

**Before the Hearings Panel
At Porirua City Council**

Under Clause 14, Schedule 1 of the Resource Management Act
1991

In the matter of the Proposed Porirua District Plan

Between **Various**

Submitters

And **Porirua City Council**

Respondent

**Statement of evidence of Rhys Girvan on behalf of Porirua City Council
(Coastal Natural Character)**

Date: 8th October 2021

INTRODUCTION:

1 My full name is Rhys James Girvan. I am employed as a Landscape Planner and Senior Principal with Boffa Miskell Ltd.

2 I have prepared this statement of evidence on behalf of the Porirua City Council (**Council**) in respect of technical related matters arising from identified submissions and further submissions on the Proposed Porirua District Plan (**PDP**).

3 This statement of evidence relates to matters in Chapter CE – Coastal Environment. Specifically, my evidence responds to specific submissions requesting:

- Adjustments to the proposed inland extent of the Coastal Environment in response to confirmed coastal hazards;
- Review of natural character ratings identified within Titahi Bay and along Paekakariki Escarpment; and
- Amendments to the name and description of 'Grays Road Bush'.

4 I am authorised to provide this evidence on behalf of the Council.

QUALIFICATIONS AND EXPERIENCE

5 I have a Masters Degree in Landscape Architecture from Lincoln University and a Bachelor of Arts Degree majoring in psychology from the University of Canterbury.

6 I have practiced as a landscape planner for over 17 years, having previously worked for Queenstown Lakes District Council and a large multi-disciplinary planning and design practice in the United Kingdom. My experience covers area-wide and project-based landscape assessments within urban, rural and coastal areas. In addition to

completing the assessment of coastal natural character in Porirua in 2018, I have undertaken coastal natural character assessments for South Taranaki (2014) and the remainder of the Wellington Region on behalf of Greater Wellington Regional Council and respective Territorial Authorities; Wellington and Hutt City (2016), South Wairarapa, Carterton, Masterton and part of Tararua (2020), and Kāpiti Coast (2021).

7 I have been a landscape planning consultant in Boffa Miskell's Christchurch office since 2018 prior to working from Boffa Miskell's Wellington office between 2012 and 2018 where I provided consultancy services for a range of clients primarily in the central area of New Zealand.

8 I am a Registered Member of the New Zealand Institute of Landscape Architects.

Code of conduct

9 I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2014. I have complied with the Code of Conduct in preparing my evidence and will continue to comply with it while giving oral evidence before the Environment Court. My qualifications as an expert are set out above. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

SUMMARY

10 I have been asked by the Council to provide evidence in relation to specific submissions on Chapter CE. Such submissions relate to the delineation of the Coastal Environment and mapping and associated descriptions of high natural character.

11 My statement of evidence addresses submissions confirming the identification of the coastal environment within my technical assessment and the subsequent evaluation of high natural character within the terrestrial environment (noting the coastal marine area is not governed by the PPDP).

INVOLVEMENT WITH THE PROPOSED PLAN

12 I have been involved in work which has formed the background to the PDP since 2018. In 2018, I was part of a team from Boffa Miskell Ltd engaged to undertake a natural character assessment of Porirua City's coastal environment (the Assessment).

13 The Assessment considered the full extent of Porirua's coastal environment and evaluated levels of natural character to give effect to the requirements in the Wellington Regional Policy Statement (RPS) and the New Zealand Coastal Policy Statement (NZCPS) 2010. The Assessment was jointly commissioned by Porirua City Council and Greater Wellington Regional Council.

14 The study area considered in the Assessment comprises the coastal environment of Porirua City, including both terrestrial and corresponding marine areas. Natural character within the terrestrial coastal environment was evaluated by Boffa Miskell landscape architects and ecologists. The Coastal Marine Area was assessed with input from marine scientists from NIWA who formed part of the Boffa Miskell assessment team.

SCOPE OF EVIDENCE

15 My statement of evidence addresses the following matters:

15.1 Definition of the inland extent of the coastal environment raised by submitters 225 (Royal Forest and Bird Protection Society) and 183 (Pikarere Farm Ltd);

- 15.2 A proposed amendment of Coastal High Natural Character Area CHNC 014 Rukutane Escarpment by submitter 183;
- 15.3 A proposed addition of the Titahi Bay Fossil Forest to SCHED11 by submitter 95 (Titahi Bay Residents Association); and
- 15.4 Amendments to the name and description of 'Grays Road Bush' by submitters 106 (Christine Stanley & Alan Gray) and 108 (Hannah Bridget Gray No2 Trust)
- 16 My evidence addresses only those submission points to which I have been directed by council officers.

RESPONSE TO SUBMITTERS

- 17 Five submitters raise issues relating to coastal natural character within their submissions. An outline and response to each is provided below.
- 18 **Submission Point 225.188 (Royal Forest and Bird Protection Society)** supports in part provision CE-04 relating to the landward extent of the coastal environment. The submitter states that it is not clear in this policy that the landward extent of the coastal environment has been identified on the planning maps or whether this is an "overlay". It is also not clear whether this can be a definitive determination of the inland coastal environment as the coastal hazard overlay extends further landward in some places and the landward extent is likely to change as sea levels rise.
- 19 The submitter requests that the Council:
- 19.1 Clarify the policy with respect to the coastal environment identified on the planning maps and whether this is an "overlay".

- 19.2 Clarify that case-by-case determinations of the coastal environment may still need to be made to recognise coastal hazard risks and the impacts of sea level rise.
- 20 The inland extent of the coastal environment in the PDP was mapped in 2018 as part of the Assessment. This used a combination of desktop research, interrogation of GIS datasets and fieldwork, which included aerial recognisance by helicopter as well as ground-based site visits to several publicly accessible locations. It also involved two workshops on the 24th May 2018 and 27th June 2018 attended by marine scientists from NIWA and terrestrial ecologists and landscape architects from Boffa Miskell as well as representatives from PCC and GWRC. For this aspect of the Assessment, the inland extent of the coastal environment was confirmed at 1:50,000 which based on several other coastal natural character assessments is considered to be an appropriate district-wide scale to inform coastal natural character.
- 21 Delineation of the coastal environment has also drawn on established case law which recognises that this boundary will vary from place to place and poses *“one of those theoretically difficult questions which will usually yield to the facts and a liberal dose of common sense.”*¹ A more recent environment court decision observes that, *“The purpose of identifying the coastal environment must drive any mapping methodology.... such mapping is an inherently reductive exercise, setting an apparently clear boundary when in the real world it is impossible to get an abstract definition which is capable of simple and ready application to any given situation”*².
- 22 When determining the Coastal Environment, the Assessment therefore addresses the matters listed in NZCPS Policy 1 with the express purpose

¹ W30 Kaupokonui Beach Society Inc. and ors v South Taranaki District Council, para 37.

² NZEnvC 001/2020 Environmental Defence Society and ors v Thames Coromandel District Council, paragraph 55.

of assessing coastal natural character under RMA s.6(a). In evaluating such matters, particular consideration has been given to NZCPS Policy 1(2)(c) “*areas where coastal processes, influences or qualities are significant*”. This is considered to provide the clearest and strongest direction for interpreting the coastal environment boundary. Notwithstanding this, the Assessment also recognises that NZCPS Policy 1 (2)(d) includes areas at risk of coastal hazards. At the time of the workshops in 2018, delineation of the existing coastal hazards information relative to Porirua was yet to be confirmed as set out in the Porirua City Coastal Hazards Report published in April 2020³.

23 In reviewing the coastal environment along the confirmed extent of current coastal hazards, the assessment has taken account of where processes, influences and qualities are identified as significant. This recognises that climate change and its implications, including sea level rise, will continue to influence the coastal environment, however impacts on significant coastal processes, influences or qualities and which influence natural character are yet to be determined. Given this context, it is therefore considered that delineation of the inland extent of the coastal environment should be based on the extent to which significant coastal influences, processes and qualities occur today. Such delineation may require review as climate change and associated adaptations occur, equivalent to determining the extent of current coastal hazards in the future.

24 Considering the subsequent confirmation of current coastal hazards within the final Porirua City Coastal Hazards report, the inland extent of the coastal environment has been reviewed to ensure this remains in accordance with NZCPS Policy 1. Based on this review, two amendments to the inland extent of the coastal environment are recommended in relation to the lower parts of Taupo Stream (within Plimmerton Domain) and Porirua Stream. In both instances, such amendment to the inland

³ Focus Resource Management Group (April 2020) Porirua City Coastal Hazards

extent of the coastal environment result in no modification to the extent to which levels of coastal natural character are identified or rated in these more modified coastal areas. In respect of coastal hazards, I consider all other areas of the inland extent remain as defined within the Assessment, for the reasons outlined below:

24.1 **Plimmerton Domain** (see **Figure 1** in **Appendix 1**): The future inundation mapped in the hazards report encompasses part of the lower reach of Taupo Stream and extends into the area of the Plimmerton Domain. Within the Assessment, the inland extent of the coastal environment follows the alignment of the railway line adjoining Plimmerton Domain to define a readily identifiable edge to the coastal environment through this more modified urban coastal area. Given the current inundation identified along the lower reach of Taupo Stream and within the adjoining area of Plimmerton Domain, it is recommended that the existing inland extent is refined to include this area. To accommodate this refinement, the inland extent of the coastal environment has been defined along the lower margin of Taupo Stream and remains within the open space zone.

24.2 **Paekakariki Hill Rd/Jones Deviation** (see **Figure 2** in **Appendix 1**): In this area, the Assessment defines the inland extent of the coastal environment along Paekakariki Hill Road. Beyond this, a localised area of current coastal inundation extends in association with drains bordering intervening paddocks extending towards Jones Deviation. Notwithstanding this, Paekakariki Hill Road remains a legible boundary beyond which there are no other significant processes, influences or qualities that are evident. It is therefore recommended that the inland extent is maintained in this area.

24.3 **Paremata / Haywards Road** (see **Figure 3** in **Appendix 1**): In this area, the road corridor which encompasses Pauatahanui

Roundabout provides a legible inland extent of the coastal environment beyond which significant coastal processes, including the current coastal inundation, typically dissipate. Whilst some fragments of current coastal hazards are recognised beyond this boundary, these represent more isolated fragments along drains and in association with a modified settlement pond, with no other significant coastal processes, influences or qualities apparent, therefore it is recommended the inland extent is maintained in this area.

24.4 **Duck Creek** (see **Figure 4** in **Appendix 1**): This area of the coastal environment encompasses Duck Creek Reserve and culminates at the bridge across Tradewinds Drive. Upstream of this point, residential dwellings extend along the true left bank of Duck Creek in the current coastal inundation area. Within the Coastal Environment, Duck Creek Saltmarsh and Escarpment is identified as having high coastal natural character CHNC007. Given the readily identifiable delineation provided by the bridge spanning Duck Creek at Tradewinds Drive and the fragmentation of current coastal hazards which is apparent upstream of this point, including the recent construction of dwellings in this area, no change to the coastal environment is proposed.

24.5 **Porirua Stream** (see **Figure 5** in **Appendix 1**): the line in the mouth of the Porirua Stream has been amended to further take account of the coastal inundation which occurs in this area, as mapped in the Final Porirua City Council Hazards report. Given the extent of coastal inundation in this area, this defines the coastal environment along Titahi Bay Road Bridge and encloses a low-lying area to the west of State Highway 1 which encompasses the confluence of Kenepuru Stream. Whilst fragments of current coastal inundation occur upstream of these areas, the delineation of the inland extent along major road bridges is considered to form a legible

boundary along which significant coastal influences, processes or qualities are considered to dissipate in this context.

24.6 **Titahi Bay Road** (see **Figure 6** in **Appendix 1**): In this area, a localised area of current coastal hazards extends west of Takapuwahia Park and Tangare Drive. As this area contains established residential dwellings with no other significant processes, influences or qualities evident, it is recommended the inland extent is maintained in this area as the boundary.

25 **Submission Point 183.9 (Pikarere Farm Ltd)** requests that the inland extent of the coastal environment in the vicinity of Pikarere Farm boundary should follow the 'natural ridgeline' along the centre of the farm as shown on a plan attached to this submission. This line has been transposed onto **Figure 7** in the attached **Appendix 1**, with the proposed inland extent as determined through the Assessment also shown.

26 As described in response to submission point 225.188 above, the process to establish the inland extent of the coastal environment involved a combination of desktop research, interrogation of GIS datasets and fieldwork, however given the scale of the district and this line, it has not been ground-truthed in its entirety, including where it extends through private property. As part of responding to submission point 183.9, a site visit was carried out on 30th September 2021 by Emma McRae and Boyden Evans, who formed part of the Boffa Miskell 2018 assessment team. The purpose of this site visit was to review the inland extent of the coastal environment as defined and to consider the alternative inland extent of the coastal environment as raised by Submitter 183. Both lines were overlaid on an aerial photograph and this area of the line was 'walked' on site using GPS tracking via an iPad with ESRI's ArcGIS Field Maps application.

27 During the site visit, photographs were also taken to show the nature of the inland extent of the Coastal Environment at this location. The

locations of site photographs are shown on **Figure 7** of **Appendix 1** with photographs included on **Figure 10**.

28 **Viewpoint 1** shows a view looking north from the coastal environment line. Land within the view to the left-hand side of the track rolls towards the coast from the dominant ridgeline and falls within the identified coastal environment. The area has a strong visual connection with the coast. Strong winds and coastal spray would also enhance the experience of being within the coastal environment at this location.

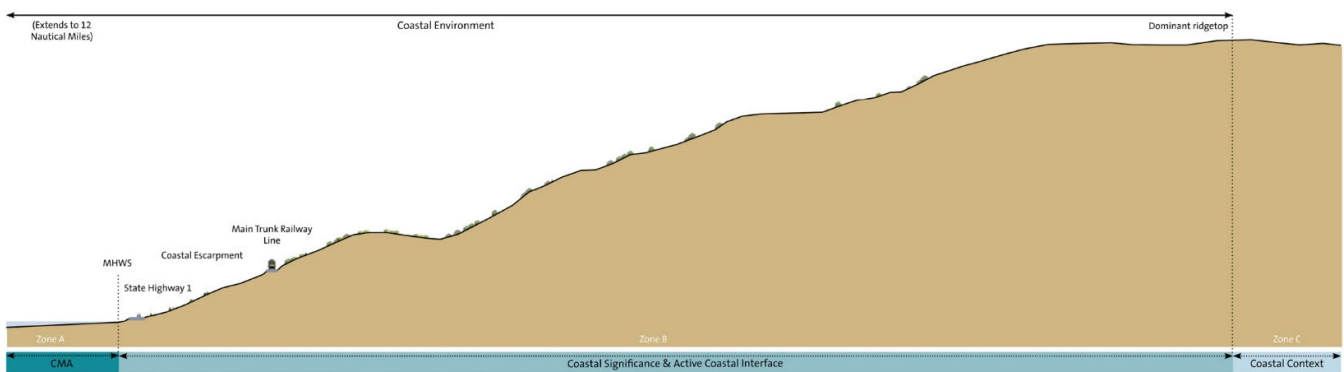
29 **Viewpoint 2** illustrates a view looking west towards Mana Island. Regenerating coastal vegetation in a gully is visible in the left-hand side of the view. **Viewpoint 3**, slightly further north, also looks west, with the landform disappearing steeply in front of the viewer, enhancing the connection to the coastline. **Viewpoint 4** illustrates a view looking southwest along the dominant ridgeline which forms the coastal environment line. The current extent of the line passes behind the pine trees in the left of the view, which is past the dominant ridge, falling away from the coast.

30 In reviewing this line, the assessment has also been informed on Table 1 of the Assessment which describes the Zones of Coastal Significance which make up the coastal landscape. This recognises that the coastal environment as defined by the NZCPS includes the Coastal Marine Area (Zone A) and the Coastal Significance Zone (Zone B).

31 Within the Assessment, the Coastal Significance Zone (Zone B) used to define the inland extent of the coastal environment includes the active coastal interface and land above Mean High Water Springs (MHWS). This *“...generally includes land up to the summit of the first coastal ridge/crest or escarpment (with the width of this zone varying depending on the topographic environment). The Active Coastal Interface is generally a slender component of the Coastal Significance Zone where the sea is the dominant element and the primary or significant influence on landform, vegetation and perception. This zone is where coastal*

*processes are significant and may include cliffs, settled (or modified) dune lands, farmland, settlements and coastal forests.*⁴

32 Figures 1-4 on page 159 in the Assessment illustrate representations of the coastal environments found in Porirua City. Figure 1 (reproduced below) includes the steep rural coastal scarp landforms such as those found at Paekakariki and Pikarere. In this typology, the inland extent of the coastal environment extends to the dominant ridgeline beyond the coastal escarpment, to encompass “areas where coastal processes, influences or qualities are significant” (NZCPS, Policy 1 (2)c)).



33 Based on the recent site visit and review of the inland extent of the coastal environment, it is recommended that a slight amendment is made to the coastal environment line to take into account the finer-grained investigations defining the dominant ridgeline. This revised line is illustrated on **Figure 7** and considered to reflect the dominant ridgeline beyond which it is considered significant coastal influences, processes and qualities will dissipate.

34 The line identified by Submitter 183 extend towards the coast from the dominant ridge and into what is recognised as Porirua City’s coastal environment defined as areas where coastal processes, influences or qualities are significant. In this context it bisects several areas of regenerating coastal forest in gullies extending above the coastal

⁴Boffa Miskell (2018) Porirua Coastal Study: Natural Character Evaluation of the Porirua City Coastal Environment, page 158.

escarpment such as is visible in Viewpoint 2. It also appears unresponsive to the landform and cuts through steep gullies below the dominant ridgeline at an arbitrary angle through areas where significant coastal processes are clearly apparent.

35 As set out in my response to Submission Point 255.188 above, mapping the inland extent of the coastal environment has been undertaken with a consistent methodology for the entirety of Porirua City and broader Wellington Region to address NZCPS Policy 1. The dominant ridgeline therefore forms a consistent boundary within which the Coastal Significance Zone has been defined. Within Porirua City, a similar context can also be seen in the coastal environment line above the Paekakariki escarpment and above the escarpment to the north of Hongoeka. To revise the inland extent in the location of Pikarere would therefore be inconsistent with mapping of the coastal environment for the rest of the city and inconsistent with the criteria in NZCPS Policy 1. The site visit and photographs included in Figure 10 clearly illustrate how the dominant ridgeline provides a legible boundary defining the inland extent in the context of Pikarere.

36 **Submission Point 183.8 (Pikarere Farm Ltd)** also comments on CHNC 014 Rukutane Escarpment. The submitter states that the same comments apply as in respect of their submission on SAL003 Rukutane/Titahi Bay (Special Amenity Landscape Schedule 10). Of this area the submission states that: *“The boundary follows the coastal escarpment line and to take the SAL further inland does not protect the ‘coastal land form’ and is not required” and asks that “the SAL line be amended so that it is closer to the boundary with Porirua City, to exclude land not required to protect the backdrop.”*

37 With regard to CHNC 014 Rukutane Escarpment, this area is identified as an area of High Natural Character in the Assessment, because⁵:

37.1 *The escarpment is well vegetated and coastal processes are largely intact.*

37.2 *The small feature is partially representative of the species expected; however its condition is compromised by weeds and pests.*

37.3 *There is some interference of the abiotic environment but there is a frequent sense of wildness and remoteness*

38 The area also contains a rare coastal shingle beach ecosystem, and has three at risk plant species present, including the largest natural population of Cook Strait *Melicytus*. Accordingly, the area was identified as having High Abiotic values, Moderate Biotic values and Moderate-High Experiential values.

39 In terms of mapping the extent of this area, this was confirmed by the assessment team during the second workshop and was verified with a site visit to view the boundaries around the same time. The boundary was mapped to reflect the area which encompasses the values described above. The southernmost extent of the boundary aligns with Moki Street, with the western most extent aligning with the wastewater discharge pipeline (see **Figure 7**). Given this context, adjustment of the boundary of this area would exclude part of the area which contains high abiotic values. Accordingly, no change is recommended to this boundary.

⁵ Boffa Miskell (2018) Porirua Coastal Study: Natural Character Evaluation of the Porirua City Coastal Environment, page 139.

40 **Submission Point 95.4 (Titahi Bay Residents Association)** seeks the addition of the Titahi Bay Fossil Forest to SCHED11 – Coastal High Natural Character Areas.

41 Within the Assessment, the process to identify high natural character within the coastal environment first identified and mapped the extent of the coastal environment. Following this, subsequent steps assessed the level of natural character within the mapped coastal environment. This includes descriptions and ratings of levels of natural character within broader coastal ‘areas’ and finer scale ‘components’ with at least high natural character. Porirua’s entire coastal environment was assessed in relation to three key attributes, namely abiotic, biotic and experiential. The natural character ratings for each attribute were rated separately and combined to determine the overall level of natural character.

42 Areas or components mapped as high, very high or outstanding natural character were identified and assessed according to the matters identified in NZCPS Policy 13. An understanding of how such matters have been grouped in response to biotic, abiotic and experiential attributes is set out in Tables 2-4 of the Assessment. This assessment is based upon an agreed interpretation of key terminology, as well as the development of an evaluation matrix and calibration for identifying at least ‘high’ natural character (as required by Policy 13 (1)(a) and (c) of the NZCPS 2010). Specifically, the following main points are adopted for this study based on Guidance provided by the Department of Conservation⁶:

...natural character can be assessed on a continuum of modification that describes the expression of natural elements, patterns and processes (or the ‘naturalness’) in a coastal landscape/ ecosystem where the degree of ‘naturalness’ depends on:

⁶ NZCPS 2010 Guidance note Policy 13: Preservation of natural character

- *The extent to which natural elements, patterns and processes occur;*
- *The nature and extent of human modifications to the landscape, seascape and ecosystems;*
- *The fact that the highest degree of natural character (greatest naturalness) occurs where there is least modification/ uncluttered by obvious or disruptive human influence; and*
- *Recognition that the degree of natural character is context-dependent and can change over time.*

43 The degree of natural character present in an area is commonly described as on a continuum, with areas of higher natural character identified due to the lack of human induced modification. In other areas, there may be little natural character remaining due to extensive human modification. At the broader area scale, the Assessment describes the Fossil Forest as part of the Titahi Bay Terrestrial Coastal area⁷. Modification in this area is assessed as having a moderate-low level of natural character overall. This is because the beach has undergone extensive modification from construction of the boat sheds, vehicle access to the beach and stormwater drainage outlets, to construction of the seawall and other concrete structures. Biotic and experiential characteristics of the area were also rated moderate to low due to the presence of modified dune ecosystems and the apparent level of human induced modification. Given such modification the Fossil Forest is not considered to express high natural character.

44 It is recognised that the Fossil Forest forms a geological site of regional significance and is identified and mapped for protection in Greater

⁷ Boffa Miskell (2018) Porirua Coastal Study: Natural Character Evaluation of the Porirua City Coastal Environment, page 128.

Wellington's Proposed Natural Resources Plan⁸. Such recognition however is not equivalent to high natural character. Whilst I agree that the Fossil Forest is a natural element and natural feature, which is recognised within the coastal environment, the assessment of natural character must also take account of the level of apparent modification. Given the obvious level of modification as noted above within Titahi Bay no amendments to this aspect of the Assessment is recommended.

45 **Submission Points 106 (Christine Stanley & Alan Gray) and 108 (Hannah Bridget Gray No2 Trust)** request that the name of Grays Road Bush in SCHED11 - Coastal High Natural Character Areas is amended to 'Grays Bush' to reflect the naming by other sources such as GWRC and the New Zealand Plant Conservation Network. The submission states that:


46 "This area is a subset of SNA069 (Grays Road Bush). Currently, CHNC005 and SNA069 contradict each other. CHNC005 had stock excluded from it in the mid 1950s. Until then, from the settlement of the Grays in the 1850s, the bush was under-grazed by cattle. As a result, there is therefore a gap in the understorey. The bush has been surveyed several times. These records are with the GWRC and Wellington Botanical Society. As highlighted in SNA069, there is a high diversity of species and contains some species of national significance.

47 The submission requests that the description provided for this area is amended to reflect the under grazing of the area by cattle. Such amendments are agreed as set out in the suggested amendments outlined below, where new text is underlined and removed text ~~striketrough~~:

⁸ Proposed Natural Resources Plan, Schedule J: Significant geological features in the coastal marine area

This mature tawa-kohekohe dominated forest remnant is one of only a few left in Porirua. The vegetation is in good condition and is reasonably representative of the historic vegetation of the area. ~~The understory is assumed to have high species diversity (no internal surveys have been carried out but fencing is evident).~~ Whilst the understory has a gap due to undergrazing until the 1950s, the area has high species diversity and contains nationally threatened species, as surveyed by Wellington Botanical Society.

Date: 8/10/2021


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PROPOSED PORIRUA DISTRICT PLAN EVIDENCE OF RHYS JAMES GIRVAN

APPENDIX 1

OCTOBER 2021

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APPENDIX 1

COASTAL INUNDATION MAPS

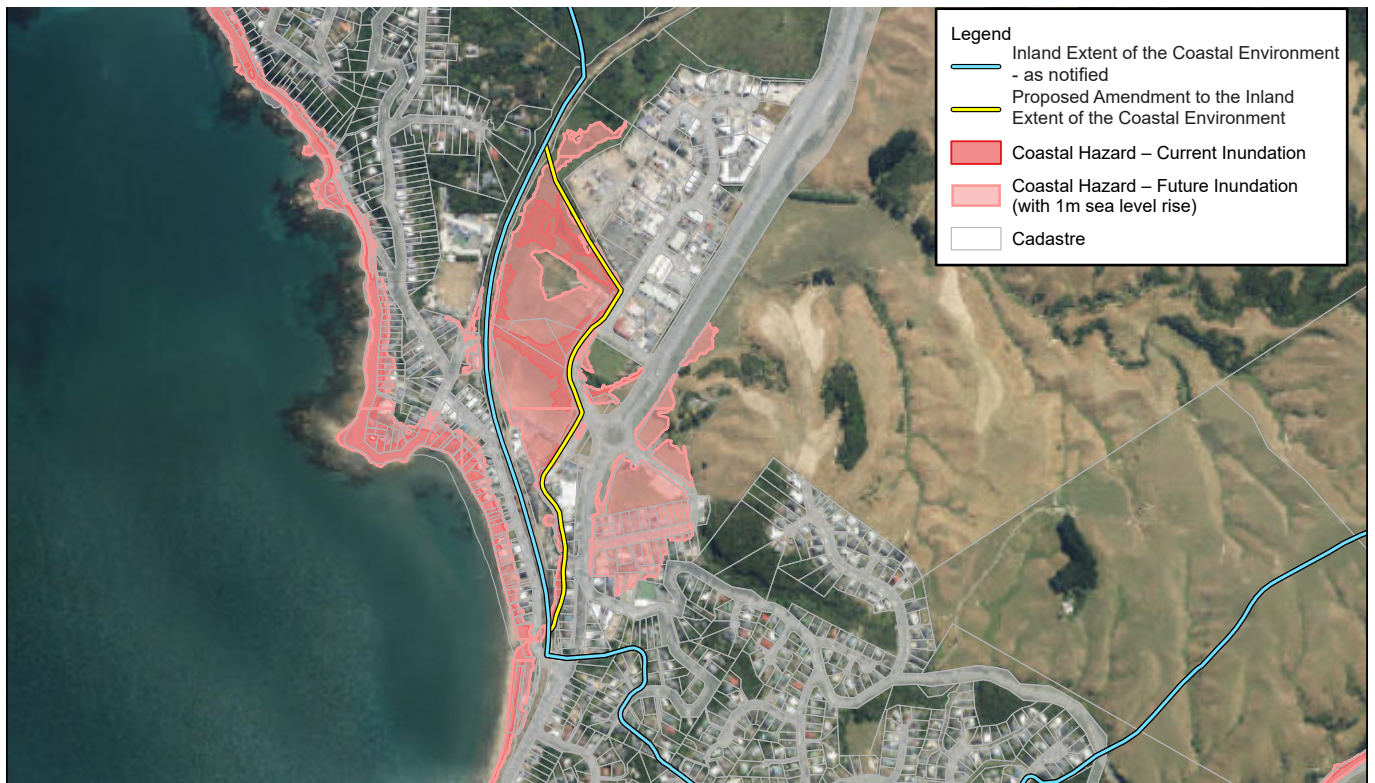


FIGURE 1: PLIMMERTON DOMAIN

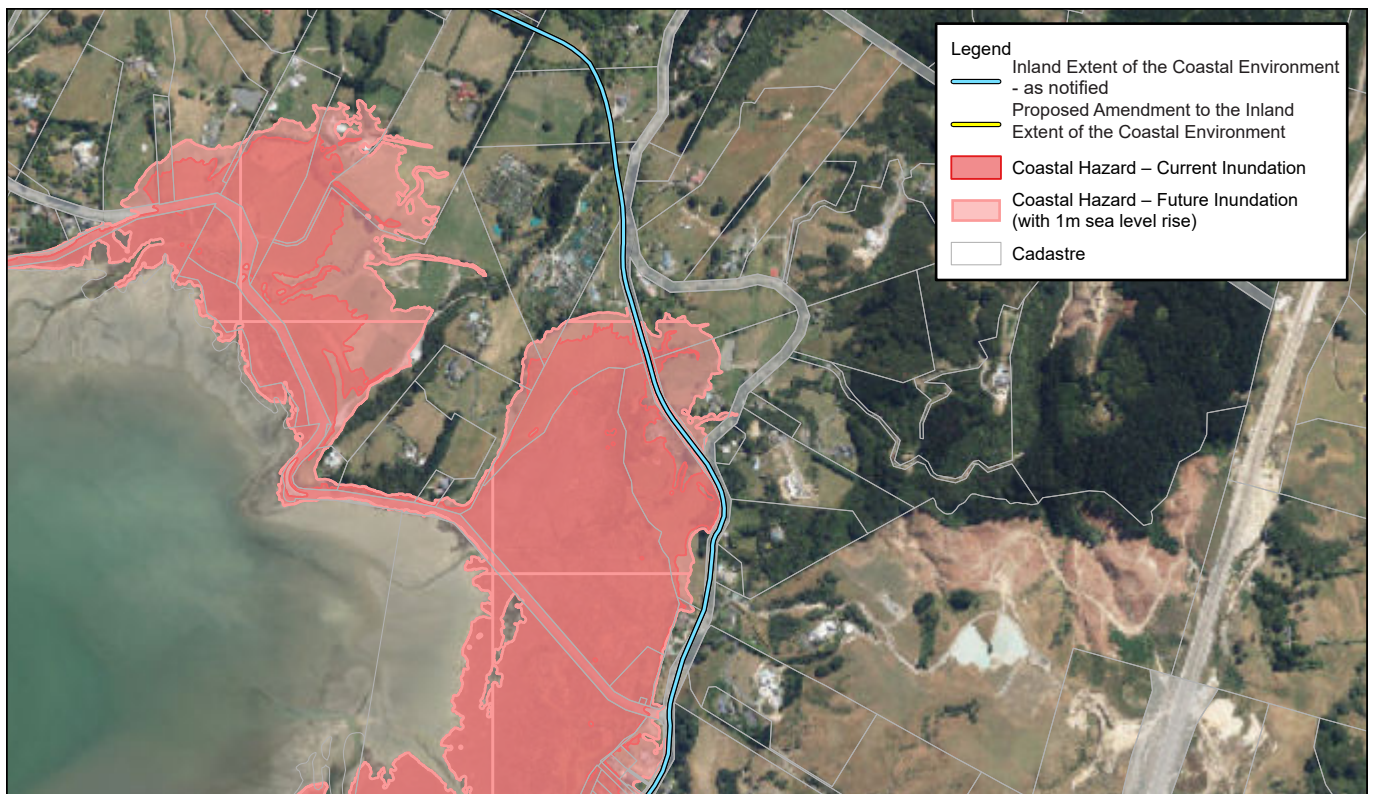


FIGURE 2: PAKAKARIKI HILL RD/JONES DEVIATION

APPENDIX 1

COASTAL INUNDATION MAPS

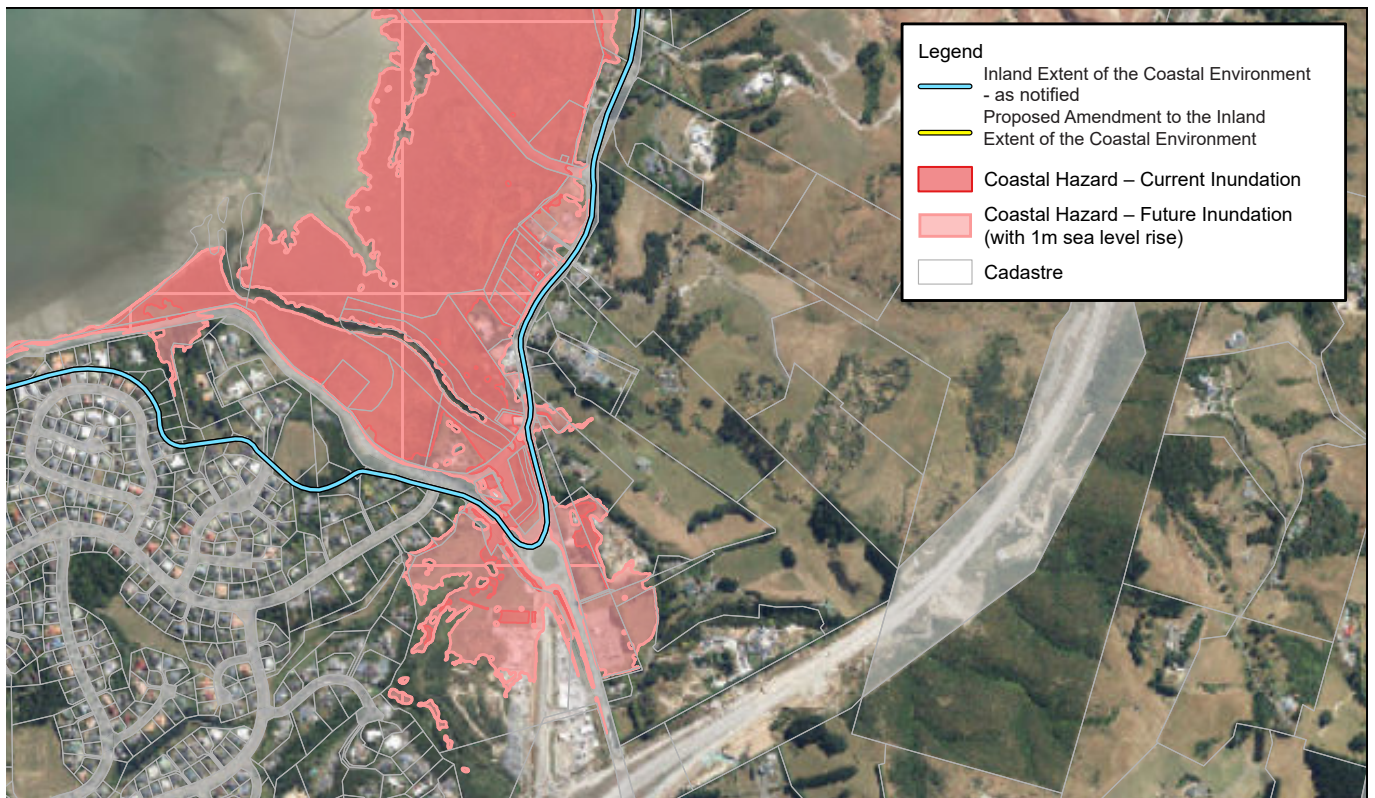


FIGURE 3: PAREMATA/HAYWARDS ROAD

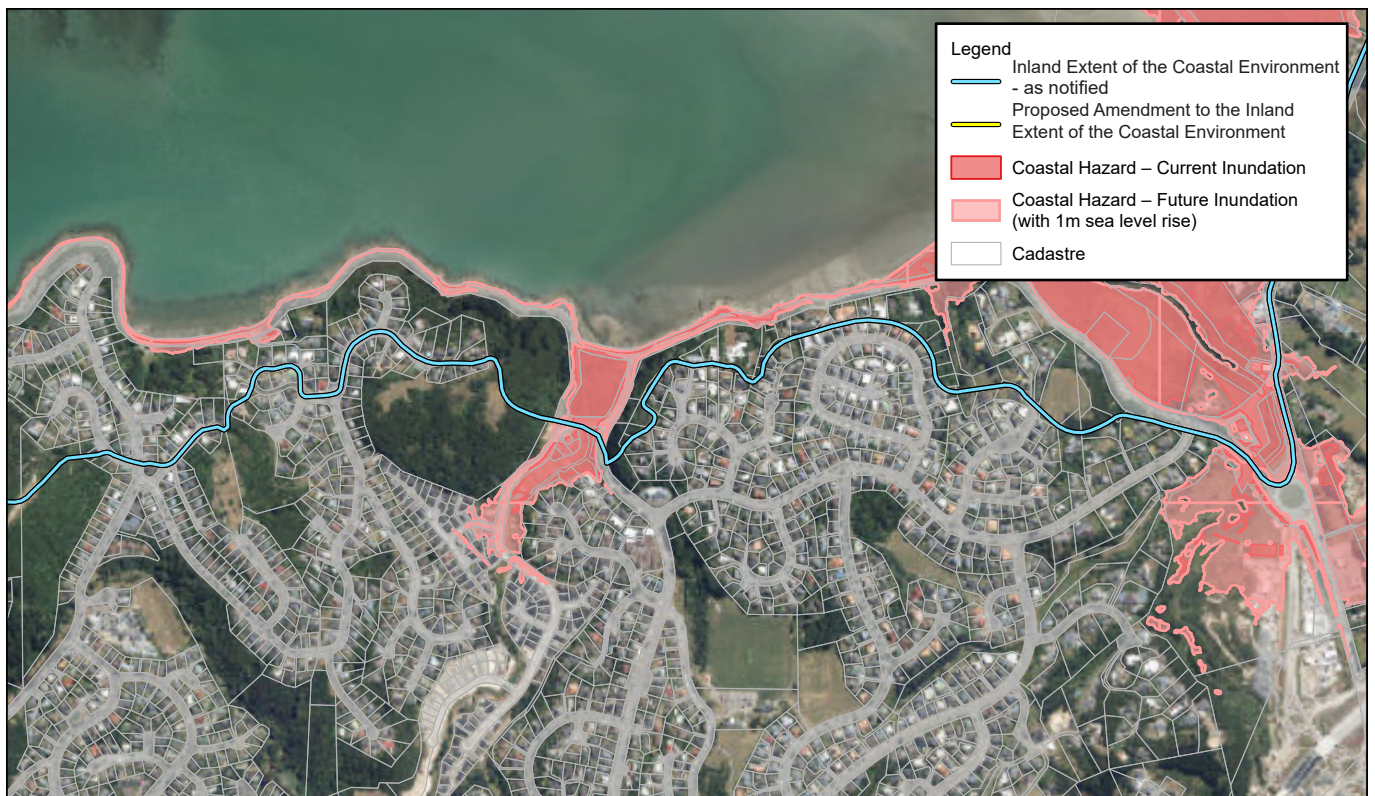


FIGURE 4: DUCK CREEK

APPENDIX 1

COASTAL INUNDATION MAPS

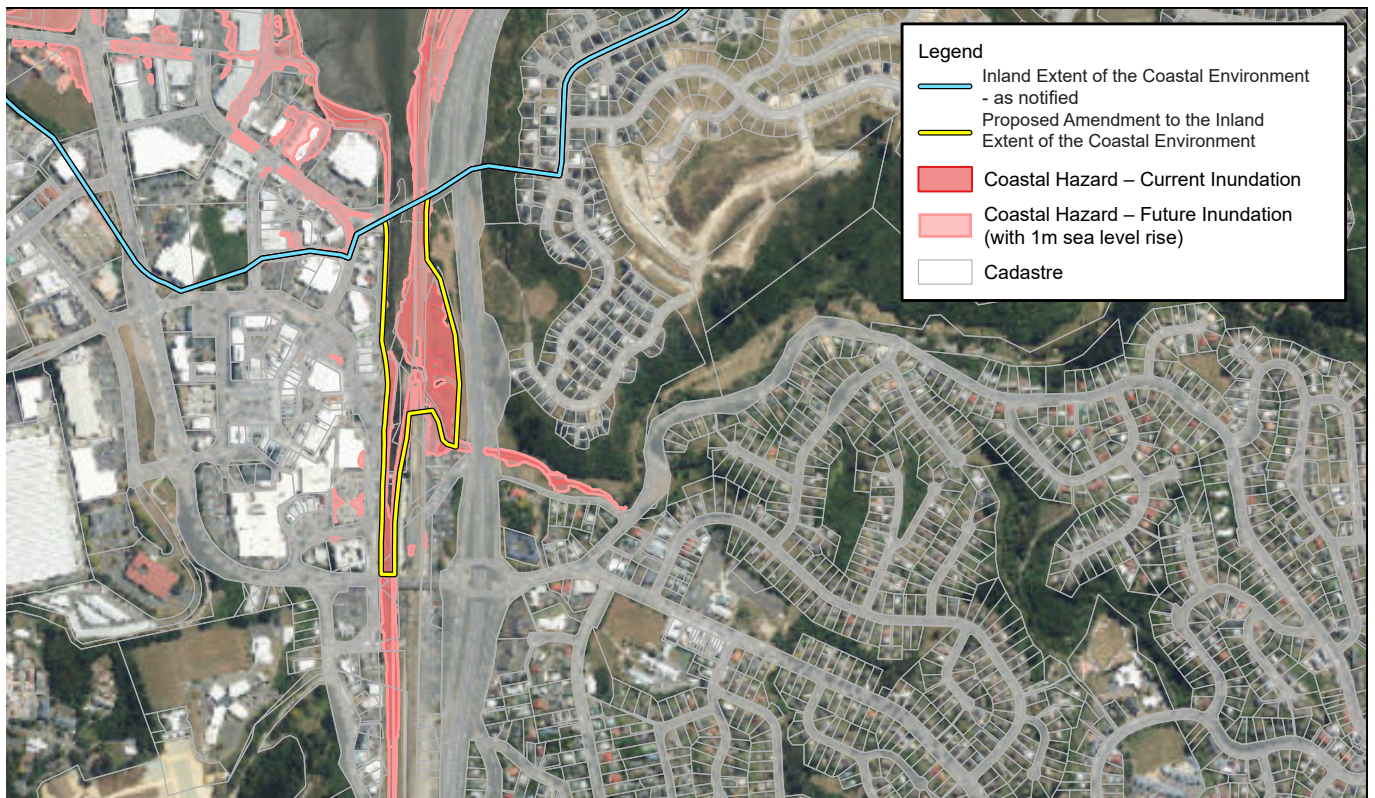


FIGURE 5: PORIRUA STREAM

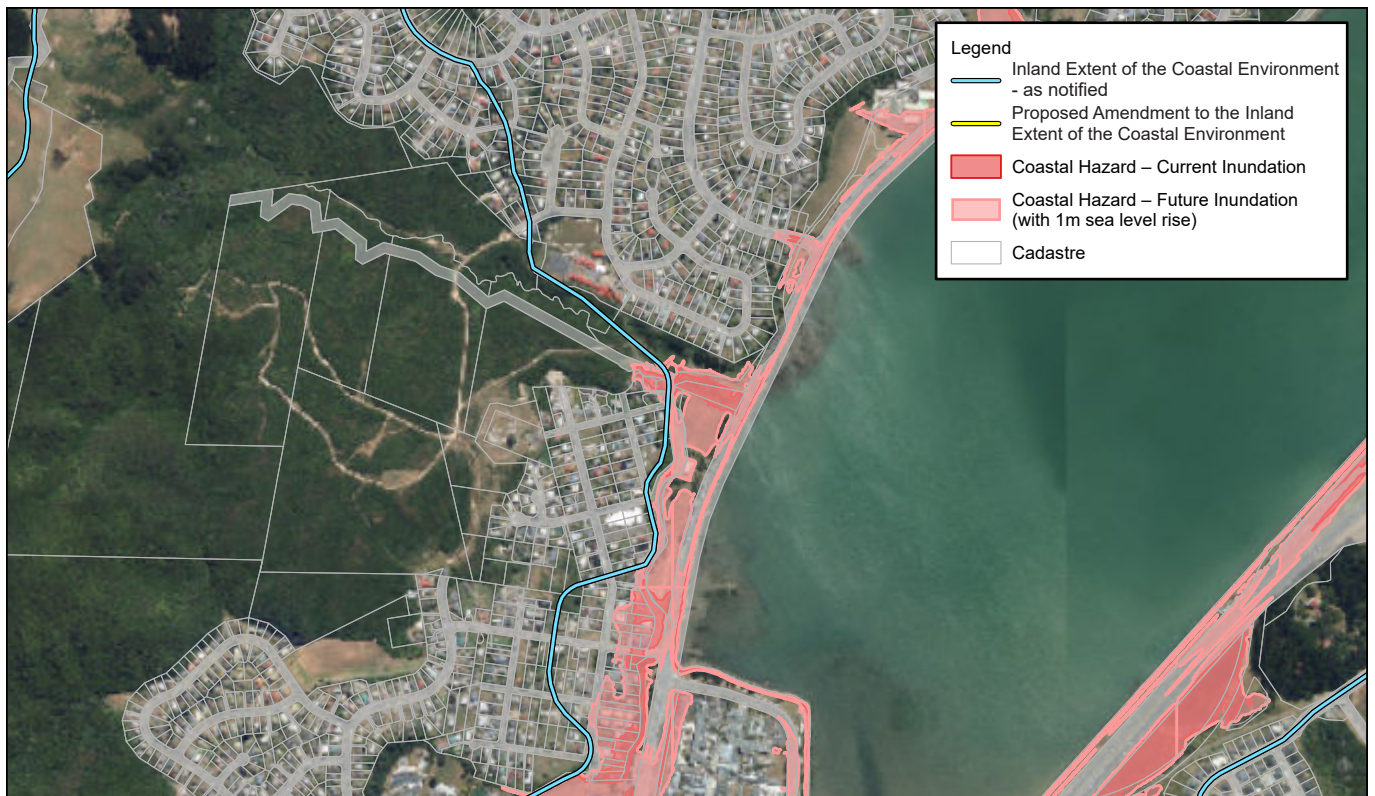


FIGURE 6: TITAHI BAY ROAD

APPENDIX 1

INLAND EXTENT OF COASTAL ENVIRONMENT

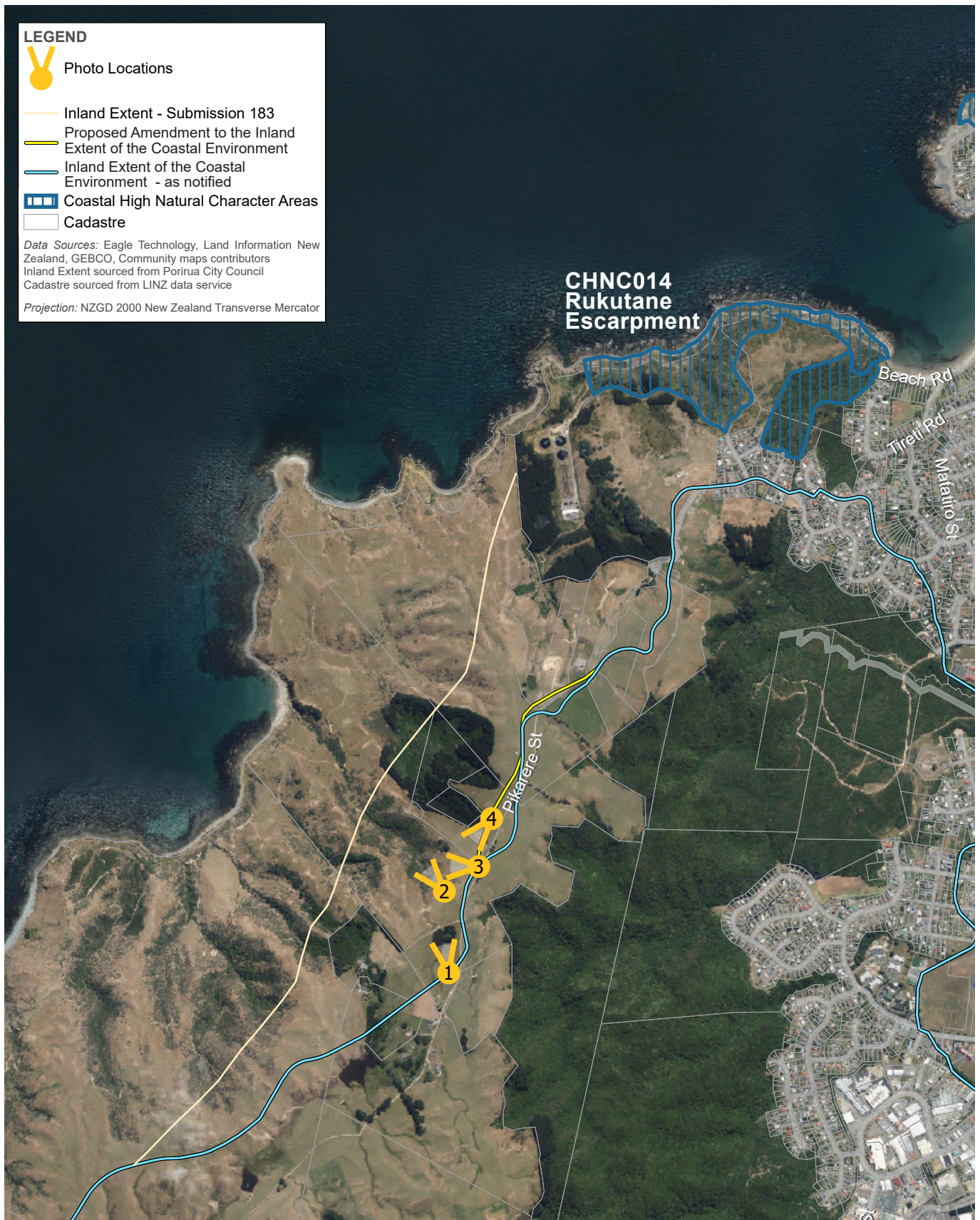


FIGURE 7: PIKARERE FARM



Viewpoint 1



Viewpoint 2



Viewpoint 3



Viewpoint 4

About Boffa Miskell

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

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