



Pukekohe from Cape Hill Rd looking to the southwest

Rural / Urban Boundary (South)
Option Area Landscape Evaluations
Internal Summary Report
July 2013

Environmental Planning & Design Ltd
For:
Auckland Council
Spatial and infrastructure Strategy
Regional Strategy, Community & Cultural Policy

Rural / Urban Boundary South

Option Area Landscape Evaluations

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Introduction and Background:

This internal summary report sets out landscape evaluations of 14 previously identified Option Areas as part of the wider Greenfield Investigations project for the Auckland Unitary Plan (see *fig 1*). These evaluations for urban development contribute to a range of integrated landuse planning information provided to Auckland Council to assist future landuse planning and decision making regarding the proposed Rural / Urban Boundary.

The purpose of these evaluations is to*:

- Assist with the evaluation of options in the investigation areas that are more or less suitable for residential and business related urban uses in view of landscape considerations.
- Help Council in the configuration of an advantageous combination of potential urban development areas (options) in a way that responds to landscape considerations.

The evaluation process provides a means of understanding:

- Underlying landscape character;
- Likely landscape effects of potential landuse change, and;
- Potential landscape change boundaries.

Report Limitations:

The focus of this internal technical report is the landscape evaluation of pre-determined Option Areas and fundamental landscape change of “greenfield” areas to urban areas; this report is not an Auckland wide evaluation of landscape sensitivity or capacity for future urban development. This report does not include public / community consultation on wider landscape values or landscape change. This report does not specifically address cultural landscape values. This report provides sub-regional strategic landscape planning advice in relation to the purposes listed above, specifically addresses landscape matters, and does not include technical and operational constraints of landuse change. Field work was undertaken from publicly accessible land only (local road network).

*Project Brief: Rural Urban Boundary Investigations (South) RFP 11 [March] 2013

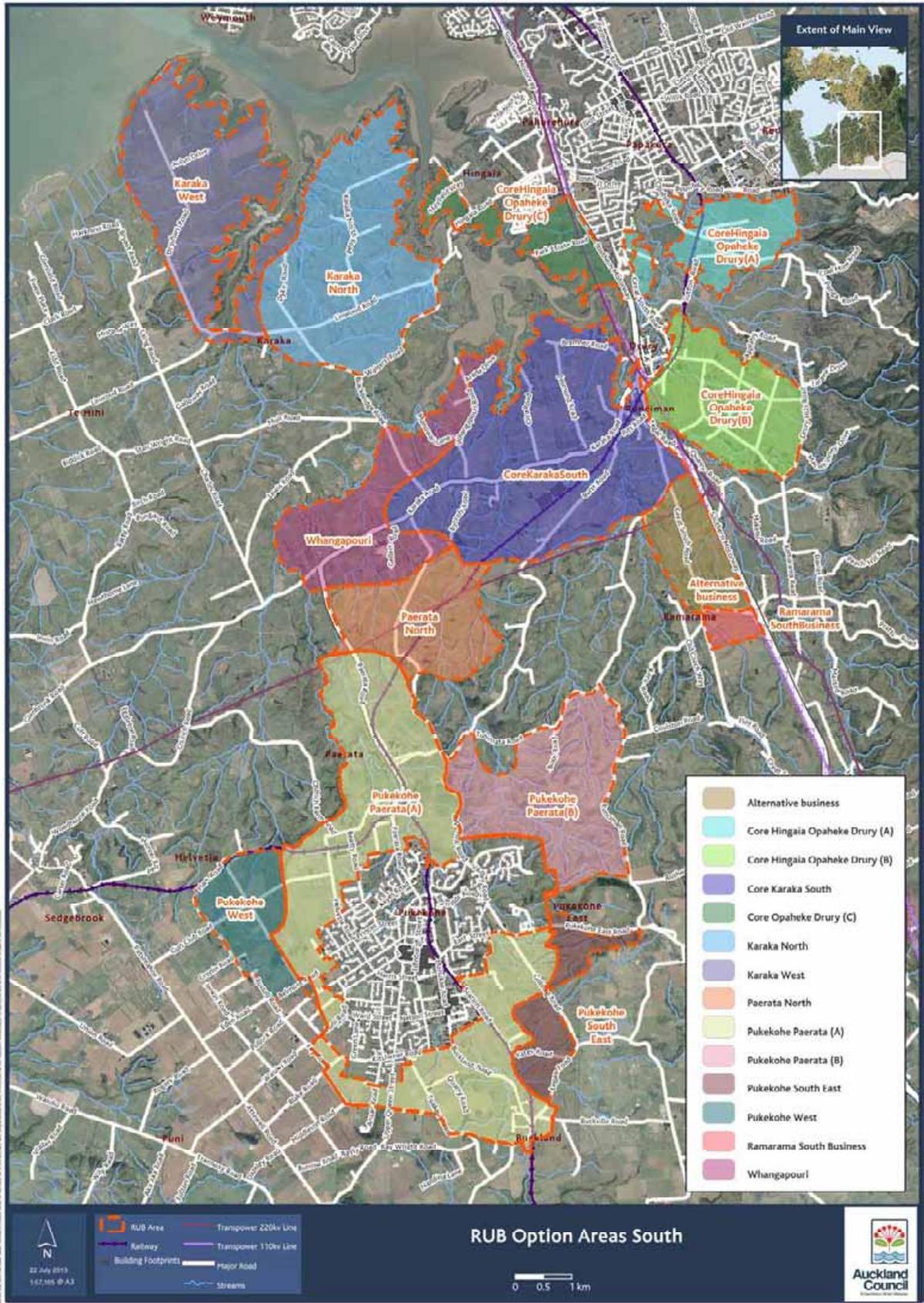


Fig 1. Southern rural urban boundary option areas (not to scale: source, Auckland Council)

The Option Areas shown in figure 1 are those outlined in consolation documentation and the Draft Unitary Plan Addendum. They include the following areas.

1. **Core: Hingaia-Opaheke-Drury (A)**
2. **Core: Hingaia-Opaheke-Drury (B)**
3. **Core: Hingaia-Opaheke-Drury (C)**
4. **Core: Karaka South**
5. **Alternative Business**
6. **Ramarama South Business**
7. **Karaka North**
8. **Karaka West**
9. **Whangapouri**
10. **Paerata and Paerata North**
11. **Pukekohe- Paerata (B)**
12. **Pukekohe South East**
13. **Pukekohe West**
14. **Core: Pukekohe-Paerata (A)**

Methodology

The evaluation of Option Areas is based on a landscape characterisation methodology that describes and considers an integrated spatial framework of areas as a means of understanding landscape complexity and diversity. (See **appendix 3: Key Terms**)

The evaluation method applied for this evaluation involved a three step process:

- The collation of general geospatial (GIS) information to understand basic landscape structure
- Field survey from the local roading network to inform a more detailed and perceptual understanding of landscape and landscape character
- Determining and applying a set of criteria for the evaluation of urban development potential.

Step 1: GIS information: Landscape Structure and Pattern.

An initial landscape mapping resource framework was established in order to understand core underlying landscape patterns. These maps are shown at **Appendix 2: Landscape Attribute Mapping** and include:

- Topography (landform and slope)
- GNS Geological Units (underlying geology)
- Hydrology (natural drainage patterns)
- Natural Hazards (Geological faults and floodplains)
- Vegetation Patterns (Lidar and Landcover Data Base)
- Land Use Capability
- Current Rural Landuse (Agribase)
- Cadastral Boundaries and property area
- Key Infrastructure (Water/wastewater, electricity, roading)
- Indication of Cultural Heritage (known and recorded sites)
- Landscape and Natural Character notations (source: Auckland Council)
- Public Open Space

These existing map data sets were sourced by Auckland Council and have been captured at varying scales and accuracies but are all mapped at a scale of 1:60,000. These maps provide a means of understanding broad contextual landscape structure such as underlying landform and drainage, patterns of landcover, existing settlement and infrastructure patterns. This relatively objective information has been used to inform later evaluations of Option Areas and may also serve as a useful basis for further understanding more detailed landuse planning such as structure planning.

A composite – or ‘summary’ GIS base resource map is provided with each Option Area worksheet (see **Appendix 1: Landscape Evaluation Worksheets**)

Step 2: Field Survey

Each Option Area was then visited between March and April 2013 using the local roading network. This process involved the relatively objective interpretation of underlying GIS data and field observation as a means of understanding wider landscape context as well as the professional judgements of perceptual landscape attributes guided by evaluation criteria.

Step 3: Evaluation Criteria & Presentation

A number of criteria were developed and refined as part of the initial field survey work to help guide subsequent Option Area evaluations.

The criteria applied in this evaluation are:

Key Physical Landscape Elements and Patterns:

Natural Geo-physical and Bio-Physical Attributes such as:

- Underlying landform and drainage
- Indigenous landcover
- Expressions of dynamic natural systems and processes where evident

Modified & Physical (Human) Attributes such as:

- Elements and patterns of built form and settlement
- Patterns of landuse
- Modified natural systems
- Patterns of exotic vegetation

Perceptual Landscape Attributes:

Legibility

- Area is able to be readily defined and is distinct.
- Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes.
- Expression of natural and human processes in the landscape

Coherence

- Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification

Context and Setting

- Value of area in relationship with adjoining landscape setting
- Contribution and value to wider landscape context

Scenic Amenity

- Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities.

- Visually intact and aesthetically pleasant and appreciable landscape qualities

Visibility

- Key views, view corridors and viewing audiences

Landscape Change: Evaluation of Urban Development Potential

Landscape attributes most sensitive to change

- Landscape structure and function. Physical landscape change.
- Perceptual landscape change.
- Likely changes of landscape values

Visual Landscape effects

- Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment
- General visibility
- Visibility controlled by landcover
- Visibility controlled by landform
- Potential for management of visual effects

Scenic Amenity

- Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities

Likely effects of change and rural context

- Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.

Existing Settlement Form and boundaries

- Likely effect of development on existing settlement form and boundaries

Opportunities for Environmental Enhancement

- Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.

Possible Mitigating / Design Opportunities

- Key considerations in relation to the landscape integration of any potential urban development.

Urban Structure Considerations

- Movement & Connectivity
- Basic Form/ Blocks
- Uses & possible patterns of development
- Amenity / Livability

These criteria helped to guide an overall judgement of urban development potential from a “landscape perspective” as well as considerations in relation to other option areas. The worksheet format generally aligns criteria in regard to landscape character, landscape sensitivity and landscape capacity in the following way:

Landscape Character	Natural Geo-physical and Bio-Physical Attributes
	Modified & Physical (Human) Attributes
	Legibility
	Coherence
	Context and Setting
	Scenic Amenity
	Visibility
Landscape Sensitivity	Landscape attributes most sensitive to change
	Visual Landscape effects
	Scenic Amenity
	Likely effects of change and rural context
	Existing Settlement Form and boundaries
Landscape Capacity	Opportunities for Environmental Enhancement
	Possible Mitigating / Design Opportunities
	Urban Structure Considerations
	Overall landscape capacity for urban development
	Considerations in relation to other option areas

Evaluation Worksheets that apply these criteria for each option area can be found at **Appendix 1: Landscape Evaluation Worksheets**. The key findings of the landscape evaluations of the 14 Option Area in relation to overall landscape capacity and considerations in relation to other Option Areas are listed below.

Overall Capacity for Urban Development & Considerations in relation to Other Option Areas (refer to Appendix 1 Landscape Evaluation Worksheets)

Note: the landscape worksheets are intended to be used as a complete evaluation and analysis set. Key findings should be read in conjunction with the more detailed information found in each worksheet set.

Core: Hingaia-Opaheke-Drury (A)

- Option area includes a number of distinct areas
- Walker Rd area demonstrates a number of attributes that suggest a higher capacity to accommodate a greater range of urban development
- Integration of natural drainage patterns and land uses on or near floodplains a key consideration
- Capacity for small areas of urban extension in the west
- Patterns of development in the south to consider wider adjoining areas to the south and management / integrated use of floodplain as part of urban structure planning.
- Suggest development of Ponga Rd South in conjunction with Hingaia – Opaheke (B) area and future structure planning of Papakura-Drury town centers and future transport planning (Rail Corridor and Mill Road Corridor)

Core: Hingaia-Opaheke-Drury (B)

- Landscape capacity for urban development in the south with existing rural character influenced by built form (glasshouses and rural residential development) and a series of visually contained areas (results from varied terrain)
- Similar opportunity (less variation of terrain) in the north however need to address northern boundary and integration of natural drainage patterns and land uses on or near floodplains as a key consideration -
- Opportunity to enhance / define and rationalize Drury 'town center' and integrate with major transport infrastructure
- Lack of defined northern landscape boundary a potential issue – consider integration and management of northern floodplain areas and extend boundary to Ponga Rd in the north
- Suggest development of area in conjunction with Hingaia – Opaheke (A) with future structure planning of Papakura-Drury town centers and future transport planning (Rail Corridor and Mill Road Corridor)

Core: Hingaia-Opaheke-Drury (C)

- Overall area reflects transitional landscape qualities – particularly in the north, strongly suggesting further comprehensive urban structure planning to appropriately reflect an area of relatively high potential residential amenity
- Area forms the northern portion of the Drury Creek system between Pahurehure Inlet and the Slippery Creek mouth – Development opportunities to consider wider potential patterns of development of Karaka South area – particularly integration of open space planning and management of coastal margins
- Western headlands and northwestern coastal margins strongly relate to Karaka North Peninsula which is part of the southern Pahurehure Inlet coast and associated peninsula landforms – consider management of coastal amenity for immediate Hingaia Bridge area and adjoining coastal margins both east and west.

Core: Karaka South

- Generally avoid urban development west of Oira Stream corridor to reinforce open pastoral landscape character of SH22 corridor between Pukekohe and Drury
- Clearly define southern boundary – recommend steep scarp to the south of Burt Rd
- Bycroft Rd and Woodlyn Drive not generally suitable for urban development
- Concentrate potential development to the north of Burt Rd and SH22 and to the east of Oira Rd and Jesmond Road
- Key consideration for this area (and for wider pattern of potential urban development in the south) is the management of patterns of urban development aligned with SH22 corridor (sprawl – inefficient urban structure) and the effects of such patterns on existing rural character.

Alternative Business

- Business urban development is likely to be restricted by landform and terrain diversity where such diversity occurs
- Significant issues likely in relation to wider landscape character change and conversion of current open rural character to an urban commercial environment.
- Limited urban business development may be possible however area presents considerable physical and perceptual landscape limitations
- Less restricted areas are more appropriate for large format built form.
- Possible efficiencies and linkages and connections with potential Great South Road-Ararimu Rd-Mill Road Corridor “block” with Drury interchange in the north and Ararimu interchange in the south inclusive of Plan change area in the east and Drury / Karaka in the North. This would reflect a fundamental change in landscape character for the entire mid Hingia visual catchment.
- Less challenging areas for business landuse exist in the Investigation Area where expansive areas of relatively flat terrain predominate including Burt Road, Karaka; Walker Rd, Opaheke; Helvetia Rd & Station Rd Pukekohe.

Ramarama South Business

- Business use proposed – area particularly sensitive to large format business development with potential for considerable contrast of urban and existing rural character
- Possible limited opportunity for masterplanned sensitive business development (Business Park typologies) however consider wider context of any adjoining or future development
- Possible development opportunity of a range of rural residential or clustered urban residential development typologies associated with environmental enhancement appropriate for the wider landscape context - develop Ramarama as a more consolidated rural settlement
- Current option area limited to the south – comprehensive development planning and future urban opportunity to consider more extensive areas to the south as part of a more logical physical landscape character area
- Future landuse planning for Ramarama as a rural service or future settlement node – include consideration of southern Alternative Business Area (in part)
- Consider potential business use in regard to Drury South area and future Mill Rd corridor as well as interconnectivity between Drury and Ararimu Rd interchanges, Mill Rd corridor and Great South Rd.

Karaka North

- Large discrete area of potential greenfield development
- Generally avoid urban development on western, eastern and southern slopes
- Concentrate potential development within peninsula core generally to the north of Walters Rd
- Consider landscape capacity in the context of a wider integrated landuse planning strategy that reflects existing urban development patterns of the Pahurehure Inlet
- Relates to current pattern of urban development of Hingaia Peninsula
- A further key consideration for this area (and for wider pattern of potential urban development in the south) is the management of patterns of urban development aligned with SH22 corridor (sprawl – inefficient urban structure) and the effects of such patterns on existing “open pastoral” rural character. Avoiding urban development of southern slope areas south of Walters Rd would contribute to an overall strategy to maintain existing open pastoral character of the SH22 corridor.

Landscape capacity to accommodate Urban Development: Moderate

Karaka West

- Large discrete area of potential greenfield development. Relatively remote in relation to urban infrastructure provision -Carefully consider access and connectivity (traffic management issue)
- Avoid urban development on western coastal terrace, north eastern coastal margin headlands and hill slopes south of Laing Rd
- Concentrate potential development within peninsula core generally to the east of Urquhart Rd

- Consider landscape capacity in the context of a wider integrated landscape planning strategy that reflects exiting urban development patterns of the Pahurehure Inlet including Karaka North and the Hingaia Peninsula
- Consideration of a wider assessment of landscape capacity for coastal and rural areas to the west recommended (Kingseat, Waiau Pa, and Clarkes Beach)

Whangapouri

- Potential for urban development in the south in association with Paerata Area
- Potential development to the north of SH22 – however consider open rural character values in relation to southern development potential and Scenic Amenity of SH22 corridor and concept of rural open space continuum between Pukekohe and Drury
- Avoid urban development on northern coastal peninsula to maintain spatial separation with Karaka North area
- Consider southern areas in regard to development options for Paerata area
- Key consideration for this area (and for wider pattern of potential urban development in the south) is the management of patterns of urban development aligned with SH22 corridor (perceptions of sprawl – inefficient urban structure) and the effects of such patterns on existing rural character.

Paerata and Paerata North

- Significant issues likely in relation to wider landscape character change and conversion of current open rural character to an urban environment in the east (Paerata North). Avoid urban development to the east of Sim Rd and Oira Stream
- Moderate development opportunity about existing Wesley College area
- Consider Paerata area in regard to development options for southern Whangapouri area
- The management of patterns of urban development aligned with SH22 corridor (perceptions of sprawl – inefficient urban structure)
- Consider necessity for northern corridor growth in relation to comprehensive development of existing Pukekohe urban grid and the westward development of Pukekohe Hill

Pukekohe- Paerata (B)

- Generally not suited for urban intensification
- Possible further development of a range of rural residential development typologies associated with environmental enhancement opportunities appropriate for the wider landscape context
- Consider Paerata & Paerata North, Pukekohe -Paerata(B), Pukekohe South East and Pukekohe West all within the context of the consolidated and integrated development of Pukekohe as a main rural satellite center building on existing urban structure
- Eastern Pukekohe generally more topographically constrained than areas to the north, west and south west of town center
- Generally avoid sprawling corridor development along Pukekohe East Rd in the east and Paerata Rd in the north

Pukekohe South East

- Northern areas least capacity for urban development – potential for clustered rural residential development aligned with environmental enhancement
- Southern areas represents the opportunity to provide logical extension of existing urban settlement and development of existing urban structure as part of the consolidated and comprehensive development of Pukekohe and areas to the east of Pukekohe
- Consider Paerata & Paerata North, Pukekohe -Paerata(B), Pukekohe South East and Pukekohe West all within the context of the consolidated and integrated development of Pukekohe as a main rural satellite center building on existing urban structure
- Areas to the west of Pukekohe generally less topographically constrained than areas to the north and east of town center Represents the opportunity to provide logical eastward extension of existing urban settlement

Pukekohe West

- Northern areas most floodplain sensitive
- Generally restricted opportunity to the north of Gun Club Road and west of Schlaepfer Road
- Opportunity for comprehensive development approaches that consider recessive lowland areas within the context of surrounding minor hill features from Hart Rd east to Kauri Rd
- Represents the opportunity to provide logical extension of existing urban settlement and development of existing urban grid as part of the consolidated and comprehensive development of Pukekohe and areas to the west of Pukekohe
- Consider option area with adjoining lowland terrain to the east as recommended above
- Paerata & Paerata North, Pukekohe -Paerata(B), Pukekohe South East and Pukekohe West all within the context of the consolidated and integrated development of Pukekohe as a main rural satellite center building on existing urban structure
- Areas to the west of Pukekohe generally less topographically constrained than areas to the north and east of town center

Core: Pukekohe-Paerata (A)

- Align key landforms, existing settlement patterns and existing urban grid framework through comprehensive development of Pukekohe and Pukekohe Hill and adjoining areas
- Expand option area and existing urban grid to the south (Ray Wright Rd) west (Patumahoe Rd) and North (Gun Club Rd)
- Avoid further eastern hill sprawl and sprawl along eastern corridor (Pukekohe East Rd)
- Avoid sprawl along northern road corridor and contain intensive urban form south of Heights Rd
- Consolidate Buckland as a southern gateway – node and expand to the east to Jamison Rd area

- Reinforce compact urban center in a wider rural context. Good opportunity for high quality urban living environments can result.
- Consider Paerata & Paerata North, Pukekohe -Paerata(B), Pukekohe South East and Pukekohe West options all within the context of the consolidated and integrated development of Pukekohe as a main rural satellite center building on existing urban structure
- Key consideration for this area (and for wider pattern of potential urban development in the south) is the management of patterns of urban development aligned with SH22 corridor (sprawl – inefficient urban structure) and the effects of such patterns on existing rural character
- Maintain open pastoral character between Pukekohe and Paerata and between Paerata and Drury / Karaka
- Areas to the west of Pukekohe generally less topographically constrained than areas to the north and east of town center
- Consider Buckland and South East Pukekohe (to Jameson Rd) in context of immediately adjoining areas outside of Auckland Council jurisdiction

***Disclaimer:**

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Appendix 1 Landscape Evaluation Worksheets.

- **Core: Hingaia-Opaheke-Drury (A)**
- **Core: Hingaia-Opaheke-Drury (B)**
- **Core: Hingaia-Opaheke-Drury (C)**
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- **Karaka West**
- **Whangapouri**
- **Paerata and Paerata North**
- **Pukekohe- Paerata (B)**
- **Pukekohe South East**
- **Pukekohe West**
- **Core: Pukekohe-Paerata (A)**

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)

Option Area: Core; Hingaia Opaheke-Drury (A)

Landscape Type* ¹ :	Downland.
Landscape Character Area(s)* ¹	Papakura Alluvial Downlands
Summary of Key Landscape Characteristics of Option Area	
<ul style="list-style-type: none"> • Characterised by contained flat open cropland areas to the north and east, urban margin areas to the west, minor hill spur (Ponga Rd) and southern slope areas • Framed by Hunua ranges and lowland floodplain areas and areas of existing settlement • Strong influence of natural drainage patterns 	
Key Landscape elements and patterns	
Natural Geo-physical and Bio-Physical Attributes	<ul style="list-style-type: none"> • Generally broad open flat to gently undulating terrain of lower west draining Hays Stream sub-catchments (Walker Road) • Drury Fault to the east – strong physical landscape boundary • Gently rising north facing sloped terrain to the immediate north of Ponga Road • Moderately broad low spur extending westwards from Hunuas in the east -Ponga Rd alignment follows this feature • Gentle south facing moderate slopes to the south of Ponga Rd to Symonds Stream • Incised stream channels and steep banks with 1st order tributary branches • Includes two smaller more elevated urban margin areas that frame the lower floodplain Slippery Creek catchment south of Keryn Place • Limited and isolated patches of indigenous vegetation associated with Stream corridors and Hunua slope margins
<ul style="list-style-type: none"> • <i>Underlying landform and drainage</i> • <i>Indigenous landcover</i> • <i>Expressions of dynamic natural systems and processes where evident</i> 	
Modified and Physical (Human) Attributes	<ul style="list-style-type: none"> • Pastoral landcover predominates with extensive areas of cropping land (Walker Rd and south of Lorelei Place) • Disused golf course to the west • Influenced by rail line (north-south alignment) with associated road and stream crossings • Patterns of rural residential settlement principally aligned with roadways (Ponga Rd in particular) • Lineal / rectilinear patterns of field containment with hedgerows and shelter planting (east) less formal patterns of vegetation to the west and south facing slope areas more influenced by stream corridors • Mature exotic planting (oak sp.) Ponga Rd north roadside • scrub/weedy drainage channels and exotic stream corridor shelter vegetation patterns • Electricity sub-station (Ponga Rd/Sutton Rd) • Limited areas of glass housing • Papakura South Cemetery (Gatland Rd) • Numerous farm drains and ponds
<ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> Area is able to be readily defined and is distinct. Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes. Expression of natural and human processes in the landscape 	<ul style="list-style-type: none"> Walker Rd flats clearly defined by Hunuas to the east, industrial area (Boundary Rd) and Hays Stream to the north, and Ponga Rd/Opaheke Rd to the south and rail corridor to the west Southern slope areas less distinct and transition into lower Symonds Stream floodplain. Less legible due to mixed vegetation patterns Ponga Rd spur provides visual separation between these two areas Western smaller areas legible as being contiguous with existing settlement areas – distinct from lower Slippy Creek floodplain (abandoned golf course).
Coherence	
<ul style="list-style-type: none"> Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification 	<ul style="list-style-type: none"> Strong coherence of Walker Road area as an open flat ‘working landscape’ area– well defined and relatively visually discrete. Less coherence to the south of Ponga Rd with a greater influence of wider floodplain area on south facing slopes with adjoining stream vegetation patterns reducing legibility/coherence.
Context and Setting	
<ul style="list-style-type: none"> Value of area in relationship with adjoining landscape context Contribution and value to wider landscape character area/type 	<ul style="list-style-type: none"> Walker Rd flats define the current southern boundary of Boundary Rd Hunua Rd industrial area and spatially separate Waihoihoi / Symonds Stream catchments (Drury South) from Papakura south Ponga Rd spur an key landform that enhances the above Strong landform contrast with adjoining hill slopes east (Drury fault) – defines Hunua Ranges boundary South facing Ponga Rd slopes frame the northern boundary of Symonds Stream floodplain area.
Scenic Amenity	
<ul style="list-style-type: none"> Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities. Visually intact and aesthetically pleasant and appreciable landscape qualities 	<ul style="list-style-type: none"> Walker Rd moderate to low intrinsic scenic amenity. Scenic amenity derived from contrasting Hunua hill country Ponga Rd moderate scenic amenity influenced by existing vegetation patterns, road alignment and sequential and southerly views
Visibility	
<ul style="list-style-type: none"> Key views, view corridors and viewing audiences 	<ul style="list-style-type: none"> Walker Rd area most visible from elevated rural residential viewpoints to the east – upper Ponga Rd area (limited number). Southern slope areas partially visible from floodplain to the south (Sutton Rd) and eastern hillside rural residential areas Smaller western areas – visually contiguous with existing urban areas

Landscape Change: Evaluation of Urban Development Potential

Landscape attributes most sensitive to change	<ul style="list-style-type: none"> • Sensitive stream corridors, natural drainage patterns and associated floodplain / hazard areas • Expansive cropping areas most sensitive to perceptual change due to 'open' characteristics • Areas close to exiting settlement patterns least sensitive (in the west). • Settlement / development pattern sensitivities approaching Hunua Ranges boundary (Drury Fault) • Likely change in general rural landscape character values mostly to the east and south
<ul style="list-style-type: none"> • <i>Landscape structure and function. Physical landscape change.</i> • <i>Perceptual landscape change.</i> • <i>Likely changes of landscape values</i> 	
Visual Landscape effects	<ul style="list-style-type: none"> • Walker Rd area has higher capacity to absorb visual landscape change – note: visually exposed to elevated hill areas to the east • Ponga Rd spur provides key visual separation from north to south • Limited control of visibility via existing shelter planting across flats • Stream corridor vegetation provides strong visual landscape pattern (screens/separates/contains) • Enhancement of natural drainage veg patterns potential to act as structural organizing element - enhance to manage visual effects & amenity • Potential to provide further control of visual effects via use of public Open Space (abandoned golf course) and steeper southern slope areas.
<ul style="list-style-type: none"> • <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> • <i>General visibility</i> • <i>Visibility controlled by landcover</i> • <i>Visibility controlled by landform</i> • <i>Potential for management of visual effects</i> 	
Scenic Amenity	<ul style="list-style-type: none"> • Scenic amenity of Ponga Rd corridor susceptible to loss of scenic amenity – appeals as rural road corridor in part • Sutton Rd and Opaheke Rd exhibit limited scenic amenity qualities as transitional rural road corridors – sequence of generally open rural views and perceived separation between Papakura and Drury
<ul style="list-style-type: none"> • <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	
Likely effects of change and rural context	<ul style="list-style-type: none"> • Extension of urban character - urban extension to logical physical boundary eastwards to Hunuas • Smaller western areas logical extension – limited effect on wider rural character and context • Change within southern slope and adjoining floodplain areas most likely to have wider affect in change of rural character and immediate rural context.
<ul style="list-style-type: none"> • <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	
Existing Settlement Form and boundaries	<ul style="list-style-type: none"> • Western areas relate strongly to Great South Rd and associated settlement consider open space elements (abandoned golf course) as transitional element to the east • Very strong industrial boundary (Boundary Rd) provides opportunity for both reinforcement of industrial edge and separation (Hays Stream) <u>or</u> extension – up to Walker Rd. • Southern slope areas less well defined • Drury Fault – very strong physical landscape boundary
<ul style="list-style-type: none"> • <i>Likely effect of development on existing settlement form and boundaries</i> 	

<p>Opportunities for Environmental Enhancement</p>	<ul style="list-style-type: none"> Natural stream corridors provide potential for strong landscape structural patterns – appropriately reflect floodplain “transitional” areas. Enhance existing limited ingenious vegetation patterns Generally avoid steeper south facing slopes
<ul style="list-style-type: none"> <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	<ul style="list-style-type: none"> Maintain Ponga Rd Spur as landscape boundary (from one landuse to another) – Amenity enhancement Reinforce stream corridors to provide order/structure Carefully consider eastern “flats” edges adjoining steeper Hunua Ranges Possibility to build on further lineal field containment on Walker Rd flats to provide additional landscape structure if required (industrial landuse in particular) Integrate floodplain/stormwater management, stream corridor open space areas to enhance landscape structure / order.
<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> Key considerations in relation to the landscape integration of any potential urban development.
<ul style="list-style-type: none"> <i>Key considerations in relation to the landscape integration of any potential urban development.</i> 	<ul style="list-style-type: none"> Layout, movement and connectivity efficiencies likely for Walker Rd area - ability to accommodate extensive area of large site and block size with limited landform modification required – increasing sensitivity to the south approaching Ponga Rd Spur Patterns of development of smaller western areas to reflect existing patterns – more considered integration for eastern boundaries which could extend to open space and floodplain areas. Consider main roading connectivity – relative distances and access to SH1 and future Mill Rd corridor alignment Opportunities for integration with existing Boundary Rd industrial area to the north – would require crossing Hays Stream system Amenity and connectivity considerations for land uses adjoining rail corridor. Also note Gas Line location – bisects area north south. Enhance / reflect Ponga Rd spur spatial separation north and south
<p>Urban Structure Considerations</p>	<ul style="list-style-type: none"> <i>Movement & Connectivity</i> <i>Basic Form/ Blocks</i> <i>Uses & possible patterns of development</i> <i>Amenity / Livability</i>
<ul style="list-style-type: none"> <i>Movement & Connectivity</i> <i>Basic Form/ Blocks</i> <i>Uses & possible patterns of development</i> <i>Amenity / Livability</i> 	<ul style="list-style-type: none"> Option area includes a number of distinct areas Walker Rd area demonstrates a number of attributes that suggest a higher capacity to absorb a greater range of urban development Integration of natural drainage patterns and land uses on or near floodplains a key consideration Capacity for small areas of urban extension in the west Patterns of development in the south to consider wider adjoining areas to the south and management / integrated use of floodplain as part of urban structure planning.
<p>Overall Landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> Option area includes a number of distinct areas Walker Rd area demonstrates a number of attributes that suggest a higher capacity to absorb a greater range of urban development Integration of natural drainage patterns and land uses on or near floodplains a key consideration Capacity for small areas of urban extension in the west Patterns of development in the south to consider wider adjoining areas to the south and management / integrated use of floodplain as part of urban structure planning.

Considerations in relation to other Option Areas.

- Suggest development of Ponga Rd South in conjunction with Hingaia – Opaheke (B) area and future structure planning of Papakura-Drury town centers and future transport planning (Rail Corridor and Mill Road Corridor)

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)

Option Area: Core; Hingaia Opaheke-Drury (B)

Landscape Type* ¹ :	Downland.
Landscape Character Area(s)* ¹	Papakura Alluvial Downlands
Summary of Key Landscape Characteristics of Option Area	
<ul style="list-style-type: none"> • Flat to undulating terrain in the north - Undulating to gently rolling terrain in the south • Basic rural grid roading patterns defining rectilinear rural production blocks including glass house production and rural residential dwellings • Predominately pastured landcover - lineal vegetation patterns and patterns of field containment / enclosure • Extensive west draining stream systems • Adjoins existing urban settlement in the west – Drury urban center 	
Key Landscape elements and patterns	
Natural Geo-physical and Bio-Physical Attributes	<ul style="list-style-type: none"> • Flat to undulating terrain of lower west draining Waihoihoi and Symonds Stream sub-catchments (part of Hingaia-Maketu System) • Drury Fault to the east – strong physical landscape boundary • Transitions to more rolling terrain to the south (south of Waihoehoe Rd to Fitzgerald Rd) • Steeper south facing minor scarp feature south of Fitzgerald Rd – physical separation from Quarry Rd area • Numerous stream channels, 1st order tributary branches and overland flow paths • Limited and isolated patches of indigenous vegetation associated with stream corridors and Hunua slope margins
<ul style="list-style-type: none"> • <i>Underlying landform and drainage</i> • <i>Indigenous landcover</i> • <i>Expressions of dynamic natural systems and processes where evident</i> 	
Modified and Physical (Human) Attributes	<ul style="list-style-type: none"> • Pastoral landcover predominates with vegetation patterns providing strong patterns of field containment and separation including: • Shelterbelt vegetation patterns • Roadside hedgerow and screen planting • Orchard / horticultural vegetation patterns. • Moderate to strong vegetation patterns associated with stream corridors (exotic) • Modification of stream/drainage patterns – field drains, small ponds, modified seepage areas and numerous road culverts • Patterns of rural residential settlement principally aligned with a general urban grid local roading pattern with a concentration of rural residential on adjoining eastern hill slopes • Significant areas of horticultural production including large glasshouse production areas/sites particularly in the south (Fitzgerald Rd) • Adjoins Drury urban center to the west (Great South Rd) strongly influenced by Drury interchange (complex and constrained urban form) • Rail corridor to the west • Influence of power pylons and lines in the west (220Kv) and SH1 corridor
<ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> • <i>Area is able to be readily defined and is distinct.</i> • <i>Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes.</i> • <i>Expression of natural and human processes in the landscape</i> 	<ul style="list-style-type: none"> • Strongly defined to the east (Drury Fault) and strong physical landscape boundary - reinforced by Drury Hills Rd alignment • Less defined to the north - lack of distinct landscape boundary – transitions into wider northern floodplain that extents north to Ponga Rd • Western boundary defined by Drury urban concentrations and rail / road corridors • Relatively distinct southern boundary associated with southern Fitzgerald Rd scarp which provides physical separation with Quarry Rd flats to the south.
Coherence	
<ul style="list-style-type: none"> • <i>Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification</i> 	<ul style="list-style-type: none"> • Generally recognisable as a rural working landscape strongly influenced by horticultural built form and lineal vegetation patterns of field containment. • Influence of more intensive landuse lessens to the north (approaching Appleby Rd) where open pastoral landscape characteristics are more dominant.
Context and Setting	
<ul style="list-style-type: none"> • <i>Value of area in relationship with adjoining landscape context</i> • <i>Contribution and value to wider landscape character area/type</i> 	<ul style="list-style-type: none"> • Part of the wider mixed rural landuse pattern that separates Papakura-Drury from the Hunua Ranges in the east • Strong visual Influence of adjoining urban areas • Physically separates eastern hill slope rural residential areas from western settlement centers • Strong landform contrast with adjoining hill slopes east (Drury fault) – defines Hunua Ranges boundary
Scenic Amenity	
<ul style="list-style-type: none"> • <i>Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities.</i> • <i>Visually intact and aesthetically pleasant and appreciable landscape qualities</i> 	<ul style="list-style-type: none"> • Relatively high degrees of visual containment of local road network in the south (roadside planting and screen/shelter belt vegetation) limit scenic amenity to immediate open pastoral scenic qualities • Scenic amenity influenced by adjoining eastern hill slopes (Hunua Ranges) • More visually intact and aesthetically pleasant qualities to the north – floodplain and margins • Scenic qualities diminish to the west – approaching Drury interchange and infrastructure
Visibility	
<ul style="list-style-type: none"> • <i>Key views, view corridors and viewing audiences</i> 	<ul style="list-style-type: none"> • Lower elevation views relatively well contained • Wider area most visible from elevated west facing rural residential areas on Hunua hill slope margins

Landscape Change: Evaluation of Urban Development Potential

Landscape attributes most sensitive to change	<ul style="list-style-type: none"> • Sensitive stream corridors, natural drainage patterns and associated floodplain / hazard areas • More open pastorally dominated areas to the north approaching floodplains • Relatively high influence of built form – however rural in character – horticultural production glasshouses framed with strong vegetation patterns • Likely change in general rural landscape character values mostly to the north
<ul style="list-style-type: none"> • <i>Landscape structure and function. Physical landscape change.</i> • <i>Perceptual landscape change.</i> • <i>Likely changes of landscape values</i> 	
Visual Landscape effects	<ul style="list-style-type: none"> • Southern areas relatively well contained visually by roadside vegetation and more undulating terrain (roadside cuttings restricting more open views) • Generally more open and wider views available from the north • Limited ability to control visibility from elevated viewpoints in the east • Stream corridor vegetation provides strong visual landscape pattern (screens/separates/contains) • Existing lineal vegetation patterns and patterns of field containment suggest potential design vernacular that may contribute to management of visual effects
<ul style="list-style-type: none"> • <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> • <i>General visibility</i> • <i>Visibility controlled by landcover</i> • <i>Visibility controlled by landform</i> • <i>Potential for management of visual effects</i> 	
Scenic Amenity	<ul style="list-style-type: none"> • Scenic amenity effects relative to landscape coherence with less coherence to the south than the north which is more legible as an open pastoral landscape
<ul style="list-style-type: none"> • <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	
Likely effects of change and rural context	<ul style="list-style-type: none"> • Extension of urban character eastwards to Hunuvas • Change to current rural margins and immediate context for existing Drury urban center (to the east) • Reduction of spatial and perceived separation (distinctiveness) between Papakura and Drury urban areas.
<ul style="list-style-type: none"> • <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	
Existing Settlement Form and boundaries	<ul style="list-style-type: none"> • Potential to significantly enhance Drury as a defined urban center– maintain strong western urban boundary • Drury Fault –strong physical landscape boundary – design consideration required for integration with existing rural residential areas to the east – utilize existing road network as design element (e.g. Drury Hills Rd)
<ul style="list-style-type: none"> • <i>Likely effect of development on existing settlement form and boundaries</i> 	
Opportunities for Environmental Enhancement	<ul style="list-style-type: none"> • Natural stream corridors provide potential for strong landscape structural patterns – appropriately reflect floodplain “transitional” areas - integrate open space opportunities with floodplain / stormwater management areas
<ul style="list-style-type: none"> • <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	

<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> • Incorporate existing lineal rural vegetation patterns where possible – potential to develop distinctive design vernacular that reflects these patterns • Reinforce existing natural landscape boundaries to the east and south (distinctive changes in slope) • Reinforce stream corridors to provide landscape structure • Build on existing urban roading grid using roadways to reinforce existing vegetation patterns and visual separation / containment
<ul style="list-style-type: none"> • <i>Key considerations in relation to the landscape integration of any potential urban development.</i> 	<ul style="list-style-type: none"> • Enhance and develop existing local roading framework – broad urban ‘grid’ pattern - Layout, movement and connectivity efficiencies • Utilize proximity to and access opportunities of existing rail corridor - Amenity and connectivity considerations for land uses adjoining rail corridor. Also note Gas Line location – bisects area north south. • Enhance existing urban center of Drury to reflect the above (rail) as well as future roading alignments and access (Mill Rd and SH1 corridors) • Appropriately reflect natural drainage patterns and associated floodplain areas (integrated open space ‘green infrastructure’ planning) • Appropriately manage eastern and southern margins
<p>Urban Structure Considerations</p>	<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i>
<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i> 	<ul style="list-style-type: none"> • Landscape capacity for urban development in the south with existing rural character influenced by built form (glasshouses and rural residential development) and a series of visually contained areas (results from varied terrain) • Similar opportunity (less variation of terrain) in the north however need to address northern boundary and integration of natural drainage patterns and land uses on or near floodplains as a key consideration - • Opportunity to enhance / define and rationalize Drury ‘town center’ and integrate with major transport infrastructure
<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> • Lack of defined northern landscape boundary a potential issue – consider integration and management of northern floodplain areas and extend boundary to Ponga Rd in the north • Suggest development of area in conjunction with Hingaia – Opaheke (A) with future structure planning of Papakura-Drury town centers and future transport planning (Rail Corridor and Mill Road Corridor)
<p>Considerations in relation to other Option Areas.</p>	

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)

Option Area: Core; Hingaia Opaheke-Drury (C)

Landscape Type* ¹ :	Downland.
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Landscape Character Area(s)* ¹	Papakura Alluvial Downlands
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Summary of Key Landscape Characteristics of Option Area

- Landscape in transition from rural to urban
- Enclosed coastal aspect and influence
- Generally visually recessive with areas of particular visibility in the south and west
- Infrastructural elements to the east (management of amenity effects)
- Open space and amenity enhancement opportunities

Key Landscape elements and patterns

Natural Geo-physical and Bio-Physical Attributes

- *Underlying landform and drainage*
- *Indigenous landcover*
- *Expressions of dynamic natural systems and processes where evident*

- Two broad flat to undulating inner harbour peninsula landforms – larger landform to the north (Hingaia Rd Peninsula)
- Curvilinear / interloped coastal margins of the Drury Creek System (Hingaia-Maketu-Hays sub-catchments) including numerous small defined headland features
- Intertidal / upper estuarine coastal features including steep coastal banks, mudflats and mangroves – coastal processes evident – ecological values
- More complex upper estuarine margins and marsh areas and adjoining south facing slopes to the south of Park Estate Rd (Slippery Creek mouth)
- Lack of indigenous terrestrial landcover

Modified and Physical (Human) Attributes

- *Elements and patterns of built form and settlement*
- *Patterns of landuse*
- *Modified natural systems*
- *Patterns of exotic vegetation*

- Adjoins established and emerging urban settlement patterns to the east (Papakura and Hingaia)
- Expansive adjoining rural residential settlement from Parakekau Rd to Karaka Way
- Small clustered urban residential settlements of Bottle Top Bay and Towai Rd (Hingaia Bridge east)
- College Campus development – Hayfield Way on western headland
- Hingaia Rd bridge crossing and Bottle Top Bay boat ramp / coastal access
- Limited shelterbelt vegetation patterns hedgerows and isolated stock shade / amenity trees.
- Fragmented patterns of roadside hedgerow and screen planting
- Limited horticultural development – shelterbelt vegetation patterns and glasshousing.
- Pastoral landuse predominates
- No identified stream corridors – modified / managed natural drainage patterns, field drains, small ponds, modified seepage areas evident
- Patterns of rural residential settlement principally aligned with a simple lineal local roading pattern
- Influence of SH1 corridor and 220Kv pylons and lines to the east of Park Estate Rd Peninsula

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> • <i>Area is able to be readily defined and is distinct.</i> • <i>Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes.</i> • <i>Expression of natural and human processes in the landscape</i> 	<ul style="list-style-type: none"> • Distinct peninsula landforms defined by coastal margins and existing settlement patterns with eastern boundary reinforced by SH1 and infrastructure corridor. • Park Estate area more legible as a discrete rural landscape • Legibility of Hingaia Rd area reduced by mix of both rural, urban and emerging urban landscape patterns – illustrative of a landscape in transition
Coherence	
<ul style="list-style-type: none"> • <i>Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification</i> 	<ul style="list-style-type: none"> • Ongoing development on Hingaia Rd Peninsula in the east reduces the cohesive pastoral landscape qualities • Southern peninsula less developed than the north - more aesthetically cohesive enhanced by predominant pasture land cover – perceived as a rural landscape remnant despite immediate urban setting
Context and Setting	
<ul style="list-style-type: none"> • <i>Value of area in relationship with adjoining landscape context</i> • <i>Contribution and value to wider landscape character area/type</i> 	<ul style="list-style-type: none"> • Areas reflect an established pattern of development west of SH1 corridor relatively contiguous with Papapakura • Strong coastal influence and relationship with the Pahurehure Inlet to the north and lower Drury Creek area to the south • Northern coastal areas of Hingaia Rd also relate to Pararekau Island • Southern slope areas of Park Estate very strongly influence the unique rural and estuarine character of the Slippery Creek mouth north of Drury and has a strong visual connection to SH1
Scenic Amenity	
<ul style="list-style-type: none"> • <i>Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities.</i> • <i>Visually intact and aesthetically pleasant and appreciable landscape qualities</i> 	<ul style="list-style-type: none"> • Southern slopes of Park Estate Rd relatively distinctive – unique and of scenic amenity value • Western headland of Hayfeild Rd contributes to limited scenic qualities of Hingaia Bridge crossing • Scenic qualities greater to the south reflecting generally higher degree of aesthetic coherence
Visibility	
<ul style="list-style-type: none"> • <i>Key views, view corridors and viewing audiences</i> 	<ul style="list-style-type: none"> • SH1 corridor and visibility of southern Park Estate slopes particularly in relation to appreciation of adjoining estuarine qualities of Drury creek system • Eastward views across Hingaia Bridge (Hingaia Rd and Linwood Rd) that include coastal margins of headland feature areas (Hayfield Rd and SE of Towai Rd) • Variety of views available from Hingaia Rd corridor – north and south strongly influenced by roadside vegetation patterns

Landscape Change: Evaluation of Urban Development Potential

Landscape attributes most sensitive to change	<ul style="list-style-type: none"> Coastal (physical/ecological) sensitivities for Park Estate Rd southern slopes area Sensitive coastal margins and banks (coastal processes) Limited perceptual landscape change for Hingaia Rd – landscape in transition Perceptual landscape change likely to be more evident for Park Estate Rd – particularly in the south
<ul style="list-style-type: none"> <i>Landscape structure and function. Physical landscape change.</i> <i>Perceptual landscape change.</i> <i>Likely changes of landscape values</i> 	
Visual Landscape effects	<ul style="list-style-type: none"> Visibility of Hingaia Rd area from Hingaia Rd controlled by roadside vegetation – flat terrain results in generally limited views to immediate road corridor area Northern areas of Park Estate Rd generally visually recessive – perceived as contiguous with Karaka Lakes area - Southern slope areas visually exposed to SH1 Western headlands visually prominent from Hingaia Bridge crossing Coastal margin protection and enhancement (vegetation) offers potential to manage visual effects Open space land use for southern slopes (Park Estate Rd) integrated with wider Drury Creek open space network offers potential to manage visual effects from SH1
<ul style="list-style-type: none"> <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> <i>General visibility</i> <i>Visibility controlled by landcover</i> <i>Visibility controlled by landform</i> <i>Potential for management of visual effects</i> 	
Scenic Amenity	<ul style="list-style-type: none"> Scenic amenity effects relative to landscape coherence with less coherence to the north than the south which is more legible as an open pastoral landscape
<ul style="list-style-type: none"> <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	
Likely effects of change and rural context	<ul style="list-style-type: none"> Likely to be perceived of as a continuation of existing and ongoing patterns of urban development of the wider Papakura area west of SH1 Also likely to affect perceptions of rural landscape values associated with Karaka North Peninsula
<ul style="list-style-type: none"> <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	
Existing Settlement Form and boundaries	<ul style="list-style-type: none"> Western coastline forms a strong physical boundary to westward growth of Papakura/Hingaia Hingaia Rd, Park Estate Rds and SH1 crossings key existing urban structural elements
<ul style="list-style-type: none"> <i>Likely effect of development on existing settlement form and boundaries</i> 	
Opportunities for Environmental Enhancement	<ul style="list-style-type: none"> Coastal protection and enhancement strategies Integrated open space planning in the south for Park Estate Rd area
<ul style="list-style-type: none"> <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	

Possible Mitigating / Design Opportunities	<ul style="list-style-type: none"> • Main roadway enhancement as managed amenity parkways: Hingaia Rd and Park Estate Rd • Coastal restoration and open space linkages and connections (maintain and enhance coastal access) • Reinforce open space and estuarine /coastal attributes to the south • Appropriately reflect existing amenity of Hingaia Bridge crossing and surrounds
<ul style="list-style-type: none"> • <i>Key considerations in relation to the landscape integration of any potential urban development.</i> 	<ul style="list-style-type: none"> • Develop existing local roading framework as urban grid pattern aligned with general peninsula landform and terrain to enhance site layout, movement and connectivity efficiencies • Concentrate Open space and amenity elements to coastal margins and more spatially constrained headland features – integrate as a cohesive network • Integration of local roading and SH1 crossings north and south • Consider connection of Park Estate Rd to Papakura Interchange in the north. • Appropriately manage adverse amenity effects / perceptions (residential use) of 220kv line and SH1 corridor alignments and in the east • Maintain and improve physical and visual connections to coastal environment
Urban Structure Considerations	<ul style="list-style-type: none"> • Overall area reflects transitional landscape qualities – particularly in the north, strongly suggesting further comprehensive urban structure planning to appropriately reflect an area of relatively high potential residential amenity
<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i> 	<ul style="list-style-type: none"> • Area forms the northern portion of the Drury Creek system between Pahurehure Inlet and the Slippery Creek mouth – Development opportunities to consider wider potential patterns of development of Karaka South area – particularly integration of open space planning and management of coastal margins • Western headlands and northwestern coastal margins strongly relate to Karaka North Peninsula which is part of the southern Pahurehure Inlet coast and associated peninsula landforms – consider management of coastal amenity for immediate Hingaia Bridge area and adjoining coastal margins both east and west.
Overall landscape Capacity for Urban Development	
Considerations in relation to other Option Areas.	

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)
Option Area: Core; Karaka South

Landscape Type* ¹ :	Downland.
Landscape Character Area(s)* ¹	Karaka Alluvial Downlands
Summary of Key Landscape Characteristics of Option Area	
<ul style="list-style-type: none"> • Working rural landscape in close proximity to existing urban center and key transport infrastructure • Local roading pattern and associated cadastral patterns suitable for intensified urban grid development • Strong natural drainage patterns and extensive coastal margin areas 	
Key Landscape elements and patterns	
Natural Geo-physical and Bio-Physical Attributes	<ul style="list-style-type: none"> • Undulating inner harbour peninsula landforms that define the southern areas of the Drury Creek – immediate receiving environment for the Whangapouri, Oira and Ngakoroa Stream systems • Curvilinear coastal margins of the Drury Creek. Intertidal / upper estuarine coastal features including steep coastal banks, mudflats and mangroves – coastal processes evident – ecological values Small islets (Drury Creek - DoC) • Unnamed 1st order streams and associated overland flow paths characterise eastern peninsula (e.g. north of Burberry Rd) and Oira Stream margins. Incised major stream corridors Whangapouri, Oira and Ngakoroa Streams • Rising steeper hill terrain in the south east (Bycroft Rd and Burt Road west areas) • Flatter coastal terrace terrain north of Bremner Rd • Flat lowland terrain to the east (lower Great South Rd west of SH1) • General lack of indigenous terrestrial landcover pattern
<ul style="list-style-type: none"> • <i>Underlying landform and drainage</i> • <i>Indigenous landcover</i> • <i>Expressions of dynamic natural systems and processes where evident</i> 	
Modified and Physical (Human) Attributes	<ul style="list-style-type: none"> • Adjoins established urban settlement in the east (Drury) influenced by wider urban development of Papakura • Includes dispersed areas of rural residential settlement about existing road access (Jesmond Rd, Bremner Rd) and more concentrated areas of rural residential development (e.g. Woodlyn Drive, Burberry Rd) • Borders established rural residential areas in the south and south east (Burt Rd east and Runciman Rd). Limited areas of glass housing in the north – significant and extensive glasshouse development in the south (between SH22 and Burt Rd) • Rail alignment (east- west. Adjoins existing complex SH1 interchange (Drury). Major arterial road (SH22) • Established rural vegetation patterns of field enclosure - shelterbelts and hedgerows. • Strong vegetation patterns associated with stream corridors (exotic / scrub/weedy?) • Pastoral landuse predominates
<ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> • <i>Area is able to be readily defined and is distinct.</i> • <i>Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes.</i> • <i>Expression of natural and human processes in the landscape</i> 	<ul style="list-style-type: none"> • Distinctive and visually separable peninsula landforms defined by coastal margins in the north • Eastern boundaries defined by SH1 corridor and adjoining areas of urban settlement. • Southern areas most strongly defined by western sub-catchments of the Ngakoroa Stream system and steep south facing scarps to the south of Burt Rd and more complex terrain of Woodlyn Dr / Bycroft Rd • Western extents less well defined with Whangapouri Rd area separated from broader eastern areas by the Oira Stream corridor
Coherence	
<ul style="list-style-type: none"> • <i>Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification</i> 	<ul style="list-style-type: none"> • Variety of rural landuses, elements and patterns in evidence – generally recognisable as a partially settled working landscape – lacking expansive landcover/use consistency to define as a highly aesthetically coherent area
Context and Setting	
<ul style="list-style-type: none"> • <i>Value of area in relationship with adjoining landscape context</i> • <i>Contribution and value to wider landscape character area/type</i> 	<ul style="list-style-type: none"> • Strongly influenced in east by Drury-Papakura urban areas and SH1 corridor • Strong coastal influence and relationship with the lower Drury Creek area • Northern coastal areas (Bremner Rd) relate to southern slopes south of Park Estate Rd • Whangapouri Rd peninsula and Oira Stream system signal transition to wider open rural landscape to the west and the reducing influence of existing urban areas in the east
Scenic Amenity	
<ul style="list-style-type: none"> • <i>Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities.</i> • <i>Visually intact and aesthetically pleasant and appreciable landscape qualities</i> 	<ul style="list-style-type: none"> • Likely scenic amenity values associated with coastal margins (limited existing access) • General amenity including scenic amenity strongly influenced by SH1 and infrastructure in the east • Scenic qualities of SH22 corridor limited – high use road corridor • Appreciable landscape qualities generally reflect diversity of landuse and landscape pattern - limited
Visibility	
<ul style="list-style-type: none"> • <i>Key views, view corridors and viewing audiences</i> 	<ul style="list-style-type: none"> • Eastern areas highly visible from SH1 corridor and Drury Interchange and approaches • High traffic volume for SH22 a key arterial route which bisects the area in the south.

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	
<ul style="list-style-type: none"> <i>Landscape structure and function. Physical landscape change.</i> <i>Perceptual landscape change.</i> <i>Likely changes of landscape values</i> 	<ul style="list-style-type: none"> Coastal (physical/ecological) sensitivities for coastal margins north of Bremner Road Sensitive coastal margins and banks (coastal processes) Sensitive stream corridors and margins including unnamed 1st order streams and tributaries Perception of significant landscape change more limited in the east where influence of existing settlement and urban development is more prevalent partially about SH1 interchange and SH1 and east of Jesmond and Oira Roads
Visual Landscape effects	
<ul style="list-style-type: none"> <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> <i>General visibility</i> <i>Visibility controlled by landcover</i> <i>Visibility controlled by landform</i> <i>Potential for management of visual effects</i> 	<ul style="list-style-type: none"> Views from SH22 corridor influenced by changes in road alignment and terrain with areas to the south generally more visible than areas to the north of this road. Jesmond Rd and Oira Rd views strongly controlled by existing patterns of roadside vegetation and field enclosure patterns of vegetation (shelterbelts etc) Areas to the north of SH22 and west of Ngakoroa Stream generally visually recessive to wider surrounds Open views from SH1 west to Great South Road area Potential to manage views from road corridors
Scenic Amenity	
<ul style="list-style-type: none"> <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	<ul style="list-style-type: none"> Scenic amenity effects relative to landscape coherence – limited scenic amenity
Likely effects of change and rural context	
<ul style="list-style-type: none"> <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	<ul style="list-style-type: none"> Likely to be perceived in the context of existing urban development in the east and as a logical part of westward expansion of this pattern to the west of SH1 Also likely to affect perceptions of continuing urban expansion westwards and raises potential issues in relation to perceptions of ongoing urban development on SH22
Existing Settlement Form and boundaries	
<ul style="list-style-type: none"> <i>Likely effect of development on existing settlement form and boundaries</i> 	<ul style="list-style-type: none"> SH22, the rail corridor, SH1 and interchange and Drury provide a strong existing urban framework for future urban development Potential to rationalize, enhance, and strengthen western margins of Drury as an urban center Utilize existing local road framework which defines a general urban grid north of SH22
Opportunities for Environmental Enhancement	
<ul style="list-style-type: none"> <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	<ul style="list-style-type: none"> Coastal protection and enhancement strategies Integrated open space planning in the north in conjunction with Park Estate Rd area and future planning for Drury urban center (Core:Hingaia-Opaheke-Drury (B)) Strengthening and integrated management of Stream corridors including use as open space linkages/connections

<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> • Main roadway enhancement as managed amenity parkways: SH22 • Coastal restoration and open space linkages and connections (maintain and enhance coastal access) • Reinforce open space and estuarine /coastal attributes to the north
<ul style="list-style-type: none"> • <i>Key considerations in relation to the landscape integration of any potential urban development.</i> 	<ul style="list-style-type: none"> • Define and reinforce western and southern landscape boundaries to contain further westward and southerly development • Develop existing local roading framework as urban grid pattern aligned with general peninsula landform and terrain to enhance site layout, movement and connectivity efficiencies • Utilize transport opportunities of existing rail corridor – note amenity and connectivity considerations for land uses adjoining rail corridor • Concentrate open space and amenity elements to coastal margins • Enhance and integrate stream corridors as key organizing structural landscape patterns • Maintain and improve physical and visual connections to coastal environment • Appropriately manage adverse amenity effects / perceptions (residential use) of 220kv line and SH1 corridor alignments and in the east
<p>Urban Structure Considerations</p>	
<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i> 	<ul style="list-style-type: none"> • Generally avoid urban development west of Oira Stream corridor to reinforce open pastoral landscape character of SH22 corridor between Pukekohe and Drury • Clearly define southern boundary – recommend steep scarp to the south of Burt Rd • Bycroft Rd and Woodlyn Drive not generally suitable for urban development • Concentrate potential development to the north of Burt Rd and SH22 and to the east of Oira Rd and Jesmond Road
<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> • Key consideration for this area (and for wider pattern of potential urban development in the south) is the management of patterns of urban development aligned with SH22 corridor (sprawl – inefficient urban structure) and the effects of such patterns on existing rural character.
<p>Considerations in relation to other Option Areas.</p>	

Landscape Evaluation Worksheet

Rural Urban Boundary Investigations (South)

Option Area: Alternative Business, Ramarama

Landscape Type* ¹ :	Volcanic. Downland.
Landscape Character Area(s)* ¹	Pukekohe Volcanic Downs and Bombay Hills Papakura Alluvial Downlands

Summary of Key Landscape Characteristics of Option Area

- Narrow hillslope landform with elevated broad pastured spur/terraces easing to lower flats in the north
- Upper sub-catchment streams/dams with steeper incised gullies and rolling terrain
- Proximity of Ramarama “village” (heritage church, hall, dairy, garage, interchange)
- Alignment of simple lineal roading and settlement patterns with principal landform (Great South Rd in particular)
- Strong eastern visual connection with SH1 corridor, extending to wider mid-Hingaia Valley & Ararimu Hills
- Rural residential settlement concentrated to the north west (Runciman Rd)
- Limited areas of existing rural activities and rural production including glasshouses to the west and south.

Key Landscape elements and patterns

<h4 style="background-color: #cccccc; padding: 2px;">Natural Geo-physical and Bio-Physical Attributes</h4> <ul style="list-style-type: none"> • <i>Underlying landform and drainage</i> • <i>Indigenous landcover</i> • <i>Expressions of dynamic natural systems and processes where evident</i> 	<ul style="list-style-type: none"> • Narrow hillslope landform separating the Oira-Nakoroa and Hingia-Makatu sub-catchments • Hillslopes easing from “Bombay Hills” complex in the south to flat to undulating land in the north • Upper east facing slopes and terraces east of Great South Rd – west facing west of Great South Rd • Moderate to steeply dissected upper catchment east draining 1st order channels (predominantly drains to Hingia Sub-catchment east of Great South Rd) and to the Nakoroa west of Great South Rd • Limited and isolated patches and patterns of indigenous vegetation
<h4 style="background-color: #cccccc; padding: 2px;">Modified and Physical (Human) Attributes</h4> <ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	<ul style="list-style-type: none"> • Pastoral landcover predominates • Eastern boundary defined by SH1 • Dispersed patterns of rural residential settlement to the west (Runciman Rd) • Concentration of built form about Ararimu / Great South Road intersection including glasshouses (Cooper Rd) • Proximity to Ararimu Rd SH1 interchange • Yard based rural activities (Woods Yard) • 220Kv line east-west bisect • Hedgerows and lineal patterns of field enclosure esp. on flats and elevated terrace slopes • Distinct small patches of vegetation (mapped as deciduous hardwood vegetation (indigenous?)) • farm drains dams and ponds • scrub/weedy drainage channels

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> • <i>Area is able to be readily defined and is distinct.</i> • <i>Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes.</i> • <i>Expression of natural and human processes in the landscape</i> 	<ul style="list-style-type: none"> • Distinct hill slope area more readily defined from the east with SH1 a key element that provides physical and visual boundary definition. • Clear distinction between lower flats, eastern slopes, western slopes and central Great South Rd spur. • Influence of natural drainage patterns evident although not prominent.
Coherence	
<ul style="list-style-type: none"> • <i>Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification</i> 	<ul style="list-style-type: none"> • Strong coherence of eastern hill slopes as a recognisable pastoral aesthetic reinforced by hedgerow field enclosure patterns with similarly strong patterns on northern flats. • Fragmented landuse to the west and south with a lessening of pastoral coherence and an increasing influence of a diversity of settlement and built form.
Context and Setting	
<ul style="list-style-type: none"> • <i>Value of area in relationship with adjoining landscape context</i> • <i>Contribution and value to wider landscape character area/type</i> 	<ul style="list-style-type: none"> • Significant contribution to perception of the continuation of a sequence of rural landscape character transition aligned with SH1 corridor from Collision Crossroads / Bombay to Drury • Eastern slopes form part of wider Hingia Valley Ararimu visual context • Western slopes visually relate to wider Runciman area.
Scenic Amenity	
<ul style="list-style-type: none"> • <i>Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities.</i> • <i>Visually intact and aesthetically pleasant and appreciable landscape qualities</i> 	<ul style="list-style-type: none"> • Contributes to the scenic amenity of SH1 corridor as a southern rural gateway or arrival sequence. • Frames strong northerly lineal alignment of SH1. • Majority of existing built elements relatively balanced by a visual predominance of open pasture from SH1 in particular.
Visibility	
<ul style="list-style-type: none"> • <i>Key views, view corridors and viewing audiences</i> 	<ul style="list-style-type: none"> • Eastern slopes visible from SH1 corridor north and south bound. Northern flats also visible but more recessive. • Upper terrace areas relatively discrete where framed by vegetation and drainage patterns/terrain • SH1 travel time exposure: moderate to high with a more consistent and exposed view south bound • Moderating factors include roadside cutting slopes and existing vegetation - northbound in particular. • Eastern areas relatively visually discreet from "internal" easterly Great South Rd views

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	
<ul style="list-style-type: none"> <i>Landscape structure and function. Physical landscape change.</i> <i>Perceptual landscape change.</i> <i>Likely changes of landscape values</i> 	<ul style="list-style-type: none"> Further (potential*) change/modification to Hingaia Catchment drainage function (*assuming change within Drury South Plan Change Area) Extensive earthworks and landform modification to accommodate business / commercial buildings in an area where hills slope terrain predominates. Change from open pastoral rural aesthetic on eastern slopes in particular. Likely change in rural landscape character values in regard to SH1 corridor as a transitional sequence of rural landscape character(s).
Visual Landscape effects	
<ul style="list-style-type: none"> <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> <i>General visibility</i> <i>Visibility controlled by landcover</i> <i>Visibility controlled by landform</i> <i>Potential for management of visual effects</i> 	<ul style="list-style-type: none"> Eastern slopes visually prominent along with Great South Rd spurline and skyline from SH1 (high volume viewing audience). Flats more recessive. Current roadside planting screens and fragments views. SH1 cuttings and modified terrain also control views. Natural drainage patterns potential to act as structural organizing element - could also be enhanced to manage visual effects to a degree (in conjunction with existing patches of vegetation) SH1 edge boundary treatments and s/w management provides similar potential.
Scenic Amenity	
<ul style="list-style-type: none"> <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	<ul style="list-style-type: none"> Option Area presents a diversity of landform and terrain with legibility and coherence reinforced by overarching open pastoral landscape character and complementary vegetation patterns Extensive modification of landform / terrain diversity, vegetation patterns and natural drainage patterns would be a significant detractor from current appreciable landscape qualities that have a high visual exposure to a large viewing audience.
Likely effects of change and rural context	
<ul style="list-style-type: none"> <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	<ul style="list-style-type: none"> Likely perception of industrial commercialized corridor development rather than transitional rural landscape. Potential for urban development to contrast adversely with surrounding rural production and rural residential landscape patterns.
Existing Settlement Form and boundaries	
<ul style="list-style-type: none"> <i>Likely effect of development on existing settlement form and boundaries</i> 	<ul style="list-style-type: none"> Great South Rd, SH1 and Ararimu Rd provide logical basis for organizing and defining extent of any potential urban development pattern South western boundary (Cooper Rd), and westerly (Runciman) hill slopes less distinct and less likely to provide clear boundaries. Integration with Runciman rural residential and existing eastern slopes rural res. areas likely issue Potential opportunity to develop and strengthen Ramarama "village" structure as a rural node

<p>Opportunities for Environmental Enhancement</p>	<ul style="list-style-type: none"> • Enhancement of stream / natural drainage patterns incorporating modified farm ponds and dams to define distinct development areas. • Strengthening existing patches of mature vegetation to provide further landscape structure and amenity for the above. • Recognize and reflect sensitivities (including visual exposure) of less recessive upper hill slope and spurline areas – use open hill slopes to provide rural backdrop/context to lower slopes
<ul style="list-style-type: none"> • <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	<ul style="list-style-type: none"> • Use of SH1 Corridor landscape buffers building on visual containment of SH1 cuttings and natural drainage patterns to provide a green network context and reduce appearance of expansive contiguous areas of built development. • Strengthening of lineal planting patterns and field enclosure in line with the above • Avoid intensive/expansive development of upper slope areas – maintain upper slope open rural backdrop.
<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> • <i>Key considerations in relation to the landscape integration of any potential urban development.</i>
<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i> 	<ul style="list-style-type: none"> • Layout, movement and connectivity efficiencies likely to be effected by narrow lineal option area shape and exacerbated by underlying landform diversity • Block size, shape and interconnectivity also likely to be effected by terrain diversity with limited areas for interconnected large footprint business development without significant and extensive areas of landform modification. • Roading / access limited by SH1 eastern barrier-permeability and movement restrictions • Potential opportunity on flat to undulating land to the north and some more elevated hill terrace areas • Established road linkages and potential connections which would also frame development • Upper elevated terrace areas more suited to smaller footprint /finer grained patterns of built form or rural open space. • Amenity enhancements aligned with environmental enhancements and mitigation / design opportunities
<p>Urban Structure Considerations</p>	<ul style="list-style-type: none"> • Business urban development is likely to be restricted by landform and terrain diversity where such diversity occurs • Significant issues likely in relation to wider landscape character change and conversion of current open rural character to an urban commercial environment. • Limited urban business development may be possible however area presents considerable physical and perceptual landscape limitations • Less restricted areas are more appropriate for large format built form.
<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> • Business urban development is likely to be restricted by landform and terrain diversity where such diversity occurs • Significant issues likely in relation to wider landscape character change and conversion of current open rural character to an urban commercial environment. • Limited urban business development may be possible however area presents considerable physical and perceptual landscape limitations • Less restricted areas are more appropriate for large format built form.

Considerations in relation to other Option Areas.

- Possible efficiencies and linkages and connections with potential Great South Road-Ararimu Rd-Mill Road Corridor “block” with Drury interchange in the north and Ararimu interchange in the south inclusive of Plan change area in the east and Drury / Karaka in the North. This would reflect a fundamental change in landscape character for the entire mid Hingia visual catchment.
- Less challenging areas for business landuse exist in the Investigation Area where expansive areas of relatively flat terrain predominate including Burt Road, Karaka; Walker Rd, Opaheke; Helvetia Rd & Station Rd Pukekohe.

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)

Option Area: Ramarama South Business

Landscape Type*¹:	Volcanic
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Landscape Character Area(s)*¹	Pukekohe Volcanic Downs and Bombay Hills
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Summary of Key Landscape Characteristics of Option Area

- Horticultural “working landscape” of moderate to high visual amenity
- Adjoins major infrastructural corridor in the east (includes SH1 and 110Kv power pylons / line)
- Adjoins small existing rural settlement area to the north east (Ramarama)
- Spatially constrained to the west
- Contiguous with a wider horticultural landscape pattern to the south
- Proximate to SH1 and full diamond SH1 interchange (Ararimu Rd)
- Characterised by strong drainage patterns – includes stormwater modifications (ponds)

Key Landscape elements and patterns

Natural Geo-physical and Bio-Physical Attributes	
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- *Underlying landform and drainage*
- *Indigenous landcover*
- *Expressions of dynamic natural systems and processes where evident*

- Gently undulating to rolling terrain easing from more elevated and steeper Bombay hills complex in the south
- Area dissected by upper eastern branch of Ngakoroa Stream system in the west (small upper catchment channel to Hingaia-Maketu system in the east)
- Isolated Totara trees and possible areas of indigenous vegetation about stream corridor
- Good general northerly aspect
- Natural drainage patterns / processes evident

Modified and Physical (Human) Attributes	
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- *Elements and patterns of built form and settlement*
- *Patterns of landuse*
- *Modified natural systems*
- *Patterns of exotic vegetation*

- Horticultural landuse predominates
- Field enclosure and landuse management strongly influenced by natural drainage patterns
- Includes pond / stormwater management areas – part of a wider managed water course to the south
- Limited areas of rural residential subdivision to the north east – Maher Rd area
- Dispersed patterns of rural (farm) residential areas on Great South Rd
- Community Hall and facilities also located to the north east – aligned with Ararimu Rd and Maher Rd
- NW areas influenced by small commercial area about Great South Rd and Ararimu Rd intersection
- Eastern boundary adjoins SH1 corridor – includes Power pylons and lines (110Kv line)
- Strongly influenced in the NE by SH1 Ararimu Rd interchange
- Horticultural packing sheds, yards and associated facilities (Maher Rd)
- Patterns of exotic vegetation associated with amenity planting for residential areas, limited shelter planting and riparian vegetation patterns

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> Area is able to be readily defined and is distinct. Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes. Expression of natural and human processes in the landscape 	<ul style="list-style-type: none"> Distinctive and clear working landscape characterised by horticultural landuse patterns and isolated vegetation patterns in particular Field management patterns complimentary to and enhance (contrast with) natural drainage patterns Defined to the north by Ararimu Rd – also strongly relates to southern Alternative Business Area Strongly defined to the east by eastern infrastructure corridor (SH1 and 110Kv line) Less defined to the south – landuse and drainage patterns continue to the south – part of a contiguous landscape character area) Defined to the west by Great South Rd corridor and generally steeper more dissected valley and hill slope areas
Coherence	
<ul style="list-style-type: none"> Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification 	<ul style="list-style-type: none"> Relatively strong degree of coherence as a working horticultural landscape – high degree of aesthetic coherence and recognisable patterns of landuse.
Context and Setting	
<ul style="list-style-type: none"> Value of area in relationship with adjoining landscape context Contribution and value to wider landscape character area/type 	<ul style="list-style-type: none"> Part of the narrow hillslope landform separating the Oira-Nakoroa and Hingia-Makatu sub-catchments and wider gentle hill slopes pattern from Bombay north Contributes to perception of the continuation of a sequence of rural landscape character transition aligned with SH1 corridor from Collision Crossroads / Bombay to Drury – particularly a perception of horticultural landuse
Scenic Amenity	
<ul style="list-style-type: none"> Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities. Visually intact and aesthetically pleasant and appreciable landscape qualities 	<ul style="list-style-type: none"> Intrinsic amenity and aesthetically pleasant landscape qualities Moderate to high scenic amenity values associated with aesthetic coherence of landuse and vegetation patterns with patterns of isolated - Totara trees providing added interest
Visibility	
<ul style="list-style-type: none"> Key views, view corridors and viewing audiences 	<ul style="list-style-type: none"> Generally visually discreet from SH1 corridor with highway cuttings affecting views – glimpsed views Visible from Ararimu Rd west and surrounds including Maher Rd area and small commercial area to the north west Limited visibility from Great South Rd in the west

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	<ul style="list-style-type: none"> • Sensitivities of natural drainage patterns including overland flow paths • Perception of significant landscape change likely to be considered in the context of existing visual landscape amenity values (strong aesthetic cohesion)
<ul style="list-style-type: none"> • <i>Landscape structure and function. Physical landscape change.</i> • <i>Perceptual landscape change.</i> • <i>Likely changes of landscape values</i> 	
Visual Landscape effects	<ul style="list-style-type: none"> • Relatively visually recessive from wider external viewpoints and view corridors • Visibility strongly controlled by landform with Ararimu Rd cutting obscuring views from SH1 • Roadside vegetation patterns filter and screen views from Great South Rd in the west • Northern areas generally visible from Ararimu Rd • Potential to manage visual effects through strengthening of existing natural landscape pattern – enhancement of natural drainage patterns in particular as well as management of road corridor vegetation
<ul style="list-style-type: none"> • <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> • <i>General visibility</i> • <i>Visibility controlled by landcover</i> • <i>Visibility controlled by landform</i> • <i>Potential for management of visual effects</i> 	
Scenic Amenity	<ul style="list-style-type: none"> • Effects on scenic amenity relate predominately to maintenance of existing vegetation patterns and rural landuse management and an appropriate balance of recessive built form
<ul style="list-style-type: none"> • <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	
Likely effects of change and rural context	<ul style="list-style-type: none"> • Potential loss of existing rural hill slope and production landscape character which contributes to the wider rural context of the northern Bombay Hills area • Potentially represents a significant change of rural character and setting of the immediate Ramarama area – small rural settlement node
<ul style="list-style-type: none"> • <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	
Existing Settlement Form and boundaries	<ul style="list-style-type: none"> • Limited existing rural settlement form to the north east – small commercial area and historic elements (Church) • Existing pattern of development strongly influenced by local roading alignments • Lack of strong landscape boundary to the south • Potential to enhance existing settlement structure
<ul style="list-style-type: none"> • <i>Likely effect of development on existing settlement form and boundaries</i> 	
Opportunities for Environmental Enhancement	<ul style="list-style-type: none"> • Strengthening of riparian vegetation patterns to enhance landscape structure and function as part of wider and integrated catchment management • Include integrated management of stream corridors as open space linkages/connections
<ul style="list-style-type: none"> • <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	

<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> Integration of any potential urban form with the enhancement of existing small commercial / local service area at Ramarama (consider in association with Alternative Business Area to the north) – include and enhance local community facilities Enhance and protect natural drainage patterns including larger pond features as key structural landscape patterns Manage visual effects from local road corridors Manage potential adverse amenity effects of eastern infrastructure corridor (spatial separation, mitigation and enhancement – utilize Hingaia-Maketu 1st order channel in the east)
<p>Urban Structure Considerations</p>	<ul style="list-style-type: none"> Ararimu interchange and future Mill Rd corridor provide significant road transport movement and connectivity opportunities to integrate with adjoining areas to the north (and potentially the north east at Drury South) as well as to utilize SH1 access Spatially constrained to the west and east Efficient urban structure restricted in relation to movement and connectivity by natural drainage patterns Some potential for access via surrounding local road network Moderate to high rural amenity potential
<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> Business use proposed – area particularly sensitive to large format business development with potential for considerable contrast of urban and existing rural character Possible limited opportunity for masterplanned sensitive business development Business Park typologies however consider wider context of any adjoining or future development Possible development opportunity of a range of rural residential or clustered urban residential development typologies associated with environmental enhancement appropriate for the wider landscape context - develop Ramarama as a more consolidated rural settlement
<p>Considerations in relation to other Option Areas.</p>	<ul style="list-style-type: none"> Current option area limited to the south – comprehensive development planning and future urban opportunity to consider more extensive areas to the south as part of a more logical physical landscape character area Future landuse planning for Ramarama as a rural service or future settlement node – include consideration of southern Alternative Business Area (in part) Consider potential business use in regard to Drury South area and future Mill Rd corridor as well as interconnectivity between Drury and Ararimu Rd interchanges, Mill Rd corridor and Great South Rd.

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)
Option Area: Karaka North

Landscape Type* ¹ :	Downland.
Landscape Character Area(s)* ¹	Karaka Alluvial Downlands
Summary of Key Landscape Characteristics of Option Area	
<ul style="list-style-type: none"> • Extensive open pastoral inner harbour peninsula with coastal margins • Gently undulating terrain - Lineal patterns of field enclosure (hedgerows and shelterbelts) • General lack of indigenous vegetation – strong natural drainage patterns • Simple existing roading access and lineal / geometric cadastral patters 	
Key Landscape elements and patterns	
Natural Geo-physical and Bio-Physical Attributes	<ul style="list-style-type: none"> • Gently undulating inner harbour peninsula landform generally narrowing and easing in slope to the north • Indented estuarine margins of the Whangapouri inlet in the east and Whangamaire inlet in the west with northernmost peninsula coastline extending into Pahurehure Inlet • Intertidal estuarine coastal features including steep coastal banks, mudflats and mangroves – coastal processes evident • Numerous unnamed 1st order streams and strong overland flow path patterns generally draining into adjoining estuary inlets • More rolling and incised terrain to the west of Dyke Rd. Undulating, easing to south sloping land to the south of Walters Rd and west of Blackridge Rd • Steeper southeast facing terrain to the east of Walters Rd to Hingaia Rd adjoining Whangapouri Inlet • General lack of indigenous terrestrial landcover
<ul style="list-style-type: none"> • <i>Underlying landform and drainage</i> • <i>Indigenous landcover</i> • <i>Expressions of dynamic natural systems and processes where evident</i> 	
Modified and Physical (Human) Attributes	<ul style="list-style-type: none"> • Pastured land cover predominates • Modified natural drainage patterns with field drains ponds and dams • Strong vegetation patterns associated with stream channels evident (assumed predominately exotic) • Fragmented exotic coastal margin vegetation patterns (shelter planting) • Rectilinear patterns of field enclosure defined by shelter planting and hedgerows • Small local community center (Hall, Church, Sports ground, shop, residential – Linwood and Dyke Rds) • Includes dispersed patterns of farm dwellings aligned with local road network • Small concentration of rural residential development at Rosewood Rd • Commercial processing facility (Karaka North Rd) • Small glasshouse operation William Potter Ln • Simple local roading pattern that generally follows north south axis of peninsula and alignment of southern slope area (accommodates generally ordered rectilinear cadastral patterns)
<ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> • <i>Area is able to be readily defined and is distinct.</i> • <i>Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes.</i> • <i>Expression of natural and human processes in the landscape</i> 	<ul style="list-style-type: none"> • Peninsula landform defined to east and west by harbour inlets reinforced by coastal banks and adjoining slopes • Reinforced by Linwood Rd bridge gateways – Hingaia and Glassons bridges • Less distinct to the south with southern inland extents defined by noticeable changes in elevation and slope generally south of Walters Rd and west of Blackridge Rd.
Coherence	
<ul style="list-style-type: none"> • <i>Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification</i> 	<ul style="list-style-type: none"> • Relatively strong degree of coherence as a working pastoral landscape derived from extensive grassland landcover, patterns of field enclosure and recessive scale and intensity of related built form.
Context and Setting	
<ul style="list-style-type: none"> • <i>Value of area in relationship with adjoining landscape context</i> • <i>Contribution and value to wider landscape character area/type</i> 	<ul style="list-style-type: none"> • Part of a sequence of peninsula landforms that define the southern extent of the Pahurehure inlet that reflect a similar landform pattern to the north (urbanized) • Contributes to perceptions of open rural character of southern Pahurehure Inlet coastline when viewed from northern suburbs (Weymouth / Wattledowns) • Contextualizes Hingaia Peninsula area to the east with eastern slopes addressing Hayfield Rd (north) coastal slopes and Botteltop Bay - Provides eastern frame/context to Karaka West area – separable landform • Southern south facing slopes provide landscape setting to mid-Whangapouri catchment areas to the south
Scenic Amenity	
<ul style="list-style-type: none"> • <i>Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities.</i> • <i>Visually intact and aesthetically pleasant and appreciable landscape qualities</i> 	<ul style="list-style-type: none"> • Likely scenic amenity values associated with coastal margins (limited existing access) • Appreciable landscape qualities associated with Inlet / bridge transitions Hingaia and Glassons Bridges and associated slopes
Visibility	
<ul style="list-style-type: none"> • <i>Key views, view corridors and viewing audiences</i> 	<ul style="list-style-type: none"> • Western and eastern slopes more visually exposed to Linwood Rd corridor and settled areas of Hingaia. • Range of views from coastal margins and open space areas to the north (Weymouth / Wattledowns) – distant views from SH1 of northern coastal margins

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	<ul style="list-style-type: none"> Physical sensitivities for more exposed coastal margins to the north Slope stability sensitivities approaching coastal margins SE & SW and for adjoining natural drainage channels (steeper stream gullies and slopes) Sensitivities of natural and modified drainage patterns – overland flow paths, farm ponds etc Perception of significant landscape change likely – consider in the context of continued urban development of Hingaia and urbanization of northern Pahurehure Inlet
<ul style="list-style-type: none"> <i>Landscape structure and function. Physical landscape change.</i> <i>Perceptual landscape change.</i> <i>Likely changes of landscape values</i> 	
Visual Landscape effects	<ul style="list-style-type: none"> Central areas relatively visually recessive (limited access, flat to undulating terrain, patterns of field enclosure) Northern coastal margins visually exposed to urban areas in the north Potential to manage visual effects through considered / integrated design of coastal margins, location, scale and intensity of development and road corridor design
<ul style="list-style-type: none"> <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> <i>General visibility</i> <i>Visibility controlled by landcover</i> <i>Visibility controlled by landform</i> <i>Potential for management of visual effects</i> 	
Scenic Amenity	<ul style="list-style-type: none"> Consider specific scenic amenity effects in relation to eastern and western bridge ‘gateways’
<ul style="list-style-type: none"> <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	
Likely effects of change and rural context	<ul style="list-style-type: none"> Potentially perceived as continuation of existing wider pattern of urban development of the Pahurehure Inlet westwards from Hingaia. Generally separable landform from southern inland rural areas – reinforced by influence of eastern and western estuarine inlets Maintain open pastoral rural characteristics of south facing slopes – contributes to wider Drury to Pukehoke open pastoral rural character and management of SH22 corridor.
<ul style="list-style-type: none"> <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	
Existing Settlement Form and boundaries	<ul style="list-style-type: none"> Simple road access network and geometric cadastral patterns Defined coastal boundaries Restricted access to the east and west by inlets – possible linkages to the east across Drury Creek – Whangapouri Inlet (100-200m) Walters Rd and Blackridge Rd (west) suggest logical southern area extents and integration with main Linwood Rd access/network Development likely to affect existing settlement core (Dykes Rd / Linwood Rd)
<ul style="list-style-type: none"> <i>Likely effect of development on existing settlement form and boundaries</i> 	
Opportunities for Environmental Enhancement	<ul style="list-style-type: none"> Coastal protection and enhancement strategies including integrated open space planning in the north Strengthening and integrated management of stream corridors (open space linkages/connections)
<ul style="list-style-type: none"> <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	

<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> • Appropriately manage eastern and western bridge gateways and adjoining slopes – scenic amenity • Enhance and protect natural drainage patterns including larger pond features as key structural landscape patterns • Coastal restoration and open space linkages and connections (maintain and enhance coastal access) • Reinforce open space and estuarine /coastal attributes to the north • Manage Linwood Rd as key access / rural parkway
<ul style="list-style-type: none"> • <i>Key considerations in relation to the landscape integration of any potential urban development.</i> 	<ul style="list-style-type: none"> • Urban structure dictated by peninsula landform – becoming more restrictive to the north • Define pastoral characteristics of southwestern, southeastern inlet and southern slope areas to reinforce internal peninsula “core” • Develop existing local roading framework as urban grid pattern aligned with general peninsula landform and terrain to enhance site layout, movement and connectivity efficiencies – relatively good access to Papakura interchange (approx. 5ks from Karaka North Rd / Linwood Rd intersection) • Concentrate open space and amenity elements to coastal margins particularly to the north • Enhance and integrate stream corridors as key organizing structural landscape patterns • Maintain and improve physical and visual connections to coastal environment • Considerable opportunity for a new town development with relatively high degree of rural and coastal amenity / livability
<p>Urban Structure Considerations</p>	
<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i> 	<ul style="list-style-type: none"> • Large discrete area of potential greenfield development • Generally avoid urban development on western, eastern and southern slopes • Concentrate potential development within peninsula core generally to the north of Walters Rd
<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> • Consider landscape capacity in the context of a wider integrated landuse planning strategy that reflects exiting urban development patterns of the Pahurehure Inlet • Relates to current pattern of urban development of Hingaia Peninsula • A further key consideration for this area (and for wider pattern of potential urban development in the south) is the management of patterns of urban development aligned with SH22 corridor (sprawl – inefficient urban structure) and the effects of such patterns on existing “<i>open pastoral</i>” rural character Avoiding urban development of southern slope areas south of Walters Rd would contribute to an overall strategy to maintain existing open pastoral character of the SH22 corridor.
<p>Considerations in relation to other Option Areas.</p>	

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)
Option Area: Karaka West

Landscape Type* ¹ :	Downland.
Landscape Character Area(s)* ¹	Karaka Alluvial Downlands
Summary of Key Landscape Characteristics of Option Area	
<ul style="list-style-type: none"> • Broad coastal peninsula characterised by exposed western coast and more discreet inner harbour northeastern coast • Generally flat terrain that include numerous branching drainage channels • Limited patterns of contiguous vegetation • Limited built development - relatively remote with currently restricted access to the south 	
Key Landscape elements and patterns	
Natural Geo-physical and Bio-Physical Attributes	<ul style="list-style-type: none"> • Broad flat to gently undulating inner harbour peninsula landform • Distinct north western coastal terrace and minor scarp (part of a wider landform to the west) Exposed Manukau Harbour northwestern coastline • Minor coastal spit to the north (Karaka Pt) with evidence of shell bank accumulation and small beaches • Series of indented minor inlet embayment's to the northeast with adjoining inland drainage sub-catchments (to Pahurehure Inlet) • Intertidal estuarine coastal features including small beaches, coastal banks, mudflats and mangroves – coastal processes evident • Numerous unnamed 1st order drainage channels and strong overland flow path patterns generally draining to the northeast (partially modified) • More rolling and incised terrain to the southeast adjoining Whangamaire / Glassons Creek Inlet coastline • Strong natural drainage pattern to the northwest (north of Laing Rd) • Area extends to more elevated, steep and complex minor hill terrain to the south (Urquhart Road) • Well established indigenous revegetation of gully system to the north east (Aulyn Drive)
<ul style="list-style-type: none"> • <i>Underlying landform and drainage</i> • <i>Indigenous landcover</i> • <i>Expressions of dynamic natural systems and processes where evident</i> 	
Modified and Physical (Human) Attributes	<ul style="list-style-type: none"> • Pastured land cover predominates - Significant areas of horticultural landuse to the east of Urquhart Rd • Modified natural drainage patterns with field drains ponds and dams • Rectilinear field management patterns - little field enclosure • Remote and dispersed patterns of farm dwellings aligned with local road network - Limited rural residential development - Aulyn Drive • Simple local roading pattern that generally follows north south axis of peninsula • General lack of contiguous vegetation pattern
<ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> • <i>Area is able to be readily defined and is distinct.</i> • <i>Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes.</i> • <i>Expression of natural and human processes in the landscape</i> 	<ul style="list-style-type: none"> • Clearly distinctive peninsula landform in the north defined by coastal landform features • Defined about Laing Rd by both NE draining (vegetated - 110 Urquhart Rd) and NW draining (east of Bryant Rd) gully systems • More broken southern hill slope terrain provides natural boundary / transition to the south • Open pastoral and horticultural use complimentary to wider open expanses of Manukau Harbour to the west and generally flat terrain – legible as a productive working landscape within a diverse coastal setting.
Coherence	
<ul style="list-style-type: none"> • <i>Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification</i> 	<ul style="list-style-type: none"> • Relatively strong degree of coherence as a working landscape derived from productive landuse and recessive scale and intensity of related built form.
Context and Setting	
<ul style="list-style-type: none"> • <i>Value of area in relationship with adjoining landscape context</i> • <i>Contribution and value to wider landscape character area/type</i> 	<ul style="list-style-type: none"> • Part of a sequence of peninsula landforms that define the southern extent of the Pahurehure inlet – reflects a similar landform pattern to the north (urbanized) – northern extent has a very strong spatial and visual connection with Weymouth south • Contributes to perceptions of open rural character of southern Pahurehure Inlet coastline when viewed from northern suburbs (Weymouth / Wattledowns southern coasts) • Contextualizes Karaka North area to the east with eastern slopes addressing Karaka North slopes north of Dyke Rd and the William Potter Lane area • Southern hill slopes frame inland pasture land to the south • Western coastal terrace provides eastern context for Elletts Beach area to the west
Scenic Amenity	
<ul style="list-style-type: none"> • <i>Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities.</i> • <i>Visually intact and aesthetically pleasant and appreciable landscape qualities</i> 	<ul style="list-style-type: none"> • Relatively high scenic amenity values associated with western coastal margins and views to Manukau Harbour and Manukau Heads / Awhitu • Intrinsic amenity and aesthetically pleasant landscape qualities derived from coastal setting and wider context as well as perception of relative remoteness
Visibility	
<ul style="list-style-type: none"> • <i>Key views, view corridors and viewing audiences</i> 	<ul style="list-style-type: none"> • Generally visually discreet north of Laing Rd - Range of views from coastal margins and open space areas to the north of Pahurehure Inlet (Weymouth / Wattledowns) of northern coastal margins and features

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	
<ul style="list-style-type: none"> • <i>Landscape structure and function. Physical landscape change.</i> • <i>Perceptual landscape change.</i> • <i>Likely changes of landscape values</i> 	<ul style="list-style-type: none"> • Physical sensitivities for more exposed coastal margins including western coastal terrace, northern spit areas and north eastern embayments • Slope stability sensitivities approaching coastal margins to the SE • Sensitivities of natural and modified drainage patterns – overland flow paths, farm ponds etc • Perception of significant landscape change likely to be considered in the context of urbanization of northern Pahurehure Inlet and predominant rural landuse in the south
Visual Landscape effects	
<ul style="list-style-type: none"> • <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> • <i>General visibility</i> • <i>Visibility controlled by landcover</i> • <i>Visibility controlled by landform</i> • <i>Potential for management of visual effects</i> 	<ul style="list-style-type: none"> • SE and SW coastal margins likely visible from Karaka North (in the east) and Bryant Rd / Elletts Beach area (in the west) • Northern coastal margins visually exposed to urban areas in the north controlled to a degree by limited coastal vegetation and alignment of NE headlands (visibility controlled by landform) • Potential to manage visual effects through considered / integrated design of coastal margins and open space; location, scale and intensity of development; – general reduction of urban capacity within sensitive coastal margins and headland features.
Scenic Amenity	
<ul style="list-style-type: none"> • <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	<ul style="list-style-type: none"> • Effects on scenic amenity relate predominately to maintenance of visual and open space connections to the Manukau Harbour to the west and north
Likely effects of change and rural context	
<ul style="list-style-type: none"> • <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	<ul style="list-style-type: none"> • Potentially perceived as continuation of existing wider pattern of urban development of the Pahurehure Inlet westwards from Hingaia. Generally separable landform from southern inland rural areas • Represents potential change of open rural context of Pahurehure Inlet coast – dependent on coastal management approach • Maintain open pastoral rural characteristics of southern hill slopes – south of Laing Rd area contributes to open pastoral rural character to the south.
Existing Settlement Form and boundaries	
<ul style="list-style-type: none"> • <i>Likely effect of development on existing settlement form and boundaries</i> 	<ul style="list-style-type: none"> • Dispersed and remote existing settlement framework • Simple road access network and associated large parcel geometric cadastral patterns • Defined coastal, gully and hill slopes areas suggest containment boundaries • Current access limited from the south
Opportunities for Environmental Enhancement	
<ul style="list-style-type: none"> • <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	<ul style="list-style-type: none"> • Coastal protection and enhancement strategies including integrated open space planning in the north, west and east. • Strengthening and integrated management of stream corridors (open space linkages/connections)

<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> • Enhance and protect natural drainage patterns including larger pond features as key structural landscape patterns • Strengthen vegetation patterns and reinforce SE and SW major drainage gullies • Coastal restoration and open space linkages and connections (maintain and enhance coastal access) particularly for western coastal terrace and northern spit areas • Reinforce coastal estuarine qualities in the northeast with adjoining open space
<ul style="list-style-type: none"> • <i>Key considerations in relation to the landscape integration of any potential urban development.</i> 	<ul style="list-style-type: none"> • General scope for concentrated area of urban development north of Laing Rd sympathetic to drainage patterns and coastal sensitivities • Access and roading key consideration and determinant of any potential urban structure – restricted connectivity with access limited to the south • Terrain & existing roading pattern establishes basic urban grid framework for enhanced site layout, movement and connectivity efficiencies – supported by existing cadastral patterns to the east of Urquhart Rd • Less capacity for gridded urban structure to the west of Urquhart Rd • Concentrate open space and amenity elements to coastal margins particularly to the northeast, north and for western coastal terrace • Enhance and integrate drainage corridors as key organizing structural landscape patterns • Maintain and improve physical and visual connections to Manukau Harbour to the North and West • Opportunity for urban development with relatively high degree of rural and coastal amenity / livability
<p>Urban Structure Considerations</p>	<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i>
<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i> 	<ul style="list-style-type: none"> • Large discrete area of potential greenfield development. Relatively remote in relation to urban infrastructure provision -Carefully consider access and connectivity (traffic management issue) • Avoid urban development on western coastal terrace, north eastern coastal margin headlands and hill slopes south of Laing Rd • Concentrate potential development within peninsula core generally to the east of Urquhart Rd
<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> • Consider landscape capacity in the context of a wider integrated landscape planning strategy that reflects exiting urban development patterns of the Pahurehure Inlet including Karaka North and the Hingaia Peninsula • Consideration of a wider assessment of landscape capacity for coastal and rural areas to the west recommended (Kingseat, Waiau Pa, and Clarkes Beach)
<p>Considerations in relation to other Option Areas.</p>	

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)
Option Area: Whangapouri

Landscape Type* ¹ :	Downland.
Landscape Character Area(s)* ¹	Karaka Alluvial Downlands
Summary of Key Landscape Characteristics of Option Area	
<ul style="list-style-type: none"> • Diverse option area – includes coastal, riparian and rural hill slope areas • Established patterns of rural residential development on narrow peninsula landform • Natural drainage patterns a key structural landscape element • Includes significant portions of SH22 road corridor – implications for scenic and rural visual amenity (views of open pastoral farmland) • More elevated moderately steep to rolling land in the south 	
Key Landscape elements and patterns	
<p>Natural Geo-physical and Bio-Physical Attributes</p> <ul style="list-style-type: none"> • <i>Underlying landform and drainage</i> • <i>Indigenous landcover</i> • <i>Expressions of dynamic natural systems and processes where evident</i> 	<ul style="list-style-type: none"> • Narrow undulating inner harbour (Drury Creek) peninsula landform in the north defined by Oira and Whangapouri Streams and inlets • Estuarine coastline and features including coastal banks, mudflats and mangroves – coastal processes evident • Rolling mid catchment north facing hill slopes to the southwest – south of Whangapouri Stream • More dissected and elevated hill slope terrain to the south of SH22 (Glassons Creek to Blackridge Creek sub-catchment) west of Gellert Rd • Whangapouri Stream (mid to lower catchment) and associated unnamed 1st order north draining channels • General lack of indigenous vegetation pattern • Strong patterns and influence of natural drainage (overland flow path and seepage area patterns)
<p>Modified and Physical (Human) Attributes</p> <ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	<ul style="list-style-type: none"> • Pastured land cover predominates - significant areas of horticultural landuse to the east of Whangapouri Rd • Modified drainage pattern - ponds and dams and associated stream corridor vegetation patterns (assumed exotic) • Rectilinear field management patterns reinforced by limited field enclosure vegetation (hedgerows / shelterbelts) • Arterial roadway SH22 and local road intersection (Glennbrook Rd) with small concentrations of roadside urban settlement near Glennbrook Rd • Areas of rural residential settlement in the north (Manuwai Ln, Leamy Way, Arana Dr) and Gellert Rd in the south • More dispersed patterns of farm dwellings aligned with local road network • Significant areas of glasshouse production west of Gellert Rd • Golf course, fairway vegetation and facilities (Pukekohe Golf Course)

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> Area is able to be readily defined and is distinct. Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes. Expression of natural and human processes in the landscape 	<ul style="list-style-type: none"> Distinct peninsula landform in the north defined by coastal edge Whangapouri Stream in the south a less defined landscape boundary - relatively recessive landscape element in comparison to northern catchment boundary at Lewis Rd Generally less defined in the south – consider areas to the south of SH22 in conjunction with Paerata, and Paerata North. Part of a wider east-west hill slope continuum between Ramarama and Patumahoe Generally legible as a pastoral working landscape with strong coastal influences in the north and landuse management aligned with natural drainage and slope in the south.
Coherence	
<ul style="list-style-type: none"> Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification 	<ul style="list-style-type: none"> Coherence as a working landscape derived from productive landuse and recessive scale and intensity of related built form – less cohesive as productive rural about areas of rural residential and residential development.
Context and Setting	
<ul style="list-style-type: none"> Value of area in relationship with adjoining landscape context Contribution and value to wider landscape character area/type 	<ul style="list-style-type: none"> Contributes to wider perceptions of open pastoral rural character and the perceptual and spatial separation of existing areas of settlement between Pukekohe and Drury Provides the rural landscape setting for significant portions of the SH22 corridor Whangapouri Rd peninsula area provides spatial separation between Karaka North and Karaka South areas and is generally contiguous with the Bycroft Rd / Woodlyn Dr areas to the south
Scenic Amenity	
<ul style="list-style-type: none"> Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities. Visually intact and aesthetically pleasant and appreciable landscape qualities 	<ul style="list-style-type: none"> Moderate scenic amenity value associated open pastoral rural character – generally higher scenic / visual amenity north of SH22 associated with the visually contained Whangapouri valley
Visibility	
<ul style="list-style-type: none"> Key views, view corridors and viewing audiences 	<ul style="list-style-type: none"> SH22 key rural arterial road – open pastoral character relatively predominant from Paerata to Oira Rd sections with reduced influence of Pukekohe and Drury settlement. Glenbrook Rd intersection key roading node/route transition to Waiuku. Whangapouri Stream corridor east generally visible from Blackridge Rd

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	
<ul style="list-style-type: none"> <i>Landscape structure and function. Physical landscape change.</i> <i>Perceptual landscape change.</i> <i>Likely changes of landscape values</i> 	<ul style="list-style-type: none"> Physical sensitivities for more exposed coastal and inlet margins in the north Sensitivities of natural and modified drainage patterns – overland flow paths, farm ponds etc – Whangapouri Stream and upper southern tributaries in particular Likely to significantly influence perceptions of wider rural character given the location of SH22 including perceptions of urban sprawl / expansion and the reduction of open pastoral rural character between existing and established settlement areas
Visual Landscape effects	
<ul style="list-style-type: none"> <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> <i>General visibility</i> <i>Visibility controlled by landcover</i> <i>Visibility controlled by landform</i> <i>Potential for management of visual effects</i> 	<ul style="list-style-type: none"> More elevated slopes south of SH22 relatively visible from SH22 – lowland areas to the north less visible (roadside vegetation and terrain) Whangapouri Rd area relatively discrete Potential to manage visual effects through management of roadside vegetation – however may still result in loss of open pastoral views
Scenic Amenity	
<ul style="list-style-type: none"> <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	<ul style="list-style-type: none"> Effects on scenic amenity relate predominately to maintenance of visual connections / perception of open pastoral character
Likely effects of change and rural context	
<ul style="list-style-type: none"> <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	<ul style="list-style-type: none"> Potentially perceived as continuation of existing wider pattern of urban development from Drury to Pukekohe Whangapouri Rd area may be perceived of as part of wider potential westward urban expansion Represents potential change of open rural context and rural roadway experience of SH22 (note Karaka South Area and recommendations to avoid urban development to the West of Oira Stream corridor)
Existing Settlement Form and boundaries	
<ul style="list-style-type: none"> <i>Likely effect of development on existing settlement form and boundaries</i> 	<ul style="list-style-type: none"> Little existing settlement form / structure – consider influence of Paerata in the south and SH22 corridor development (Glenbrook Rd intersection) Possible integration of Golf Course as key open space asset Likely to affect amenity / character of rural residential areas. Need to integrate potential settlement form with existing roading patterns including Gellert Rd and Sim Rd
Opportunities for Environmental Enhancement	
<ul style="list-style-type: none"> <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	<ul style="list-style-type: none"> Coastal protection and enhancement in the north and Whangapouri Inlet / stream mouth. Strengthening and integrated management of stream corridors (open space linkages/connections) and restoration of indigenous patterns of riparian vegetation – potential for wetland rehabilitation – enhancement for mid Whangapouri Stream

<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> • Enhance and protect natural drainage patterns as key structural landscape patterns • More elevated terrain to the south (aspect and views) • Manage SH22 as a rural road 'parkway' • Maintain visual connection to rural open pastoral areas – avoid 'building out' both sides of SH22 • Integration of Golf Course as existing or re-design as integrated course with Whangapouri Stream - open space/recreation/sw management etc if considering development to the north of SH22 • Improve local roading inter-connections (Sim and Gellert Rds) in the south
<p>Urban Structure Considerations</p>	<ul style="list-style-type: none"> • Generally restricted urban structure to the north (Whangapouri Rd) as a consequence of narrow peninsula form and proximity of coastal margins • Slope and natural drainage patterns a key consideration in the south particularly in relation to movement and connectivity & upper mid catchment stream crossings • Evaluate in association with considerations and recommendations for Paerata Area • Basic block structure determined principally by natural drainage patterns – less restricted to the north of SH22 • Integrate local roading patterns and connections Sim Rd 'block' to the west to SH22 Paerata Rd (Note Glasshouse production Gellert Rd) • Integrate open space and amenity elements where appropriate • Enhance and integrate drainage corridors as key organizing structural landscape patterns
<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> • Potential for urban development in the south in association with Paerata Area • Potential development to the north of SH22 – however consider open rural character values in relation to southern development potential and Scenic Amenity of SH22 corridor and concept of rural open space continuum between Pukekohe and Drury • Avoid urban development on northern coastal peninsula to maintain spatial separation with Karaka North area
<p>Considerations in relation to other Option Areas.</p>	<ul style="list-style-type: none"> • Consider southern areas in regard to development options for Paerata area • Key consideration for this area (and for wider pattern of potential urban development in the south) is the management of patterns of urban development aligned with SH22 corridor (perceptions of sprawl – inefficient urban structure) and the effects of such patterns on existing rural character.

Landscape Evaluation Worksheet Rural Urban Boundary Investigations (South) Option Area: Paerata & Paerata North	
Landscape Type* ¹ :	Downland. Volcanic
Landscape Character Area(s)* ¹	Karaka Alluvial Downlands. Pukekohe Volcanic Downs and Bombay Hills
Summary of Key Landscape Characteristics of Option Area	
<ul style="list-style-type: none"> • Varied hill slope terrain - Very strong natural drainage patterns • Scenic amenity values more dominant in the east (Paerata North) – proximate to existing ONL area • Strong infrastructural patterns (220Kv line and rail alignments) • Existing settlement 'node' in the west – Wesley College • Borders SH22 corridor 	
Key Landscape elements and patterns	
Natural Geo-physical and Bio-Physical Attributes	<ul style="list-style-type: none"> • Moderate to strongly rolling hill slope terrain characterised by the northern extents of the South Auckland Volcanic Field including an extended low spur feature generally followed by the Sim Rd alignment • Mid Oira Stream catchment and associated tributaries in the east – Mid to upper Glassons Creek to Blackridge Creek sub-catchment of the Whangapouri Stream to the west - incised and steeper stream channels with strong overland drainage patterns and seeps • Contained north-south aligned valley and gully landforms with associated west and east facing slopes – easing to areas of northerly slope in the north (see Whangapouri Area) • Impressive and unique geological bluff feature to the east of Sim Rd north of existing ONL area – strongly recommend Outstanding Natural Feature assessment • Lack of indigenous vegetation pattern (note ONL area to the immediate south).
<ul style="list-style-type: none"> • <i>Underlying landform and drainage</i> • <i>Indigenous landcover</i> • <i>Expressions of dynamic natural systems and processes where evident</i> 	
Modified and Physical (Human) Attributes	<ul style="list-style-type: none"> • Wesley College – contained campus site - school and associated buildings, fields and access • SH22 alignment to the west – Sim Rd to the east with associated areas of rural residential development (in the NE) • Dispersed patterns of farm buildings, farm access and dwellings. Pastoral landcover predominates • Rail line – steep cutting follows tributary alignment NE to SW • 220Kv power line and pylons NE to SW alignment • Limited lineal vegetation patterns of field enclosure • Strong vegetation patterns (exotic/scrub/weedy) associated with branching stream corridors and drainage channels contrasting with surrounding managed pasture.
<ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	

*¹ 2008 RPS Review: *Landscape*. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> • <i>Area is able to be readily defined and is distinct.</i> • <i>Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes.</i> • <i>Expression of natural and human processes in the landscape</i> 	<ul style="list-style-type: none"> • Wesley College area relatively distinct and defined in relation to SH22 corridor and existing pattern of campus development. Reinforced by surrounding farm access and field management patterns • Paerata North area less defined and more legible as part of a wider NE - SW hill slope and valley continuum – particularly to the SE of rail alignment and Oira Steam corridor. • Strong influence of natural drainage patterns / underlying valley and gully landforms.
Coherence	
<ul style="list-style-type: none"> • <i>Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification</i> 	<ul style="list-style-type: none"> • More coherent to the west influenced by less diverse terrain and consistent pastoral landcover (Paerata area) • Less coherent to the east with a greater influence of more varied terrain and landform reinforced by separated visual containment (diversity of valley views).
Context and Setting	
<ul style="list-style-type: none"> • <i>Value of area in relationship with adjoining landscape context</i> • <i>Contribution and value to wider landscape character area/type</i> 	<ul style="list-style-type: none"> • Areas to the immediate west of SH22 contribute to wider perceptions of SH22 rural arterial roadway and wider open pastoral rural character setting – consider in relation to southern Whangapouri area • Paerata area also relates to flatter terrace terrain to the immediate west of SH22 • Paerata North relatively discrete - contributes to and reflects rural hill slope and valley terrain to the east and south east
Scenic Amenity	
<ul style="list-style-type: none"> • <i>Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities.</i> • <i>Visually intact and aesthetically pleasant and appreciable landscape qualities</i> 	<ul style="list-style-type: none"> • Higher scenic amenity values to the east – views from Sim Rd eastward – influenced by adjoining ONL area to the south • Moderate rural visual amenity to the north and northwest – effected by 220Kv line alignment.
Visibility	
<ul style="list-style-type: none"> • <i>Key views, view corridors and viewing audiences</i> 	<ul style="list-style-type: none"> • SH22 key view corridor • Existing north-south road alignment follows lower elevation terrace terrain with roadside cuttings characterizing much of view corridor to the east controlling visibility • Existing roadside vegetation patterns also strongly influence views to both the west and east • Wider more expansive views from Sim Rd as it follows the more elevated Sim Rd spurline includes views to the northwest to Pareata area

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	
<ul style="list-style-type: none"> <i>Landscape structure and function. Physical landscape change.</i> <i>Perceptual landscape change.</i> <i>Likely changes of landscape values</i> 	<ul style="list-style-type: none"> Scenic amenity sensitivities to the east in proximity to ONL areas and possible Outstanding Natural Feature Physical landscape sensitivities in relation to extensive natural drainage corridor patterns and associated overland flow paths, gullies and seepage areas. Perceptual landscape sensitivities in relation to landscape change and SH22 as a rural arterial roadway and wider perception of spatial landscape separation between Pukekohe and Drury - likely change in rural landscape character
Visual Landscape effects	
<ul style="list-style-type: none"> <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> <i>General visibility</i> <i>Visibility controlled by landcover</i> <i>Visibility controlled by landform</i> <i>Potential for management of visual effects</i> 	<ul style="list-style-type: none"> Eastern areas relatively visually discrete Paerata western slopes and elevated terrain generally more visually exposed to SH22 – from the northern east-west alignment – relatively visually discrete from north-south alignment in the west. Current roadside planting screens and fragments views - SH22 cuttings and modified terrain also control views. Natural drainage patterns potential to act as structural organizing element - could also be enhanced to manage visual effects SH22 edge boundary treatments and s/w management provides similar potential.
Scenic Amenity	
<ul style="list-style-type: none"> <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	<ul style="list-style-type: none"> Eastern areas (Paerata North) represent a more limited capacity to accommodate urban development that may detract from current appreciable landscape qualities Development of Paerata area more likely to affect rural visual amenity rather than appreciable scenic amenity
Likely effects of change and rural context	
<ul style="list-style-type: none"> <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	<ul style="list-style-type: none"> Possible perception of SH22 as an urbanized arterial corridor development rather than open pastoral rural landscape. Potential for urban development to contrast adversely with surrounding rural production and rural residential landscape patterns Consider wider context of open pastoral working landscape rural character between Pukekohe and Drury.
Existing Settlement Form and boundaries	
<ul style="list-style-type: none"> <i>Likely effect of development on existing settlement form and boundaries</i> 	<ul style="list-style-type: none"> SH22 alignment (including up to Glenbrook Rd) key influence on settlement form Existing development structure established Wesley College campus and access Existing farm access patterns and field management suggest basic form of potential development structure / opportunity Additional considerations include interconnectivity of adjoining local road network (Gellert and Sim Rd)

<p>Opportunities for Environmental Enhancement</p>	<ul style="list-style-type: none"> • Enhancement of stream / natural drainage patterns to define distinct development areas – consider in context or relative lack of indigenous vegetation • Reflect scenic amenity sensitivities of steeper hill slope and spurline areas to the east – possible enhancement of existing areas of indigenous vegetation aligned with ONL area
<ul style="list-style-type: none"> • <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	<ul style="list-style-type: none"> • Moderately rolling terrain separated by natural drainage patterns compartmentalizes hill slopes in the west (some degree of visual separation between hill slope areas). Potential to reduce appearance of expansive contiguous areas of built development • Use of SH22 corridor landscape buffers building on visual containment of SH22 cuttings and existing roadside vegetation patterns • Avoid intensive/expansive development of upper slope areas – maintain upper slope open rural backdrop to the east.
<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> • <i>Key considerations in relation to the landscape integration of any potential urban development.</i>
<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i> 	<ul style="list-style-type: none"> • Visual amenity issues (and possible landuse constraints) in relation to 220kv line alignment • Existing rail line represents transport opportunities – restricted transport catchment to the southeast • Local roads network suggests potential roading connections and interconnectivity • Block size, shape, site layout interconnectivity and movement efficiencies likely to be effected by natural drainage patterns and series of compartmentalized hill slopes in the west • Moderate landform modification likely (Paerata) • Amenity / livability influenced by scale of potential development and character of adjoining areas as either rural or urban setting (relates to management of spatial separation of Pukekohe to Drury)
<p>Urban Structure Considerations</p>	<ul style="list-style-type: none"> • Significant issues likely in relation to wider landscape character change and conversion of current open rural character to an urban environment in the east (Paerata North). Avoid urban development to the east of Sim Rd and Oira Stream • Moderate development opportunity about existing Wesley College area
<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> • Consider Paerata area in regard to development options for southern Whangapouri area • The management of patterns of urban development aligned with SH22 corridor (perceptions of sprawl – inefficient urban structure) • Consider necessity for northern corridor growth in relation to comprehensive development of existing Pukekohe urban grid and the westward development of Pukekohe Hill
<p>Considerations in relation to other Option Areas.</p>	<ul style="list-style-type: none"> • Consider Paerata area in regard to development options for southern Whangapouri area • The management of patterns of urban development aligned with SH22 corridor (perceptions of sprawl – inefficient urban structure) • Consider necessity for northern corridor growth in relation to comprehensive development of existing Pukekohe urban grid and the westward development of Pukekohe Hill

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)
Option Area: Pukekohe-Paerata (B)

Landscape Type* ¹ :	Downland.
Landscape Character Area(s)* ¹	Karaka Alluvial Downlands
Summary of Key Landscape Characteristics of Option Area	
<ul style="list-style-type: none"> • Strongly rolling to steep rural hill slope valleys - Strong existing patterns of indigenous, riparian and exotic vegetation • High scenic amenity • Existing rural residential settlement 	
Key Landscape elements and patterns	
Natural Geo-physical and Bio-Physical Attributes	<ul style="list-style-type: none"> • Strongly rolling to steep dissected upper sub-catchments of the Oira Stream in the south and west and the western branch of the Ngakoroa Stream in the north • Wide upper semi-circular catchment valley landform characterised by branching sub-catchment valley patterns – defined by strong upper ridgeline (Upper Oira system) • Similar branching valley landform patterns for north draining Ngakoroa – more narrow and enclosed – strong ridgeline patterns • Part of a wider sequence of generally north draining rural valleys that extend from Great South Rd in the east westward to Pukekohe that reflects the underlying geological transition from South Auckland Volcanics to Puketoka Formations • Adjoins proposed Outstanding Natural Feature to the south (Pukekohe Crater) • Includes small patches and contiguous areas of indigenous vegetation in both hill slope and riparian corridor areas • Numerous unnamed 1st order drainage channels and strong dendritic patterns generally draining to the northwest (Oira system) and north (Ngakaora) • Includes east facing slopes east of Cape Hill Rd ridge and west facing slopes of Runciman Rd ridge
Modified and Physical (Human) Attributes	
<ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	<ul style="list-style-type: none"> • Pastured land cover predominates particularly for more moderate hill slopes - drainage patterns characterised by strong vegetation patterns – includes indigenous and exotic vegetation • Limited field enclosure – hedgerows on hill slopes and lower valley slopes • Field management patterns aligned with varied slope terrain • Relatively dispersed patterns of rural residential development in the west with more clustered patterns to the east and north (accessed via Runciman Rd); and the south (accessed via Grace James Rd). Includes hill slope site access and areas of amenity and riparian planting / vegetation management

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> Area is able to be readily defined and is distinct. Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes. Expression of natural and human processes in the landscape 	<ul style="list-style-type: none"> Distinctive upper catchment valleys Defined to the south by existing urban development and distinct volcanic feature Defined to the west and east by catchment ridgelines reinforced by local road alignments Less defined to the north – eases to ONL area and wider rural residential patterns of Runciman Rd Legible as a predominately pastoral hill slope landscape characterised by strong exiting vegetation patterns as a complimentary setting for rural residential settlement
Coherence	
<ul style="list-style-type: none"> Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification 	<ul style="list-style-type: none"> Relatively strong degree of coherence as a pastoral hill slope landscape derived from existing landuse management and recessive scale and intensity of related built form.
Context and Setting	
<ul style="list-style-type: none"> Value of area in relationship with adjoining landscape context Contribution and value to wider landscape character area/type 	<ul style="list-style-type: none"> Pattern of north draining rural hill slopes and valleys that characterise Ramarama, Bombay and Pukekohe East westwards to Pareata Rd Significantly contributes to the spatial and landscape separation of Drury South and Pukekohe Contributes to the eastern rural context of Pukekohe - natural landscape limits of urban settlement form Emerging patterns of development to the south of Grace James Rd represent growth away from town core and an extension of urban development into eastern rural hills
Scenic Amenity	
<ul style="list-style-type: none"> Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities. Visually intact and aesthetically pleasant and appreciable landscape qualities 	<ul style="list-style-type: none"> Relatively high scenic amenity values associated with contained valley landforms and high degree of legibility / coherence Intrinsic amenity and aesthetically pleasant landscape qualities derived from hill valley setting and wider context
Visibility	
<ul style="list-style-type: none"> Key views, view corridors and viewing audiences 	<ul style="list-style-type: none"> Generally visually discreet from west of Cape Hill Rd Oira Stream valley highly visible from Grace James Rd Intermittent westerly views from Runciman Rd (local road) of both Oira and Ngakoroa Stream valleys

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	
<ul style="list-style-type: none"> <i>Landscape structure and function. Physical landscape change.</i> <i>Perceptual landscape change.</i> <i>Likely changes of landscape values</i> 	<ul style="list-style-type: none"> Physical sensitivities for steeper hill slope areas and steeper riparian channels and banks Sensitivity of existing patterns of indigenous vegetation (physical disturbance – ecological sensitivities) Sensitivities of natural drainage patterns including overland flow paths Perception of significant landscape change likely to be considered in the context of relatively high existing scenic and visual landscape amenity values
Visual Landscape effects	
<ul style="list-style-type: none"> <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> <i>General visibility</i> <i>Visibility controlled by landcover</i> <i>Visibility controlled by landform</i> <i>Potential for management of visual effects</i> 	<ul style="list-style-type: none"> 'Internal' visual effects intensified by ridgeline containment as valleys lack wider visual context Visibility strongly controlled by landform with valleys visually discrete from external viewpoints Potential to manage visual effects through strengthening of existing natural landscape pattern – more appropriate for rural residential than urban development form/structure
Scenic Amenity	
<ul style="list-style-type: none"> <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	<ul style="list-style-type: none"> Effects on scenic amenity relate predominately to maintenance of existing vegetation patterns and rural landuse management and an appropriate balance of recessive built form
Likely effects of change and rural context	
<ul style="list-style-type: none"> <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	<ul style="list-style-type: none"> Potential loss of existing eastern rural hill slope character which provides context for eastern Pukekohe as a main urban center Potentially represents a significant change of rural character for a pastoral hill slope area of relatively high scenic and visual landscape amenity Change of rural open space context between Drury and Pukekohe
Existing Settlement Form and boundaries	
<ul style="list-style-type: none"> <i>Likely effect of development on existing settlement form and boundaries</i> 	<ul style="list-style-type: none"> Cape Hill Rd and Runciman Rd provide ridgeline access – possible further extension of Grace James Rd may also provide further access Ridgelines provide natural landscape boundaries High physical landscape constrains for urban development
Opportunities for Environmental Enhancement	
<ul style="list-style-type: none"> <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	<ul style="list-style-type: none"> Strengthening of strong existing vegetation patterns particularly areas of indigenous vegetation and riparian vegetation patterns Integrated management of stream corridors (open space linkages/connections)
Possible Mitigating / Design Opportunities	
<ul style="list-style-type: none"> <i>Key considerations in relation to the landscape integration of any potential urban development.</i> 	<ul style="list-style-type: none"> Physical landscape constraints (access, slope, drainage patterns, existing vegetation patterns and visual amenity) suggest clustered / concentrated development opportunities – if any. Enhance and protect natural drainage patterns including larger pond features as key structural landscape patterns

Urban Structure Considerations	<ul style="list-style-type: none"> • Efficient urban structure restricted in relation to movement and connectivity by topography, terrain, natural drainage and landcover • Eastward intensification moves away from existing Pukekohe urban service core – restricted opportunity to provide additional service opportunities • Some potential for access via surrounding local road network • High rural amenity and livability potential more aligned to rural residential development than intensive urban development structure
Overall landscape Capacity for Urban Development	<ul style="list-style-type: none"> • Generally not suited for urban intensification • Possible further development of a range of rural residential development typologies associated with environmental enhancement opportunities appropriate for the wider landscape context
Considerations in relation to other Option Areas.	<ul style="list-style-type: none"> • Consider Paerata & Paerata North, Pukekohe - Paerata(B), Pukekohe South East and Pukekohe West all within the context of the consolidated and integrated development of Pukekohe as a main rural satellite center building on existing urban structure • Eastern Pukekohe generally more topographically constrained than areas to the north, west and south west of town center • Generally avoid sprawling corridor development along Pukekohe East Rd in the east and Paerata Rd in the north

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)
Option Area: Pukekohe South East

Landscape Type*¹: **Volcanic.**

Landscape Character Area(s)*¹ **Pukekohe Volcanic Downs and Bombay Hills**

Summary of Key Landscape Characteristics of Option Area

- Two separable land areas – steeper gully and spur terrain in the north – flatter and less constrained in the south
- Northern areas part of eastern Pukekohe ‘gateway’ - Southern areas less prominent and more contiguous with underlying landform of existing urban areas
- Significant influence of natural drainage patterns throughout

Key Landscape elements and patterns

<p>Natural Geo-physical and Bio-Physical Attributes</p> <ul style="list-style-type: none"> • <i>Underlying landform and drainage</i> • <i>Indigenous landcover</i> • <i>Expressions of dynamic natural systems and processes where evident</i> 	<ul style="list-style-type: none"> • Steep to very steep gully terrain in the north to the immediate south of Pukekohe East Rd (southern branch of the upper Whangapouri system) • Strongly dissected by steep gully landforms generally steeper in the east • Limited areas of more moderate upper spur terrain defined by steep gullies - Eases to less steep gullies and spurs to the west approaching Golding Rd • More moderate sloping to undulating land to the south (west of Golding Rd about Yates Rd) part of the Tutaenui Stream system that drains to the south -Tutaenui sub-catchments include broader flatter terrain in the north (generally north of Yates Rd) with more varied terrain influenced by branching stream corridors and low gullies to the south of Yates Rd • Limited areas of contiguous indigenous landcover aligned with stream corridors to the south of Yates Rd – very limited indigenous vegetation to the north • Expressive of underlying land shaping processes (steep gullies and stream corridors) with limited expression of natural processes to the south about vegetated stream areas south of Yates Rd
<p>Modified and Physical (Human) Attributes</p> <ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	<ul style="list-style-type: none"> • Pasture generally predominates in the north with mixed vegetation patterns throughout gullies and stream corridors – limited number of farm ponds / dams • Areas of rural residential development aligned with Pukekohe East Rd and access in the north utilizing narrow upper sub-catchment spur terrain • Equestrian land uses to the south (north of Yates Rd) with rectilinear land management patterns of enclosure with open pasture predominating • Generally dispersed patterns of rural / farm settlement in the south with numerous clusters of farm buildings and limited rural residential development aligned with simple local roading pattern

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> • <i>Area is able to be readily defined and is distinct.</i> • <i>Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes.</i> • <i>Expression of natural and human processes in the landscape</i> 	<ul style="list-style-type: none"> • Northern area defined to the north by Pukekohe East Rd which is in turn defined by Pukekohe East Crater • Less perceptible landscape boundary to the west as hill spurs ease in slope to Golding Rd • Limited contextual legibility to the east and south of the northern area – most legible as an area of existing rural residential settlement • Southern area more contained by existing local road pattern including Logan Rd and Golding Rd generally aligned with more moderate terrain and areas of flatter land • Legibility of option area reinforced by local roading pattern in the south
Coherence	
<ul style="list-style-type: none"> • <i>Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification</i> 	<ul style="list-style-type: none"> • Areas to the north more characterised by existing rural residential patterns -generally less cohesive influenced by diversity of more varied terrain • Degree of coherence to the south with moderately consistent land use and land cover
Context and Setting	
<ul style="list-style-type: none"> • <i>Value of area in relationship with adjoining landscape context</i> • <i>Contribution and value to wider landscape character area/type</i> 	<ul style="list-style-type: none"> • Northern areas strongly influenced by eastern Pukekohe land form 'gateway' and the alignment of Pukekohe East Rd as it follows the main Pukekohe East crater rim ridge from Runciman Rd eastwards - forms a part of the eastern hill slope rural boundary to Pukekohe • Southern lower elevation areas more influenced by existing rural landuses and proximity of recreational urban landsues (west) and residential areas (in the south)
Scenic Amenity	
<ul style="list-style-type: none"> • <i>Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities.</i> • <i>Visually intact and aesthetically pleasant and appreciable landscape qualities</i> 	<ul style="list-style-type: none"> • Northern areas contribute to scenic amenity of eastern Pukekohe gateway and wider westerly views in particular that include views of Roosevelt Park and Pukekohe Hill
Visibility	
<ul style="list-style-type: none"> • <i>Key views, view corridors and viewing audiences</i> 	<ul style="list-style-type: none"> • Pukekohe East Rd – key gateway / roadway westerly and easterly views • Southern area more visually discrete limited views from local road network

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	
<ul style="list-style-type: none"> • <i>Landscape structure and function. Physical landscape change.</i> • <i>Perceptual landscape change.</i> • <i>Likely changes of landscape values</i> 	<ul style="list-style-type: none"> • Steep to very steep upper catchment slopes in the north • Areas of indigenous vegetation in the south – particularly aligned with natural drainage patterns • General sensitivities of natural drainage patterns including overland flow paths • Possible perception of corridor urban development encroaching on eastern gateway and influencing existing varied rural landscape context characterised by volcanic crater to the north and steep gully terrain to the south
Visual Landscape effects	
<ul style="list-style-type: none"> • <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> • <i>General visibility</i> • <i>Visibility controlled by landcover</i> • <i>Visibility controlled by landform</i> • <i>Potential for management of visual effects</i> 	<ul style="list-style-type: none"> • Southern area more visually recessive than northern area • Development opportunities confined to more elevated (prominent) spur terrain in the north • degree of visual containment of low lying areas provided by surrounding terrain particularly rising rural slopes to the south and east • potential to partially manage visual effects of northern areas through the strengthening of gully vegetation patterns and roadside vegetation management • Potential to manage visual effects in the south through the protection and enhancement of existing riparian vegetation patterns to provide a strong landscape structure
Scenic Amenity	
<ul style="list-style-type: none"> • <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	<ul style="list-style-type: none"> • Effects on scenic amenity in the north likely to relate to the eastern transport corridor and the influence of open pastoral landscapes in combination with views of Roosevelt Park, Pukekohe Hill and Pukekohe East Crater • Limited effects to the south
Likely effects of change and rural context	
<ul style="list-style-type: none"> • <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	<ul style="list-style-type: none"> • In the north - potential change of existing open pastoral hill slope character which provides context for eastern Pukekohe as a main urban center - Part of a wider hill slope continuum to the east • Southern areas more contiguous with underlying landform of existing urban areas framed by gently rising rural hill slopes and reinforced by local roading pattern
Existing Settlement Form and boundaries	
<ul style="list-style-type: none"> • <i>Likely effect of development on existing settlement form and boundaries</i> 	<ul style="list-style-type: none"> • Limited existing urban structure to the east (north of Pukekohe East Rd) and limited to rural residential to the south of main road (topographical constraints) - • Southern areas represents an south eastward urban expansion influenced by existing southern residential areas (Buckland) and existing recreational and urban landuse (Pukekohe Raceway and southern 'big box' development

<p>Opportunities for Environmental Enhancement</p>	<ul style="list-style-type: none"> • Opportunities for slope stabilization and riparian management in the north • Riparian enhancement in the south
<ul style="list-style-type: none"> • <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	<ul style="list-style-type: none"> • Northern areas constrained by topography particularly in relation to access / connectivity of urban structure • Southern areas to consider incorporation of natural drainage patterns and areas of indigenous vegetation - Protect as key structural landscape pattern in the context of wider comprehensive development of areas to the east of Pukekohe
<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> • Key considerations in relation to the landscape integration of any potential urban development.
<p>Urban Structure Considerations</p>	<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i> <ul style="list-style-type: none"> • Consideration of connectivity with main business areas to the south of town center and address rail corridor severance • Development of Golding Rd as a key local road and connectivity with Buckland in the south and Pukekohe east Rd in the north • Integration of finer grained roading grid including connectivity (e.g. Birch Rd, Youngs Grove, Royal Doulton Drive and Yates Rd) • Incorporation of existing open space and recreational assets / areas • Continue to develop and build on existing basic urban structure to the south of yates Rd taking into consideration Buckland as a southern residential development node (aligned with rail transport opportunities) • Amenity and livability potential to the south aligned with environmental enhancement opportunities and potential proximity to public transport - rail
<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> • Northern areas least capacity for urban development – potential for clustered rural residential development aligned with environmental enhancement • Southern areas represents the opportunity to provide logical extension of existing urban settlement and development of existing urban structure as part of the consolidated and comprehensive development of Pukekohe and areas to the east of Pukekohe
<p>Considerations in relation to other Option Areas.</p>	<ul style="list-style-type: none"> • Consider Paerata & Paerata North, Pukekohe - Paerata(B), Pukekohe South East and Pukekohe West all within the context of the consolidated and integrated development of Pukekohe as a main rural satellite center building on existing urban structure • Areas to the west of Pukekohe generally less topographically constrained than areas to the north and east of town center Represents the opportunity to provide logical eastward extension of existing urban settlement

Landscape Evaluation Worksheet
Rural Urban Boundary Investigations (South)
Option Area: Pukekohe West

Landscape Type*¹: **Volcanic.**

Landscape Character Area(s)*¹ **Pukekohe Volcanic Downs and Bombay Hills**

Summary of Key Landscape Characteristics of Option Area

- Part of a wider contained lowland working landscape area (pasture and horticultural land)
- Includes a number of minor hill slope features
- Proximate to existing urban center
- Includes floodplain sensitive areas

Key Landscape elements and patterns

<p>Natural Geo-physical and Bio-Physical Attributes</p> <ul style="list-style-type: none"> • <i>Underlying landform and drainage</i> • <i>Indigenous landcover</i> • <i>Expressions of dynamic natural systems and processes where evident</i> 	<ul style="list-style-type: none"> • Flat to undulating lowland terrain • Adjoins northern hill slope continuum from Paerata Rd westwards to Patumahoe – part of the a wider hill system that reflect the underlying geological transition from South Auckland Volcanics to Puketoka Formations • These hill slopes restrict free drainage to the north via upper Whangapouri Stream tributaries to the NE of Schlaepfer Rd – possibly also restricted by rail alignment • Lower elevations in the north include extensive areas identified as floodplain – generally to the north of Adams Road South • Minor changes in elevation about Heart Rd – small knoll feature - Distinct steeper hill slope feature to the north of Adams Road South – steeper slope to the north (volcanic?) • Broader gently rising hill feature to the north of Gun Club Road and east of Schlaepfer Rd • Generally flat terrain to the south slowly rising to Pukekohe Hill (at Belmont Rd) • General lack of indigenous landcover • Some expression of underlying land forming processes (minor hills) - limited visible natural drainage pattern (ie distinctive drainage corridors – restricted to Hart Rd south of Gun Club Rd)
<p>Modified and Physical (Human) Attributes</p> <ul style="list-style-type: none"> • <i>Elements and patterns of built form and settlement</i> • <i>Patterns of landuse</i> • <i>Modified natural systems</i> • <i>Patterns of exotic vegetation</i> 	<ul style="list-style-type: none"> • Pastured land cover predominates • Orchard production areas at Gun Club Rd and Schlaepfer Rd intersection north • Moderately extensive glasshouse areas west of Adams Rd – smaller scale development to Adams Rd south and Rifle Range Rd • horticultural landuse more prevalent to the south, south of Bronze Rd to Belmont Rd • lineal patterns of field enclosure and rural landuse management (hedgerows / shelterbelts) • general gridded local roading pattern (near urban roading grid and cadastral patterns of Pukekohe to the east) • Fertilizer facility and yards at Bronze Rd • Dispersed rural / farm residential patterns aligned with local road access

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> Area is able to be readily defined and is distinct. Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes. Expression of natural and human processes in the landscape 	<ul style="list-style-type: none"> Strongly defined northern landscape boundary primarily defined by northern hill slope continuum and reinforced by rail and Hart Rd alignments Minor hill slope features provide some sense of subtle landform enclosure of lower elevation areas Less defined to the west and south by local roading pattern – lacking strong reinforcement from landscape and landform pattern Very limited definition of area to the east – contiguous with existing landscape character Limited contextual legibility overall Legibility of option area relies of local roading pattern
Coherence	
<ul style="list-style-type: none"> Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification 	<ul style="list-style-type: none"> Moderate degree of coherence to the south with diversity of productive landuses, built elements and field enclosure More cohesive as a pastoral working landscape to the east (north of Kauri Rd and east of Adams Rd)
Context and Setting	
<ul style="list-style-type: none"> Value of area in relationship with adjoining landscape context Contribution and value to wider landscape character area/type 	<ul style="list-style-type: none"> Part of a wider topographically contained area from Beatty Rd in the east and Kauri Rd in the south to Hart Rd in the west Areas to the north of Bronze Rd part of a wider open pastoral pattern of landuse that characterises the current NW extent of Pukekohe up to the Heights Rd – Hart Rd hill slope continuum Areas to the south of Bronze Rd include more horticultural landuse patterns which generally characterise the western margins of Pukekohe Both areas provide transitional rural context (“buffer”)to the current urban extent rather than a defined landscape boundary Relatively topographically recessive area overall framed by more elevated terrain of Pukekohe Hill
Scenic Amenity	
<ul style="list-style-type: none"> Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities. Visually intact and aesthetically pleasant and appreciable landscape qualities 	<ul style="list-style-type: none"> Relatively moderate visual and scenic amenity value – contributes to wider appreciation of working pastoral and production landscape character
Visibility	
<ul style="list-style-type: none"> Key views, view corridors and viewing audiences 	<ul style="list-style-type: none"> Limited visual exposure a function of general topographic recessive character Minor hill areas less visually recessive Gun Club Rd key local link Rd – internalized road corridor views – Broad hill to the north of Gun Club Rd exposed to west bound views in particular

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	
<ul style="list-style-type: none"> <i>Landscape structure and function. Physical landscape change.</i> <i>Perceptual landscape change.</i> <i>Likely changes of landscape values</i> 	<ul style="list-style-type: none"> Floodplain sensitivities for extensive areas to the north of Bronze Rd, about Adams Rd and Schlaepfer Rd in particular Use of horticultural land for urban development Similar sensitivities of natural drainage patterns including overland flow paths Perception of landscape change likely to be considered in the context of alternative landuse for traditional horticultural areas and perceptions of changes in landscape character
Visual Landscape effects	
<ul style="list-style-type: none"> <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> <i>General visibility</i> <i>Visibility controlled by landcover</i> <i>Visibility controlled by landform</i> <i>Potential for management of visual effects</i> 	<ul style="list-style-type: none"> Minor hill features most visually exposed degree of visual containment of low lying areas provided by surrounding terrain Generally broad flat to undulating terrain means limited control of visibility by landform internally Potential to manage visual effects through comprehensive development approaches that consider recessive lowland areas within the context of surrounding minor hill features from Hart Rd east to Kauri Rd Spatial separation from Pukekohe Hill (consider in wider context to the east)
Scenic Amenity	
<ul style="list-style-type: none"> <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	<ul style="list-style-type: none"> Effects on scenic amenity likely to relate to perceptions of broader landscape change and change of landscape character including visual amenity of rural character margins to current urban areas
Likely effects of change and rural context	
<ul style="list-style-type: none"> <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	<ul style="list-style-type: none"> Potential change of existing rural character which provides context for northern and north eastern Pukekohe as a main urban center Main landscape (hill) boundary to the north would remain unchanged Western rural and productive landscape character would remain and shift to the west
Existing Settlement Form and boundaries	
<ul style="list-style-type: none"> <i>Likely effect of development on existing settlement form and boundaries</i> 	<ul style="list-style-type: none"> Consider in the context of wider area to the east and south (Beatty Rd and Kauri Rd) Represents the opportunity to provide logical extension of existing urban settlement and development of existing urban grid as part of the consolidated and comprehensive development of Pukekohe and areas to the west of Pukekohe
Opportunities for Environmental Enhancement	
<ul style="list-style-type: none"> <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	<ul style="list-style-type: none"> Comprehensive management of floodplain and stormwater management as part of an integrated design approach for area and adjoin areas to the east as well as part of a the potential wider development of more elevated areas to the west of Pukekohe

<p>Possible Mitigating / Design Opportunities</p>	<ul style="list-style-type: none"> • Incorporation of significant open space / recreational areas as part of wider flood plain management (e.g. urban floodways overlay or inundation overlay areas) – consideration of special building overlays. • Protect natural drainage areas as key structural landscape pattern in the context of wider comprehensive development of areas to the west of Pukekohe
<ul style="list-style-type: none"> • <i>Key considerations in relation to the landscape integration of any potential urban development.</i> 	<ul style="list-style-type: none"> • Integrate with existing urban grid to enhance movement and connectivity • Continue to develop and build on existing basic urban block structure • Consider urban landuse least sensitive to inundation in the north including recreational landuses • High amenity and livability potential aligned with recreational and open space landuse
<p>Urban Structure Considerations</p>	<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i>
<ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i> 	<ul style="list-style-type: none"> • Northern areas most floodplain sensitive • Generally restricted opportunity to the north of Gun Club Road and west of Schlaepfer Road • Opportunity for comprehensive development approaches that consider recessive lowland areas within the context of surrounding minor hill features from Hart Rd east to Kauri Rd • Represents the opportunity to provide logical extension of existing urban settlement and development of existing urban grid as part of the consolidated and comprehensive development of Pukekohe and areas to the west of Pukekohe
<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> • Consider option area with adjoining lowland terrain to the east as recommended above • Paerata & Paerata North, Pukekohe -Paerata(B), Pukekohe South East and Pukekohe West all within the context of the consolidated and integrated development of Pukekohe as a main rural satellite center building on existing urban structure • Areas to the west of Pukekohe generally less topographically constrained than areas to the north and east of town center
<p>Considerations in relation to other Option Areas.</p>	<ul style="list-style-type: none"> • Consider option area with adjoining lowland terrain to the east as recommended above • Paerata & Paerata North, Pukekohe -Paerata(B), Pukekohe South East and Pukekohe West all within the context of the consolidated and integrated development of Pukekohe as a main rural satellite center building on existing urban structure • Areas to the west of Pukekohe generally less topographically constrained than areas to the north and east of town center

Landscape Evaluation Worksheet

Rural Urban Boundary Investigations (South)

Option Area: Core; Pukekohe-Paerata (A)

Landscape Type* ¹ :	Volcanic.
Landscape Character Area(s)* ¹	Pukekohe Volcanic Downs and Bombay Hills
Summary of Key Landscape Characteristics of Option Area	
<ul style="list-style-type: none"> Partially settled volcanic landform - Includes major existing urban center and residential areas characterised by surrounding rural setting Diversity of surrounding areas including strong steep hills and valleys, rolling mid slopes, low toe slopes, fragmented hills and undulating downlands. 	
Key Landscape elements and patterns	
Natural Geo-physical and Bio-Physical Attributes	<ul style="list-style-type: none"> Volcanic cone landform in the south with gently sloping northern, western and eastern flanks – steeper to the east and south of broad summit Rolling hill slopes and flatter terrace and valley floor terrain in the north (Paerata Rd corridor) part of a more extensive hill complex that frames Pukekohe to the north Lowland flats to the north of Kauri Rd / Birdwood Rd defined by hill terrain and isolated hill fragments / minor elevated areas (see Pukekohe West area) Steeper hill slopes and gully systems to the east of Belgium Rd (upper NE Whangapouri catchment) Steeply dissected upper catchment east draining 1st order channels of the Tutaenui system in the SE (west of Buckland) Flatter more moderate terrain to the immediate east of Buckland Limited and isolated patches and patterns of indigenous vegetation about stream corridors in the east, existing POS and northern hills.
<ul style="list-style-type: none"> <i>Underlying landform and drainage</i> <i>Indigenous landcover</i> <i>Expressions of dynamic natural systems and processes where evident</i> 	
Modified and Physical (Human) Attributes	<ul style="list-style-type: none"> Existing urban center – lineal grid structure with commercial core and industrial areas in the southeast and north Extended grid roading patterns and aligned cadastral patterns about hill flanks and flats to the west and north including dispersed patterns of rural settlement and industrial horticulture and services buildings – glasshouses / packing sheds Limited lineal 'ribbon' settlement patterns of Paerata Rd corridor East-west branch rail line to the north. Also includes north –south central rail line Extensive areas of pastoral landcover in the north and east both on lowland and hill terrain Cultivated horticultural landuse on volcanic hill flanks - Lineal patterns of field enclosure and shelterbelt planting Emerging pattern of hillside settlement in the north east (approaching Pukekohe East Crater)
<ul style="list-style-type: none"> <i>Elements and patterns of built form and settlement</i> <i>Patterns of landuse</i> <i>Modified natural systems</i> <i>Patterns of exotic vegetation</i> 	

*¹ 2008 RPS Review: Landscape. Development of a further more detailed contextual landscape character framework across Auckland recommended.

Perceptual Landscape Attributes	
Legibility	
<ul style="list-style-type: none"> Area is able to be readily defined and is distinct. Patterns of modification and landuse that is complementary with the underlying natural elements, patterns and processes. Expression of natural and human processes in the landscape 	<ul style="list-style-type: none"> Recognisable hill landform (Pukekohe Hill) distinct from northern and eastern surrounding hill slope and lower terrain Distinct existing urban center to the north of Hill Lack of strong landscape boundaries between urban and horticultural areas in the west and north Paerata Rd corridor area defined by steep stream scarps in the west and Sim Rd spur in the east (less defined to the north - undefined northern 'gateway') Less defined in the east with emerging patterns of development encroaching into steeper inland hills Buckland defines existing southern 'gateway'
Coherence	
<ul style="list-style-type: none"> Natural systems and modified patterns are perceived of as aesthetically coherent and display recognisable patterns of human influence and modification 	<ul style="list-style-type: none"> Relatively coherent urban grid structure aligned with Hill landform with a concentration of settlement in the north and a cadastral and roading pattern extension that continues to 'wrap around' Pukekohe Hill particularly in the west Limited coherence of consistent western urban/rural boundary Less coherent in the north east – varied terrain; and Paerata (SH22) corridor - influenced by sporadic and lineal settlement / development
Context and Setting	
<ul style="list-style-type: none"> Value of area in relationship with adjoining landscape context Contribution and value to wider landscape character area/type 	<ul style="list-style-type: none"> Recognised urban center for surrounding rural hinterland Pukekohe Hill landform local landmark Horticultural activities characterise surrounding traditional landuse which extend further to the west and north west to Patumahoe area Strong visual relationship between elevated slopes and lowland settled areas as well as wider landscape context.
Scenic Amenity	
<ul style="list-style-type: none"> Natural and modified landscape characteristics are recognizable, distinct and memorable. These characteristics combine to represent attributes that can be readily interpreted as scenic qualities. Visually intact and aesthetically pleasant and appreciable landscape qualities 	<ul style="list-style-type: none"> Elevated hill slopes and flanks provide areas of very high potential scenic, visual and wider amenity (views, aspect, proximity to existing town center) Views of Hill from surrounding areas characterised by both urban and rural landuse with existing boundary areas exhibiting transitional landscape attributes
Visibility	
<ul style="list-style-type: none"> Key views, view corridors and viewing audiences 	<ul style="list-style-type: none"> Distant views of hill include a variety of landuse patterns Views of hill limited within existing urban areas Eastern Gateway view influenced by Rosseville Park and adjoining hill slopes Southern road approach characterised by screening hill terrain Waiuku Rd western gateway includes views to Hill

Landscape Change: Evaluation of Urban Development Potential	
Landscape attributes most sensitive to change	
<ul style="list-style-type: none"> <i>Landscape structure and function.</i> <i>Physical landscape change.</i> <i>Perceptual landscape change.</i> <i>Likely changes of landscape values</i> 	<ul style="list-style-type: none"> Stormwater management for hill slope areas in the south, west and east and lower land areas in the north Potential to reduced erosion from horticultural use on hill slopes Pukekohe East areas highly sensitive to landform change – steep upper catchment slopes / gullies – similar sensitivities for Crater margins as well as perceptual and geological values sensitivities Landscape change of remaining horticultural hill areas and perceptions regarding horticultural rural characteristics Reinforcement of local rural service and residential urban center.
Visual Landscape effects	
<ul style="list-style-type: none"> <i>Relative visibility and prominence/recessiveness of the area both locally and in the wider visual catchment</i> <i>General visibility</i> <i>Visibility controlled by landcover</i> <i>Visibility controlled by landform</i> <i>Potential for management of visual effects</i> 	<ul style="list-style-type: none"> Views of north facing Hill slopes include existing urban development Northern lowland flats relatively visually recessive (isolated hill fragments and features provide visual separation) Lower and mid slope flanks of Pukekohe Hill moderately recessive to visible – include rural built form Upper hill slopes more prominent – hill summit less visible due to broad summit terrain. Western flanks visible from Waiuku Rd approach (eastbound) Eastern flanks moderately visible from the east and south east (local road network)
Scenic Amenity	
<ul style="list-style-type: none"> <i>Change in attributes that could be interpreted as effecting scenic qualities such as legibility, coherence and intactness which may detract from appreciable landscape qualities</i> 	<ul style="list-style-type: none"> Area exhibits urban, horticultural and pastoral landscape characteristics this diversity effects scenic qualities of legibility, coherence and intactness Potential loss of scenic and visual amenity of current open pastoral landscape character regarding corridor development to the north (SH22) and east (Pukekohe East Rd)
Likely effects of change and rural context	
<ul style="list-style-type: none"> <i>Likely effect of urban landuse change on the local and wider landscape character and setting and the broader pattern of settlement.</i> 	<ul style="list-style-type: none"> Potential for urban expansion to be perceived as logical pattern of urban growth of an existing rural center Perception of landscape change relative to degree of urban expansion – particularly in relation to horticultural areas in the west and pastoral hills in the east
Existing Settlement Form and boundaries	
<ul style="list-style-type: none"> <i>Likely effect of development on existing settlement form and boundaries</i> 	<ul style="list-style-type: none"> Current option area complimentary to existing urban structure Potential to expand option area further aligned with urban grid extensions to the north and west to reinforce key satellite town center Contain current pattern of eastern hill sprawl Reinforce northern hill slope boundary to Pukekohe Opportunity to reinforce southern “gateway” (Buckland)

<p>Opportunities for Environmental Enhancement</p> <ul style="list-style-type: none"> • <i>Potential role of existing or additional landscape elements and patterns (such as stream restoration) in integrating development within the local and wider landscape.</i> 	<ul style="list-style-type: none"> • Comprehensive management of floodplain and stormwater management as part of an integrated design approach for the area incorporate Pukekohe West area as part of S/W management and spatial planning in the north • Implementation of LID design and integrated stormwater management for Pukekohe Hill areas aligned with urban grid as a key organizing principle • Strengthening natural patterns and processes in SE areas (Buckland west) and integrate with management of Pukekohe South East area
<p>Possible Mitigating / Design Opportunities</p> <ul style="list-style-type: none"> • <i>Key considerations in relation to the landscape integration of any potential urban development.</i> 	<ul style="list-style-type: none"> • Reinforcement of strong urban boundary logically aligned with landscape boundaries to enhance urban center in a unique rural setting. • Use of urban grid and key grid road extensions to reinforce urban boundary complimentary to underlying natural landscape boundaries, cadastral patterns and surrounding context. • Integrate S/W management areas, open space recreational areas and roading design (parkways) as an integral part of an integrated design approach/strategy
<p>Urban Structure Considerations</p> <ul style="list-style-type: none"> • <i>Movement & Connectivity</i> • <i>Basic Form/ Blocks</i> • <i>Uses & possible patterns of development</i> • <i>Amenity / Livability</i> 	<ul style="list-style-type: none"> • Strategic development of northern, southern, eastern, and western gateways aligned with key road connections and existing town core to develop a comprehensive satellite center that aligns landuse and land form • Layout, movement and connectivity efficiencies likely with continued development of the urban grid • Block size, shape and interconnectivity also likely to be complimentary to existing grid framework. • Good potential for internal roading / access with limited restrictions to permeability and movement • Opportunity for precinct development and the definition of landuse and activities aligned with capacities of natural sub-areas (i.e. business development on recessive lowland flats – residential development on high amenity Hill flanks • Integration of rail link and rail access with the urban grid • reinforce compact satellite urban center – minimize and avoid northern and eastern corridor sprawl within narrow physically constrained areas • Key roads provide opportunities for creating functional, interconnected and defined urban boundaries that reflect underlying landscape boundaries • Very good potential for high amenity living environments aligned with surrounding rural amenity – views, aspect, connectivity and choice

<p>Overall landscape Capacity for Urban Development</p>	<ul style="list-style-type: none"> • Align key landforms, existing settlement patterns and existing urban grid framework through comprehensive development of Pukekohe and Pukekohe Hill and adjoining areas • Expand option area and existing urban grid to the south (Ray Wright Rd) west (Patumahoe Rd) and North (Gun Club Rd) • Avoid further eastern hill sprawl and sprawl along eastern corridor (Pukekohe East Rd) • Avoid sprawl along northern road corridor and contain intensive urban form south of Heights Rd • Consolidate Buckland as a southern gateway – node and expand to the east to Jamison Rd area • Reinforce compact urban center in a wider rural context. Good opportunity for high quality urban living environments can result.
<p>Considerations in relation to other Option Areas.</p>	<ul style="list-style-type: none"> • Consider Paerata & Paerata North, Pukekohe - Paerata(B), Pukekohe South East and Pukekohe West options all within the context of the consolidated and integrated development of Pukekohe as a main rural satellite center building on existing urban structure • Key consideration for this area (and for wider pattern of potential urban development in the south) is the management of patterns of urban development aligned with SH22 corridor (sprawl – inefficient urban structure) and the effects of such patterns on existing rural character • Maintain open pastoral character between Pukekohe and Paerata and between Paerata and Drury / Karaka • Areas to the west of Pukekohe generally less topographically constrained than areas to the north and east of town center • Consider Buckland and South East Pukekohe (to Jameson Rd) in context of immediately adjoining areas outside of Auckland Council jurisdiction

Appendix 3 Key Terms

Key Terms

Landscape is:

The New Zealand Institute of Landscape Architects defines landscape as follows:

“Landscape reflects the cumulative effects of cultural and physical processes”

Landscape is a physical resource that is the result of natural and cultural processes occurring over time. Landscape results from the way that different parts of our environment – both natural (the influences of geology, soils, climate, flora and fauna) and cultural (historical and current impact of land use, settlement, and other human interventions) – interact together and are perceived by us.

Landscape is fundamentally about the relationship between people and place. Our perceptions turn land into the cultural concept of “landscape”.

Landscape in its broadest context incorporates a range of characteristics and attributes including the following:

- Geomorphological – underlying geological processes, structure and resultant topography,•
- Hydrological – the patterns of water movement and collection,•
- Ecological – dynamic organic components and processes,•
- Aesthetic – coherence, vividness, naturalness,•
- Legal / Economic – patterns of ownership, use and productivity,•
- Community/Social – scenic, shared and recognised values,•
- Cultural – tangata whenua values and associations,•
- Historic – sites, areas, buildings, features, elements and events.•

These attributes together contribute to our perception, understanding and appreciation of landscapes.

Landscape Character is defined as:

“A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse”

Landscape Characteristics are:

“Elements, or combinations of elements, which make a particular contribution to distinctive character.”

*Landscape Character Assessment Guidance
(Scottish National Heritage. The Countryside Agency 2002)*

Landscape sensitivity:

Landscape sensitivity in the context of this report relates to landscape interactions and the way that those interactions are perceived. Landscape sensitivity refers to a specific type of landscape change and specific change of landscape character.

Landscape capacity:

Landscape capacity is used in the context of this report to refer to the ability of an area to accommodate different amounts of change. This should reflect the inherent sensitivity of the landscape itself but more specifically its sensitivity to the particular type of change. This means that capacity will reflect both the sensitivity of the landscape resource as well as its visual sensitivity.

(These terms are defined in regard to *Topic paper 6: Techniques and Criteria for Judging Capacity and Sensitivity, Scottish Natural Heritage / The Countryside Agency*)

Urban Development

For the Option Areas both sensitivity and capacity specifically relate to urban development typologies and patterns of land use including intensive residential and commercial / industrial urban development and associated social, transport and energy infrastructure.



Rural / Urban Boundary South
Option Area Landscape Evaluations
Internal Summary Report
July 2013

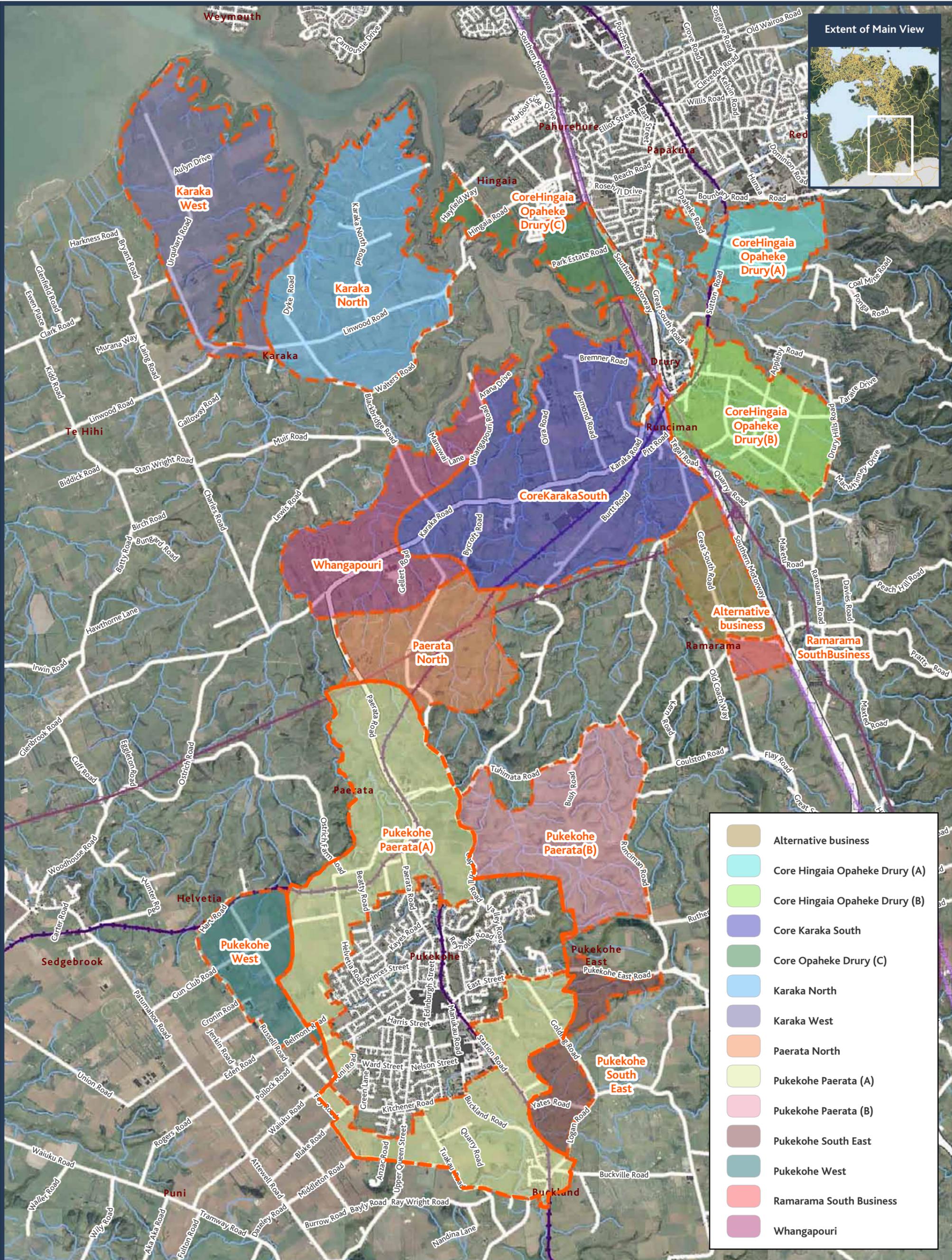
Appendix 2: Landscape Attribute Mapping.

Map Set 1: Option Area Maps

- Extent of Option Areas
- Option Area Landscape Attributes

Map Set 2: Investigation Area Landscape Structure and Pattern

- Topography (landform and slope)
- GNS Geological Units (underlying geology)
- Hydrology (natural drainage patterns)
- Natural Hazards (Geological faults and floodplains)
- Vegetation Patterns (Lidar and Landcover Data Base)
- Land Use Capability
- Current Rural Landuse (Agribase)
- Cadastral Boundaries and property area
- Key Infrastructure (Water/wastewater, electricity, roading)
- Indication of Cultural Heritage (known and recorded sites)
- Landscape and Natural Character notations (source: Auckland Council)
- Public Open Space



- Alternative business
- Core Hingaia Opaheke Drury (A)
- Core Hingaia Opaheke Drury (B)
- Core Karaka South
- Core Opaheke Drury (C)
- Karaka North
- Karaka West
- Paerata North
- Pukekohe Paerata (A)
- Pukekohe Paerata (B)
- Pukekohe South East
- Pukekohe West
- Ramarama South Business
- Whangapouri

- RUB Area
- Railway
- Building Footprints
- Transpower 220kv Line
- Transpower 110kv Line
- Major Road
- Streams

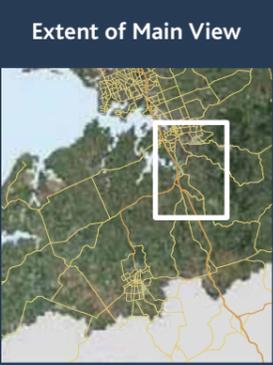
RUB Option Areas South



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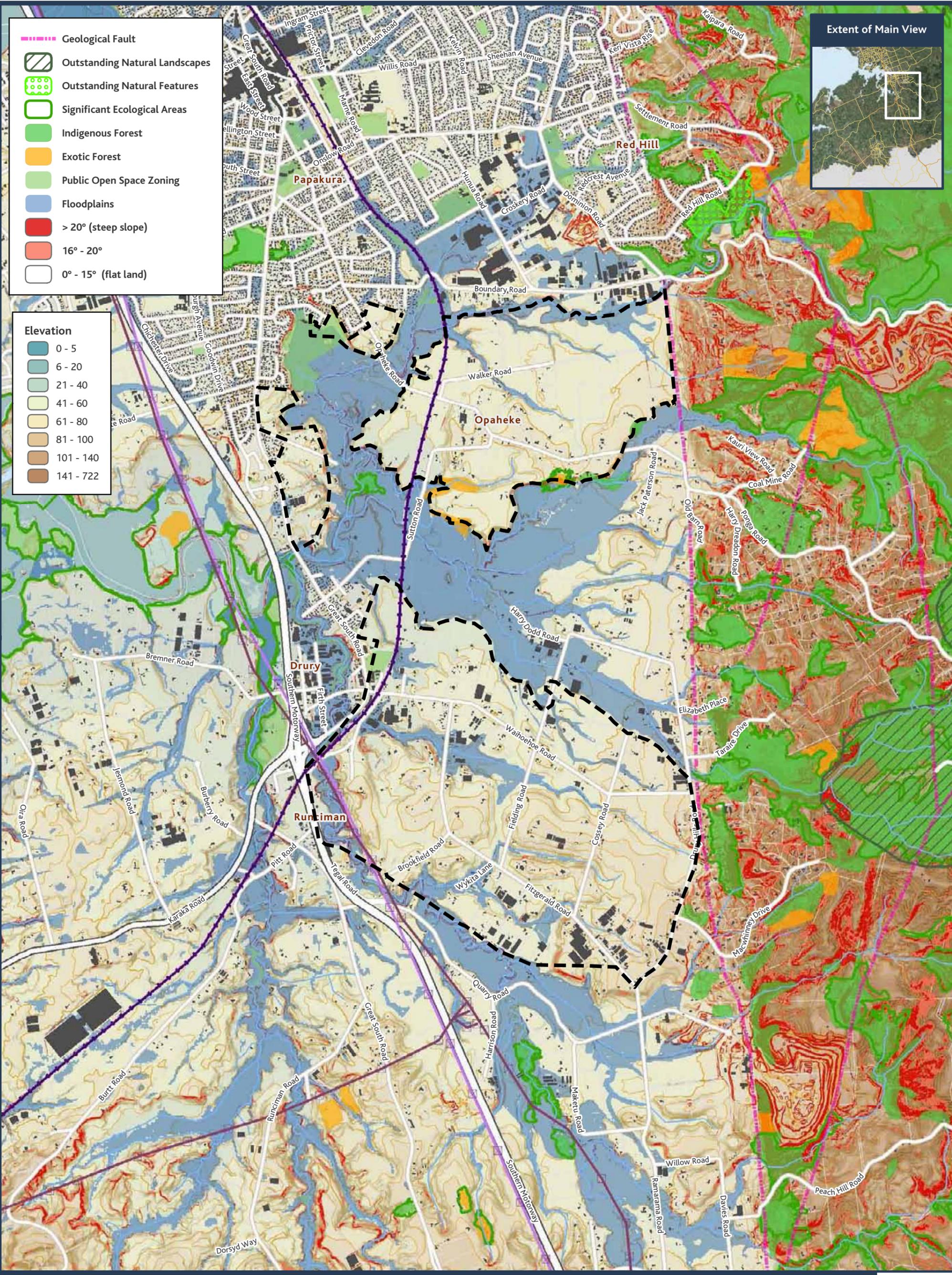
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- RUB Area
- Railway
- Building Footprints
- Transpower 220kv Line

- Parcel Boundaries
- Major Road
- 5m contours
- Streams

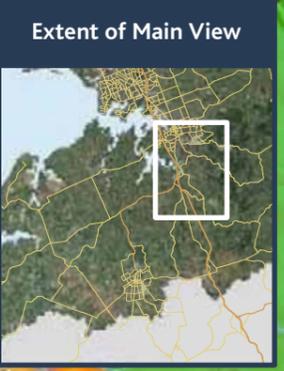
Core Hingaia Opaheke (A) -Core Hingaia Opaheke (B)





- Geological Fault
- Outstanding Natural Landscapes
- Outstanding Natural Features
- Significant Ecological Areas
- Indigenous Forest
- Exotic Forest
- Public Open Space Zoning
- Floodplains
- > 20° (steep slope)
- 16° - 20°
- 0° - 15° (flat land)

- Elevation**
- 0 - 5
 - 6 - 20
 - 21 - 40
 - 41 - 60
 - 61 - 80
 - 81 - 100
 - 101 - 140
 - 141 - 722



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RUB Area

Railway

Building Footprints

Transpower 220kv Line

Transpower 110kv Line

Parcel Boundaries

Major Road

5m contours

Streams

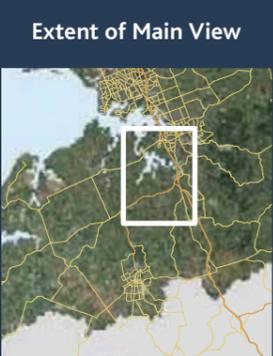
Core Hingaia Opaheke (A) - Core Hingaia Opaheke (B)

Landscape Resource Attributes

0 0.5 1 km



File ref:



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Core Hingaia Opaheke Drury (C) - Core Karaka South

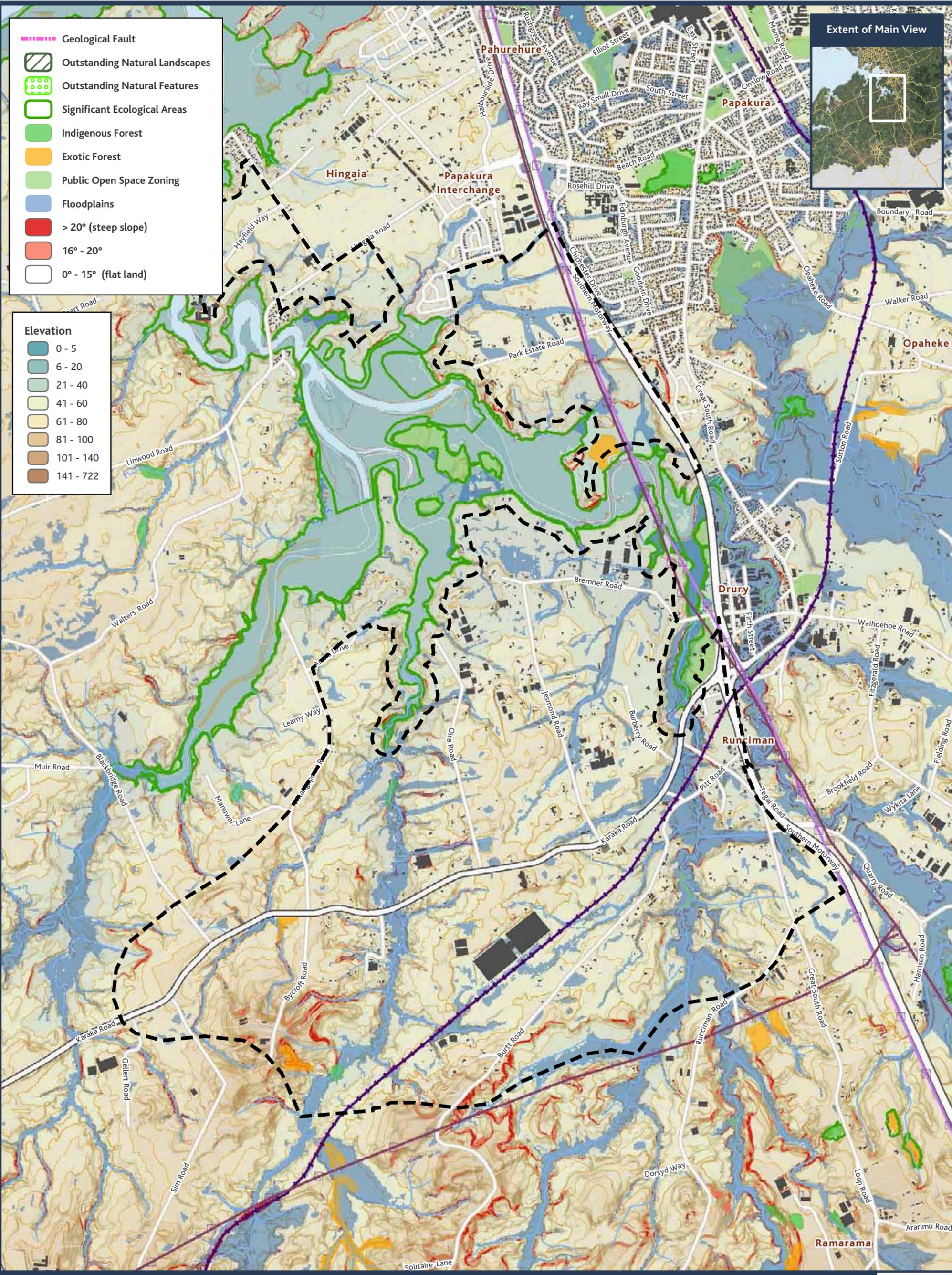
- - - RUB Area
- Railway
- Building Footprints
- Transpower 220kv Line
- Transpower 110kv Line
- Parcel Boundaries
- Major Road
- 5m contours
- ~ Streams



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Geological Fault

Outstanding Natural Landscapes

Outstanding Natural Features

Significant Ecological Areas

Indigenous Forest

Exotic Forest

Public Open Space Zoning

Floodplains

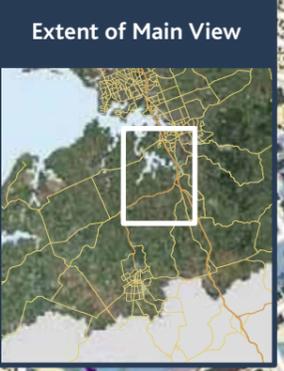
> 20° (steep slope)

16° - 20°

0° - 15° (flat land)

Elevation

- 0 - 5
- 6 - 20
- 21 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 140
- 141 - 722



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RUB Area

Railway

Building Footprints

Transpower 220kv Line

Transpower 110kv Line

Parcel Boundaries

Major Road

5m contours

Streams

Core Hingaia Opaheke Drury (C) - Core Karaka South Landscape Resource Attributes

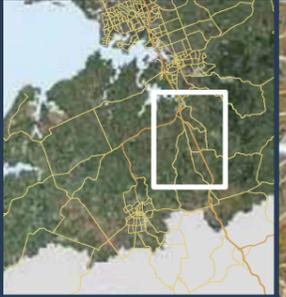
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Extent of Main View

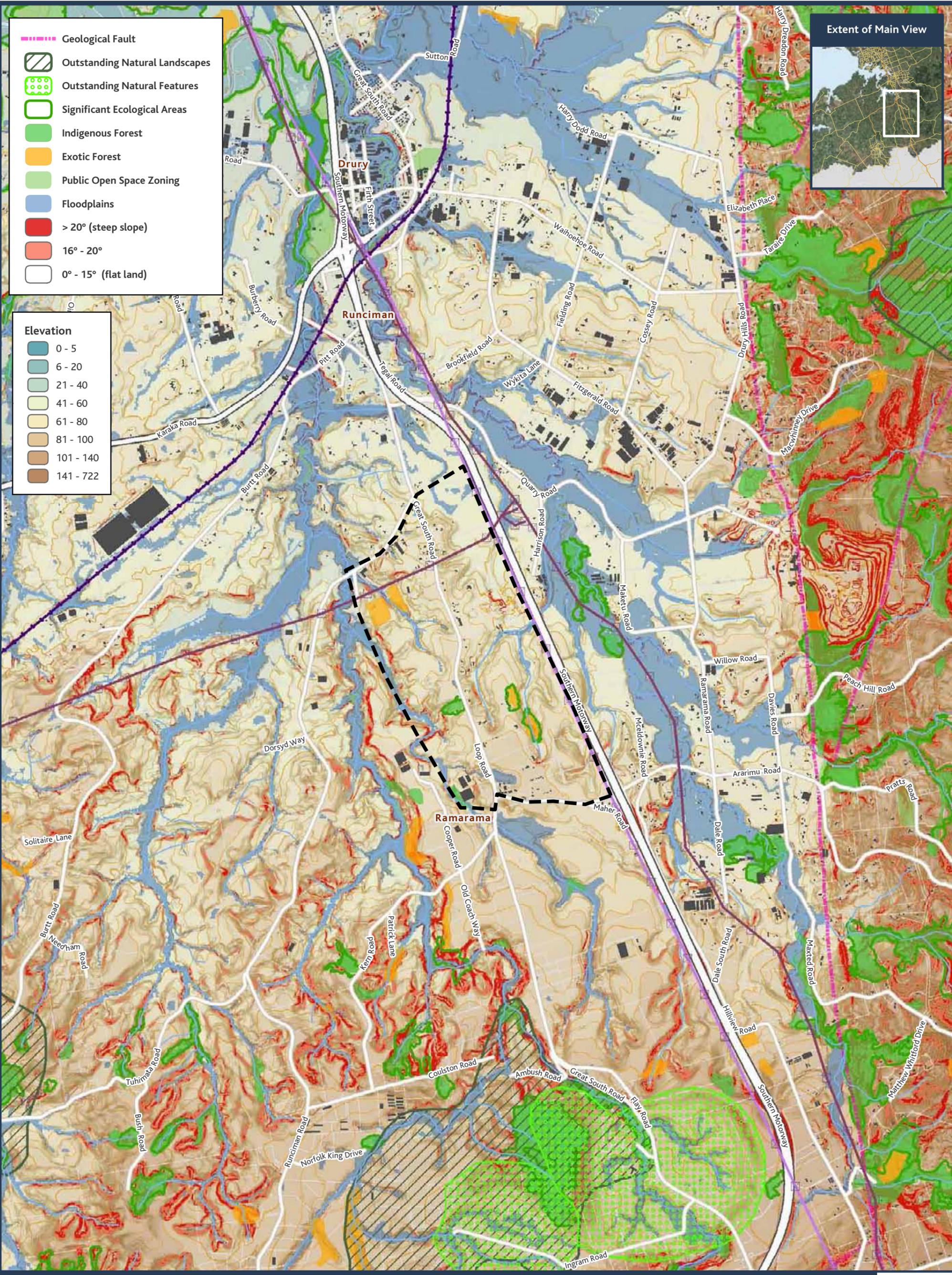


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Alternative business





- Geological Fault
- Outstanding Natural Landscapes
- Outstanding Natural Features
- Significant Ecological Areas
- Indigenous Forest
- Exotic Forest
- Public Open Space Zoning
- Floodplains
- > 20° (steep slope)
- 16° - 20°
- 0° - 15° (flat land)

- Elevation**
- 0 - 5
 - 6 - 20
 - 21 - 40
 - 41 - 60
 - 61 - 80
 - 81 - 100
 - 101 - 140
 - 141 - 722

- RUB Area
- Railway
- Building Footprints
- Transpower 220kv Line
- Transpower 110kv Line
- Parcel Boundaries
- Major Road
- 5m contours
- Streams



22 July 2013
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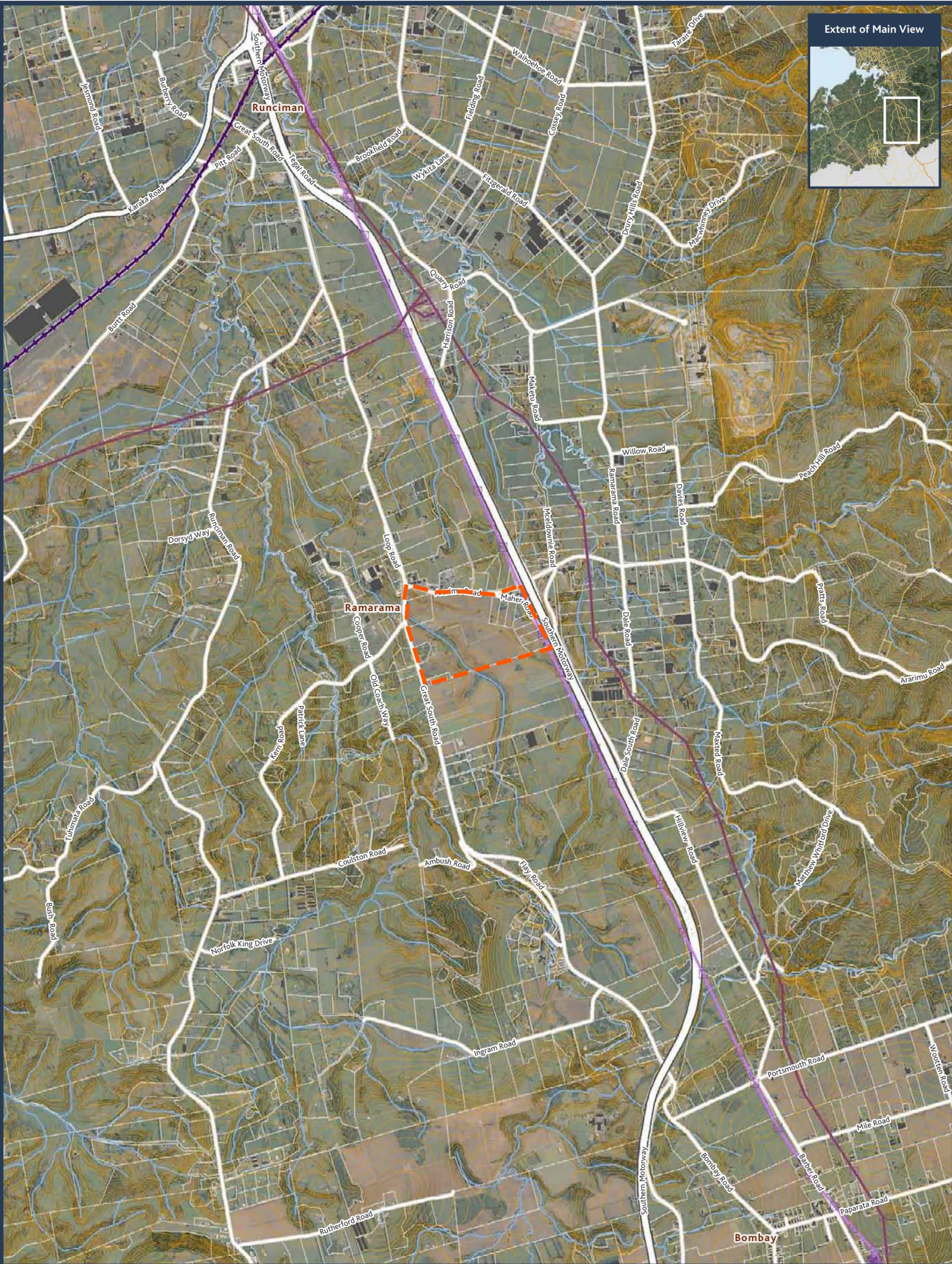
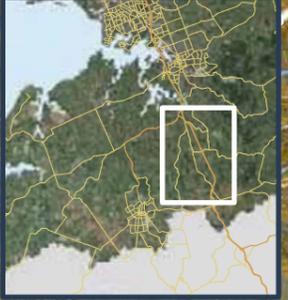
Alternative business Landscape Resource Attributes

0 0.5 1 km



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Extent of Main View



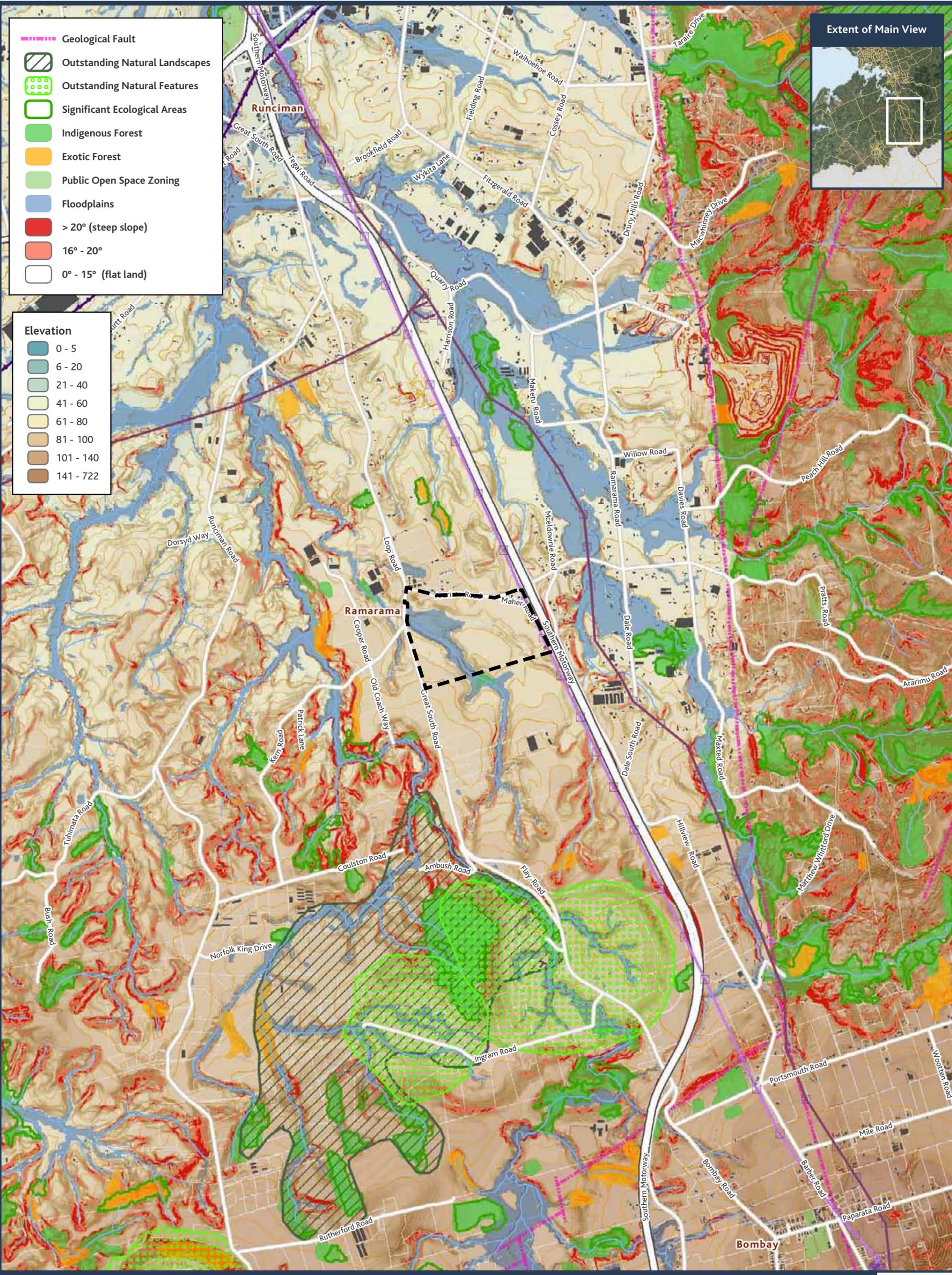
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22 July 2013
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- Streams

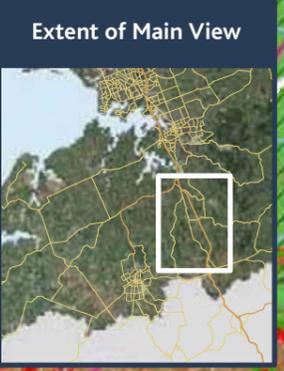
Ramarama South Business





- Geological Fault
- Outstanding Natural Landscapes
- Outstanding Natural Features
- Significant Ecological Areas
- Indigenous Forest
- Exotic Forest
- Public Open Space Zoning
- Floodplains
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22 July 2013
1:25,000 @ A3

- RUB Area
- Railway
- Building Footprints
- Transpower 220kv Line
- Transpower 110kv Line

- Parcel Boundaries
- Major Road
- 5m contours
- Streams

Ramarama South Business Landscape Resource Attributes





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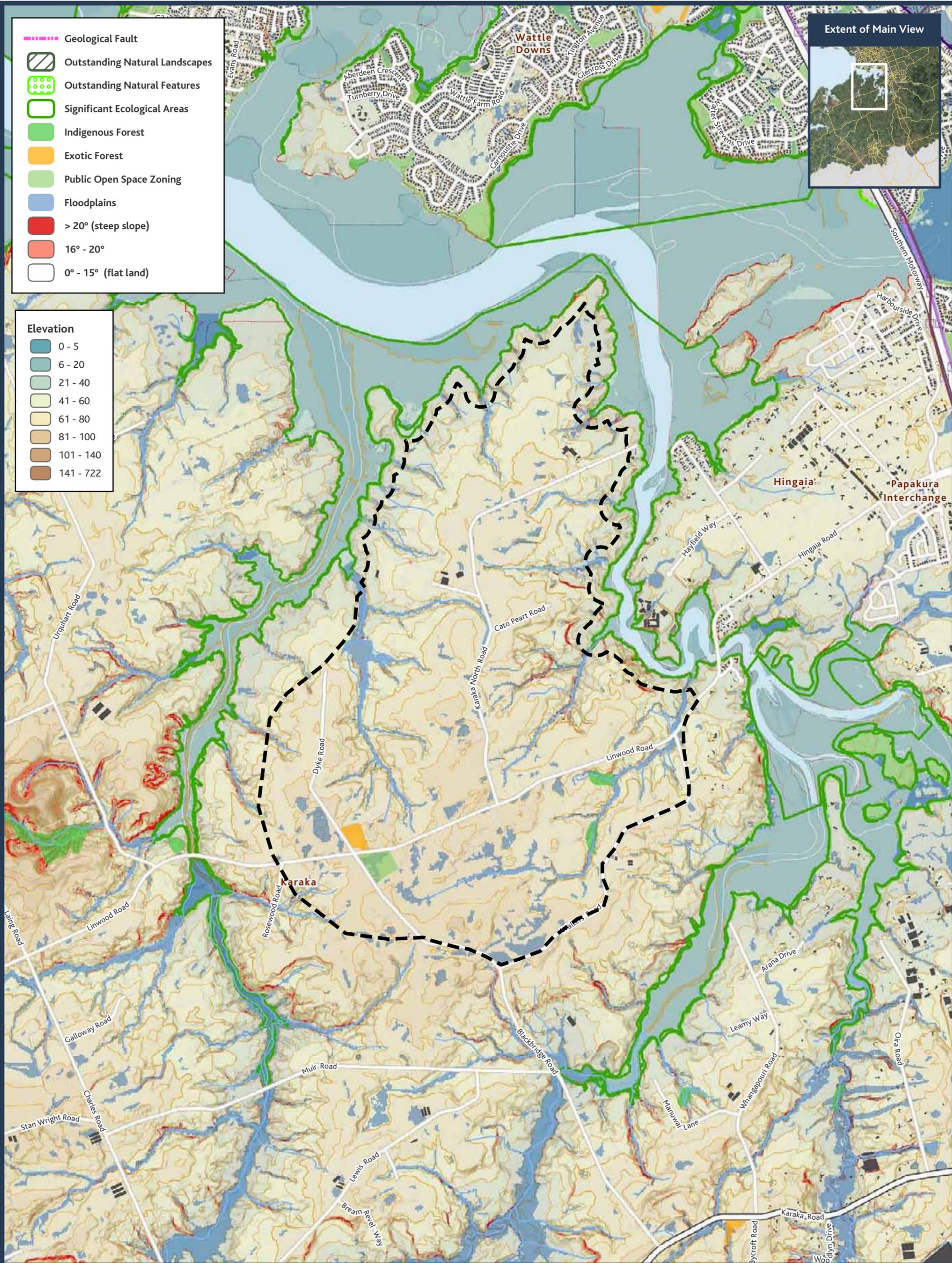
	RUB Area	Parcel Boundaries
22 July 2013	Railway	Major Road
1:25,000 @ A3	Building Footprints	5m contours
	Transpower 220kv Line	Streams

Karaka North



-  Geological Fault
-  Outstanding Natural Landscapes
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22 July 2013
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-  RUB Area
-  Parcel Boundaries
-  Railway
-  Major Road
-  Building Footprints
-  5m contours
-  Transpower 220kv Line
-  Streams
-  Transpower 110kv Line

Karaka North Landscape Resource Attributes



File ref:



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22 July 2013
1:25,000 @ A3

-  RUB Area
-  Railway
-  Building Footprints
-  Transpower 220kv Line

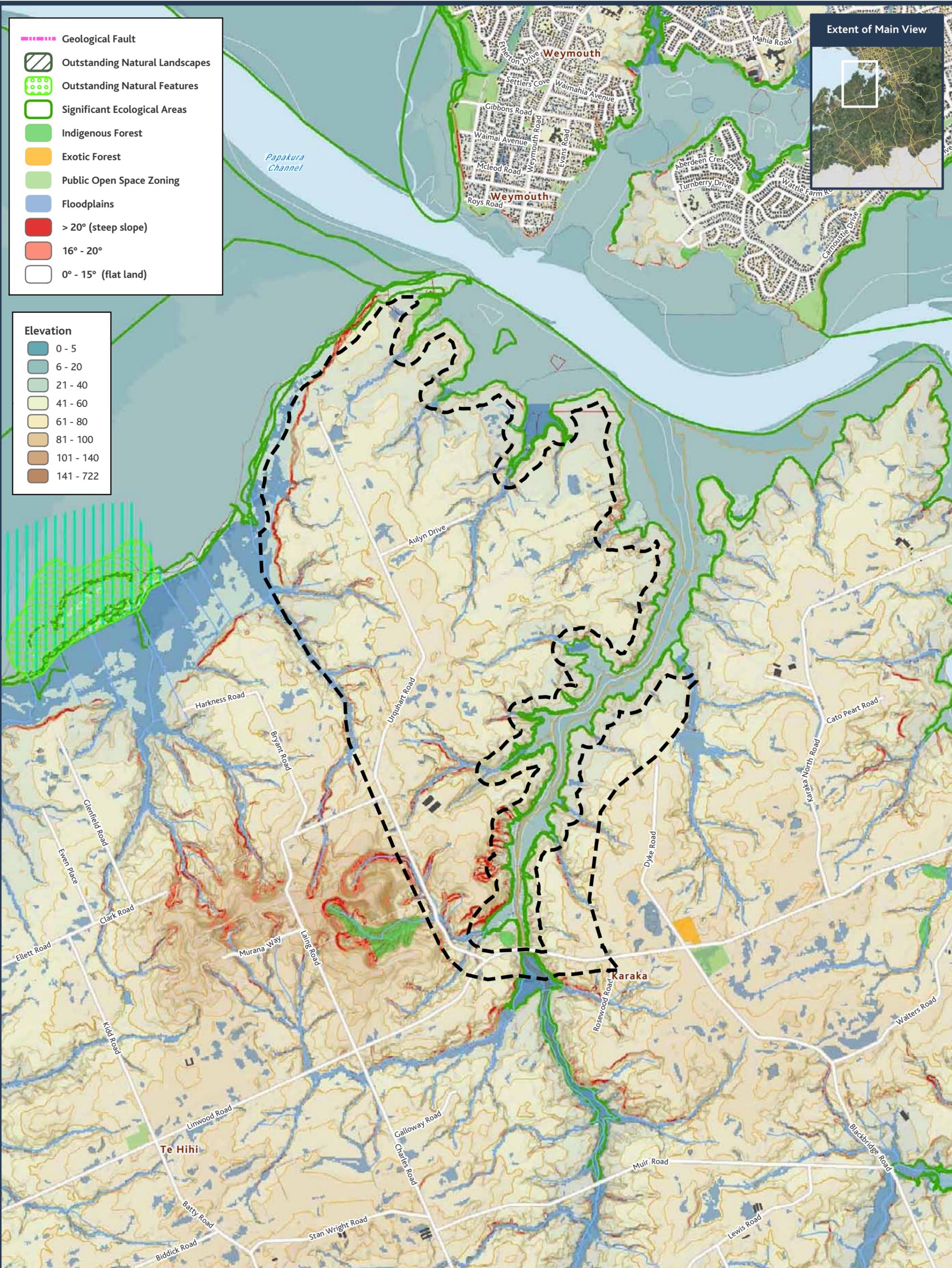
-  Parcel Boundaries
-  Major Road
-  5m contours
-  Streams

Karaka West



-  Geological Fault
-  Outstanding Natural Landscapes
-  Outstanding Natural Features
-  Significant Ecological Areas
-  Indigenous Forest
-  Exotic Forest
-  Public Open Space Zoning
-  Floodplains
-  > 20° (steep slope)
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- Elevation**
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 -  141 - 722



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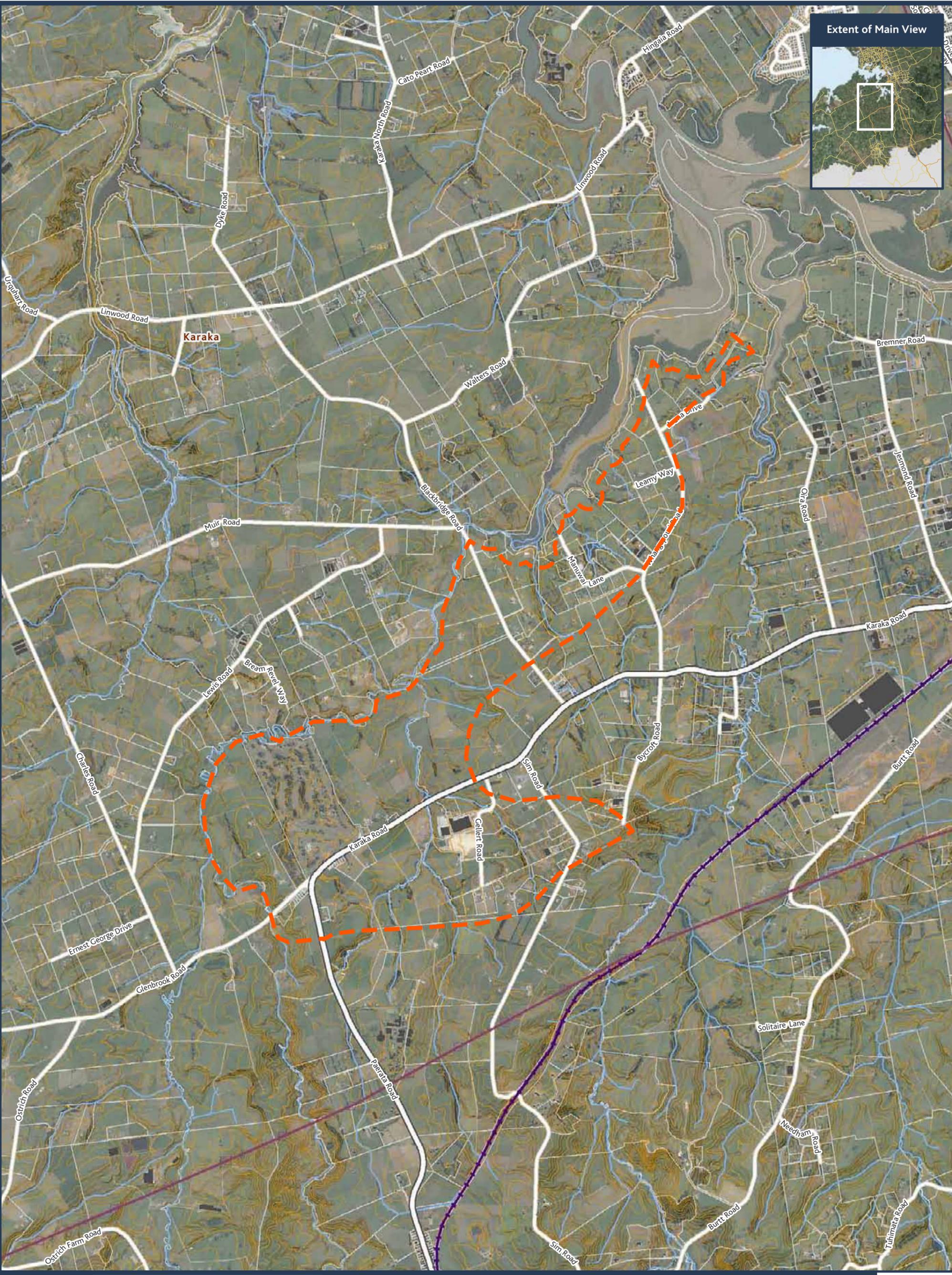
-  RUB Area
-  Parcel Boundaries
-  Railway
-  Major Road
-  Building Footprints
-  5m contours
-  Transpower 220kv Line
-  Streams
-  Transpower 110kv Line

Karaka West Landscape Resource Attributes



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 RUB Area

 Railway

 Building Footprints

 Transpower 220kv Line

 Parcel Boundaries

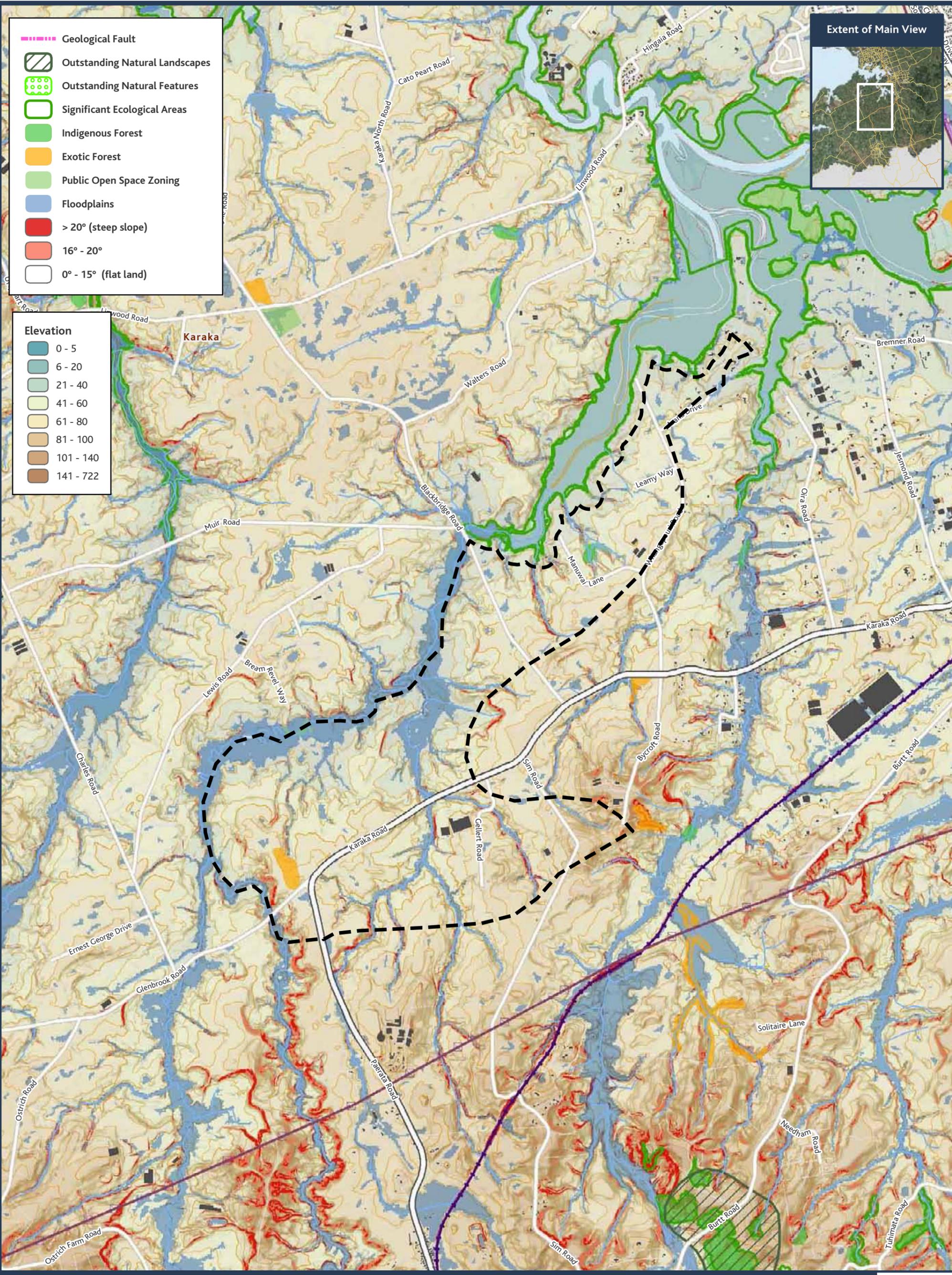
 Major Road

 5m contours

 Streams

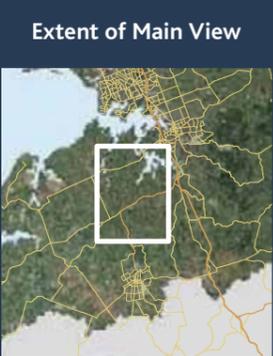
Whangapouri





- Geological Fault
- Outstanding Natural Landscapes
- Outstanding Natural Features
- Significant Ecological Areas
- Indigenous Forest
- Exotic Forest
- Public Open Space Zoning
- Floodplains
- > 20° (steep slope)
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22 July 2013
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RUB Area

Railway

Building Footprints

Transpower 220kv Line

Transpower 110kv Line

Parcel Boundaries

Major Road

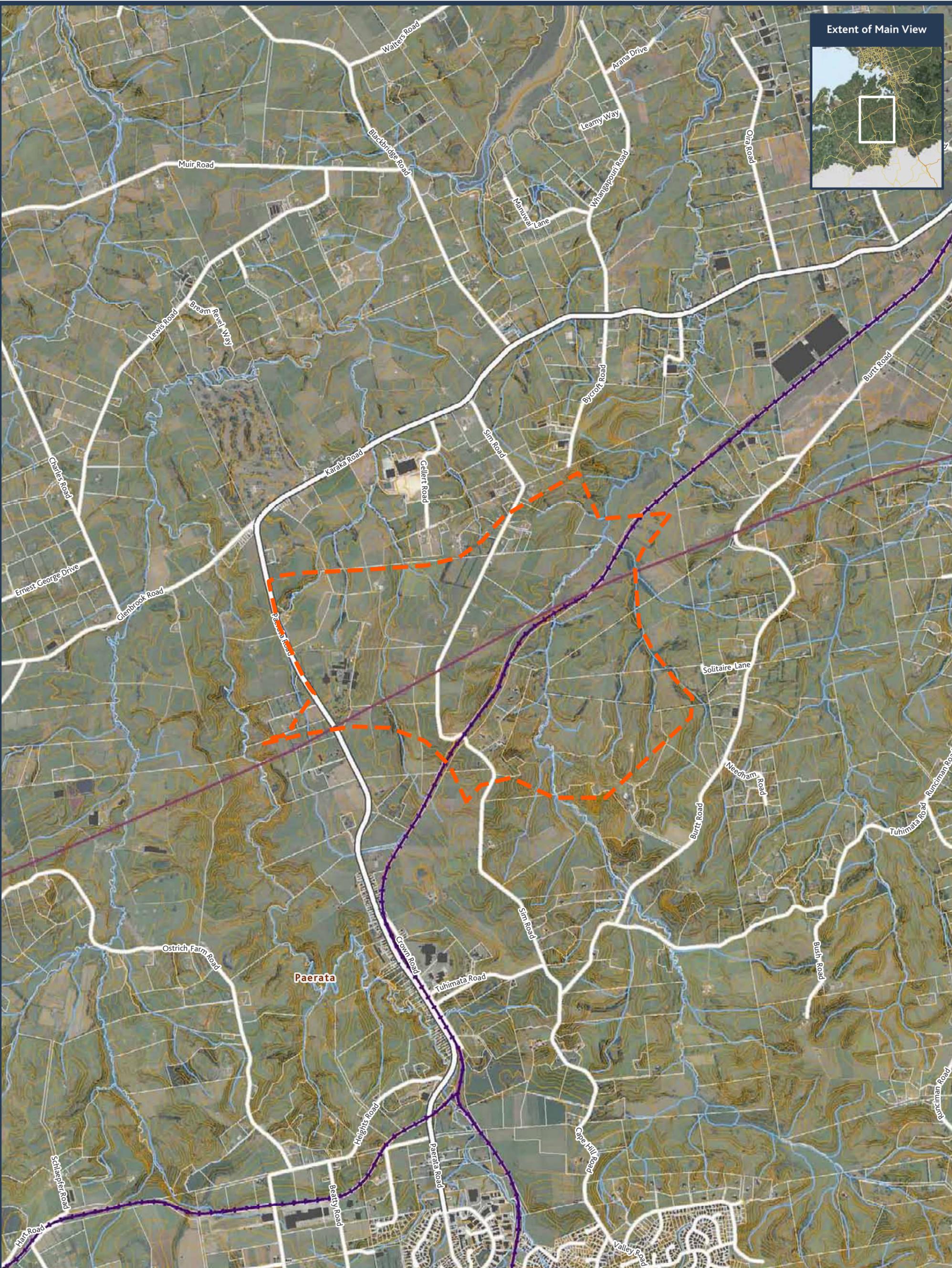
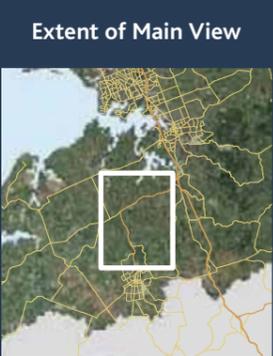
5m contours

Streams

Whangapouri Landscape Resource Attributes



File ref:



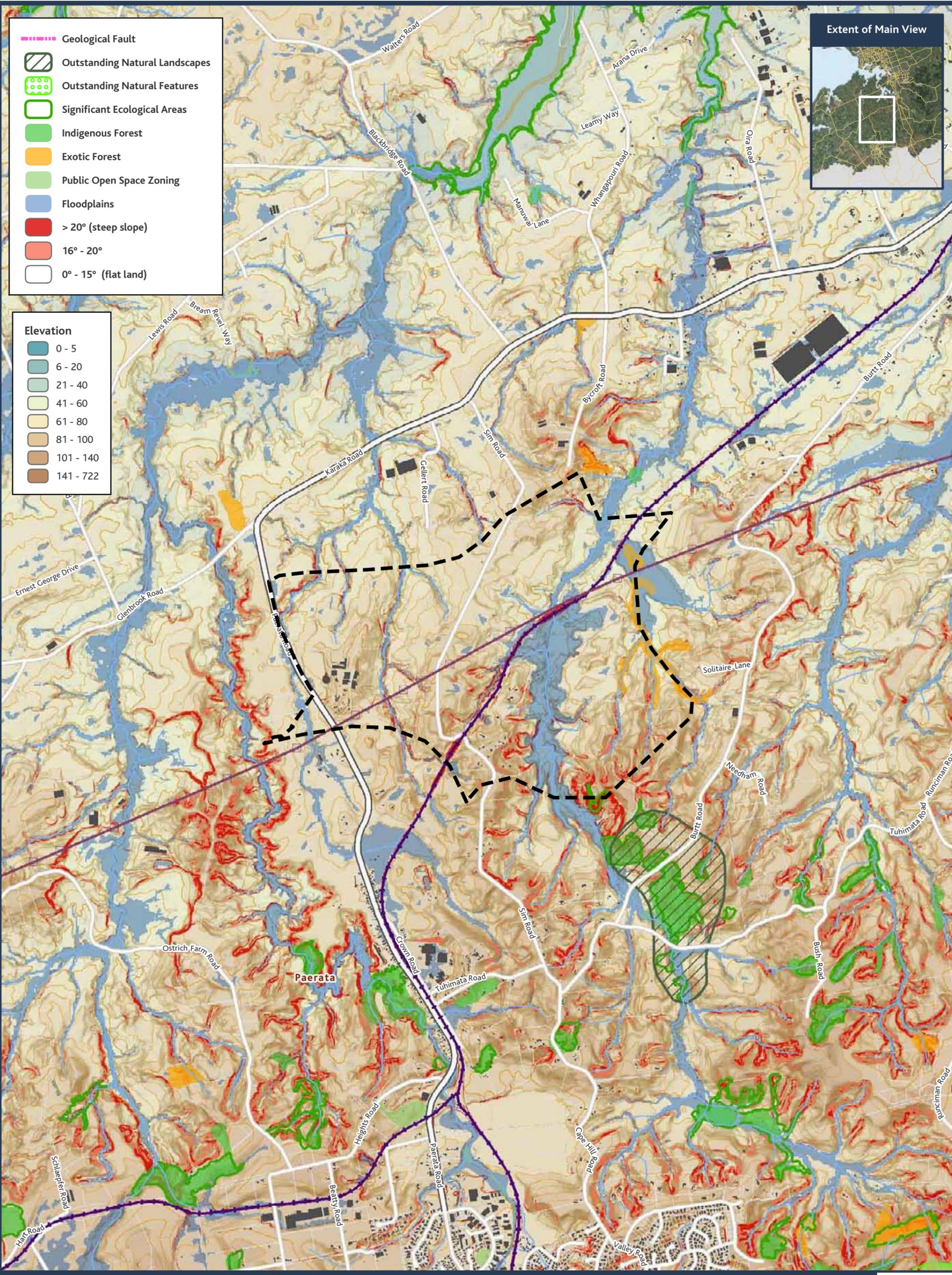
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22 July 2013
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RUB Area	Parcel Boundaries
Railway	Major Road
Building Footprints	5m contours
Transpower 220kv Line	Streams

Paerata North





-  Geological Fault
-  Outstanding Natural Landscapes
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 RUB Area

 Railway

 Building Footprints

 Transpower 220kv Line

 Transpower 110kv Line

 Parcel Boundaries

 Major Road

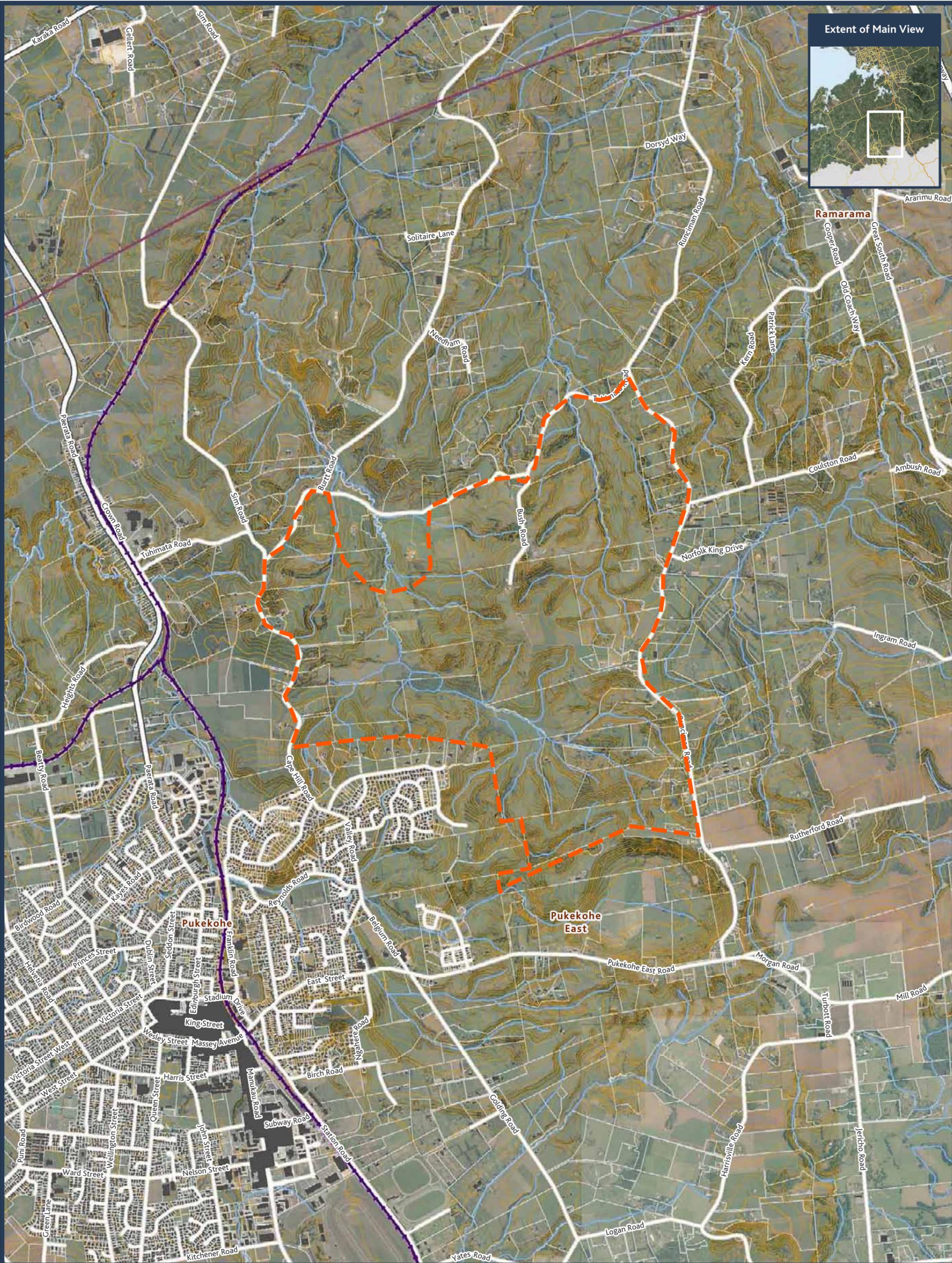
 5m contours

 Streams

Paerata North

Landscape Resource Attributes





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	RUB Area	Parcel Boundaries
Railway	Major Road	Building Footprints
Building Footprints	5m contours	Streams
Transpower 220kv Line		

Pukekohe Paerata (B)

