

# BEACH RESIDENTIAL PRECINCTS WAIKANAE BEACH

## CHARACTER ASSESSMENT UP-DATE

RMA [ENABLING HOUSING SUPPLY & OTHER MATTERS]  
AMENDMENT ACT & NSP-UD / IMPACT ON CHARACTER



Prepared for Kapiti Coast District Council by

Urban Perspectives Ltd in association with Boffa Miskell | June 2022



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# 1 INTRODUCTION

## CONTEXT AND BACKGROUND

The Operative Kapiti Coast District Plan identifies four special character areas/precincts with a coastal location at Paekakariki, Raumati, Waikanae Beach and Otaki Beach respectively. These precincts have location-specific issues that are managed through the Operative District Plan.

The District Plan describes these precincts as settlements with *‘a linear form, low key ‘beach’ character and expressive topography enhanced by prominent mature vegetation. Their memorable natural setting contributes to a strong sense of place. While each of the four settlements has its own ambience and individually, they share a range of common features derived from similarities in their coastal location, topography and history of land subdivision’*. Further to this, the District Plan provides a list of the common patterns that underpin their ‘beach’ character which relate to both built and natural features and characteristics (refer District Plan, General Residential Zone, Beach Residential Precincts, page 3). These common patterns and characteristic features have been identified by detailed character assessments for each area carried out by the Council in 2011 and 2017<sup>1</sup>.

In recognition of the special character of these precincts the District Plan has made them subject to specific rules and standards *‘to ensure that new development is sensitive to its landscape setting and enhances the collective character, amenity value and public significance of each area’*. In addition to the specific rules and standards, the District Plan includes a set of ‘Special Character Area Design Guidelines’ (General Residential Zone/Appendix 3).

The National Policy Statement on Urban Development (2020) (NPS-UD) and subsequent Resource Management (Enabling Housing Supply and Other Matters) Act, call for increasing the existing residential density and are applicable to Kapiti Coast District Council as a Tier 1 local authority. In response, proposed District Plan provisions are being prepared for the General Residential Zone, including the Beach Residential Precincts, with different provisions for the areas within 400m of a Town Centre or 200m of a Local Centre and within 800m of the Paraparaumu Metropolitan Centre Zone or a Rapid Transit Stop.

The increased density provisions have the potential to impact on some of the essential local character attributes associated with each precinct. To understand the potential impact of the new provisions on the key character attributes of each precinct, the Council has commissioned Urban Perspectives Ltd in association with Boffa Miskell to undertake an assessment of the specific ways the character of each precinct might be affected. This report provides an assessment of the Waikanae Beach Residential Precinct. The other three areas – Raumati Beach, Otaki Beach and Paekakariki Beach Residential Precincts are covered in separate reports.

The assessment will help inform the development of District Plan provisions in response to the new legislation and the NPS-UD, while acknowledging the essential local character attributes of the Waikanae Beach Residential Precinct.

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<sup>1</sup> Character assessments for the Beach Residential Precincts were undertaken by the Council in 2011 to help identify the key character attributes of Otaki, Raumati and Paekakariki and in 2017 re Waikanae Beach. The purpose of the assessments was to identify ways to manage those character attributes through the District Plan. The findings and recommendations of those assessments provided the rationale for the current District Plan provisions.

## **PURPOSE**

The purpose of the study is two-fold:

- (a) identify the key/primary character attributes of each precinct that would be most sensitive to change/potential intensification; and
- (b) identify the potential impact (degree and nature of potential change) of the proposed increased density provisions on each character attribute and the collective character of the precinct as a whole.

## **STUDY AREA & SCOPE OF THE ASSESSMENT**

The boundaries of the Waikanae Beach Residential Precinct (PBRP or precinct) are identified by the District Plan and outlined on the 'context map' (refer Appendix 1/Map 1).

### **Character Definition <sup>2</sup>**

For the purposes of this study 'Character' includes both built and natural elements within the private and public realms within an area or neighbourhood. While the individual elements are important, 'character' is largely determined by the relationship between those elements and the unique way they combine to form patterns and create the context and image of an area as a whole. The more pronounced, consistent or continuous those elements, relationships and patterns are, the more distinctive and coherent the overall character of an area feels and the stronger its sense of place is.

### **Key Character Attributes Assessment**

The assessment of the key character attributes is focused on the following aspects of the existing character which are considered most relevant to the assessment:

- Landscape character (landform/topography, vegetation patterns)
- Building height
- Site coverage
- Lot size pattern
- Setbacks

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<sup>2</sup> The definition is a revised version of the definition used for the original 2011 'character assessments'

## **METHODOLOGY/RESEARCH METHODS**

### **Assessment of 'key character attributes'**

- Review and up-date analysis of the original 2017 Character Assessment with reference to key character elements that are most relevant to the purpose of this study, including landscape character and patterns relating to the key bulk/location provisions.
- A detailed landform and vegetation assessment to identify key character attributes.
- Mapping of up-dated and additional data based on the methodology used in the original 2017 Character Assessment.

### **Establishing the impact of increased density provisions on the local character attributes**

- Comparative analysis of the 'character up-date assessment' findings against the operative and new draft provisions to establish the impact of the new provisions on existing character attributes. The analysis is limited to the key 'bulk and location' provisions including site coverage, building height, setbacks and lot size.

The collective use of the identified research/analytical methods allows an objective assessment of the area's character and helps to inform conclusions on the implications of the new increased density provisions.

## **ACKNOWLEDGEMENTS**

Urban Perspectives are grateful to KCDC for supplying GIS information from the Council's database, and to Dr Mike Shephard, senior lecturer in geomorphology (retired) Massey University for providing information and advice on the geomorphology of the Kapiti Coast dune systems.

## 2 EXECUTIVE SUMMARY

### CHARACTER ASSESSMENT SUMMARY

#### Sense of place

Part of the extensive coastal dune system, the Waikanae Beach Residential Precinct (the precinct) extends on both sides of Te Moana Road and is bookended by Weggery Reserve in the south and the Waimeha Stream and Domain and the Waikanae Golf Course to the north.

Developed as part of the historic Old Beach settlement, the subdivision of the precinct (known as the Old Beach Area) started in the 1920s. Carried out in two stages and completed prior to 1950, the precinct's subdivision appears to have been comprehensively planned to create a settlement with a compact and legible layout comprising generally regular blocks with good connectivity, consistent lot patterns and a good open space network (Waimea Domain and mid-block reserves). Many of the streets are narrow with an informal character (no formed footpaths). A series of linear cross-block reserves, which subdivide the long blocks at the north/eastern part of the precinct and provide pedestrian access, are an unusual and distinctive feature of the precinct's layout.

Despite the relatively flat topography and good connectivity, there has been little subdivision since 1950 (when the original subdivision was completed), thus retaining the historic subdivision pattern almost intact. This appears to have been by choice rather than due to limitations imposed by topography/access as has been the case in some of the steeper beach precincts to the south.

The historic subdivision layout, that has remained largely unchanged, and the associated low-rise/low-density built form (with approximately a third of the buildings being older 'bach-like' dwellings) are character-defining attributes that are a particular feature of the precinct's local sense of identity. Together with the precinct's coastal location and related landform, these attributes determine the precinct's distinctive character and sense of place.

#### Essential character attributes/patterns/relationships<sup>3</sup>

- **Primary attributes** - the precinct's strong sense of place is derived from its coastal location and related landform in combination with its largely intact historic subdivision pattern and associated low-density/low-rise built character.
- The precinct's primary character attributes include:
  - (i) landscape character attributes:
    - the precinct's coastal setting and associated landform is one of the precinct's character-defining attributes. Although not very steep overall, the existing topography incorporates prominent elevated dune landforms, that despite residential development, are still very evident.

The vegetation coverage of tall trees across the precinct is generally low, and while it accentuates the steeper slopes and contributes to the precinct's overall character, it is not a primary character attribute.

<sup>3</sup> These have been identified based on the adopted 'Character' definition (page 2 of this report). According to that definition, 'character' includes both built and natural elements within the private and public realms of an area, noting that while the individual elements are important, 'character' is largely determined by the relationship between those elements and the unique way they combine to form patterns and create the context and collective image of an area as a whole. The more pronounced, consistent or continuous those elements relationships and patterns are, the more distinctive and coherent the overall character of an area feels and the stronger its sense of place is.

(ii) built character attributes:

- distinctive subdivision pattern, conceived as part of the historic development of the Old Beach settlement that has remained almost intact; and
- associated low-density/low-rise built character of stand-alone primarily single-storey buildings set within a compact layout with a generally regular block structure, consistent lot pattern and a good open space network.

It is the relationship between the primary landscape and built attributes of the precinct that define its distinctive spatial setting, low-key beach character and relaxed 'village' atmosphere. Managing this relationship is important if the precinct's primary attributes are to be maintained.

The primary character attributes are experienced in views within the precinct. The beach-fronting sites contribute to the public character of the entire precinct due to their visibility from the beach.

■ **Enabling attributes** - the primary character attributes have been enabled by four interrelated, predominant and generally consistent patterns:

- (i) generous and largely consistent lots size pattern (predominance of lots above 600m<sup>2</sup> with similar proportions). There is a degree of correlation between lot size, land slope and vegetation cover with the larger lots typically occurring on the steepest slopes where the density of vegetation cover tends to be greater. There is a high level of consistency of lot size/ proportions that is most pronounced within the central/flatter parts of the precinct (between Moana Road and Hona Street);
- (ii) low site coverage - predominance of site coverage below 30% for three-quarters (75%) of the sites. This, in combination with the lot size pattern, reinforces the perception of low-density and contributes a sense of openness;
- (iii) building height - predominance of single-storey buildings that contribute to a consistent low-rise/low-key built character; and
- (iv) setbacks above 4.5m, which account for more than half of the sites and reinforce the perception of low-density in views from the street, while allowing for the maintenance of planted embankments along the street edges of some of the precinct's steeper sites.

■ **Supporting attributes**

- (i) a series of narrow streets with an informal character (no kerb and channel/no footpaths) providing long unobstructed views to the foredune and beachfront reserve and the openness of the coast beyond (refer Appendix 1: Maps 13 and 14); and
- (ii) unusual cross-block reserves acting as 'green pedestrian streets', subdividing the long blocks at the north/eastern part of the precinct.

These narrow informal streets and the cross block green reserves, both part of the historic subdivision of the Old Beach Area, contribute to and support the precinct's primary character attributes.

### Sensitivity to change

The landscape significance of the existing landform and the largely intact historic subdivision pattern and associated small-scale/low-density built form (the precinct's primary attributes) makes the entire precinct sensitive to any increased level of intensification. The parts of the precinct which are most sensitive to change in relation to landform are marked on the annotated 'hill shade' map (Appendix 1: Map 2).

## DISTRICT PLAN REVIEW / OPERATIVE & DRAFT PROVISIONS VERSUS PREDOMINANT CHARACTER PATTERNS: KEY FINDINGS

### Operative Provisions

The Kapiti Coast District Plan identifies the Waikanae Beach Residential Precinct as one of four special character areas/precincts with coastal location. To provide for the management of the special character of these precincts, the District Plan includes provisions *'to ensure that new development is sensitive to its landscape setting and enhances the collective character, amenity value and public significance of each area'*. In addition to these provisions, the District Plan includes a set of 'Special Character Area Design Guidelines' (General Residential Zone/Appendix 3).

The analysis of the operative rules and standards for the Waikanae Beach Residential Precinct (re site coverage, building height, lot size and setbacks) established that the operative provisions are generally aligned with and reflect the existing character patterns and attributes. Therefore, they facilitate the management of the precinct's primary attributes. The site coverage and lot size provisions are most critical in this respect.

### Draft Provisions

The comparative analysis of the draft provisions relative to the precinct's primary character attributes established that the draft provisions are markedly different from the existing patterns and, if implemented, would enable development with a density, building scale and character that would be distinctly different from both that allowed under the operative District Plan provisions (which promote relatively low-density residential development), as well as from the existing predominant patterns of lot size, site coverage, building height and frontage setbacks.

This suggests that the precinct's primary character attributes - its landform form and the integrity of its largely intact historic subdivision pattern and associated built form - could potentially be significantly affected by a level of development enabled by the draft provisions if they were to be implemented by: (a) enabling an increased level of landform modification; and (b) by altering the existing subdivision pattern and built form character. The draft provisions could also alter the informal character of some of the precinct's narrow streets through street-upgrade initiatives (i.e. carriageway widening/street parking, kerb and channel/footpaths installation) that are likely to be needed under an increased level of density, and/or by increasing the visual impact of new taller/bulkier buildings in views from the street.

## CONCLUSIONS

### Character

- The Waikanae Beach Residential Precinct has a distinctive character. This is based on a set of definable character attributes (primary, enabling and supporting attributes) that work together and reinforce each other. The precinct's primary attributes - the coastal landform and the largely intact historic subdivision pattern and associated built form character have been enabled and maintained by the existing predominant patterns of low site coverage, large and generally consistent lot size and generally deep setbacks. This has



been supported by the existing street network that has largely retained the character of the landform and associated narrow informal street and cross-block green reserves providing pedestrian access.

### **Operative and Draft Provisions**

- The operative District Plan provisions are overall aligned with the precinct's predominant patterns. This has facilitated management of the precinct's primary attributes.
- The draft provisions enable development with a density and building scale and character that is markedly different from that allowed under the operative District Plan provisions and a departure from the precinct's predominant patterns. This suggests that the primary, most prominent character attributes of the Waikanae Beach Residential Precinct - the coastal landform, that despite development is still evident, and the largely intact historic subdivision pattern and associated built form (re scale and density) - could potentially be significantly affected/altered under a level of development enabled by the draft provisions.

### **Parts of the Precinct that are most sensitive to change/spatial extent**

The landscape significance of the existing landform and the largely intact historic subdivision pattern and associated built form (the precinct's primary attributes) make the precinct sensitive to any increased level of intensification.

#### **Landform**

- The sensitivity of the landform to change was determined relative to the steepness of its slopes. Sites with slopes steeper than 1:5 were identified as primary/character defining sites that are most sensitive to change; sites with slopes between 1:5-1:12 as contributory (sites contributing to the character); and sites shallower than 1:12 as supporting/neutral.
- The precinct is largely comprised of contributory sites (59%) and neutral/supporting sites (22%) with primary sites accounting for less than a quarter of the sites (19%).
- The sensitivity of primary, contributory and, to a lesser degree, supporting/neutral sites (re average slope) was also assessed in relation to the landscape significance of the underlying landform (re intactness and/or landscape character value) and separate from the specific slope profile. This is to recognise that the slope's steepness is not always directly related to and/or a necessary ingredient of landform significance. For example, contributory sites and even some supporting/neutral sites might be as sensitive to change as the primary/steep sites in cases where they sit within a generally intact and/or significant landform with a naturally lower slope profile. The low percentage of primary sites within the Waikanae Beach Residential Precinct is largely a reflection of its underlying relatively shallow topography and subtle landform.
- The parts of the landform within the precinct identified as most sensitive to change regardless of the slope steepness, are highlighted on the annotated 'hill shade' map (Appendix 1, Map 2). These include the foredune and dune ridge along to the coastal edge (some of this area is situated in the Waimeha Domain) and the dune at the south-east of the precinct. These areas are covered primarily by primary and contributory sites as shown on the 'average slope - character' map (Appendix 1/Map 5).

#### **Historic subdivision pattern**

- The character significance of the historic subdivision pattern - a primary character attribute and a particular feature of the precinct's local identity - is derived from: (a) its ability to demonstrate historic patterns of (comprehensive) development and associated contribution to understanding the history of the precinct; (b) its high level of intactness; and (c) its distinctiveness relative to the other beach residential precincts.

- The Old Beach historic subdivision demonstrates patterns of development that have remained largely intact. The 'survival' of the historic subdivision pattern since its inception in the 1920s, (there has been little subdivision post 1950's), despite the lack of any significant constraints imposed by either topography/access and/or planning regulations, alludes to an informal 'self-regulating' development approach towards maintaining the integrity of the subdivision pattern. This is reinforced by the existing low-rise/low-density built form which has largely followed the general pattern of the original building development in terms of building form and scale.
- Note that prior to 2017 the subdivision for sites less than 3000m<sup>2</sup> was 'controlled activity' with a minimum lot size of 450m<sup>2</sup> under the relevant District Plan provisions. Similarly, maximum site coverage was 40%. Notwithstanding this, little subdivision has been undertaken since the historic subdivision was completed (refer to the 2017 'subdivision age' map produced by the Council for the 2017 Character Assessment, page 21 of this report), while new building development has continued to reinforce the predominant low-rise small-scale stand-alone building topology.

#### **Possible further investigation on the sensitivity of the landform and the historic subdivision pattern**

- Not all contributory sites with an average slope 1:5-1:12 have the same level of sensitivity (noting that average slope is not representative of the actual slope). The parts of the landform within the precinct identified as significant and therefore most sensitive to change (Appendix 1, Map 2) include areas covered primarily, but not exclusively, by primary and contributory sites.
- To establish in more detail the sensitivity of the parts of the precinct that fall outside the identified most prominent dune formations, further investigation on the actual slope characteristics could be considered.
- The subdivision pattern (lot size, proportions/shape) is most consistent and the block structure most regular within and around the middle part of the precinct where the landform tends to be shallower and where most of the informal streets are located. In the stepper parts of the precincts where the landform is more pronounced, it is less consistent as it alters in relation to topography. The subdivision pattern along the north/western part of Waimea Road forms an entity, comprising smaller lots of consistent size, that differs from the predominant pattern. These local variations form part of the historic pattern. To establish in more detail the significance/sensitivity of the historic subdivision pattern and its local variations, further investigation could be considered.

### **3 CHARACTER ASSESSMENT UP-DATE**

## LANDSCAPE CHARACTER

### INTRODUCTION

Geomorphological processes over millennia have created the distinctive dune landforms of the Kapiti Coast, which are part of an extensive dune system that runs from Paekakariki in the south to almost Whanganui in the north. It is New Zealand's largest dune field, covering about 85,000 hectares and its continuity is broken only by the rivers and waterways that cross the coastal plain. The entire dune field could be considered to be a large-scale coastal landform because the dunes were generated at or near the coastline relatively recently and the coastal character of both the older and younger dunes is significant.

The dune field is of Holocene age and probably commenced forming when the sea rose to its present level 6500 years ago, following the last glacial period. The main variables in the formation of the dune fields include the sand supply (largely by longshore transport from the north), the degree of exposure to the prevailing onshore winds, and fluvial processes, including river mouth migration and sediment supply. Furthermore, the Paekakariki, Raumati, Raumati South and Otaki Beach areas contain coastal landforms that are not present elsewhere along the west coast south of Whanganui.

Ecologically, this extensive sand dune complex is recognised as the Foxton Ecological District. The native vegetation that formed on the dune crests, dune slopes and interdunal hollows and along the edges and terraces of the Waikanae and Otaki Rivers and associated waterways, contributed to the natural character of Kapiti Coast and together with the geomorphological elements and processes have collectively contributed to the character of the precincts being considered. A distinction can be made between younger active dunes and older relict dunes that are stabilised by vegetation.

Historically, the Waikanae and Paraparaumu coastal areas would have been vegetated in native duneland and wetland species and lowland podocarp/broadleaf forest in dune slacks. Today little native vegetation remains because of extensive clearance and land use changes. In the residential areas including in the precincts, fragments of the original vegetation remain in a few places.

An assessment of the natural character of the Kapiti coastal environment was recently completed for Kapiti Coast District Council and GWRC (Boffa Miskell 2021). In this study the inland extent of the coastal environment was defined and mapped, and an assessment made as to the extent to which the natural elements, patterns and processes exist, and the level of human modification. Natural character aspects have been described then rated in terms of the degree of physical modification alongside experiential aspects that exist because of the levels of modification remaining apparent. The findings of this assessment, which is broadscale and district-wide, have been reviewed as part of these current more detailed precinct character investigations.

### CONTRIBUTION OF LANDFORM TO CHARACTER

Landform and vegetation individually and in combination contribute to an area's character. Both provide environmental limits and opportunities. How the land was shaped by the underlying geology and the subsequent geomorphological processes should significantly influence the nature and scale of any built development. Unfortunately, there is often little acknowledgement given to this and landforms are dramatically altered resulting in major changes to both the original form of the land or to the processes that shaped it. Residential subdivision and development can recognise and be guided by the natural landforms, or it can totally change or modify it. Recognition and acknowledgement of landform helps to create the character of an area; it creates identity and attachment.

Kapiti District's landform together with those districts further north is distinctive given that it is part of New Zealand's largest dune field. Creation of the dunefield complex has involved a range of natural processes resulting in various dune landscapes, including the coastline which is characterised by the cusped (tapering) foreland creating the sweeping form of Waikanae, Paraparaumu and Raumati beaches.

Due to subdivision, particularly near the settlements of Paraparaumu Beach and Waikanae Beach, the dune systems have been largely modified to accommodate housing and urban development. Nevertheless, the cusped foreland remains a legible feature. The dunes at the cusped foreland are formed predominantly from material from the Taupo Eruption and is known as the Taupo Dune (McFadgen, 1997). The Taupo Dune extends from the true left of the Waikanae Estuary to the north of Raumati Beach. Seaward of the Taupo Dune is a small strip of the Younger Waitare Dunes which are thought to be younger than 150 years in age.

Acknowledging the differences in the dune fields and their formation is an important part of defining and recognising landscape character and for each of the precincts these differences are described and explained.

Dune fields comprise sand ridges/‘hillocks’ and sand plains. It is generally the dune ridges and ‘hillocks’ that people recognise and identify with because of their distinctive elevated form. Also, dunes generally retain a semblance of their form even after some disturbance and residential development.

Dune ridges are important geomorphologically as they provide visible and often prominent evidence of the processes that formed them; they are also important in terms of their contribution to landscape character of an area. In places they make a significant contribution to landscape character but not always given that once modified through earthworks and subsequent development they are removed or substantially altered and remain as isolated and disconnected remnants.

However, this is not the case with sand plains because they have a low profile and are not visibly prominent so there are easily modified; following earthworks and residential development their form is totally obliterated or substantially changed.

### **Dune Slope**

With the higher shore-parallel ridges such as at Paekakariki and Raumati / Paraparaumu, there is a tendency for the eastward facing slopes to be steeper because, when they were forming as high foredunes, sand blown up from the beach and over the crests of higher foredunes may have settled out on the sheltered lee slope at the angle of repose for dry sand (30-35 degrees or around 1.5:1). This would vary because of the effect of differing degrees of foredune vegetation at the time of formation and subsequent degree of natural degradation.

The seaward slope of the ridges may also be steep if coastal erosion repeatedly trimmed the front of the dune after its formation (e.g. the seaward-most ridge (foredune) at Raumati South was trimmed back to a cliff during the 1976 storm), but in general, the inland-facing slope is usually steeper, rendering the ridge asymmetrical. This is well-demonstrated at Paekakariki and Raumati South. Low foredune ridges do not demonstrate this asymmetry to the same extent so it could be argued that the height and asymmetry of dunes in these precincts are inherent characteristics that should be acknowledged and recognised because of their contribution to the character of the precincts.

### **Mapping Landform**

To assist with depicting and understanding the landform, a digital elevation model (DEM) map has been produced with hill shade and 0.5m contours for each precinct overlaid on the cadastre. The DEM is generated from the land surface and excludes buildings and structures. Also shown are the slopes steeper than 1:3.

### **CONTRIBUTION OF VEGETATION TO CHARACTER**

Vegetation is also a significant contributor or creator of character. Native vegetation that has developed on the underlying landform as part of the natural process is especially valuable in terms of contributing to an area’s character. Given that native vegetation in the ‘lowlands’ of New Zealand where most of the population live exists as very small fragments or remnants, retention and protection of these areas and enhancing them is very important.

Enhancement can be achieved by linking the fragments together, protecting the edges to create a buffer and wind protection and managing them to ensure they endure as permanent features in the landscape rather than allowing them to be compromised by pest plants, damage through root compaction, and drainage and changes to the water table.

Exotic vegetation can also create or contribute to landscape character, albeit a different type of character. In residential areas generally, it is the combination of native and exotic vegetation that is responsible for creating an area's landscape character.

The contribution of vegetation to landscape character, especially the contribution of native vegetation, varies across the four beach residential precincts identified in the District Plan.

Remnant native vegetation where present within the precincts is restricted to individual or very small groups of trees. Most of the tall native trees and other native species present in the beach residential precincts are not original and have been planted; pohutukawa, in particular have been widely planted.

Vegetation, especially tall trees (i.e. 8m and above) on properties along the seafront of the beach precincts is often lower-growing or limited because of a combination of two factors – climate, especially strong winds, and landowners seeking to maximise unobstructed sea views from their dwellings and outdoor living areas.

### **Mapping Vegetation**

Several vegetation maps were produced as part of the precinct's assessment. A map with vegetation 2.0m tall and above shows the distribution and pattern of vegetation which is useful but of limited use when assessing its scale and value in residential areas and the potential impact of intensification. Vegetation height and density provides more useful parameters to assessing value and the effects of potential impact of intensification.

While all types of vegetation contribute to character in residential areas, large trees are the greatest contributors because of their age, height, scale and canopy spread. Large trees, especially many native trees species, are particularly vulnerable to intensification. A limited amount of vegetation especially tall trees (i.e. 8m and above) in the beach precincts on properties along the seafront also make these areas vulnerable to intensification in that it limits the opportunity to integrate new dwellings within the existing tall vegetation matrix.

A height threshold of trees 8.0m and above was selected and mapped for each precinct. An 8.0m tall tree has a similar scale relationship to the height of a residential dwelling and trees of this height make a significant visual and amenity contribution to an individual lot and also collectively to a neighbourhood.

Two key factors to consider in relation to 8.0m trees and potential intensification of residential development are:

- the spread of the canopy; and
- the extent of the root zone.

As a general rule, the extent of a tree's root zone aligns with at least the spread of the canopy (i.e. the drip zone); any ground disturbance (i.e. excavation and/or ground compaction) or building development should not encroach within the drip line. In residential areas, buildings are often constructed within a tree's dripline with tree roots being cut back to enable building and / or the root zone compacted. Sometimes the effects of this disturbance are evident reasonably quickly, but more often it may take several years before the effects become evident (i.e. often referred to as latent damage). This is especially an issue of concern for native forest remnants / trees.

## **WAIKANA BEACH RESIDENTIAL PRECINCT / LANDSCAPE CHARACTER ASSESSMENT**

Recognition and acknowledgement of landform helps to create the character of an area; it creates identity and attachment.

The assessment of the Waikanae Beach Residential Precinct includes a description of the landform and the natural processes that formed it. Also described, are some of the effects residential development has had on the landform, highlighting those areas where landform warrants recognition as contributing to an area's character.

Waikanae Beach Residential Precinct (the precinct) is part of the extensive coastal dune system with sandy terrain, unlike the fertile soils of the Waikanae Garden Precinct adjacent to the Waikanae River. The precinct extends on both sides of Te Moana Road and is bookended by the Wegger Reserve in the south and the Waimeha Stream and Domain and the Waikanae Golf Course to the north. These areas of open space together with the Waimeha Domain at the end of Rauparaha Street influence the character of the precinct.

### **Landform**

The Waikanae Beach Residential Precinct contrasts with the Raumati Beach and Paekakariki Beach Precincts to the south in that a large parabolic dune or sand-sheet has migrated across the northern half of the precinct area leaving a relatively subdued deflation plain in its wake between two trailing-arm ridges.

The basins occupy most of the precinct and are characterised by relatively low, smaller dunes with lower slope angles that post-dated the parabolic dunes, but the higher irregular ridges at the margins of the basins (the trailing arms of parabolic dunes) have much steeper slopes. The ridges are large enough to have mostly escaped extensive modification during residential development, but the smaller parabolic dunes that were sited in coastal settlements further north appear to have been largely levelled throughout this precinct.

Although the large-scale parabolic dune topography, with the contrast between the low slopes of the basins and the steeper trailing arm ridges, is not so obvious on the ground, its survival in this precinct could be regarded as a noteworthy characteristic.

The geomorphological development of the precinct is also likely to have been affected by the migration of the Waikanae River mouth. However, Kapiti Island has not affected the Waikanae Beach Residential Precinct to any major extent as the main wave-approach direction and sediment flows are not blocked by the island and therefore the coast has prograded (Gibb 1976) at the same rate as the Horowhenua and Manawatu coasts further north. Similarly, the prevailing west to north-west winds are not impeded by Kapiti Island at Waikanae Beach, and the wider coastal plain would also enable stronger winds to affect the coastal dunes. For this reason, the Waikanae Beach Residential Precinct and the Otaki Residential Beach Precinct have been affected to a much greater extent by transgressive dune movement than the precincts further south.

### **Vegetation**

Vegetation across the precinct has neither the height nor density of the beach precincts to the south. There are very few areas where vegetation coverage of 8.0m and above is 60-80%; coverage on most of the properties fall into the up to 20% category.

Like the other beach settlements, the vegetation across the precinct is an eclectic mix of mostly exotic species and macrocarpa, Norfolk Island pine and pohutukawa are prominent canopy species. In places, the sub-canopy vegetation /underplanting is relatively dense.

The seafront part of the precinct on Tutere Street has a distinctive character created by the strongly defined dune edge and the associated vegetation, but much of the rest of the precinct has a predictable suburban character given the dunes have been significantly modified to enable development and the vegetation is typical of other suburban areas on the Kapiti coast.

## Summary

The Waikanae Beach Residential Precinct is mostly sand plain (deflation plain) with few prominent dune ridges and hillocks and of all the beach precincts is the most modified in terms of its landform. Sand plain areas are easy to develop and consequently the area has been extensively modified by earthworks for residential development. The parts of the precinct where the underlying landform is still very evident, despite residential development, is the foredune and dune ridge along the coastal edge (some of this area is situated in the Waimeha Domain). Refer to the annotated 'hill shade' map (Appendix 1/Map 2).

There are few areas of tall vegetation throughout with most of the precinct with 20% or less vegetation cover (8.0m or taller). The reserve areas that lie on three of the precinct's boundaries contribute to its open space and character.

## SLOPE MAPS ANALYSIS

Existing (average) slopes were analysed to understand the potential impact of intensification on landform character. Information on average slope was recorded and mapped within five slope categories as shown on the 'average slope' map (refer Appendix 1, Map 4). A general 'slope map' was also created (refer Appendix 1, Map 3).

The figures (percentage of the total) are:

### Slopes

Slopes steeper than 1:3	4%
Slopes 1:3-1:5	15%
Slopes 1:5 - 1:8	24%
Slopes 1:8 - 1:12	35%
Slopes 1:12 -1:20	21%
Slopes shallower than 1:20	1%

### Analysis and Observations

- Most sites (59%) have 'medium slope' (1:5-1:8). The percentage of sites with a relatively 'shallow' slopes (shallower than 1:12) and that of sites with steep slopes (steeper than 1:5) are generally comparable accounting for 22% and 19% of the sites respectively.
- The slopes, which are an important characteristic of the underlying landform, provide an indication of potential need for earthworks under an increased density provision. In terms of building construction, the steepest sites within the precinct (steeper than 1:5) would typically be associated with the greatest need for earthworks and therefore would have the greatest impact on the landform character. On this basis:
  - 'steep' sites (steeper than 1:5) are primary sites (sites that define the landform character and are most sensitive to change). 19% of the precinct's sites are primary sites;
  - 'medium slope' sites (slope 1:5 -1:12) - contributory sites (sites that contribute to the landform character and might require a lower degree of modification compared to the primary sites). 59% of the precinct's sites are contributory sites; and



- sites shallower than 1:12 are supporting/neutral sites (where impact of potential intensification would be relatively low in landform terms). 22% of the precinct's sites are supporting/neutral sites.

(Refer to 'average slope - character' map, showing the geographic distribution of primary, contributory, supporting/neutral sites (Appendix 1/Map 5).

### Summary

Overall, the precinct is experienced as having a relatively flat and/or undulating topography articulated by several more pronounced landforms.

The precinct is largely comprised from contributory sites (59%) and neutral/supporting sites (22%) with the primary sites accounting for less than a quarter of the sites (19%).

Slope steepness provides an indication of potential need for earthworks/landform modifications under an increased density provision, which makes the steepest/primary sites most sensitive to change. Notwithstanding this, slope alone is not the sole indicator of landform sensitivity as it also depends on the character/steepness of the original landform and its level of intactness.

In this sense, sensitivity of primary, contributory and, to a lesser degree, supporting/neutral sites (re average slope) needs to be considered in relation to the landscape significance of the underlying landform (re intactness and/or landscape character value) and separate from the specific slope profile. This means that the slope's steepness is not always directly related to and/or a necessary ingredient of the landform's significance. For example, contributory sites and even some supporting/neutral sites (i.e. shallower sites) might be as sensitive to change as the primary/steep sites in cases where they sit within a generally intact landform with a naturally lower slope profile.

The parts of the landform within the precinct identified as most sensitive to change, regardless of the slope steepness, are highlighted on the annotated 'hill shade' map (Appendix 1, Map 2). These include the foredune and dune ridge along to the coastal edge (some of this area is situated in the Waimeha Domain) and the dune at the south-east of the precinct. These areas are covered primarily contributory sites as shown on the 'landform character' map (Appendix 1/Map 5).

While the Waikanae Beach landform is not as steep and/or intact across the entire precinct as that in the other beach precincts, it nevertheless represents one of the precinct's primary character attributes. This is because the existing landform: (a) is integral part of the precinct's coastal location which is one of its defining characteristics; and (b) incorporates prominent landforms, which despite residential development, are still very evident.

### VEGETATION MAPS ANALYSIS

Two maps have been prepared to illustrate the characteristics of the vegetation pattern of tall trees (8m and above): (a) 'vegetation coverage' map and (b) 'vegetation' (8m and above) map. The information on both maps relates only to tall trees (8m and above). Tall trees are the most significant contributor to the existing vegetation pattern. However, they represent only part of the actual vegetation cover currently seen on the ground which also includes mature vegetation below 8m.

The 'vegetation/8m and above' map (Appendix 1, Map 7) shows the location/distribution of tall trees throughout the precinct and provides an indication of the density of vegetation within each site.

The 'vegetation coverage' map (Appendix 1, Map 6) shows the vegetation cover (8m and above) on each site. Vegetation cover was calculated for each lot and initially recorded within 5 categories with a 20% interval between them (starting with vegetation cover of up to 20%). The 20-40% vegetation cover category was further split into two sub-categories 20%-30% and 30%-40% to provide a more detailed

understanding of the coverage within this category. The percentages of lots within each category were identified and their geographic distribution plotted on the 'vegetation coverage' map.

The figures (percentage of the total) are:

**Vegetation cover of tall (8m and above) trees**

Up to 20%	71%
20%-30%	14%
30%-40%	6%
40-60%	7%
60%-80%	2%

**Analysis and observations**

- Most sites (71%) across the precinct have vegetation cover below 20%.
- The precinct includes a similar percentage of sites with vegetation cover between 20-30% and sites with vegetation cover above 30%.
- The density of the vegetation pattern of tall trees varies from location to location and/or from site to site. The pattern often is more pronounced/dense on the steeper sites.
- Density of vegetation cover, which is an important characteristic of the vegetation pattern, has been mapped (refer 'vegetation/8m and above' map, Appendix 1, Map 7) but has not been analysed in detail as 'measuring' vegetation density is a difficult and complex task requiring detailed site investigations. As a general observation though, lots with higher vegetation cover (above 30%) tend to have most of their trees grouped together in larger clusters (resulting in a vegetation cover with a higher density). The density within lots with a vegetation cover below 30% appears lower, as many of the trees there tend to form smaller clusters or are dispersed/spread across the lot.
- The value of the vegetation pattern was determined by the extent of vegetation cover on each site. On this basis the following site categories were identified:
  - primary sites - sites with vegetation cover above 30% where the density of the cover appears most dense make the strongest (primary) contribution to the collective character of the precinct. Primary sites tend to be associated with lots above 600m<sup>2</sup>. Primary sites within the precinct account for 15% of the sites.
  - contributory sites - sites with a vegetation cover between 20%-30% are contributory sites (sites that contribute to the vegetation pattern of the precinct but exhibit a lower density of vegetation cover compared to that on the primary sites). 14% of the precinct's sites are contributory sites; and
  - supporting / neutral sites - sites with vegetation cover below 20% are supporting/neutral sites. 71% of the precinct's sites are supporting/neutral sites.

Refer to 'vegetation coverage - character' map showing the geographic distribution of primary, contributory, supporting/neutral sites (Appendix 1/Map 8).

### **Summary**

The precinct is dominated by supporting/neutral sites (vegetation cover below 20%). Higher vegetation cover (30% and above) is observed within the steeper parts of the precinct and most often associated with the identified significant landforms.

The pattern of vegetation cover of tall trees in the Waikanae Beach Residential Precinct is low across the precinct, and while this is part of and contributes to its character, it is not one of the precinct's primary character attributes that are sensitive to change.

## BUILDING HEIGHT

Information on building height was not updated as part of this assessment on the assumption that the findings of the 2017 study are still largely relevant given the permitted height limit under the operative District Plan provisions. The 2017 study found that the precinct is comprised largely of single storey buildings with a relatively small percentage of two-storey buildings.

The figures (percentages of the total) as per the 2017 Character Assessment are:

### Building height

1 storey	86.0%
2 storeys	14.0%
3 storeys	-

### Observations

- The single storey buildings are spread almost evenly throughout the precinct with many streets characterised by relatively long ‘rows’ of single storey buildings on both sides of the street.
- Two-storey buildings tend to appear on the elevated/steeper sites.
- The perception of building height within the precinct is influenced by topography which, depending on the building location, can reduce or accentuate the perception of height in views from the street.
- The existing vegetation on sites with higher vegetation cover sometimes reduces the streetscape presence of the buildings, especially when the tall vegetation is within the front yard.

## SITE COVERAGE

Up-dated information on site coverage has been supplied by the Council. The information was recorded within four 'site coverage' categories. The 'Site Coverage' map (refer Appendix 1, Map 9) shows the geographic distribution of the lots within the same category.

Most sites have a site coverage below 30%, with most of the remaining sites having a site coverage between 30-40%. Site coverage above 40% accounts for a small number of sites.

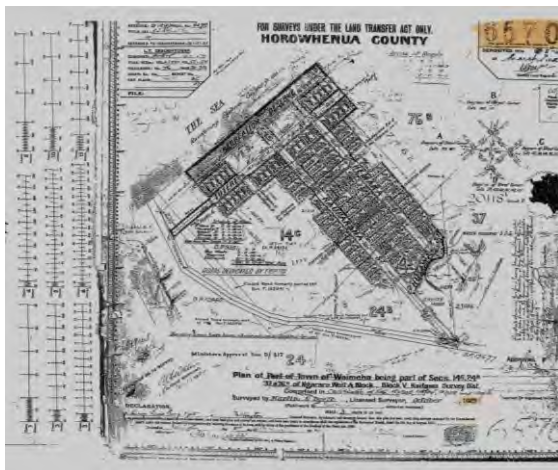
The figures (percentage of the total) are:

### Site coverage

Below 30%	75.0%
31% - 40%	19.0%
41% - 50%	5.0%
51%-60%	-
Unknown	1.0%

### Observations

- The precinct is dominated by low site coverage below 30%. Site coverage above 30% is most often associated with lots below 600m<sup>2</sup>.
- The combination of low site coverage and generous lot sizes creates a sense of openness and accentuates the perception of low density in views from the street.



Subdivision Plan 1923



Subdivision Plan 1924

## LOT PATTERNS

Up-dated information on lot size was recorded under five lot size categories. The 'lot size' map shows the distribution of lots within each category (refer Appendix 1, Map 10).

The information shows that the predominant lot size is above 600m<sup>2</sup>.

The figures (percentage of the total) are:

### Lot size

Under 400m <sup>2</sup>	2.0%
400m <sup>2</sup> to 599	17.0%
600m <sup>2</sup> to 899m <sup>2</sup>	62.0.0%
900m <sup>2</sup> to 1200m <sup>2</sup>	14.0%
Above 1200m <sup>2</sup>	5.0%

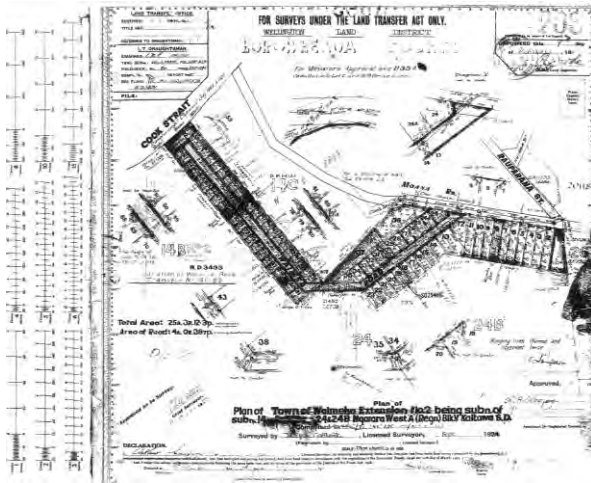
### Observations

- The precinct is dominated by lots above 600m<sup>2</sup> with most of those within 600m<sup>2</sup>-900m<sup>2</sup> category. The percentage of lots below and above the predominant lot size are the same.
- Lots below 600m<sup>2</sup> account for 19% of the sites. Most of these lots are in the 400m<sup>2</sup>-600m<sup>2</sup> category and most are concentrated along Waimea Road forming a consistent pattern of identical in size/proportions. Many of the small lots outside the vicinity of Waimea Street often appear at street corners.
- Larger lots (above 900m<sup>2</sup>), which account for 19% of the lots, relate most often to steeper sites.
- There is a high level of consistency in lot size and proportions. This is most evident in the middle part of the precinct (between Rangihiora Street and Hona Street) where most blocks have similar dimensions and are almost exclusively comprised of lots of similar size and proportions (size 600-900, typical proportions 1:3, frontage width 15-17m).

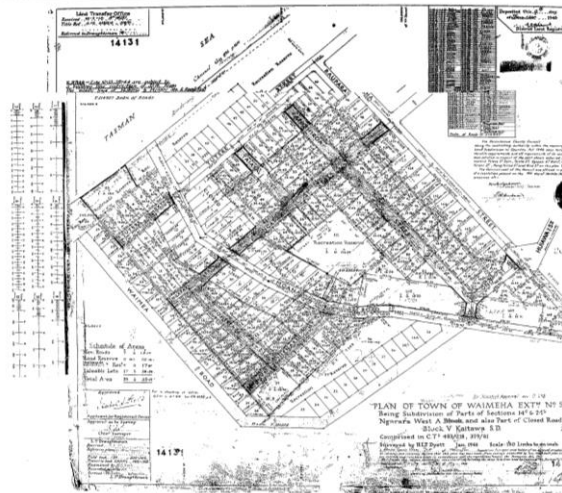
### Development/subdivision history

- The precinct (known as the Old Beach Area) has a distinct development history. It was developed in two stages as part of the development of the original Old Beach settlement. Most of the precinct was subdivided in 1920s, with the remaining part developed in the 1940-1950s. Despite the relatively flat topography and the good connectivity, there has been little subdivision since then, resulting in a largely intact original subdivision pattern. This appears to have been by choice rather than due to limitations imposed by topography/access, and in turn has enabled the retention of the original/historic subdivision pattern, thereby reinforcing its contribution to the precinct's history and sense of place.
- It appears that the subdivision of the precinct was planned comprehensively to include open space reserves as part of the original subdivision (i.e. Waimea Domain at the beach front, two mid-block reserves and a series of linear cross-block reserves subdividing the long blocks at the north/eastern part of the precinct, thereby and improving connectivity).



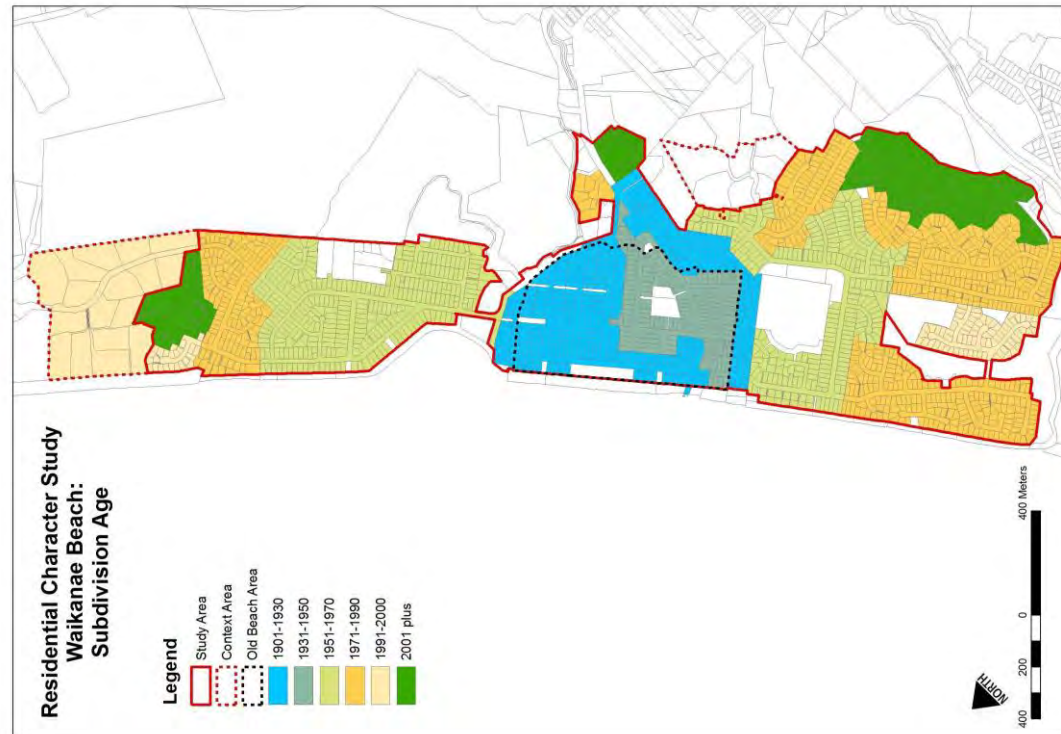


Subdivision Plan 1924



Subdivision Plan 1948

- The comprehensively planned nature of the precinct's subdivision has created a compact and largely regular block structure comprised mostly of small blocks of similar size, allowing for consistency of lot size patterns, and a generally connected street network, albeit often with an informal street character. Exceptions to that pattern are most often associated with variations in topography. A concentration of consistently small lots, that differs from the predominant pattern, is found in the north-western part of Waimea Road.
- The block structure and the subdivision patterns (lot size, proportions/shape) are most consistent within and around the middle part of the precinct where the landform tends to be shallower and where most of the informal streets (no kerb and channel/no footpaths) are located. In the steeper parts (those associated with the identified most prominent landforms) the subdivision pattern is less consistent as it alters in relation to topography. The subdivision pattern along the north/western part of Waimea Road forms an entity comprising smaller lots of consistent size, that differs from the predominant pattern. These local variations form part of the historic subdivision pattern.
- The historic planned nature of the precinct's subdivision and associated spatial and built form characteristics, with a particular reference to the historic subdivision pattern that has remained almost intact, form an important part of the precinct's local identity. This combined with the coastal location of the precinct and its landform, contribute to the low-key beach character of the precinct that is experienced within a compact and walkable 'village' layout.



Subdivision Age Map (2017 Character Assessment)



**Waikanae Beach 1942<sup>4</sup>**



**Waikanae Beach 1948**

<sup>4</sup> Images on this and next page sourced from: [retrolens.co.nz](http://retrolens.co.nz)





**Waikanae Beach 1952**



**Waikanae Beach 1964**

## SETBACKS

Up-dated information on frontage setbacks was recorded within 4 categories: within 1.5m (corresponding to the draft provision), 1.5-2.5m; 2.5-4.5m and above 4.5m (corresponding to the operative provisions). The 'setback' map (refer Appendix 1, Map 11) shows the geographic distribution of setbacks within each category.

The figures (percentage of the total) are:

### Frontage setback

Within 1.5m	23.0%
1.5m -2.5m	5.0%
2.5m - 4.5m	18.0%
Above 4.5m	53.0%
N/A	1.0%

### Observations

- The frontage setback for most sites (53%) is above 4.5m.
- Setbacks below 4.5m often relate to garages or can be associated with smaller lots (below 600m<sup>2</sup>) or corner lots.

## 4 DISTRICT PLAN REVIEW: OPERATIVE & DRAFT PROVISIONS

### ESSENTIAL CHARACTER ATTRIBUTES/PATTERNS/RELATIONSHIPS<sup>5</sup>

Based on the up-dated character overview (Section 3 of this report) the following character attributes emerged:

- **Primary attributes** - the precinct's strong sense of place is derived from its coastal location and related landform in combination with its largely intact historic subdivision pattern and associated low-density/low-rise built character.
- The precinct's primary character attributes include:

(j) landscape character attributes:

- the precinct's coastal setting and associated landform is one of the precinct's character-defining attributes. Although not very steep overall, the existing topography incorporates prominent elevated dune landforms, that despite residential development, are still very evident.

The vegetation coverage of tall trees across the precinct is generally low, and while it accentuates the steeper slopes and contributes to the precinct's overall character, it is not a primary character attribute.

(ii) built character attributes:

- distinctive subdivision pattern, conceived as part of the historic development of the Old Beach settlement that has remained almost intact; and
- associated low-density/low-rise built character of stand-alone primarily single-storey buildings set within a compact layout with a generally regular block structure, consistent lot pattern and a good open space network.

It is the relationship between the primary landscape and built attributes of the precinct that define its distinctive spatial setting, low-key beach character and relaxed 'village' atmosphere. Managing this relationship is important if the precinct's primary attributes are to be maintained.

The primary character attributes are experienced in views within the precinct. The beach-fronting sites contribute to the public character of the entire precinct due to their visibility from the beach.

- **Enabling attributes** - the primary character attributes have been enabled by four interrelated, predominant and generally consistent patterns:
  - (i) generous and largely consistent lots size pattern (predominance of lots above 600m<sup>2</sup> with similar proportions). There is a degree of correlation between lot size, land slope and vegetation cover with the larger lots typically occurring on the

<sup>5</sup> These have been identified based on the adopted 'Character' definition (page 2 of this report). According to that definition, 'character' includes both built and natural elements within the private and public realms of an area, noting that while the individual elements are important, 'character' is largely determined by the relationship between those elements and the unique way they combine to form patterns and create the context and collective image of an area as a whole. The more pronounced, consistent or continuous those elements relationships and patterns are, the more distinctive and coherent the overall character of an area feels and the stronger its sense of place is.

steepest slopes where the density of vegetation cover tends to be greater. There is a high level of consistency of lot size/ proportions that is most pronounced within the central/flatter parts of the precinct (between Moana Road and Hona Street);

- (ii) low site coverage - predominance of site coverage below 30% for three-quarters (75%) of the sites. This, in combination with the lot size pattern, reinforces the perception of low-density and contributes a sense of openness;
- (iii) building height - predominance of single-storey buildings that contribute to a consistent low-rise/low-key built character; and
- (iv) setbacks above 4.5m, which account for more than half of the sites and reinforce the perception of low-density in views from the street, while allowing for the maintenance of planted embankments along the street edges of some of the precinct's steeper sites.

#### ■ **Supporting attributes**

- (i) a series of narrow streets with an informal character (no kerb and channel/no footpaths) providing long unobstructed views to the foredune and beachfront reserve and the openness of the coast beyond (refer Appendix 1: Maps 13 and 14); and
- (ii) unusual cross-block reserves acting as 'green pedestrian streets', subdividing the long blocks at the north/eastern part of the precinct.

These narrow informal streets and the cross block green reserves, both part of the historic subdivision of the Old Beach Area, contribute to and support the precinct's primary character attributes.

#### **Sensitivity to change**

- The landscape significance of the existing landform and the largely intact historic subdivision pattern and associated spatial and built form character (the precinct's primary attributes) make the entire precinct sensitive to any increased level of intensification.
- The parts of the precinct which are most sensitive to change (re landform) are marked on the annotated 'hill shade' map (Appendix 1: Map 2).
- The character significance of the historic development/subdivision pattern - a primary character attribute and a particular feature of the precinct's local identity, is derived from: (a) its ability to demonstrate historic patterns of (comprehensive) development and associated contribution to understanding the history of the precinct; (b) its high level of intactness; and (c) its distinctiveness relative to the other beach residential precincts.
- The Old Beach historic subdivision demonstrates patterns of development that have remained largely intact. The 'survival' of the historic subdivision pattern since its inception in the 1920s, (there has been little subdivision post 1950's), despite the lack of any significant constraints imposed by either topography/access and/or planning regulations, alludes to an informal 'self-regulating' development approach towards maintaining the integrity of the subdivision pattern. This is reinforced by the existing low-rise/low-density built form which has largely followed the general pattern of the original building development in terms of building form and scale.
- Note that prior to 2017 the subdivision for sites less than 3000m<sup>2</sup> was 'controlled activity' with a minimum lot size of 450m<sup>2</sup> under the relevant District Plan provisions. Similarly, maximum site coverage was 40%. Notwithstanding this, little subdivision has been

undertaken since the historic subdivision was completed (refer to the 2017 'subdivision age' map produced by the Council for the 2017 Character Assessment, page 21 of this report), while new building development has continued to reinforce the predominant low-rise small-scale stand-alone building topology.

## **DISTRICT PLAN OPERATIVE PROVISIONS**

The Kapiti Coast District Plan identifies the Waikanae Beach Residential Precinct as one of four special character areas/precincts with a coastal location. The District Plan describes these precincts as settlements with 'a linear form, low key 'beach' character and expressive topography *enhanced by prominent mature vegetation. Their memorable natural setting contributes to a strong sense of place. While each of the four settlements has its own ambience and individually, they share a range of common features derived from similarities in their coastal location, topography and history of land subdivision*'. Further to this, the District Plan provides a list of the common patterns that underpin their 'beach' character which relate to both built and natural features and characteristics (refer District Plan, General Residential Zone, Beach Residential Precincts, page 3). To provide for the management of the special character of these precincts the District Plan has made them subject to specific rules and standards *'to ensure that new development is sensitive to its landscape setting and enhances the collective character, amenity value and public significance of each area'*. In addition to the specific rules and standards, the District Plan includes a set of 'Special Area Guidelines' (General Residential Zone/Appendix 3).

The applicable rules and standards for the Waikanae Beach Residential Precinct have been informed by the predominant pattern of the existing environment as identified in the Council's 2017 Character Assessment. This suggests that the operative provisions are generally aligned with and reflect the existing character attributes. Nevertheless, for the purposes of this assessment, a high-level comparative review of the operative provisions against the up-dated character attributes (as identified by this assessment) is relevant to undertake. This will inform the comprehensive understanding of the potential impact of new development under the draft (higher density) provisions on the precinct's character.

## **DRAFT PROVISIONS [RESOURCE MANAGEMENT (ENABLING HOUSING SUPPLY and OTHER MATTERS) AMENDMENT ACT & NPS-UD]**

The draft provisions permit 3 residential units (11m tall) on a site with a total/maximum site coverage of 50%, minimal setbacks (1.5m front yard/1m side and rear yard) and no minimum lot size provisions. Height in relation to boundary is based on a 60° recession plane measured from a point 4m vertically above ground level along all boundaries, except in relation to the road boundary and between the existing or proposed internal boundaries and site boundaries with a common wall.

For the purposes of this assessment, the draft provisions have been assumed to apply to the Waikanae Beach Residential Precinct, except that the building height within the part of the precinct within 200m from the Waikanae Beach local centre would be enabled to rise to 14m/equivalent to 4 storeys.

The draft provisions promote development with a density, building scale and character that would be distinctly different from both that allowed under the operative District Plan provisions (which promote relatively low-density residential development), as well as from the existing predominant patterns of lot size, site coverage, frontage setbacks. This suggests that the precinct's primary character attributes - its landform form and the integrity of its largely intact historic subdivision pattern and associated built form character- could potentially be significantly affected by a level of development enabled by the draft provisions, if they were to be implemented.

To understand the specific impact of the draft provisions on the precinct's primary attributes, the draft provisions have been compared to both the existing patterns and the operative provisions.

## EXISTING CHARACTER VERSUS OPERATIVE & DRAFT PROVISIONS

This section of the assessment analyses how the existing character attributes compare with both the operative and the draft provisions. The focus is on:

- establishing the degree of protection of the precinct's primary character attributes under the operative District Plan provisions; and
- identifying the implications of the proposed increased density provisions on the precinct's primary character attributes.

The analysis is carried out in relation to the basic bulk/location provisions that are considered most relevant to the purpose of the assessment. The key observations and findings of the analysis are tabulated below<sup>6</sup>.

### COMPARATIVE TABLE

SITE (BUILDING) COVERAGE				
Operative Provisions	Draft Provisions	Analysis/Observations Existing Pattern v/s Operative Provisions	Analysis/Observations Existing Pattern v/s Draft Provisions	Summary Findings
Maximum site coverage 35% of the total property area excluding rights of way and access legs  Impervious area maximum 70% of total allotment area	Maximum 50% of net site area  Impervious area maximum 70% of total allotment area	<p><u>Existing pattern</u> – The predominant site coverage in the precinct is below 30% which accounts for three-quarters of the sites. Most of the remaining sites are with site coverage between 30% and 40%.</p> <p><u>Existing Pattern v/s Operative Provisions</u> - the operative provision of 35% site coverage is aligned with the predominant pattern.</p> <p>Applied in combination with the minimum allotment size of 550m<sup>2</sup>, the operative site coverage provision can largely maintain the two primary character attributes - the character of the underlying landform and the consistency of the original subdivision pattern and associated small-scale low-density built form.</p>	<p><u>Existing Pattern v/s Draft Provisions</u> - the draft 50% site coverage is higher than both the existing predominant pattern and the operative provision.</p> <p>Under the draft provisions, and in the absence of a minimum lot size provision and a blanket setback provision, the precinct's primary attributes are likely to be significantly affected.</p> <p>These include: (a) the landform, and particularly the parts identified as most sensitive to change, where an increased site coverage which enables larger building footprints could lead to landform modifications - an impact that could be exacerbated by the lack of minimum lot size, and (b) the built character of the precinct (i.e. enabling buildings with larger footprints, which together with the increased height provision and minimal frontage setbacks could result in visual dominance, an impact which will be most pronounced along some of the narrow streets with an informal character. An increased density is also likely to alter the informal character of the narrow streets throughout the precinct, through street up-grade initiatives (i.e. carriageway widening/street</p>	<ul style="list-style-type: none"> <li>Operative site coverage provision, which is closely aligned with the existing predominant pattern has the ability to maintain the integrity of both the landform character and existing pattern of tall trees. This is further supported by the minimum lot size provision, which practically limits subdivision to large sites / generally above 1100m<sup>2</sup>, noting that the percentage of such sites is low.</li> <li>Under the draft site coverage provision (applied in tandem with the increased draft height and minimal setback provisions and no minimum lot size provisions) the primary character attributes could potentially be significantly affected. The impact arises from: (a) potential modification to the steep/prominent landforms within the precinct; and (b) visual dominance resulting from larger/taller buildings spaced more closely together and placed close to the street edge.</li> </ul>

<sup>6</sup> Note that the operative provisions, except for those for minimum lot size, are the same for all Beach Residential Precincts.

parking, kerb and channel/footpaths installation) which will likely be needed under the an increased level of density.

- The informal character of the many narrow streets throughout the precinct could also be affected as a result of potential street up-grade initiatives (to improve vehicle access/provide street parking) that are likely to be needed under an increased level of density.

BUILDING HEIGHT				
Operative Provisions	Draft Provisions	Analysis/Observations Existing Pattern v/s Operative Provisions	Analysis/Observations Existing Pattern v/s Draft Provisions	Summary Findings
Maximum height of 8m and no more than two storeys	Maximum building height of 11m,  except that 50% of a building's roof in elevation, measured vertically from the junction between wall and roof, may exceed that height by 1m where the entire roof slopes 15° or more	<p><u>Existing Pattern</u> - while the precinct includes some two-storey buildings, it is dominated by single-storey building which account for 86% of the sites.</p> <p><u>Existing Pattern v/s Operative Provisions</u> - the operative height provision appropriately reflects and is aligned with the existing pattern.</p> <p>Supplementing the maximum height with a requirement that limits the actual building height to two-storeys helps to manage situations where three-storey buildings could be erected through excavations while keeping their height to the permitted 8m above existing ground level. For Waikanae Beach this provision is most relevant to the steeper sites.</p> <p>The maximum floor area ratio provision is set up to manage the impact of building bulk.</p>	<p><u>Existing Pattern v/s Draft Provisions</u> - under the draft provisions, buildings must not exceed 11m for most of the precinct (except for the parts located within 200m from the local centre). This could potentially result in 4-storey buildings as a maximum number of storeys has not been specified.</p> <p>For the parts of the precinct located within 200m from the Waikanae Beach local centre, buildings could rise to 14m and up to 4 stories.</p> <p>The proposed height increase, particularly the potential for 4 storey buildings, is clearly a departure from the existing pattern. Increasing the height in itself will not necessarily impact directly on the landform character (e.g. will not necessarily lead to landform modifications). However, together with the draft site coverage and frontage setback provisions, it will enable an increased building bulk and in turn affect the scale and grain of existing built form and associated low-density character (one of the precinct's primary attributes). The lack of extensive tall vegetation within the precinct will further emphasise the visual impact of the increased building bulk.</p> <p>The visual impact of height/bulk will be exacerbated by the proposed draft 'height in relation to boundary' provision which essentially enables reducing separation distances between</p>	<ul style="list-style-type: none"> <li>■ The <u>operative height provision</u> is consistent with the existing pattern of building height and assists in retaining the visual character of the existing low-rise built form.</li> <li>■ The proposed <u>draft height</u> in itself will not necessarily have a direct impact on the landform. It will, however, alter the scale of the existing low-rise built form and its relationship to the coastal setting and therefore affect the collective character of the precinct.</li> <li>■ The visual impact of the draft height provisions could be exacerbated by: (a) the draft 1.5m frontage setback which enables the increased building bulk (allowed by the draft provisions) to be placed close to the street edge; and (b) by the height in relation to boundary provision which enables buildings to be spaced closer together.</li> </ul>



adjacent buildings and increasing their bulk, thus potentially changing the existing low-density low-key beach character setting to a building-dominated environment. Such an effect, which will be experienced throughout the precinct, will be most pronounced in new development on: (a) steeper sites and/or along the narrower/informal character streets; and (b) within the parts of the precinct where 14m tall buildings would be allowed (south-eastern parts of the precinct which include some steep landforms).

## HEIGHT IN RELATION TO BOUNDARY

Operative Provisions	Draft Provisions	Analysis/Observations Existing Pattern v/s Operative Provisions	Analysis/Observations Existing Pattern v/s Draft Provisions	Summary Findings
2.1m vertically above ground level at the boundary, with a 45° recession plane.  Applies to all boundaries	4m vertically above ground level along all boundaries with a 60° recession plane.  This standard does not apply to:  boundary with a road,  existing or proposed internal boundaries within a site,  site boundary where there is an existing common wall between 2 buildings on adjacent sites or where a common wall is proposed	<u>Existing Pattern</u> - the existing pattern has not been studied. However, it appears that buildings comply with the provision given the predominant pattern of single-storey buildings and the generous lot size.  <u>Existing Pattern v/s Operative Provisions</u> it is assumed that the majority of dwellings comply with the existing provision.  Height in relation to boundary provision determines the distance of the building to the relevant boundary based on its height.  For example, an 8m tall building volume, which complies with the recession plane under the operative provisions, will need to be setback approximately 6m from the relevant boundary on a flat site. This ensures a generous separation distance between permitted 8m tall/2-storey building volumes built on adjacent sites.	<u>Existing Pattern v/s Draft Provisions</u> - the draft provisions together with the increased height will allow taller/bulkier buildings located closer to the site boundaries compared to both the existing building character and that permitted under the existing provisions.  As a general observation, an 8m tall building (volume) on a flat site, which complies with the recession plane under the draft provisions, will need to be setback from the relevant side or rear boundary approximately 2.5m compared to a 6m setback required for a building volume of the same height under the operative provisions. Similarly, a building volume with the maximum permitted height of 11m under the draft provisions, will require a setback of approximately 4m from the relevant side or rear boundary.  The resultant effect will be reduced separation distances between adjacent buildings which could potentially be bulkier. This, as noted under 'building height' above, could potentially change the existing low-density low-key beach character setting to a building-dominated environment.	<ul style="list-style-type: none"> <li>■ The <u>operative height in relation to boundary provisions</u> generally reflect the existing character while ensuring a generous separation distance between adjacent buildings on neighbouring sites, if they all are built to the maximum building height limit.</li> <li>■ The <u>proposed height in relation to boundary provisions</u> together with the increased height will allow taller/bulkier buildings located closer to the site boundaries compared to the permitted building volumes under the existing provisions and/or those comprising the current environment. This will affect the low-rise/low-density built form (one of the precinct's primary attributes) and its overall relaxed beach character.</li> </ul>



## SETBACKS

Operative Provisions	Draft Provisions	Analysis/Observations Existing Pattern v/s Operative Provisions	Analysis/Observations Existing Pattern v/s Draft Provisions	Summary Findings
4.5m setback from the road boundary	1.5m front yard 1m side/rear yard	<u>Existing Pattern</u> - most sites have front yard setbacks above 4.5m. The setback pattern exhibits a relatively low degree of variation in response to the underlying topography.	<u>Existing Pattern v/s Draft Provisions</u> - the draft provisions do not reflect the predominant setback pattern allowing for shallow frontage setbacks.	<ul style="list-style-type: none"> <li>The <u>operative provisions re front and rear yards</u> are consistent with the existing pattern of variable frontage setbacks, which in turn facilitates the management of the precinct's primary attributes (the character of the existing landform, the character of the built form and the relationship between the two).</li> <li>The <u>draft provisions</u> do not recognise the predominance of frontage setbacks above 4.5m. The draft provisions have the potential to affect the precinct's primary character attributes - the steeper parts of the precinct's landform (identified as landforms that are most sensitive to change) and the built form character of the precinct.</li> </ul>
3m setback from side and rear boundaries for residential units	no yard where there is a common wall between 2 buildings	<u>Existing Pattern v/s Operative Provisions</u> - the operative provision for a 4.5 frontage setback reflects the precinct's predominant pattern of deep front yards (4.5m+). Resource consent applications where the front yard is smaller, need to be assessed against the 'Special Character Area Design Guidelines' (General Residential Zone/Appendix 3). The operative provision is consistent with the existing predominant pattern while allowing a level of variation in response to topography or for any other character-related reason.	By allowing new development to be built close to the street edge, the draft provisions: <ul style="list-style-type: none"> <li>will exacerbate the visual impact of the increased building bulk enabled by the draft site coverage and height provisions; and</li> <li>could impact on the stepper landforms where the steeper part of a site is located at the street edge.</li> </ul>	
1m setback from side/rear boundaries for accessory buildings				

## MINIMUM ALLOTMENT SIZE

Operative Provisions	Draft Provisions	Analysis/Observations Existing Pattern v/s Operative Provisions	Analysis/Observations Existing Pattern v/s Draft Provisions	Summary Findings
Minimum allotment size 550m <sup>2</sup> .	No minimum lot size, shape or other size-related requirements for the following types of subdivision:	<u>Existing Pattern</u> - most sites are above 600m <sup>2</sup> with lot size between 600m <sup>2</sup> and 900m <sup>2</sup> being most common.	<u>Existing Pattern v/s Draft Provisions</u> - the draft provisions do not include a minimum lot size or any shape or other size-related provisions. Under the draft provisions the notional minimum lot size is to be largely determined by the bulk/location provisions.	<ul style="list-style-type: none"> <li>The <u>operative lot size provisions</u> are aligned with and intend to maintain the predominant lot size pattern, thus facilitating the management of the precinct's primary character attributes.</li> </ul> <p>This is further supported by the Restricted Discretionary Activity status of subdivision proposals. Note that the provision has not been tested for the subdivision of large lots - a development scenario that has the potential to significantly affect the integrity of the existing landform, given that most of the largest sites are located within the parts of the precinct associated with the most prominent landforms that are most</p>
Lots required to accommodate an 18m diameter circle	Subdivision where there is an existing residential unit, if the subdivision does not increase the degree of non-compliance with building	There is a correlation between lot size and topography (i.e. larger lots are typically steeper lots).	The draft provisions are clearly not aligned with the predominant lot pattern. This could impact significantly on the precinct's primary character attributes, and especially on the integrity of the underlying historic subdivision pattern and associated built form, which have been largely enabled by the predominant patterns of lot size above 600m <sup>2</sup> and low site coverage.	
Subdivision as a Restricted Discretionary Activity		<u>Existing Pattern v/s Operative Provisions</u> - the operative provisions of a minimum lot size of 550m <sup>2</sup> is generally aligned with and intended to largely maintain the predominant lot size pattern (by limiting subdivision to sites generally above 1100m <sup>2</sup> ).	The Controlled Activity status of subdivision	

standards;	the minimum lot dimension and provides flexibility in terms of building location.	provides a degree of control over the arrangement of allotments, but no ability to manage or limit the size of allotments.	sensitive to change.
Subdivision where residential units are provided under a land use consent and no vacant allotments are created.	The Restricted Discretionary Activity status of subdivision proposals provides an additional layer of control re subdivision outcomes.		<ul style="list-style-type: none"> <li>■ The <u>proposed 'management' of lot size</u> under the total package of draft provisions relies heavily on the proposed bulk/location provisions for site coverage, setbacks and building height/height in relation to boundary. Notwithstanding that the subdivision is a Controlled Activity, the draft provisions are clearly not aligned with the predominant pattern and appropriate 'character' outcomes might be difficult to achieve in the absence of specific rules and standards.</li> </ul>
Subdivision as a Controlled Activity.			

## 5 CONCLUSIONS

### Character

- The Waikanae Beach Residential Precinct has a distinctive character. This is based on a set of definable character attributes (primary, enabling and supporting attributes) that work together and reinforce each other. The precinct's primary attributes - the coastal landform and the largely intact historic subdivision pattern and associated built form character have been enabled and maintained by the existing predominant patterns of low site coverage, large and generally consistent lot size and generally deep setbacks. This has been supported by the existing street network that has largely retained the character of the landform and associated narrow informal street and cross-block green reserves providing pedestrian access.

### Operative and Draft Provisions

- The operative District Plan provisions are overall aligned with the precinct's predominant patterns. This has facilitated management of the precinct's primary attributes.
- The draft provisions enable development with a density and building scale and character that is markedly different from that allowed under the operative District Plan provisions and a departure from the precinct's predominant patterns. This suggests that the primary, most prominent character attributes of the Waikanae Beach Residential Precinct - the coastal landform, that despite development is still evident, and the largely intact historic subdivision pattern and associated built form (re scale and density) - could potentially be significantly affected/alterd under a level of development enabled by the draft provisions.

### Parts of the Precinct that are most sensitive to change/spatial extent

The landscape significance of the existing landform and the largely intact historic subdivision pattern and associated built form (the precinct's primary attributes) make the precinct sensitive to any increased level of intensification.

#### Landform

- The sensitivity of the landform to change was determined relative to the steepness of its slopes. Sites with slopes steeper than 1:5 were identified as primary/character defining sites that are most sensitive to change; sites with slopes between 1:5-1:12 as contributory (sites contributing to the character); and sites shallower than 1:12 as supporting/neutral.
- The precinct is largely comprised of contributory sites (59%) and neutral/supporting sites (22%) with primary sites accounting for less than a quarter of the sites (19%).
- The sensitivity of primary, contributory and, to a lesser degree, supporting/neutral sites (re average slope) was also assessed in relation to the landscape significance of the underlying landform (re intactness and/or landscape character value) and separate from the specific slope profile. This is to recognise that the slope's steepness is not always directly related to and/or a necessary ingredient of landform significance. For example, contributory sites and even some supporting/neutral sites might be as sensitive to change as the primary/steep sites in cases where they sit within a generally intact and/or significant landform with a naturally lower slope profile. The low percentage of primary sites within the Waikanae Beach Residential Precinct is largely a reflection of its underlying relatively shallow topography and subtle landform.
- The parts of the landform within the precinct identified as most sensitive to change regardless of the slope steepness, are highlighted on the annotated 'hill shade' map (Appendix 1, Map 2). These include the foredune and dune ridge along to the coastal edge (some

of this area is situated in the Waimeha Domain) and the dune at the south-east of the precinct. These areas are covered primarily by primary and contributory sites as shown on the 'average slope - character' map (Appendix 1/Map 5).

#### Historic subdivision pattern

- The character significance of the historic subdivision pattern - a primary character attribute and a particular feature of the precinct's local identity - is derived from: (a) its ability to demonstrate historic patterns of (comprehensive) development and associated contribution to understanding the history of the precinct; (b) its high level of intactness; and (c) its distinctiveness relative to the other beach residential precincts.
- The Old Beach historic subdivision demonstrates patterns of development that have remained largely intact. The 'survival' of the historic subdivision pattern since its inception in the 1920s, (there has been little subdivision post 1950's), despite the lack of any significant constraints imposed by either topography/access and/or planning regulations, alludes to an informal 'self-regulating' development approach towards maintaining the integrity of the subdivision pattern. This is reinforced by the existing low-rise/low-density built form which has largely followed the general pattern of the original building development in terms of building form and scale.
- Note that prior to 2017 the subdivision for sites less than 3000m<sup>2</sup> was 'controlled activity' with a minimum lot size of 450m<sup>2</sup> under the relevant District Plan provisions. Similarly, maximum site coverage was 40%. Notwithstanding this, little subdivision has been undertaken since the historic subdivision was completed (refer to the 2017 'subdivision age' map produced by the Council for the 2017 Character Assessment, page 21 of this report), while new building development has continued to reinforce the predominant low-rise small-scale stand-alone building topology.

#### Possible further investigation on the sensitivity of the landform and the historic subdivision pattern

- Not all contributory sites with an average slope 1:5-1:12 have the same level of sensitivity (noting that average slope is not representative of the actual slope). The parts of the landform within the precinct identified as significant and therefore most sensitive to change (Appendix 1, Map 2) include areas covered primarily, but not exclusively, by primary and contributory sites.
- To establish in more detail the sensitivity of the parts of the precinct that fall outside the identified most prominent dune formations, further investigation on the actual slope characteristics could be considered.
- The subdivision pattern (lot size, proportions/shape) is most consistent and the block structure most regular within and around the middle part of the precinct where the landform tends to be shallower and where most of the informal streets are located. In the steeper parts of the precincts where the landform is more pronounced, it is less consistent as it alters in relation to topography. The subdivision pattern along the north/western part of Waimea Road forms an entity, comprising smaller lots of consistent size, that differs from the predominant pattern. These local variations form part of the historic pattern. To establish in more detail the significance/sensitivity of the historic subdivision pattern and its local variations, further investigation could be considered.

## 6 APPENDIX 1: MAPS

Map 1: Context

Map 2: Hillshade

Map 3: Slope

Map 4: Average Slope

Map 5: Average Slope Character

Map 6: Vegetation Coverage

Map 7: Vegetation (8m and above)

Map 8: Vegetation Coverage Character

Map 9: Site Coverage

Map 10: Lot Size

Map 11: Frontage Setbacks

Map 12: Street Network

Map 13. Street Width

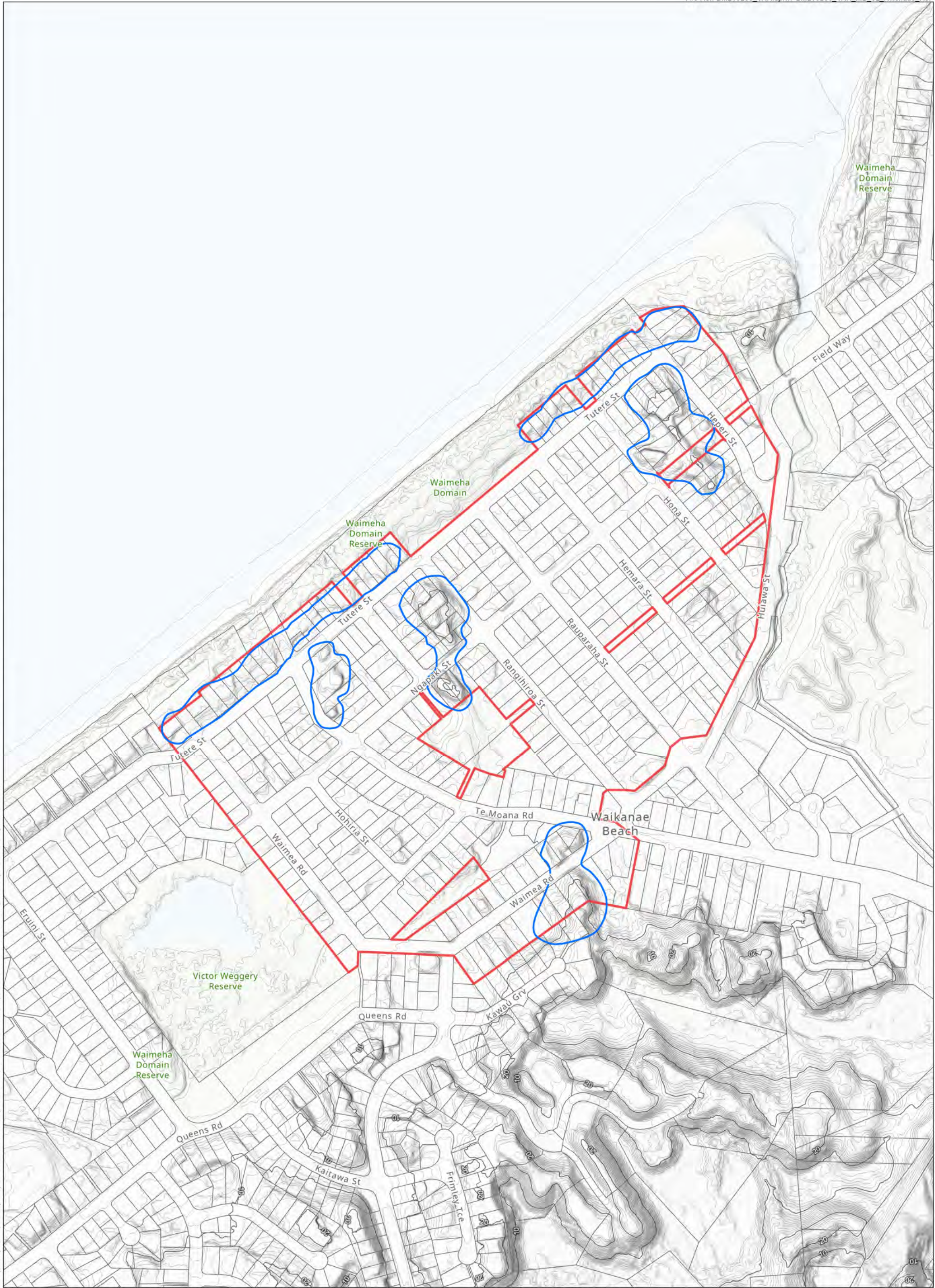


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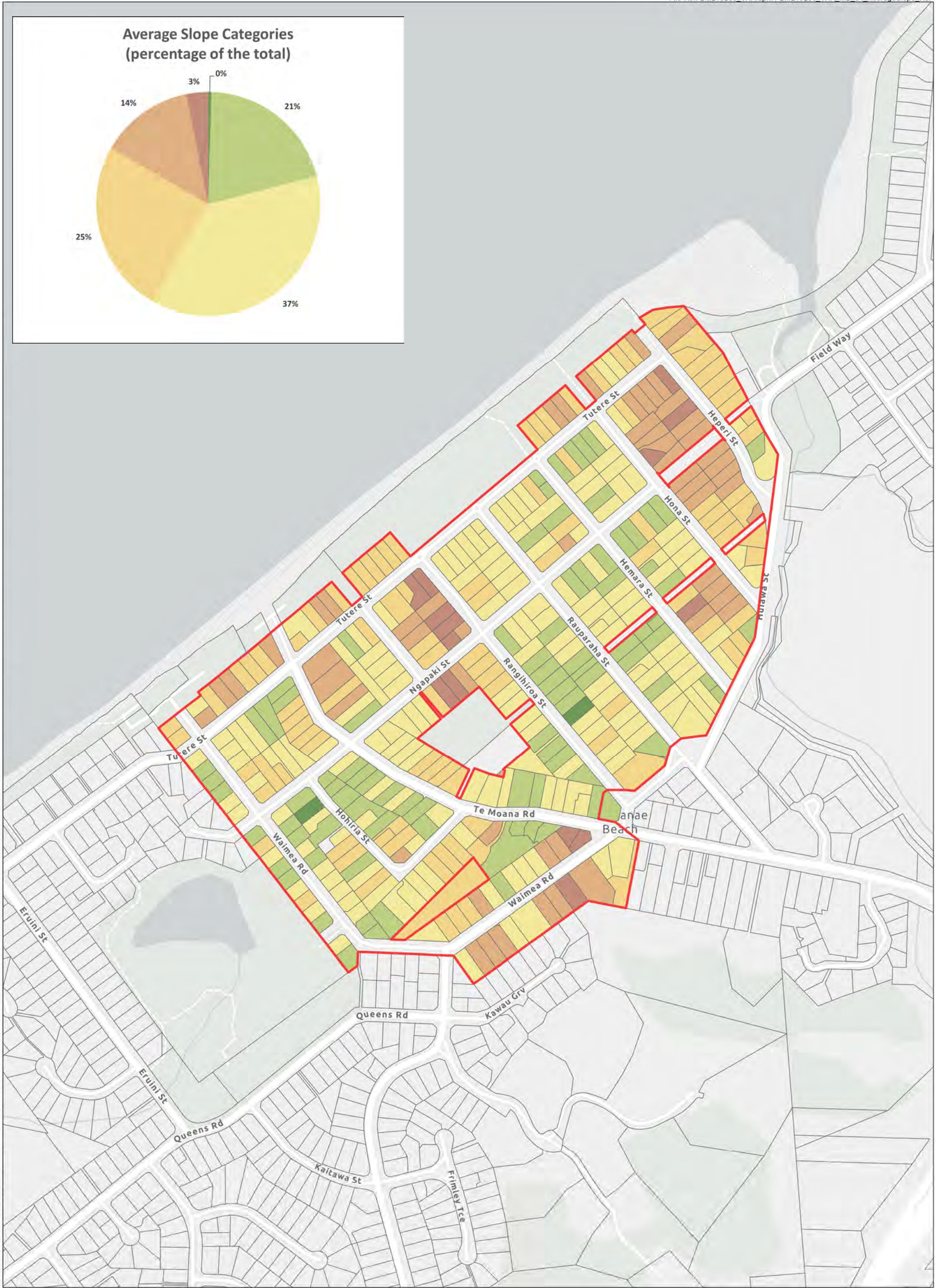
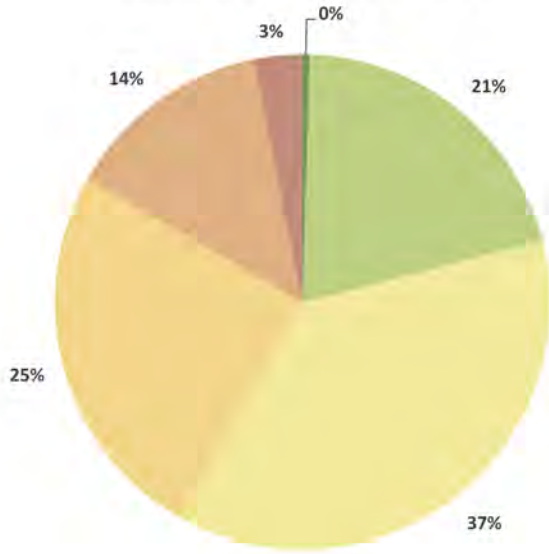


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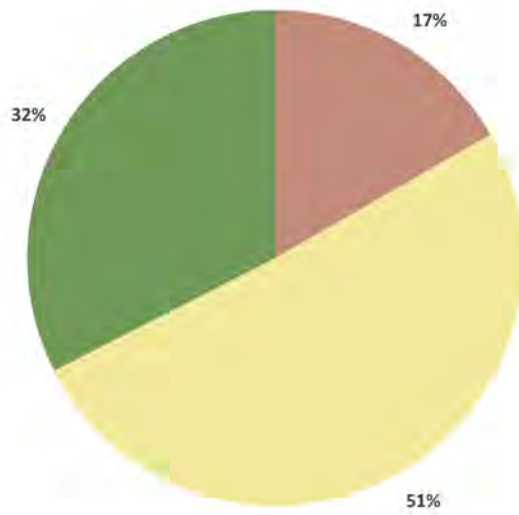
Average Slope Categories  
(percentage of the total)



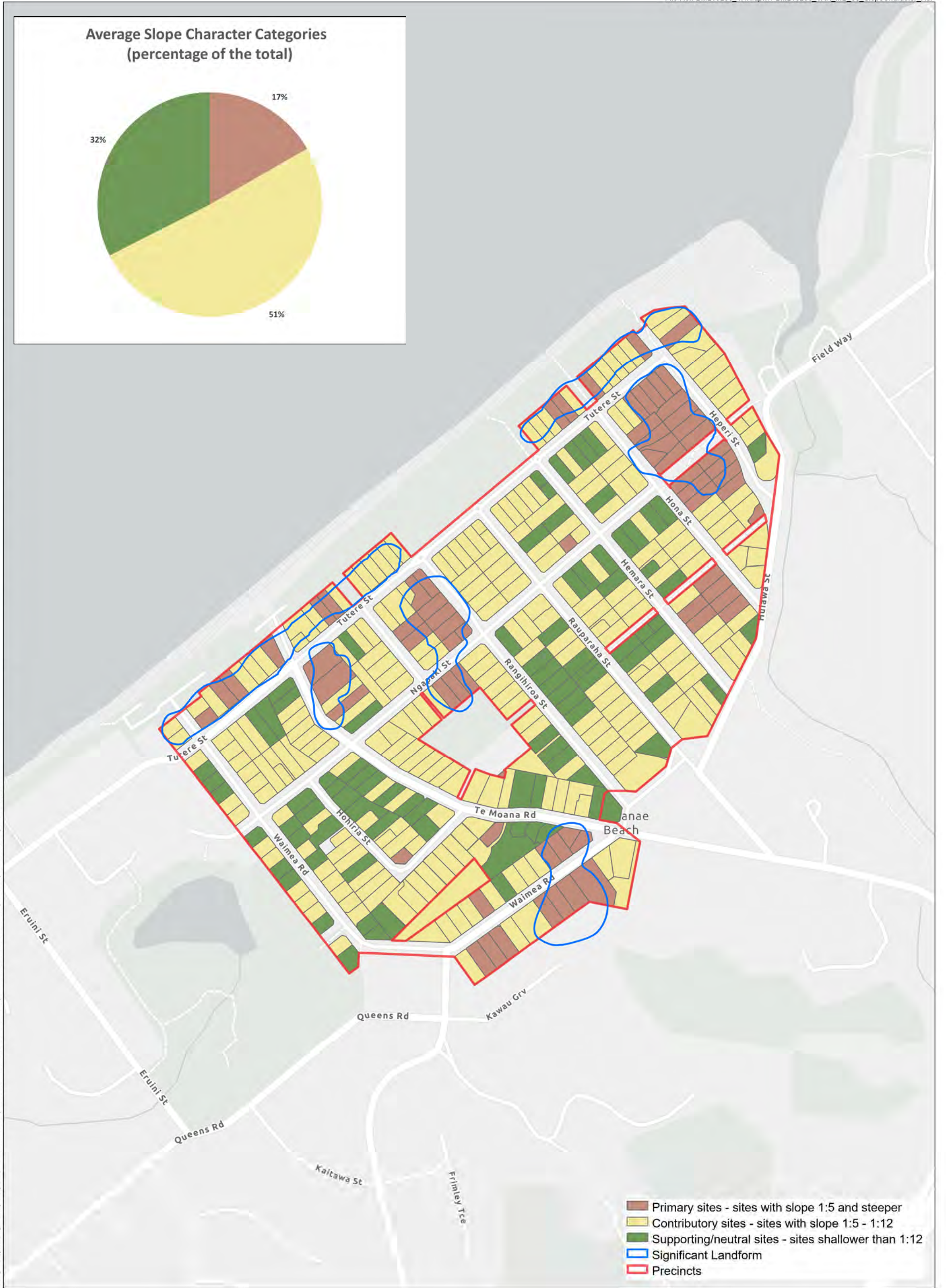
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**Average Slope Character Categories  
(percentage of the total)**



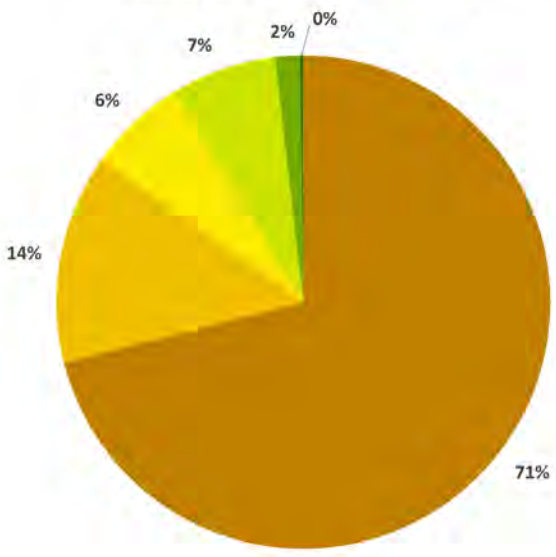
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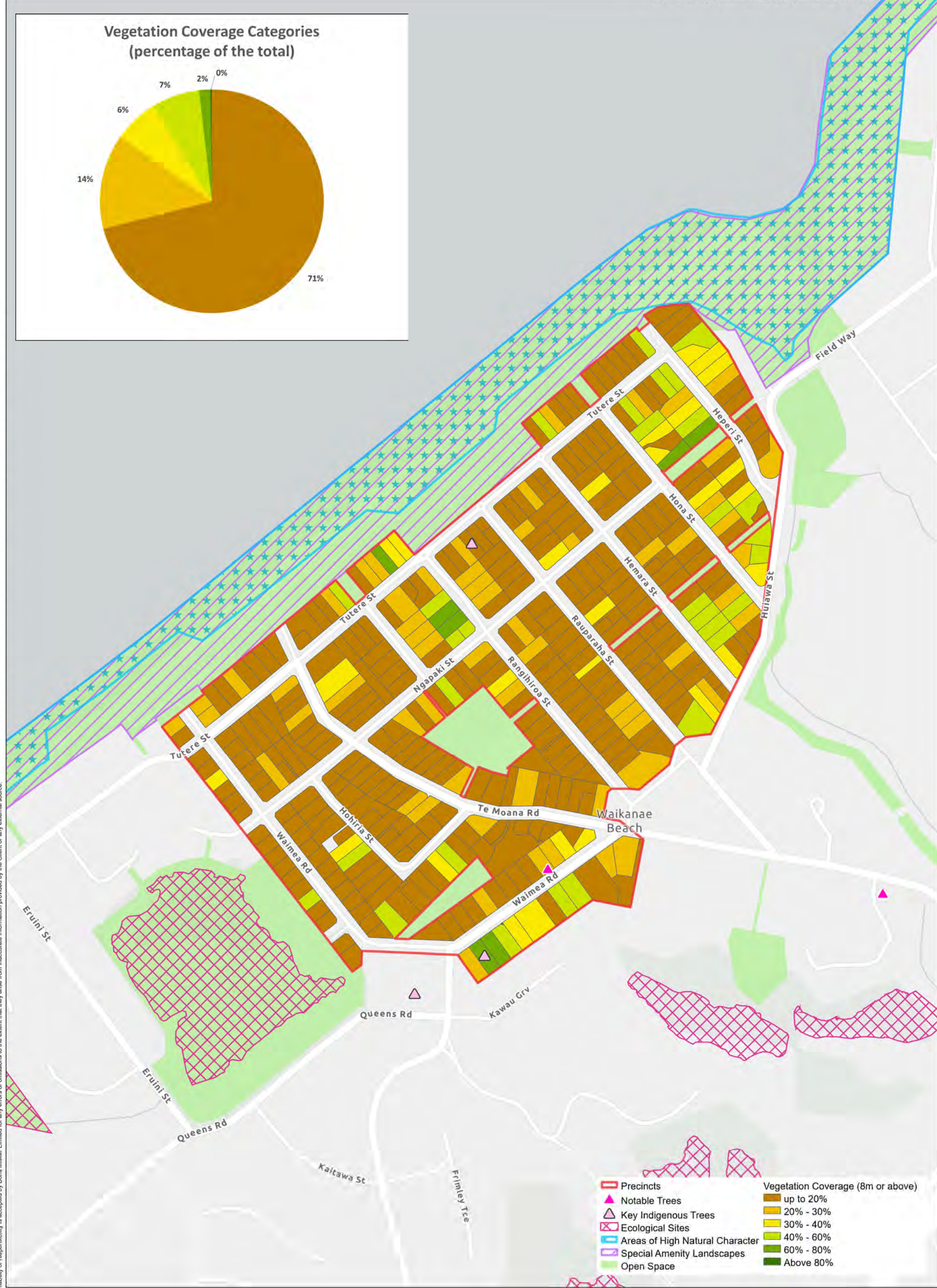
- Primary sites - sites with slope 1:5 and steeper
- Contributory sites - sites with slope 1:5 - 1:12
- Supporting/neutral sites - sites shallower than 1:12
- Significant Landform
- Precincts



Vegetation Coverage Categories  
(percentage of the total)



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- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>Precincts</li><li>Notable Trees</li><li>Key Indigenous Trees</li><li>Ecological Sites</li><li>Areas of High Natural Character</li><li>Special Amenity Landscapes</li><li>Open Space</li></ul> | <ul style="list-style-type: none"><li>Vegetation Coverage (8m or above)</li><li>up to 20%</li><li>20% - 30%</li><li>30% - 40%</li><li>40% - 60%</li><li>60% - 80%</li><li>Above 80%</li></ul> |
|---|---|



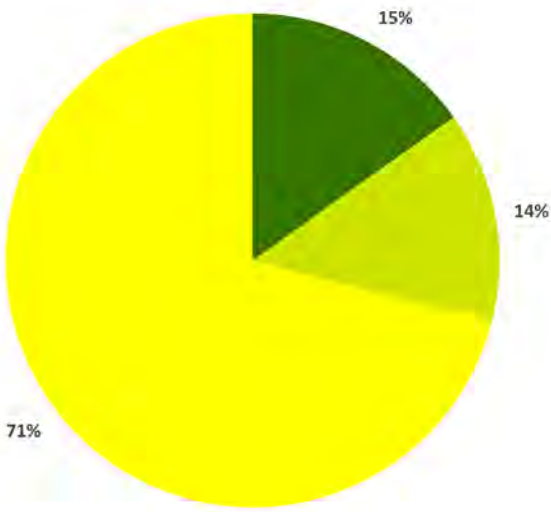
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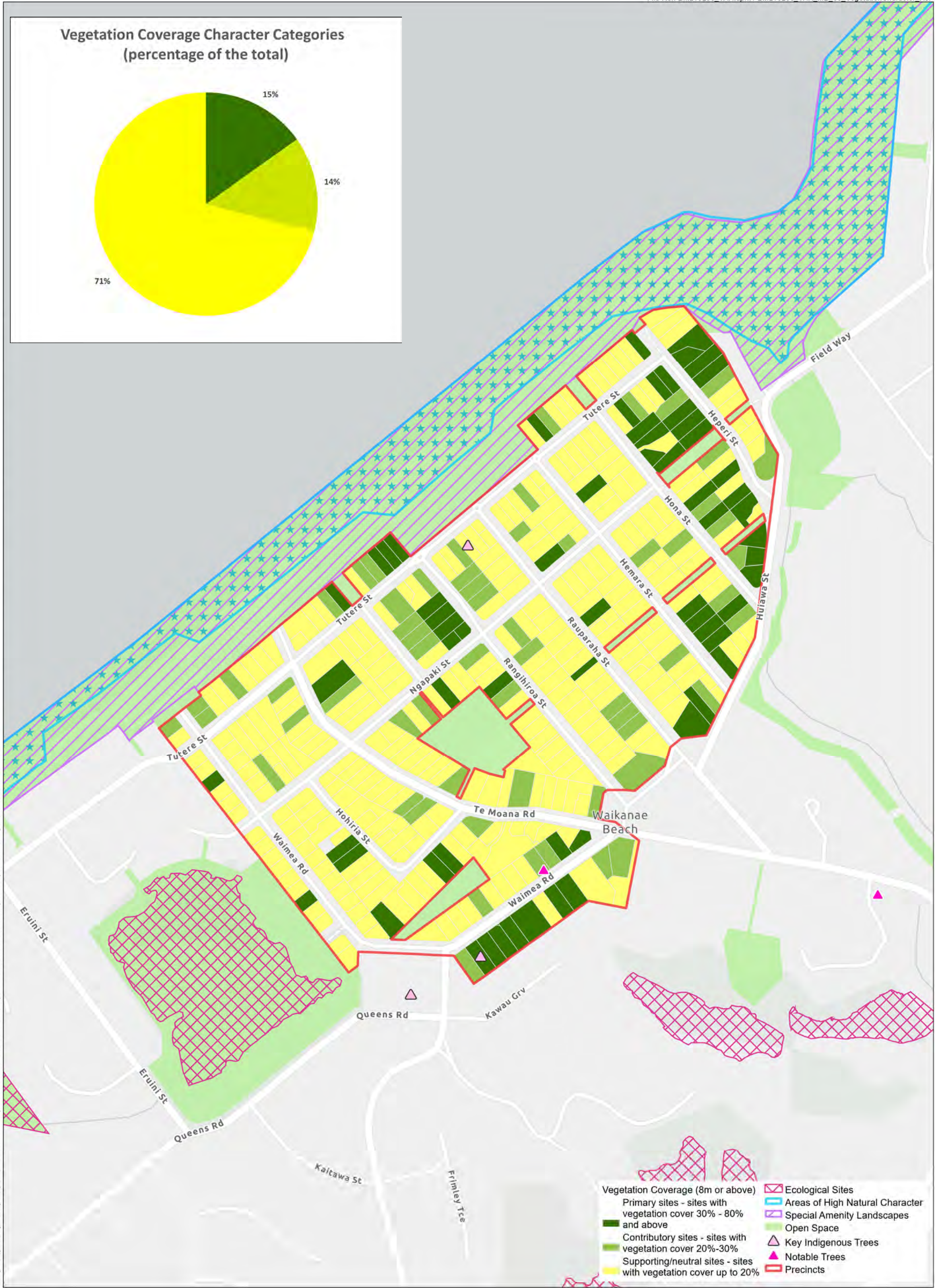
- Vegetation (8m or above)
- Notable Trees
- Key Indigenous Trees
- Ecological Sites
- Areas of High Natural Character
- Special Amenity Landscapes
- Outstanding Natural Features and Landscapes
- Open Space
- Precincts



Vegetation Coverage Character Categories  
(percentage of the total)

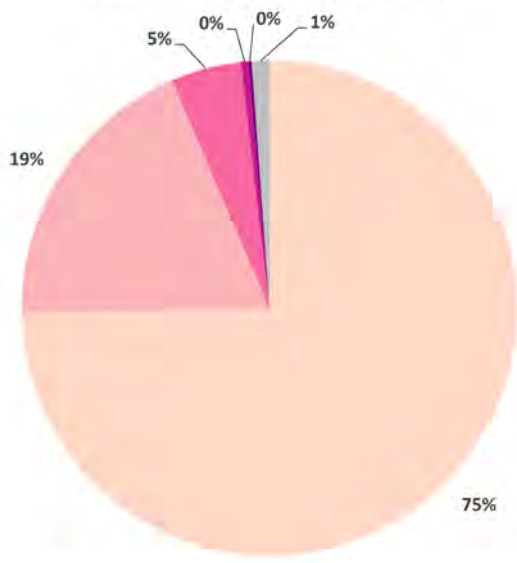


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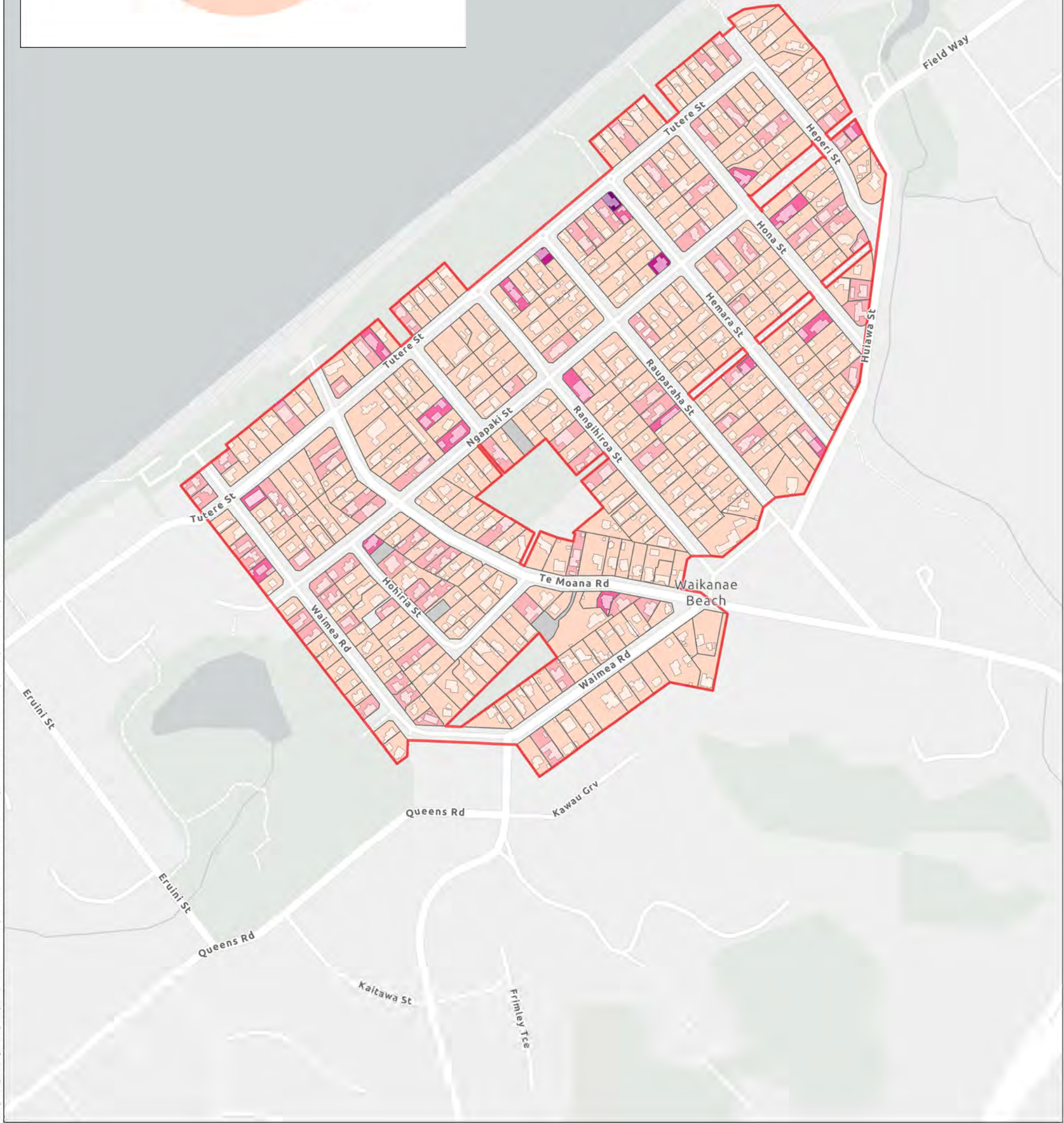




Site Coverage Categories  
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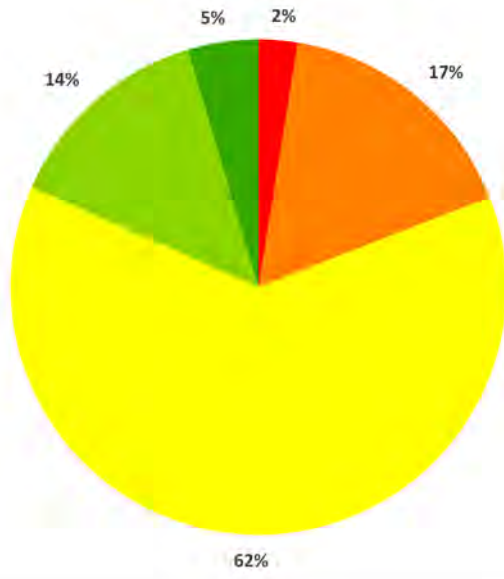


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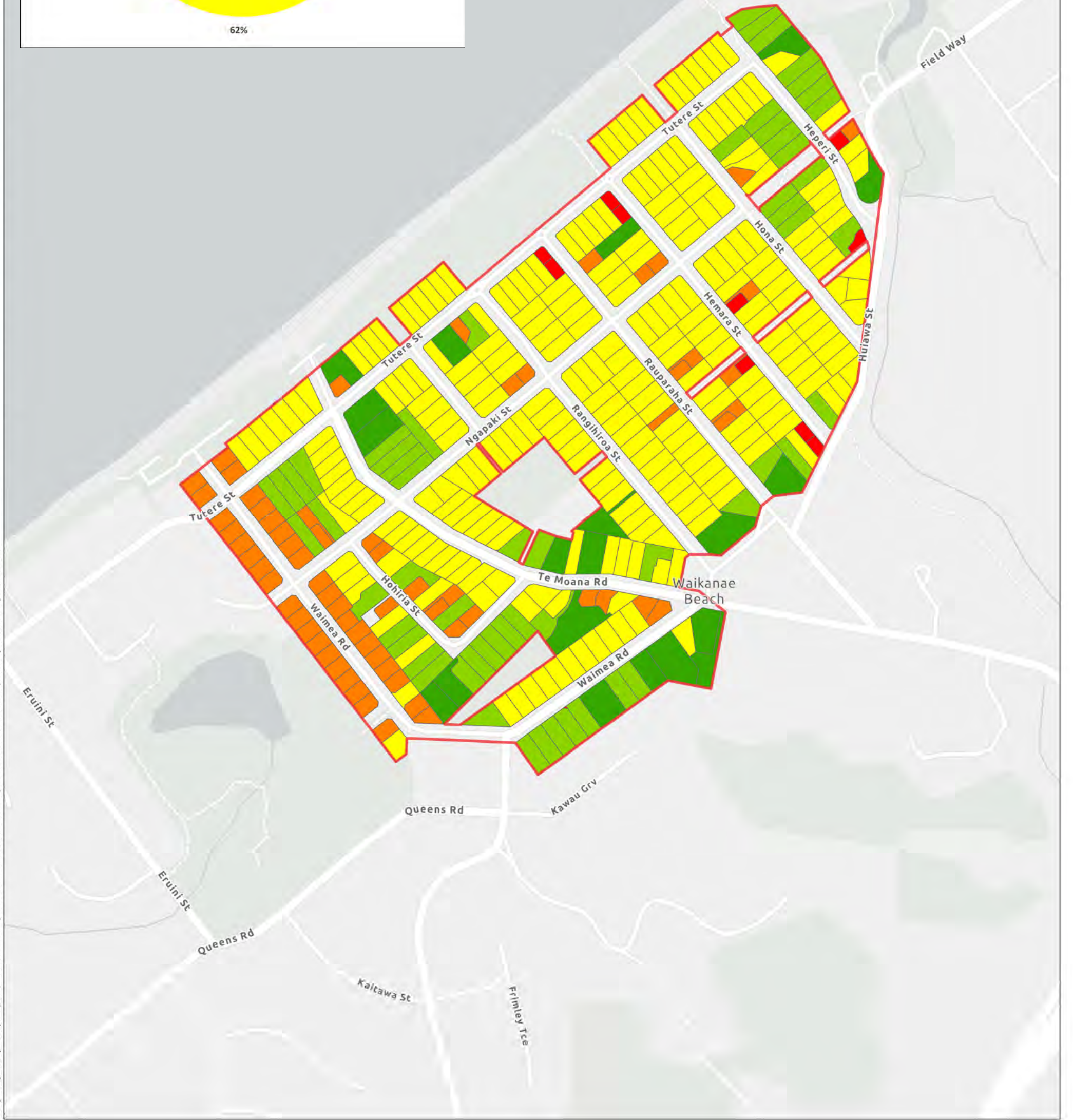




**Lot Size Categories  
(percentage of the total)**

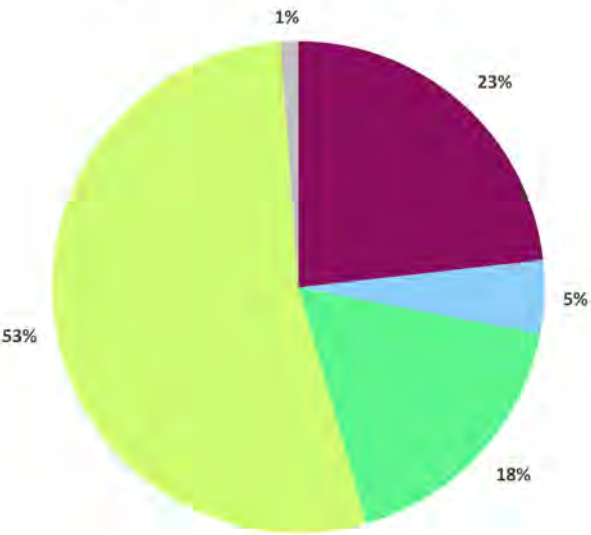


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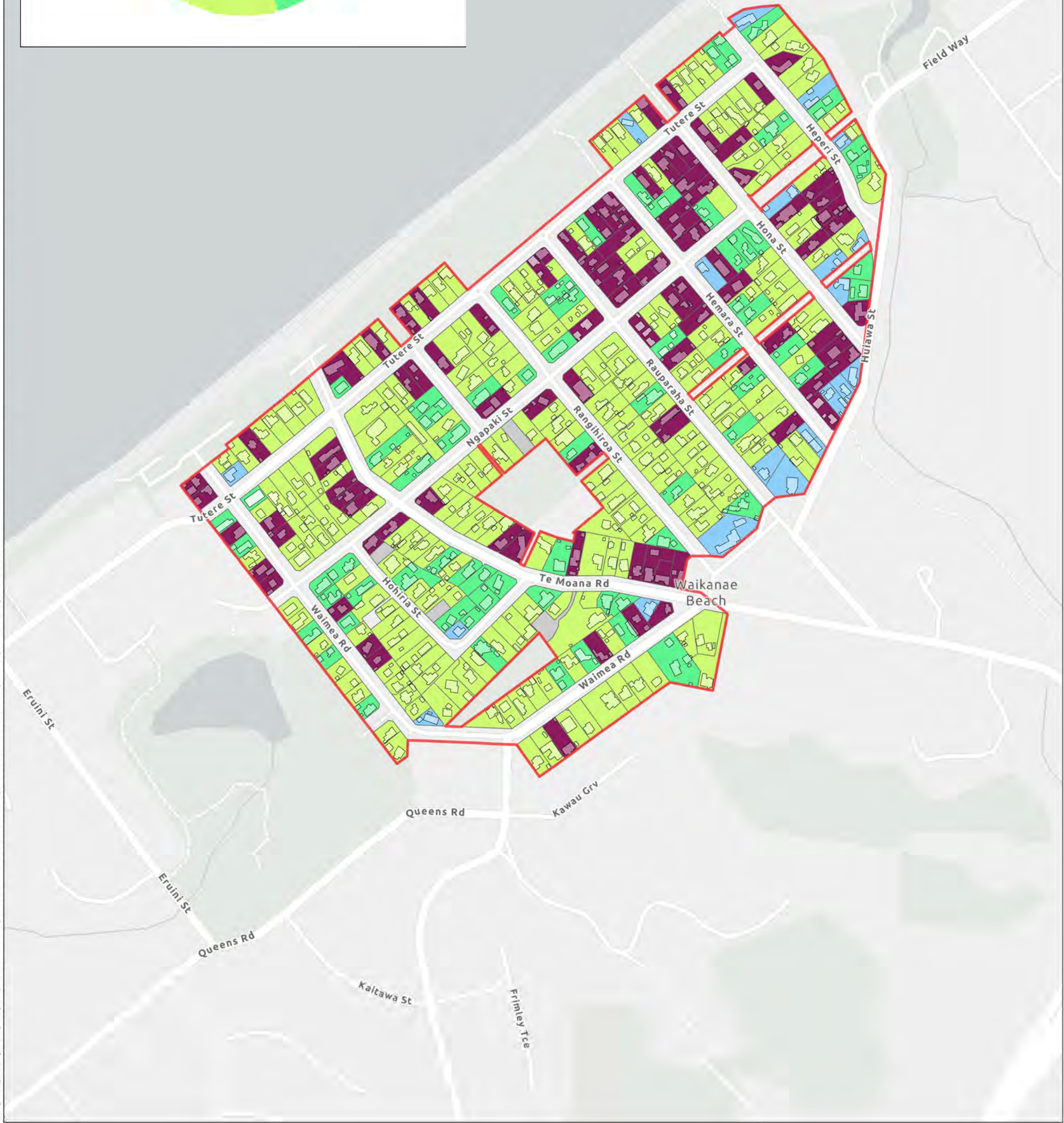




Frontage Setback Categories  
(percentage of the total)

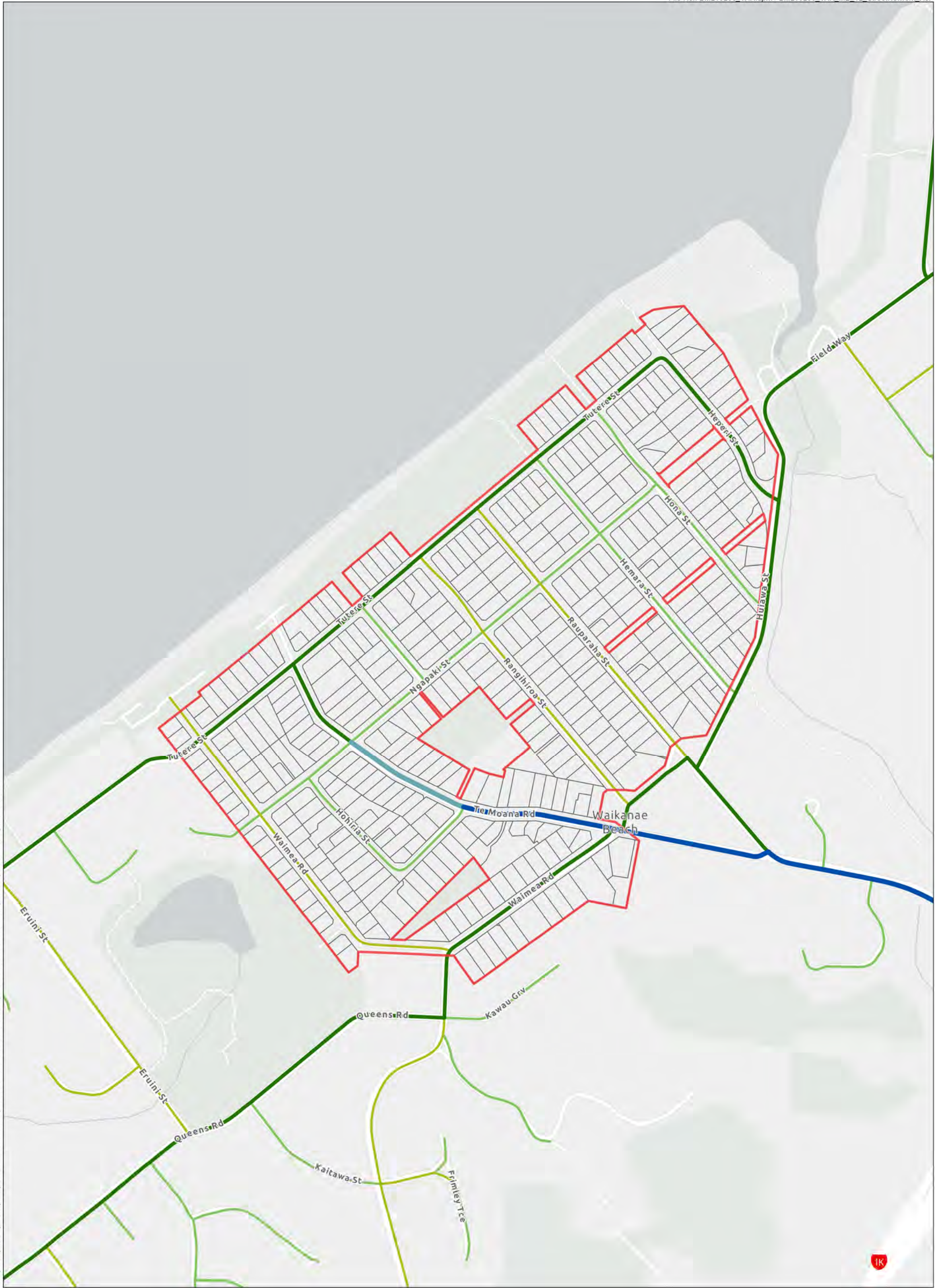


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