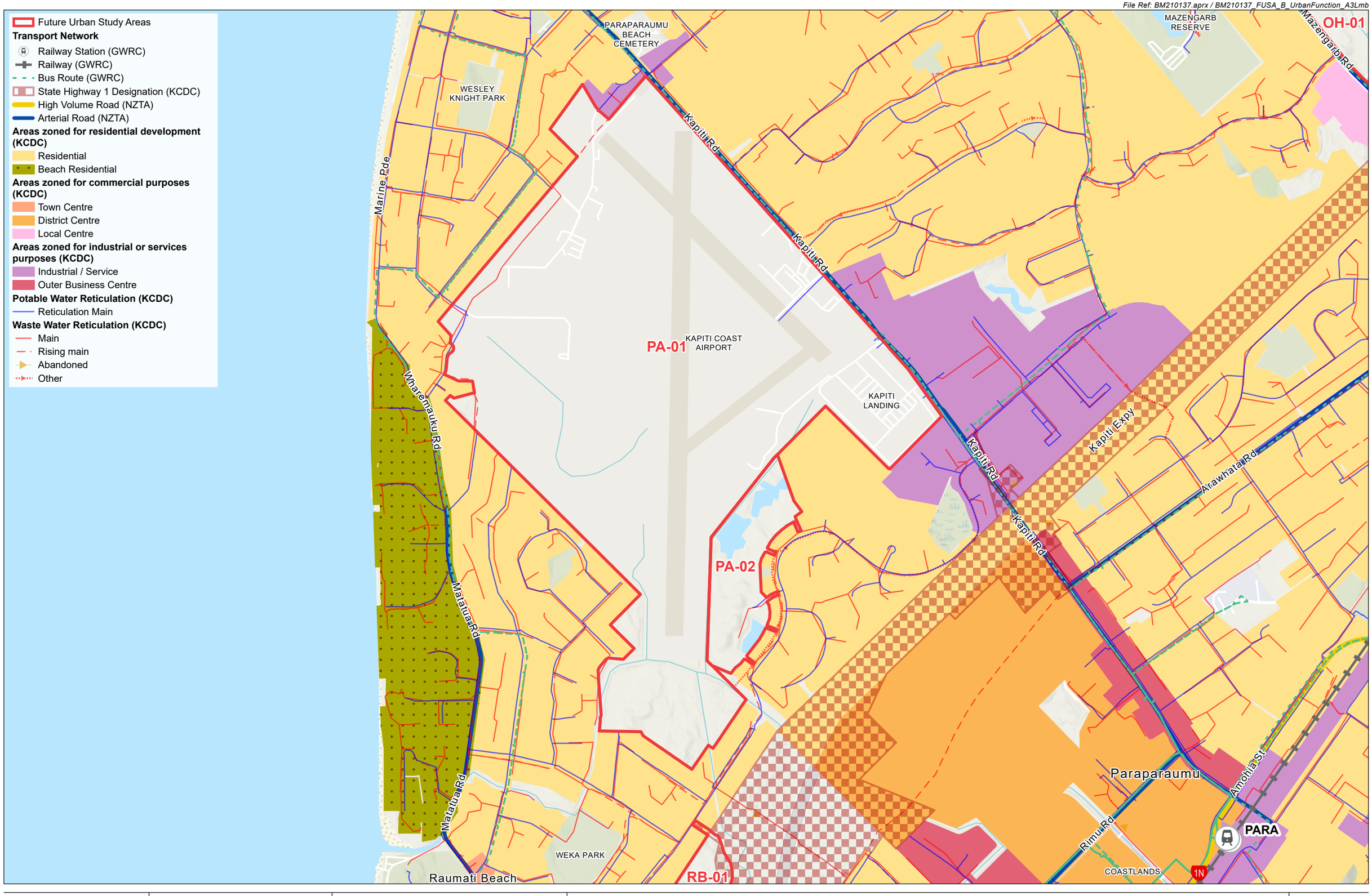
Future Urban Study: Otaihanga South-east

Date: 30 July 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.9.B



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

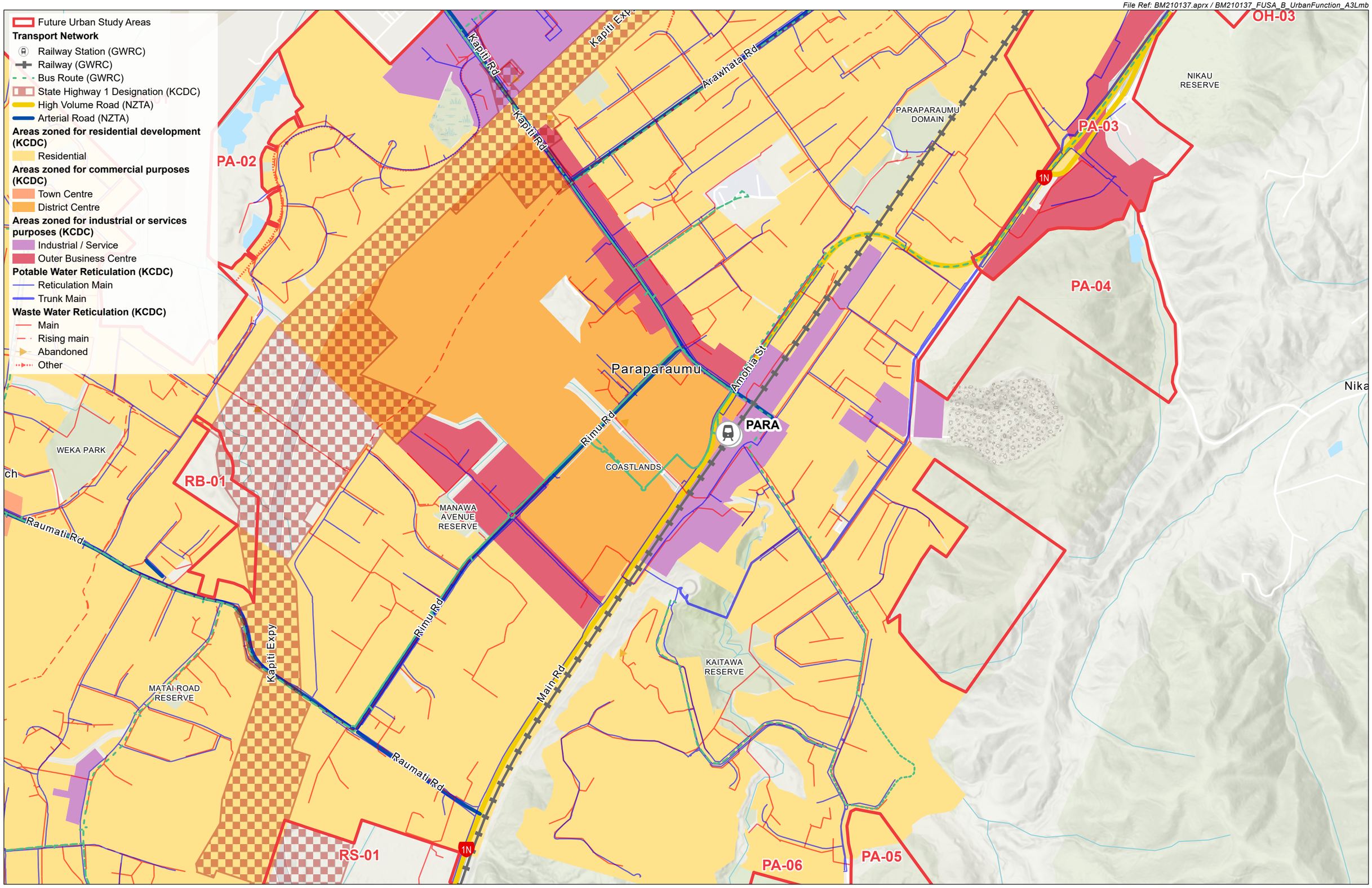
Future Urban Study: Paraparaumu Central

Date: 30 July 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.10.B



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Future Urban Study: Paraparaumu East

Date: 30 July 2021 | Revision: 0

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

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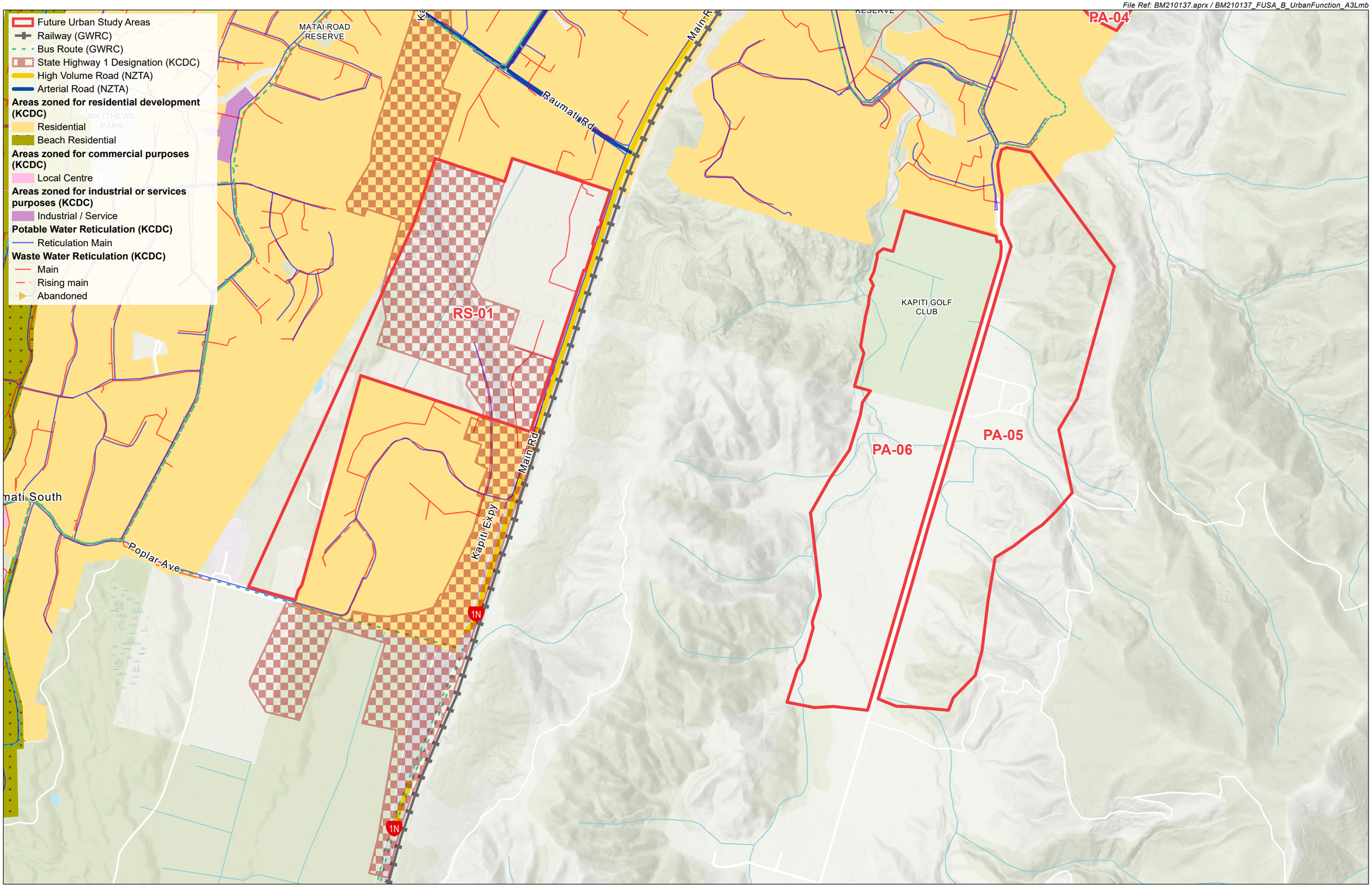

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Future Urban Study: Paraparaumu South

Date: 30 July 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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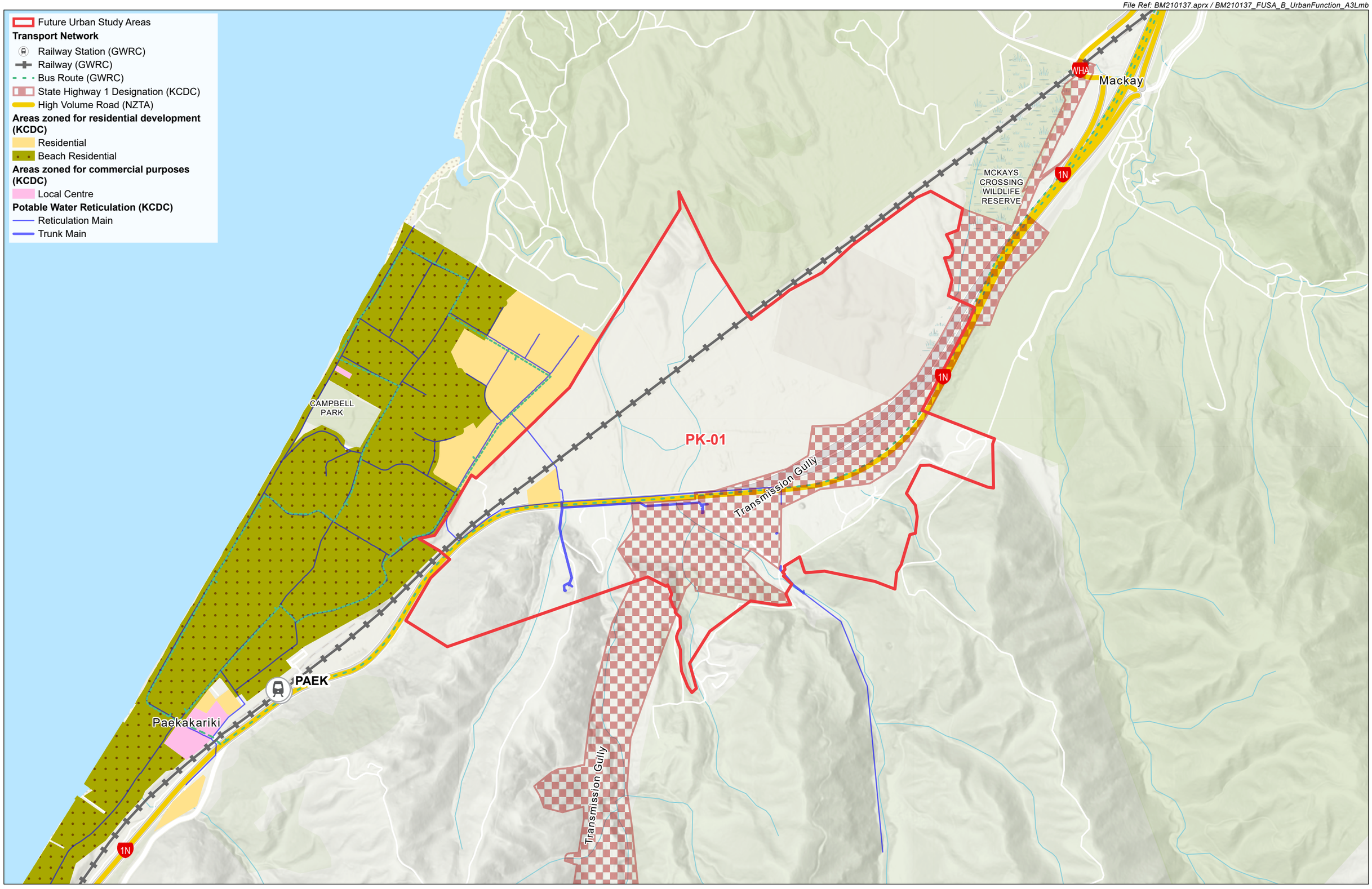

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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Urban Function

Future Urban Study: Paekakariki East

Date: 30 July 2021 | Revision: 0

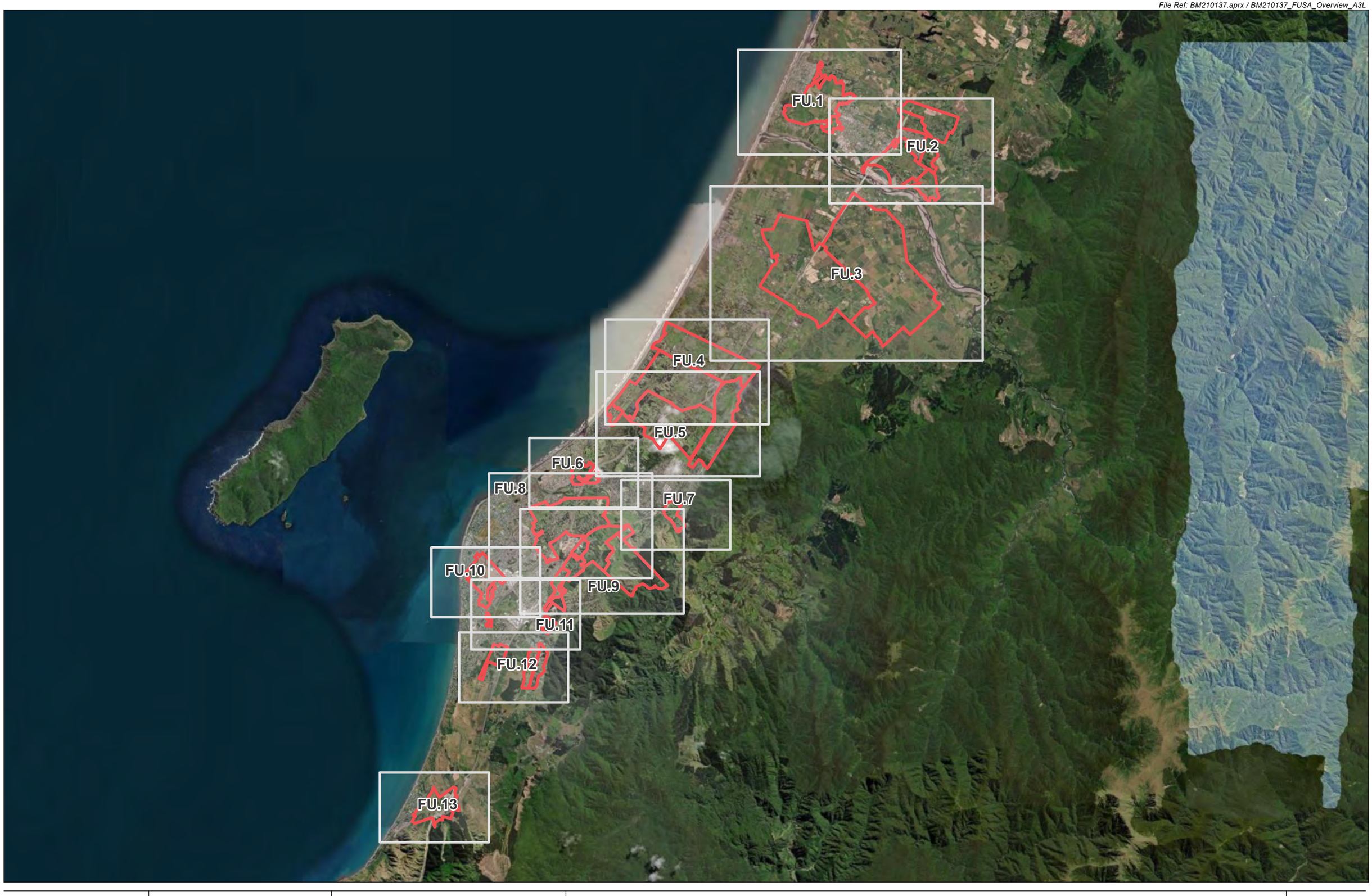
Plan prepared for KCDC by Boffa Miskell Limited

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

FU.13.B

Future Urban Study Area
Spatial Influences and Constraints Mapping

Natural Environment and Landscape



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Data Sources: KCDC, BML, Earthstar Geographics

Projection: NZGD 2000 New Zealand Transverse Mercator

LEGEND

Map Index

Future Urban Study Areas

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Future Urban Study Area Mapbook

Date: 15 July 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FUSA

- Future Urban Study Areas
- Railway Station (GWRC)
- Railway (GWRC)
- Coastal Environment (KCDC)

Heritage

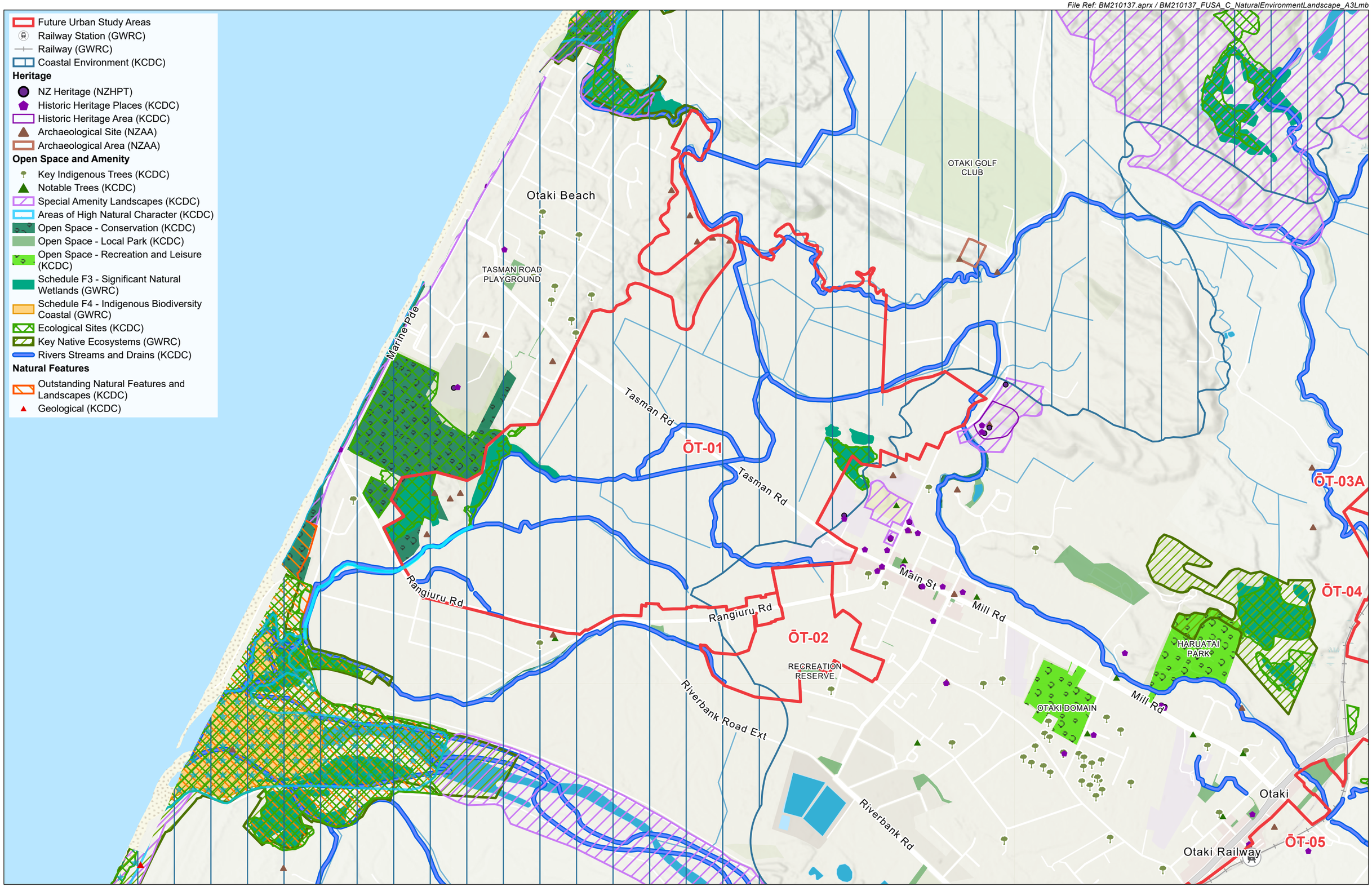
- NZ Heritage (NZHPT)
- Historic Heritage Places (KCDC)
- Historic Heritage Area (KCDC)
- Archaeological Site (NZAA)
- Archaeological Area (NZAA)

Open Space and Amenity

- Key Indigenous Trees (KCDC)
- Notable Trees (KCDC)
- Special Amenity Landscapes (KCDC)
- Areas of High Natural Character (KCDC)
- Open Space - Conservation (KCDC)
- Open Space - Local Park (KCDC)
- Open Space - Recreation and Leisure (KCDC)
- Schedule F3 - Significant Natural Wetlands (GWRC)
- Schedule F4 - Indigenous Biodiversity Coastal (GWRC)
- Ecological Sites (KCDC)
- Key Native Ecosystems (GWRC)
- Rivers Streams and Drains (KCDC)

Natural Features

- Outstanding Natural Features and Landscapes (KCDC)
- Geological (KCDC)



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape

Future Urban Study: Ōtaki West

Date: 24 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.1.C

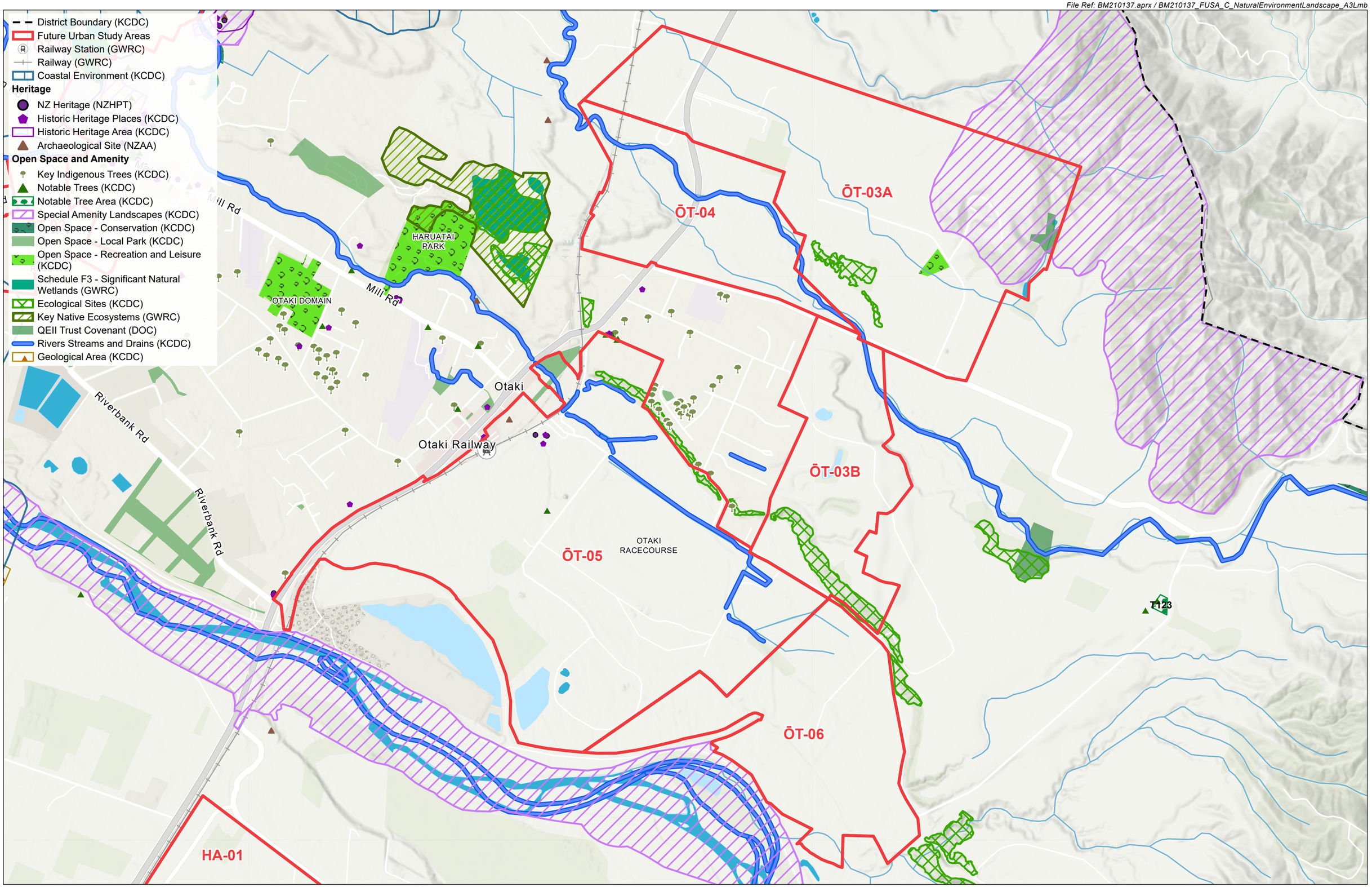
- District Boundary (KCDC)
- Future Urban Study Areas
- Railway Station (GWRC)
- Railway (GWRC)
- Coastal Environment (KCDC)

Heritage

- NZ Heritage (NZHPT)
- Historic Heritage Places (KCDC)
- Historic Heritage Area (KCDC)
- Archaeological Site (NZAA)

Open Space and Amenity

- Key Indigenous Trees (KCDC)
- Notable Trees (KCDC)
- Notable Tree Area (KCDC)
- Special Amenity Landscapes (KCDC)
- Open Space - Conservation (KCDC)
- Open Space - Local Park (KCDC)
- Open Space - Recreation and Leisure (KCDC)
- Schedule F3 - Significant Natural Wetlands (GWRC)
- Ecological Sites (KCDC)
- Key Native Ecosystems (GWRC)
- QEII Trust Covenant (DOC)
- Rivers Streams and Drains (KCDC)
- Geological Area (KCDC)



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

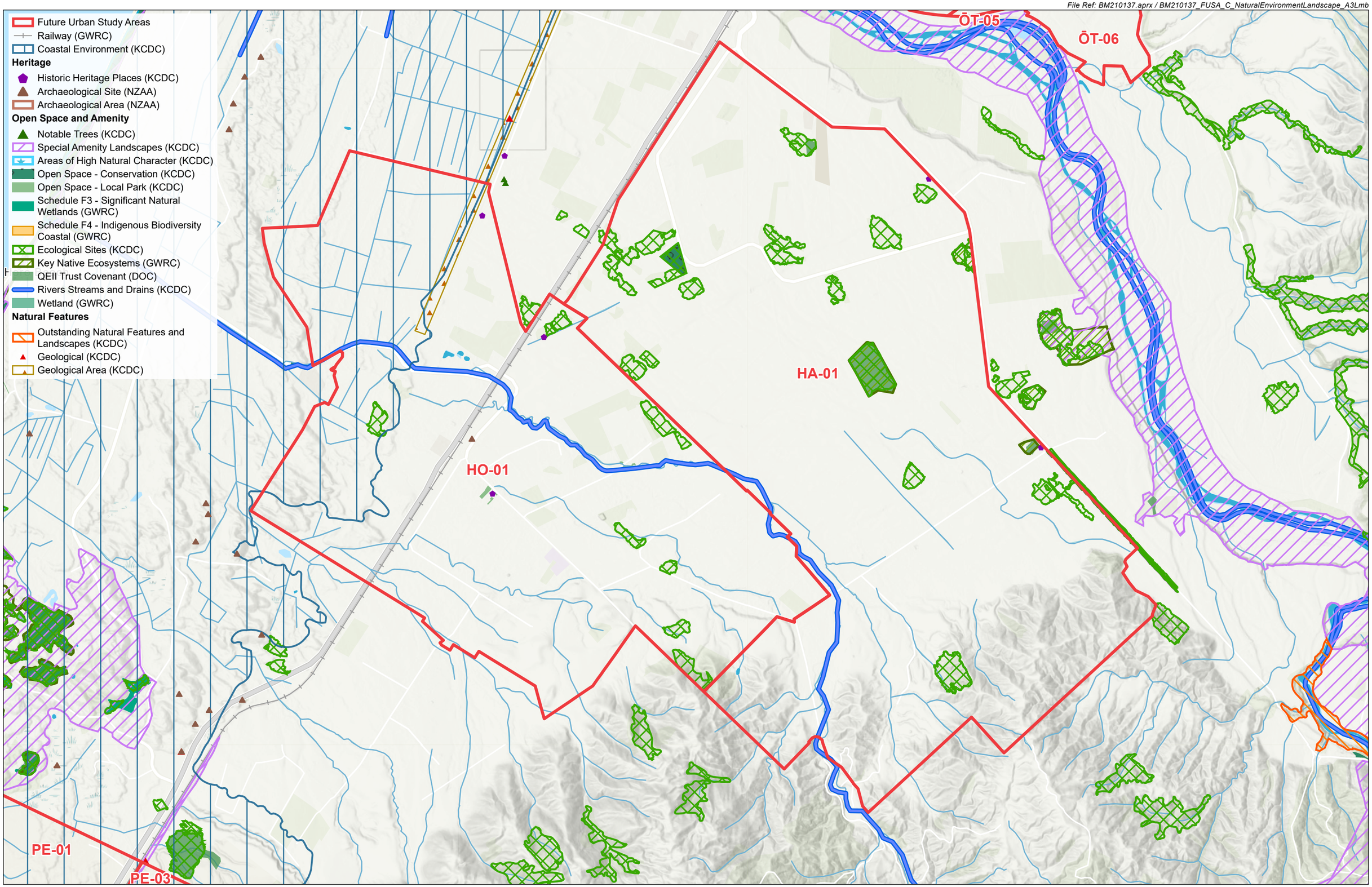
Natural Environment and Landscape
Future Urban Study: Ōtaki East

Date: 24 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.2.C



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

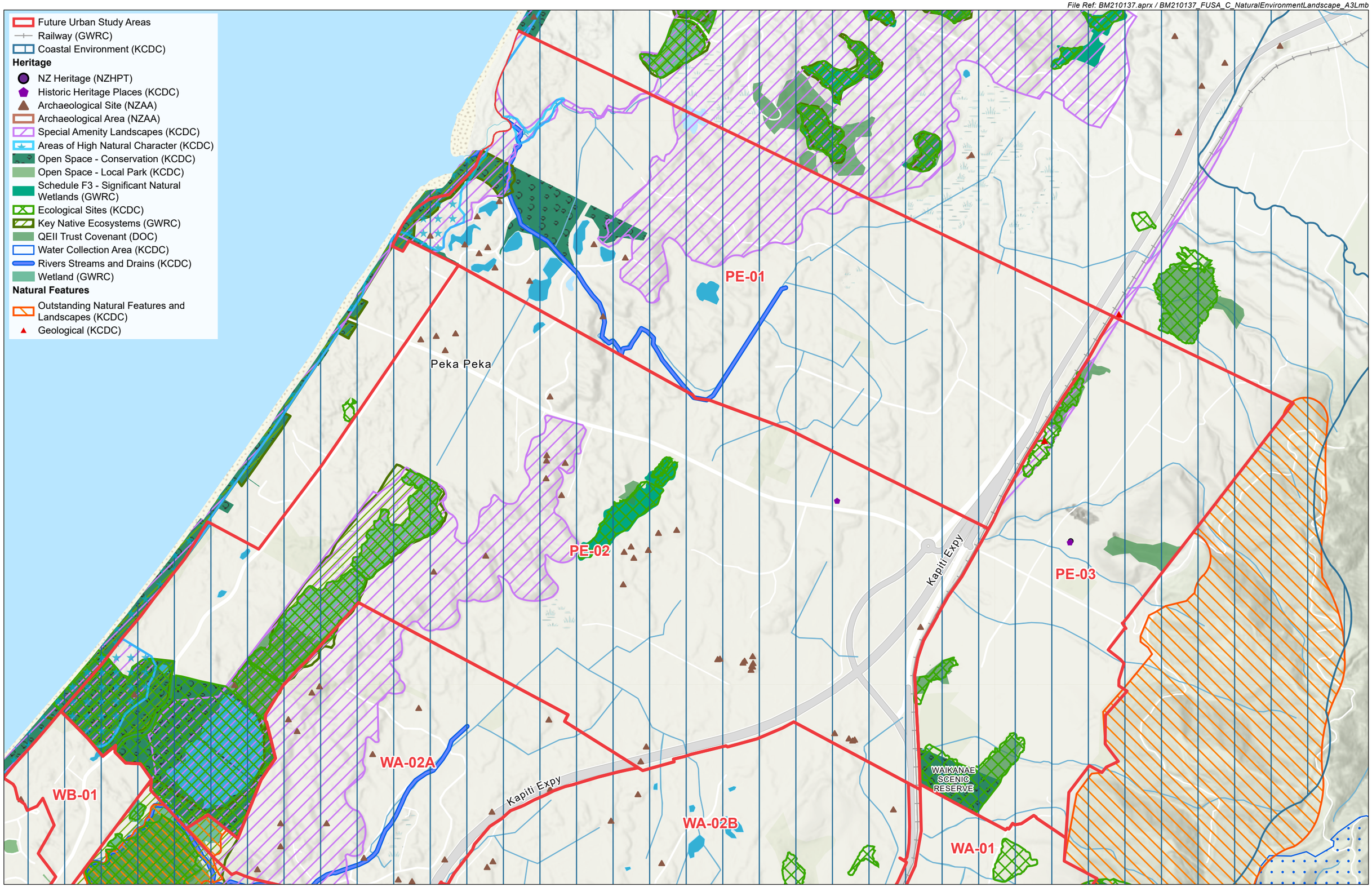
Natural Environment and Landscape
Future Urban Study: Te Horo/Hautere

Date: 24 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.3.C



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

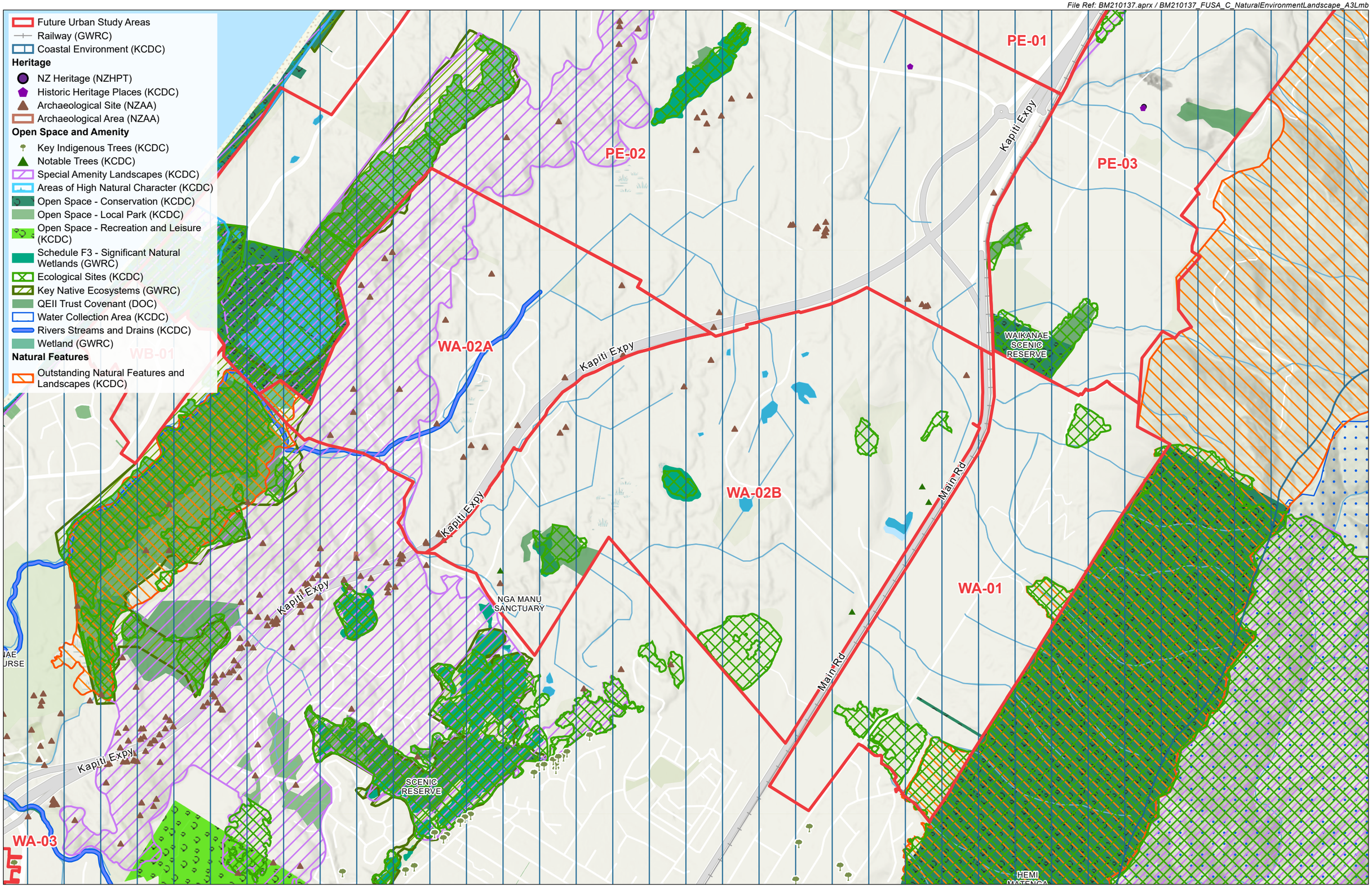
Natural Environment and Landscape
Future Urban Study: Peka Peka

Date: 24 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.4.C



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

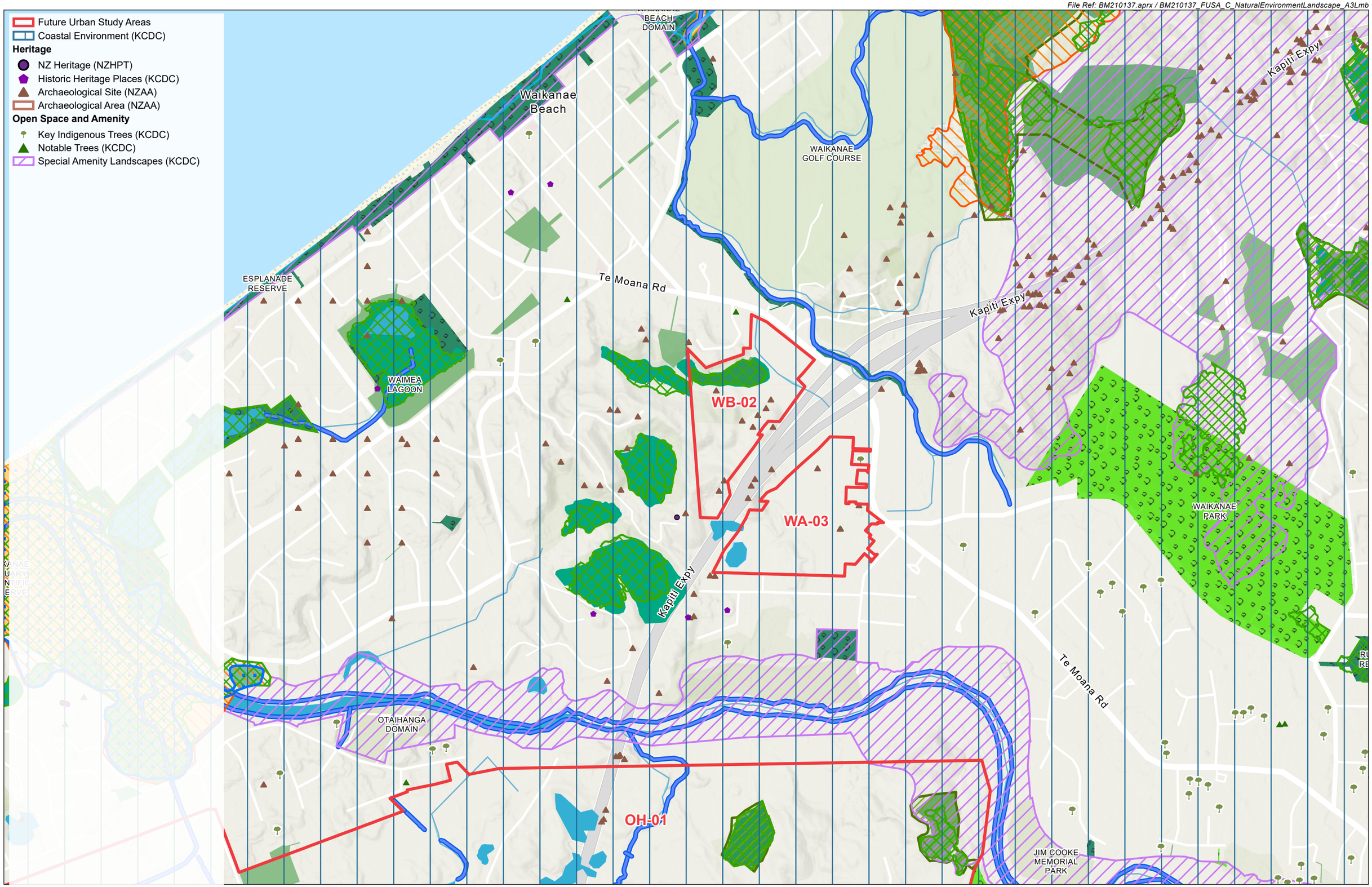
Natural Environment and Landscape
Future Urban Study: Waikanae North

Date: 24 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.5.C



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape

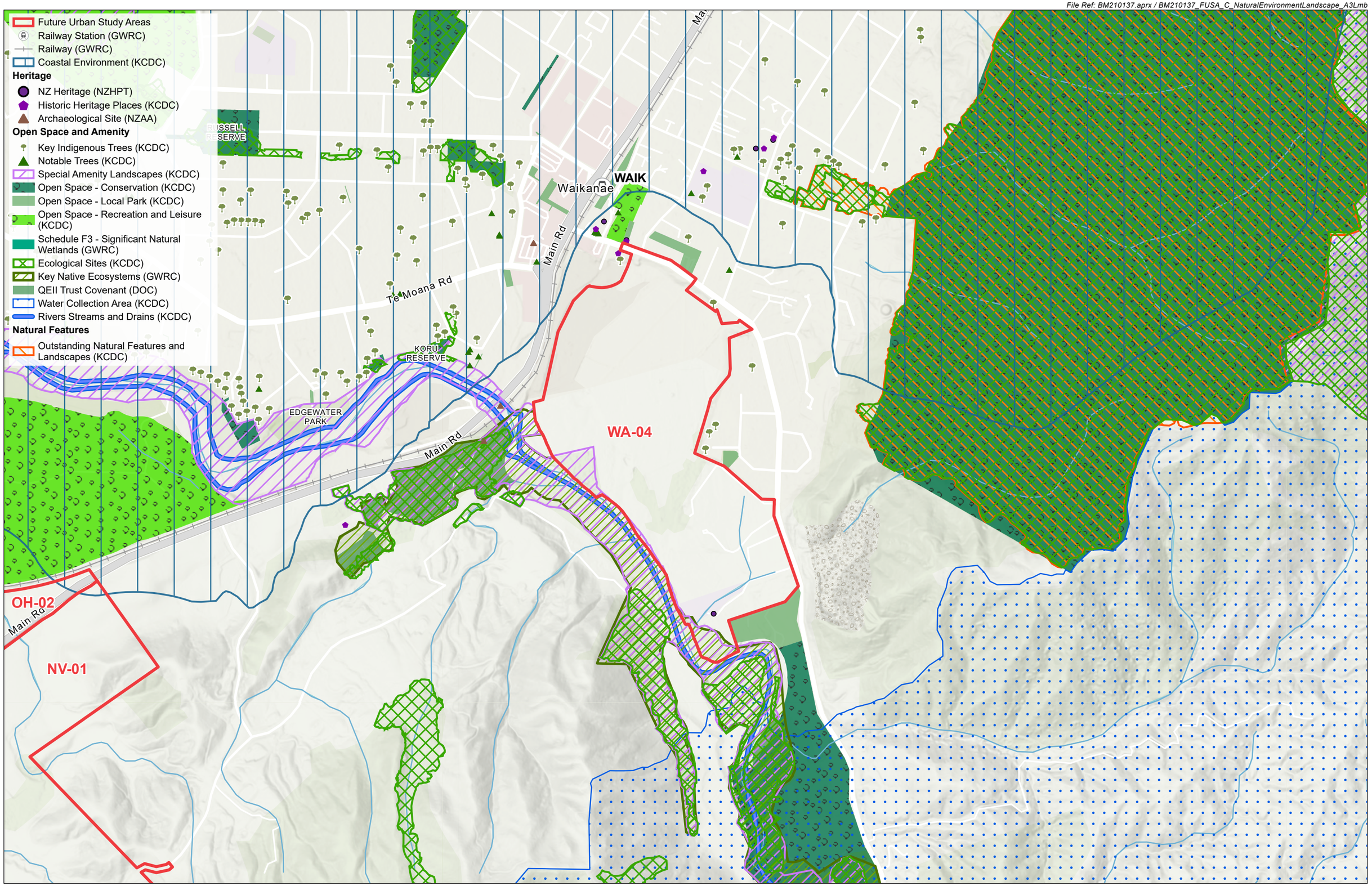
Future Urban Study: Waikanae West

Date: 24 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.6.C



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

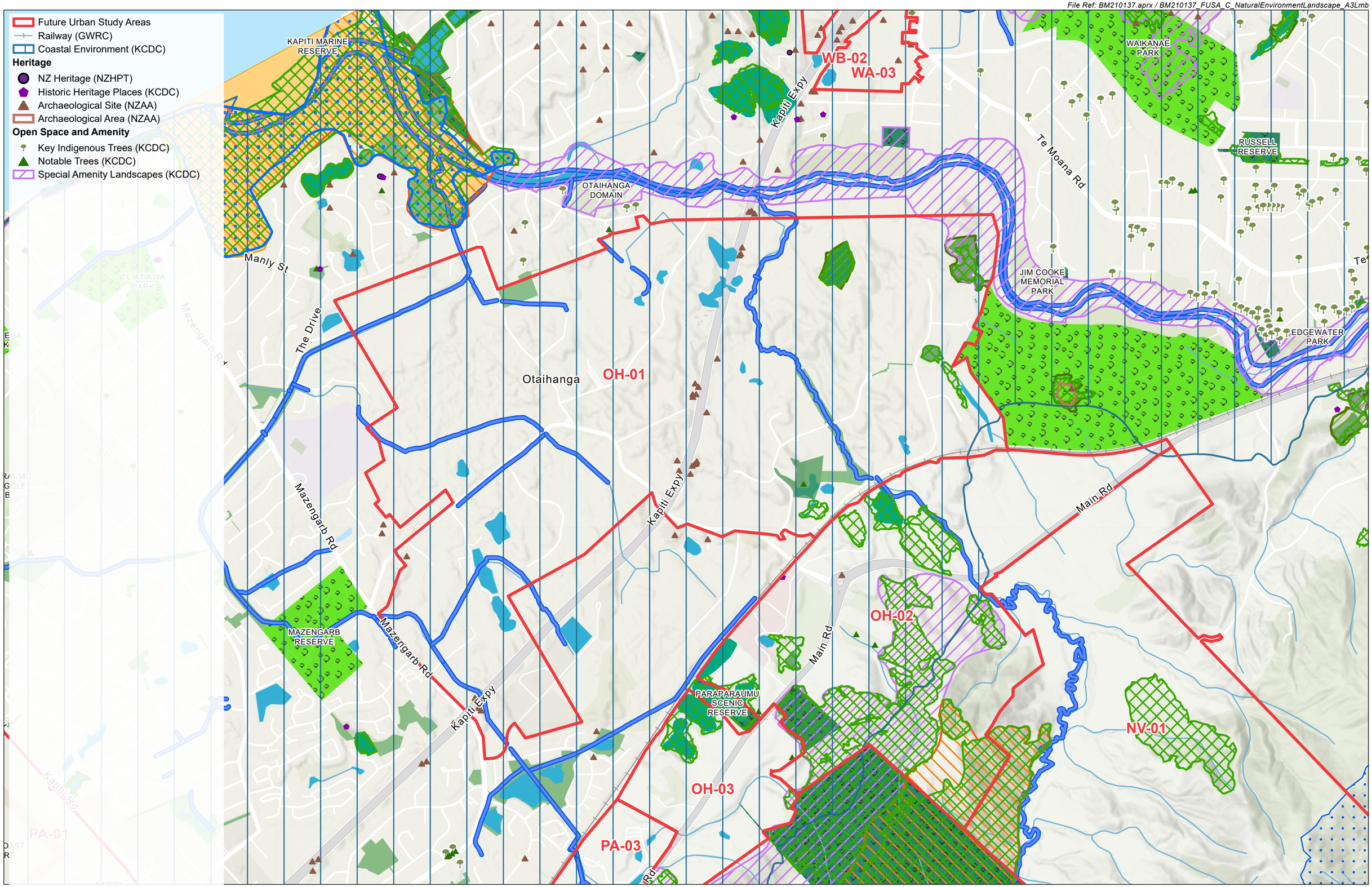
Natural Environment and Landscape
Future Urban Study: Waikanae East

Date: 24 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.7.C



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape
Future Urban Study: Otaihanga

Date: 24 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.8.C

- Future Urban Study Areas
- Railway Station (GWRC)
- Railway (GWRC)
- Coastal Environment (KCDC)

Heritage

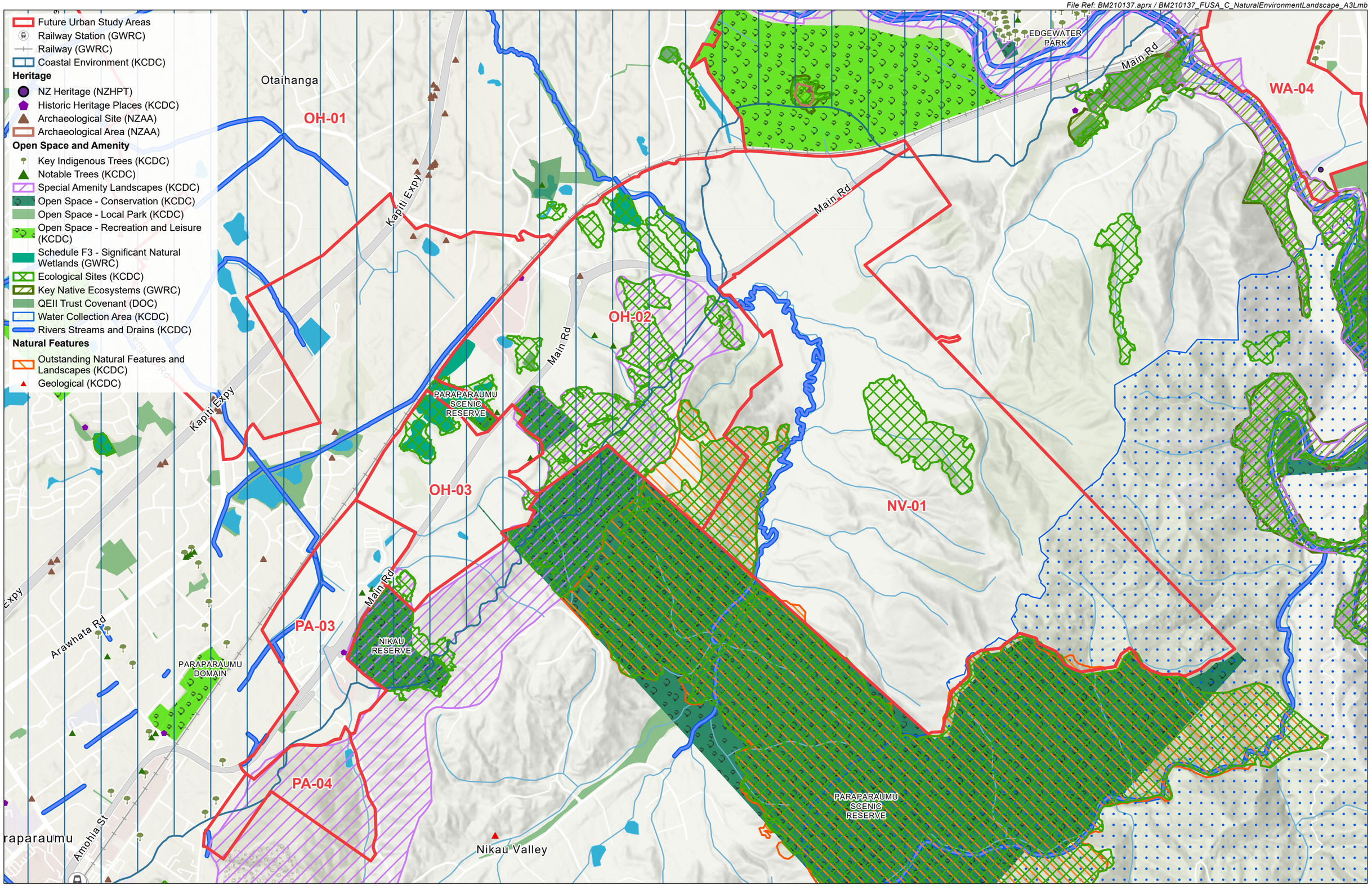
- NZ Heritage (NZHPT)
- Historic Heritage Places (KCDC)
- Archaeological Site (NZAA)
- Archaeological Area (NZAA)

Open Space and Amenity

- Key Indigenous Trees (KCDC)
- Notable Trees (KCDC)
- Special Amenity Landscapes (KCDC)
- Open Space - Conservation (KCDC)
- Open Space - Local Park (KCDC)
- Open Space - Recreation and Leisure (KCDC)
- Schedule F3 - Significant Natural Wetlands (GWRC)
- Ecological Sites (KCDC)
- Key Native Ecosystems (GWRC)
- QEII Trust Covenant (DOC)
- Water Collection Area (KCDC)
- Rivers Streams and Drains (KCDC)

Natural Features

- Outstanding Natural Features and Landscapes (KCDC)
- Geological (KCDC)



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape

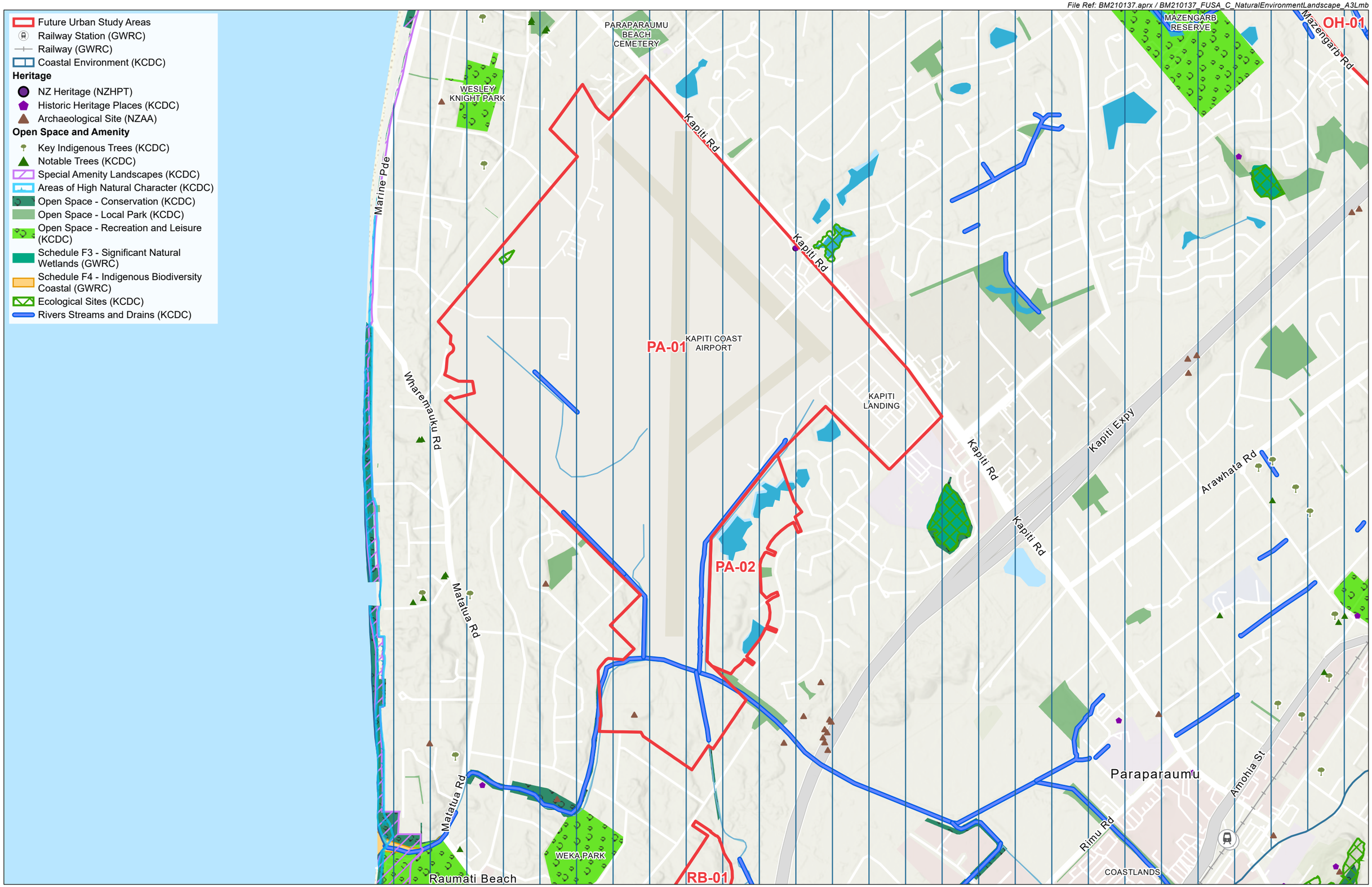
Future Urban Study: Otaihanga South-east

Date: 24 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.9.C



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

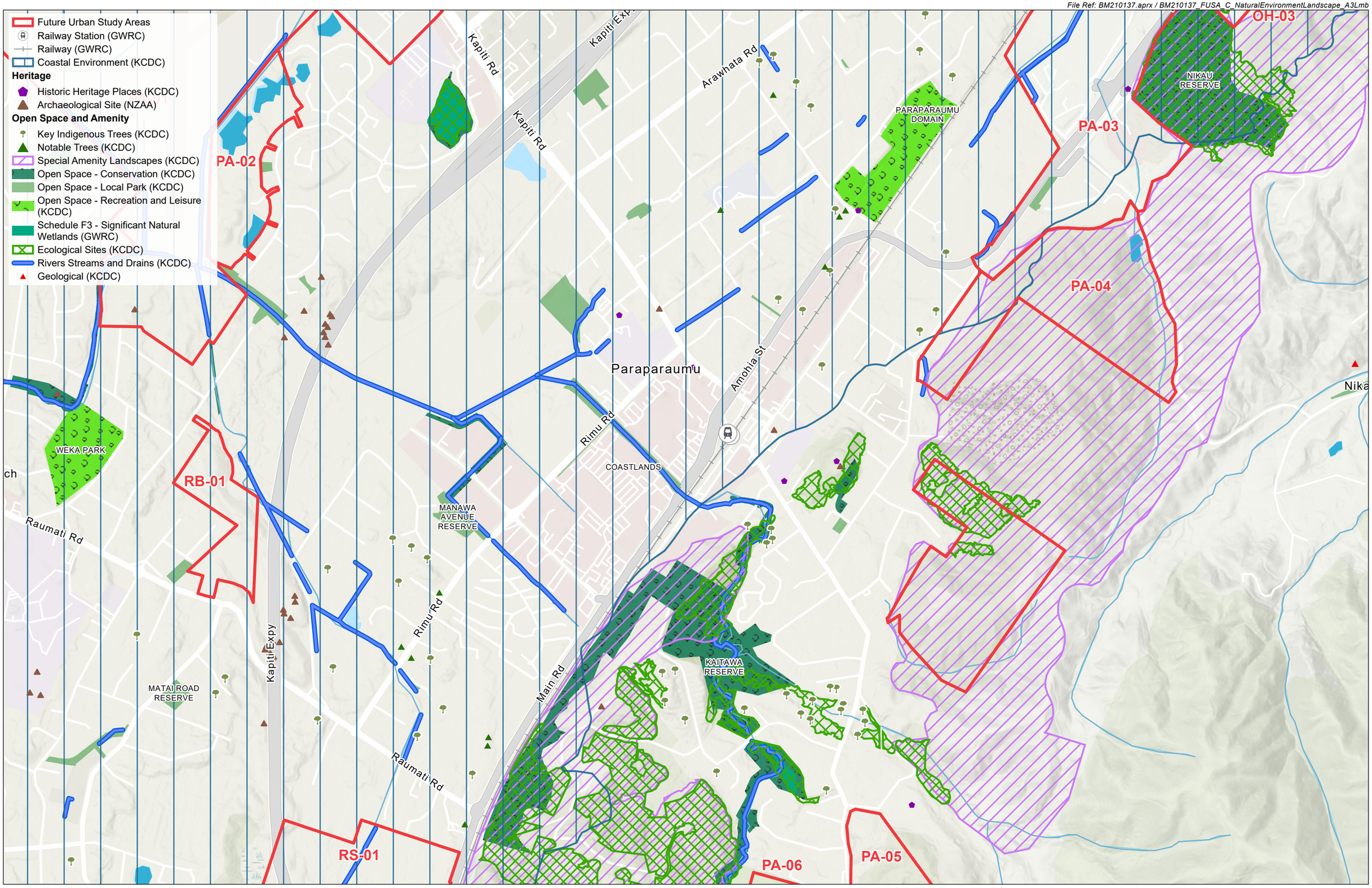
Natural Environment and Landscape
Future Urban Study: Paraparaumu Central

Date: 24 August 2021 | Revision: 0

Plan prepared for KCDC by Boffa Miskell Limited

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

FU.10.C



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape

Future Urban Study: Paraparaumu East

Date: 24 August 2021 | Revision: 0

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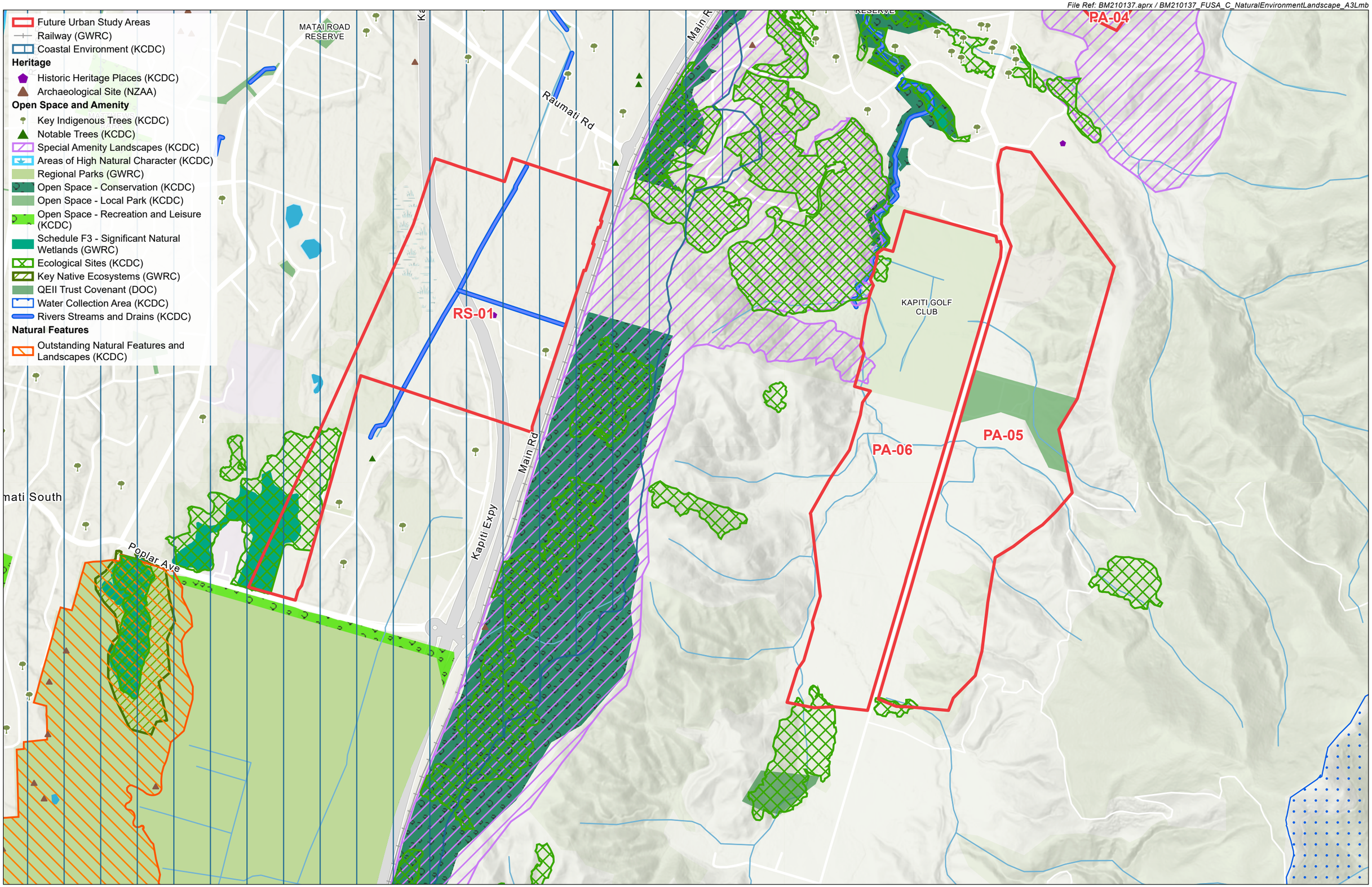
FU.11.C



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape

Future Urban Study: Paraparaumu South

Date: 24 August 2021 | Revision: 0

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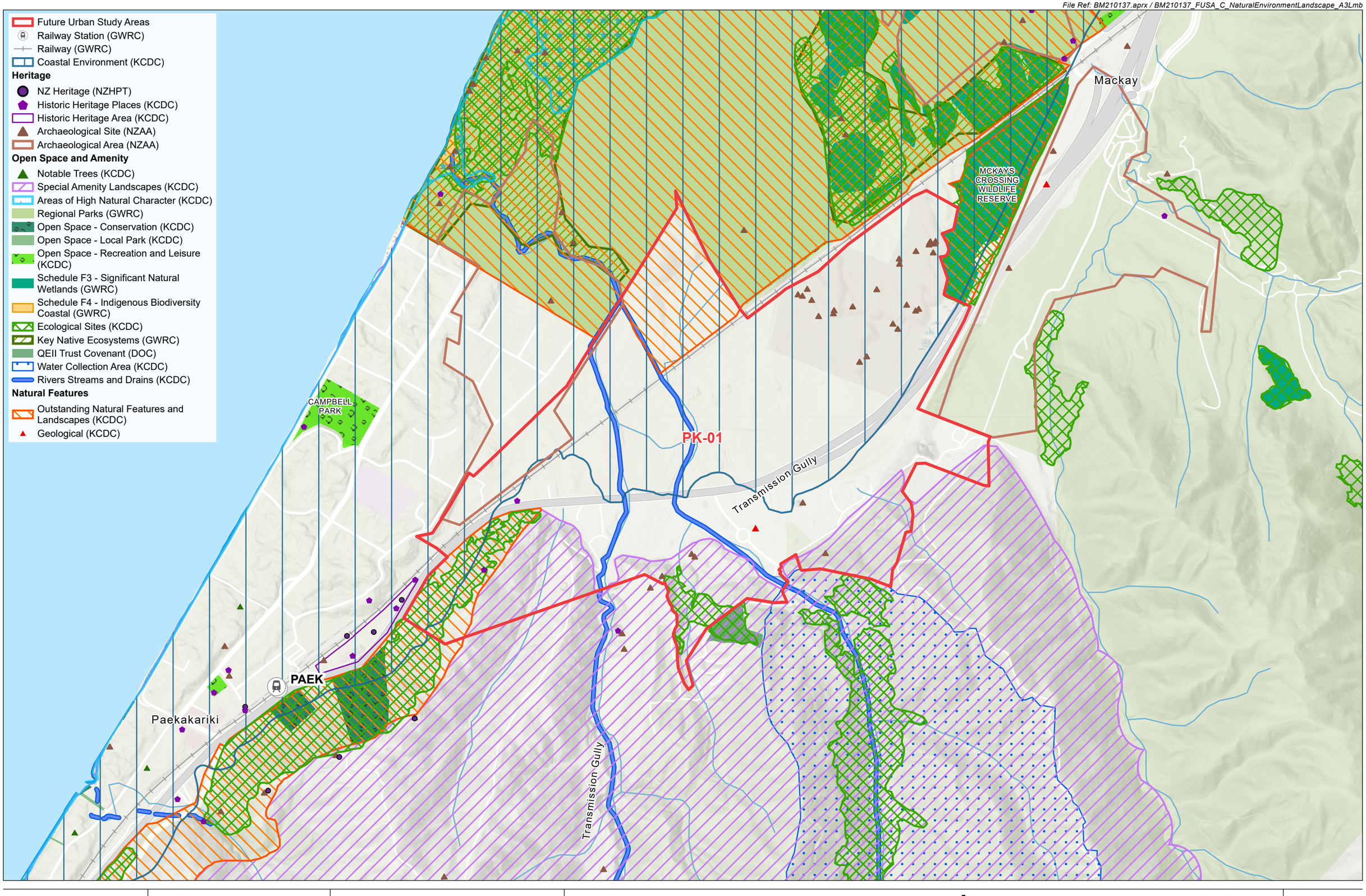
FU.12.C



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Projection: NZGD 2000 New Zealand Transverse Mercator

KĀPITI URBAN DEVELOPMENT AND INTENSIFICATION

Natural Environment and Landscape
Future Urban Study: Paekakariki East

Date: 24 August 2021 | Revision: 0

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