

BEFORE THE WELLINGTON CITY COUNCIL PROPOSED DISTRICT PLAN HEARINGS PANEL

UNDER The Resource Management Act 1991

IN THE MATTER OF the Wellington City Council Proposed District Plan
Hearing Stream 8: Natural and Coastal Environment

BETWEEN Wellington City Council
Local Authority

AND Horokiwi Quarries Ltd
Submitter 271 and Further Submitter FS28

Evidence of Shannon Bray on behalf of Horokiwi Quarries Ltd
Dated: 12 April 2024

INTRODUCTION

1. My name is Shannon Bray. I am a director and landscape architect at Wayfinder Landscape Planning & Strategy Ltd (“Wayfinder”).
2. I hold a Bachelor of Landscape Architecture with Honours from Lincoln University. I am a registered fellow and past president of Tuia Pito Ora New Zealand Institute of Landscape Architects (“NZILA”). I also hold a Bachelor of Forestry Science from the University of Canterbury.
3. I have over 20 years of experience as a landscape architect, with a specialisation in landscape assessment. Within this field I have been involved with a wide range of significant infrastructure projects across the whole country, including quarries in Manawatū, Hawke’s Bay, Waikato and Auckland. I have also been involved with mining and landfill projects; energy or telecommunications projects including large scale solar and wind projects; transport infrastructure projects (including projects of national significance); and large scale land development projects such as residential subdivision.
4. Numerous projects I have been involved with have been located within or directly adjacent to the coastal environment. These have included residential subdivisions on coastlines in Northland, Auckland, Coromandel, Hawke’s Bay and Taranaki; various infrastructure projects, including some that have required reclamation of the Coastal Marine Area; marine farms; telecommunication facilities (including within the Wellington coastal environment); and both private and public wharves. My work has also involved projects within Outstanding Natural Landscapes, and some within World Heritage Areas.
5. I am an independent consultant and have worked for developers, community, Council and as an independent commissioner. This work has involved assessing development projects, providing technical reports for Council planning purposes, or undertaking professional peer reviews of reports prepared by others. I have previously presented expert evidence at council hearings, before the Environment Court, and at Boards of Inquiry. I am a registered Independent Commissioner.

CODE OF CONDUCT

6. I confirm that I have read the Expert Witness Code of Conduct set out in Section 9 of the Environment Court's Practice Note 2023. I have complied with the Code of

Conduct in preparing this evidence and will continue to comply with it while giving oral evidence. Except where I state that I am relying on the evidence of another person, this written evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

SCOPE OF EVIDENCE & METHODOLOGY

7. I was engaged by Horokiwi Quarries Ltd (“Horokiwi”) in 2022 to undertake a review of the location and alignment of the Coastal Environment (“CE”) that was proposed by Wellington City Council (“Council”) in the Proposed District Plan (“PDP”). I undertook a site and locality visit on 22nd June 2022, and prepared a technical statement outlining my assessment, dated 31 August 2022.
8. The statement was supported by a series of maps and photographs that were prepared by either myself, my team members at Wayfinder, or by Boffa Miskell Ltd as instructed by me. The maps show the PDP CE line, and an alternative line that I determined would be more appropriate following my assessment of the area. I have appended these original plans, together with some new material (to be outlined below), as a Graphic Attachment to this evidence.
9. In November 2023 I revisited the Horokiwi site along with representatives of Council, including landscape architect Clive Anstey. I have since read Mr Anstey’s evidence, noting in particular paragraphs 37 to 46 which relate to the Horokiwi submission. I have also read the s42A report written by Jamie Sirl related to Hearing Stream 8.
10. This evidence provides a response and contrary opinion to those of Mr Anstey and Mr Sirl based on my review of the methodology adopted by Council, and what I consider are limitations in how this methodology has been applied at a detailed level.
11. Throughout this evidence I have emphasised parts of quotations from others that have particular reference to my conclusions.

MAPPING METHODOLOGY

12. I am familiar with the “*Coastal Environment: Wellington City*” report prepared by Boffa Miskell in 2014 (“2014 BML Report”), and have myself used elements of the methodology that was set out in this assessment for mapping and understanding other coastal environments. I agree with the broad principles and approach used by

the report, and therefore the broad approach that has been used in Council for mapping the CE for the PDP. In my original assessment, I called this approach the “*contour method*” and set out that “*at a macro-mapping scale, I consider this is often a good starting point for determining the CE area*”.

13. However, I went on to state that, in my opinion, “*refinement is generally needed at a localised scale, considering more specific attributes that demonstrate coastal value*”. I called this more detailed approach the “*attributes method*”.
14. To help provide context to these two methods, I consider it is best to first take a step back by providing an overview of the definition of the CE, and then exploring the approaches that have been taken by Council and Mr Anstey, including outlining where I consider their method has limitations.
15. Firstly, it’s important to recognise that from a landscape perspective it is not easy or particularly desirable to map the CE with a single line. However, this is a policy requirement, and where the mapped line falls affects the types of activities that can be (or cannot be) undertaken. It is important for Horokiwi that the CE line is appropriately and accurately located.
16. In terms of defining the CE, I refer to the New Zealand Coastal Policy Statement (2010) (“NZCPS”) as having the highest hierarchy of coastal definitions within national policy (there is no definition of the CE in the Resource Management Act as it defers to the NZCPS). In particular, Policy 1 describes the “*extent and characteristics of the CE*”. The attributes that are described in Policy 1.2 (a to i) clearly identify the area to be mapped and tagged as within the CE. I will return to an assessment of my recommended CE line against these attributes later in my evidence.
17. The 2014 BML Report is cognisant of the NZCPS, specifically pointing to Policy 1 and the various attributes outlined. It goes on to note that there are “*grey areas*” in relation to many coastal characteristics, and that it can be difficult to draw a “*hard line*” that determines what is in and what is outside of the CE.
18. To help find an approach or method through this challenge, the 2014 BML Report (in association with the Department of Conservation), promotes a three zone “*Coastal Landscape*” where Zones A and B are considered to make up the CE, and Zone C is identified as the “*Coastal Context*” zone (refer to Table 1, below). The report then provides a series of cross sections that “*generically illustrate*” the extent of each

<p>Coastal Landscape</p> <p>Coastal Environment</p> <p>Coastal Context</p>	Zone A	<p>This zone includes the Coastal Marine Area (CMA). Within the statutory context the CMA means the foreshore, seabed and coastal water and the air above the water to twelve nautical miles (or the territorial sea boundary). Inland, the CMA extends to the mean high water spring (MHWS). The CMA includes the rock, beach, coastal lagoons and lakes below MHWS. The CMA extends approximately 1km upstream of a river or a point that is calculated by multiplying the width of the river mouth by five.</p>
	Zone B	<p>The Coastal Significance Zone includes the Active Coastal Interface (land above MHWS) and 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, farm land, settlements and coastal forests.</p>
	Zone C	<p>Coastal Context. This area is where coastal elements, patterns and processes have an influencing presence on the coastal landscape and would include developed dune ridges which no longer exhibit significant coastal processes plus coastal plains, and hill-slopes. This zone generally extends inland from Zone B to where coastal influences are sufficiently diminished. It is also recognised that some activities occurring within this zone can significantly affect the coastal environment (Zones A and B), either experientially or physically, to varying degrees. The inland extent of Zone C will not be identified, as it falls outside of the Coastal Environment.</p>

Table 1: Coastal Landscape - 2014 BML Report

zone. Zone B is identified in two of the three drawings and “*generally includes land up to the summit of the first coastal ridge/crest or escarpment*”. In the last drawing where the topography is flatter, the report acknowledges that the inland extent of the CE can be “*more difficult to define*” – alluding to topography that doesn’t directly align with the more simplistic first-ridge drawings.

19. The report goes on to explore the specific characteristics of the Wellington CE, noting that “*topography is the major defining element*”, and that the mapping that has then been undertaken to identify the CE has been completed at a scale of 1:50,000. As I have outlined in my original assessment, I consider this scale is appropriate for broad scale assessment, but may need refinement at a detailed site-specific level.
20. It is my understanding based on the evidence of Mr Sirl that Council essentially adopted the broad approach to mapping the Coastal Environment as set out by the 2014 BML Report. Mr Sirl outlines “*Put simply, the CE extends inland from MHWS*

and **generally** includes land up to the summit of the first coastal ridge/crest or escarpment”¹.

21. Mr Anstey reinforces this approach, but I draw particular attention to his point that “where landform didn’t clearly define the boundary **the extent of significant coastal influences was determined in accordance with the nine criteria listed in the NZCPS Policy 1**”². Mr Anstey then goes on to confirm that “the boundary ... is consistent with the existing topography **except where it crosses the Quarry site**”³.
22. Mr Anstey confirms that the line on the mapped overlay is “**an approximation**”⁴ across the quarry site, but he considers it acceptable as it is consistent with the methodology used and the broader landform patterns. However, I note that this approximation is based only on assumed historical topography, and was not informed by an assessment of the nine criteria listed in the NZCPS. It appears that despite his assertion that the assessment was determined in accordance with the nine attributes in Policy 1, this has not in fact been undertaken by Council across the Horokiwi site and it is a topography only approach.
23. At Paragraph 41, Mr Anstey indicates that the method used by Council – that is identifying the CE as being up to the first significant inland ridge – is generally accepted by the profession and endorsed by the Environment Court. I strongly refute this point, and reference the Aotearoa New Zealand Landscape Assessment Guidelines that have been published by the New Zealand Institute of Landscape Architects⁵. In particular I refer to the following paragraphs that I include verbatim, but with my emphasis:

Mapping Landscape Boundaries

*5.18 For some purposes, the spatial extent of landscapes should be mapped. For example, it is important to delineate and map boundaries for area-based assessments such as identifying Outstanding Natural Features (ONFs) or Outstanding Natural Landscapes (ONLs), the **coastal environment**, and landscape character areas. In other instances (for example, most assessments of landscape effects), the spatial*

1 S42A Report, Paragraph 51

2 Mr Anstey, Paragraph 39

3 Mr Anstey, Paragraph 42

4 Mr Anstey, Paragraph 42

5 Te Tangi a Te Manu, NZILA July 2022.

extent can be defined in general terms as described above without the need for precise mapping.

5.19 Mapping of boundaries should reflect the purpose of the assessment and **be in response to landscape character and values**. For instance, boundaries are likely to follow physical attributes such as topography, a ridge, contour, river, or highway; or significant change in land cover—especially when it relates to underlying conditions, for example a change in landform, soil type, or coastal exposure. While property boundaries may be appropriate for some purposes, they often do not follow the natural landscape. **Boundaries are sometimes not obvious—they may be blurred transitions rather than a sharp demarcation**. Remember that such boundaries are artificial constructs. Focus on the purpose for mapping, and on the landscape character and values, in deciding which landscape elements to settle on. Explain your rationale for the selection of boundaries.

5.20 Likewise, landscape assessors should treat mapped boundaries in a reasoned way. While boundaries are mapped as lines, they are often less sharp on the ground. **Boundaries identified in a statutory plan may have been mapped at a large scale without precise ground-truthing**. Landscape values and attributes can spill across boundaries in both directions. **It is important, therefore, that assessors look beyond lines on maps to the actual landscape** (see also paragraph 8.30 with respect to ONF/ONLs).

Describe and analyse the attributes (characteristics and qualities)

5.21 **Describe and analyse the attributes**, paying attention to each of the physical, associative, and perceptual dimensions and the range of typical factors described in Chapter 4.

24. In addition, I note that the Environment Court decision Mr Anstey refers to⁶ also outlines that “the coastal environment will vary from place to place”, and “**where the land behind the coast is generally flat there may be difficulty in defining the coastal environment**”. Interestingly, I note that the Court in this instance determined not to include a quarry within the coastal environment, noting that it was visible from the coast but separate to it. As I will go on to outline, I am of the opinion that the Horokiwi site is also separated from the coastal environment (although it is within the coastal influence zone identified by the 2014 BML Report).

6 Kaupokonui Beach Society Inc and vrs V South Taranaki District Council 2008; Decision W30.

25. At paragraph 43, Mr Anstey turns to the *attributes method* that I have adopted in my original assessment, and appears to dismiss it outright as not being consistent with the original methodology utilised for identifying the CE. However, as I have identified, due to the generality of the Council approach, and in particular the approximations that have been made across the quarry site, in my opinion there is clear scope for using the *attributes method* to provide clarity and detail in this specific location.
26. Ultimately, I consider that the broad scale approach used by Council for the purposes of mapping the CE includes a substantial gap across the Horokiwi site where the line has been approximated.
27. On this basis, I consider there is value in mapping the CE line at a more fine-grained level in the area around Horokiwi, and this is what my assessment has attempted to provide. I am not challenging the approach used elsewhere, and anticipate that broadly the contour method is likely to be generally appropriate unless other locations require similar, more detailed analysis. It is important to note that my assessment has not considered any such other locations and is focussed only on the Horokiwi site.

THE HOROKIWI SITE

28. As I identified in my original assessment, the Horokiwi Quarry was established on this site in 1934. Large areas of the site have been cleared of all vegetation, and the landform has been permanently modified through excavation of all the overburden material and underlying aggregate. A series of historical aerial photographs from Retrolens (Sheet 11) show the progression of the quarry from 1941 to 1969 and clearly demonstrate the significant topographical modifications undertaken.
29. The site is located behind a low ridgeline that rises up immediately above SH2 which hugs the coastline. Other than a small depression where a waterway exits the site, this ridgeline effectively screens the bulk of the quarrying activity from the surrounding coastal area. Only the upper terraces of the quarry are visible from within the coastal marine area (by boat), or from more distant locations on headlands on the opposite side of the harbour.
30. To help provide an overview of this topography and how the quarry sits back from the coast, the Wayfinder team have prepared a series of cross-sections through the coastline which are included in a Graphical Attachment appended to this evidence

(Sheet 12). The cross sections have been prepared using publicly accessible LiDAR data from Council, dated 2019-2020. The cross sections are 150m apart and traverse a wide part of the landscape both east and west of the quarry site. The quarry area itself is identified on cross sections 04 to 08.

31. The cross sections demonstrate that the approximated CE line proposed by Council does not follow the “*first ridgeline*” as it passes across the quarry site, but is located somewhere in the middle of a rolling topography. In my opinion, this clearly demonstrates the challenge of adopting a generalised approach to mapping when in reality there is not a clearly defined first ridgeline.
32. Mr Anstey indicates that across the quarry, which has resulted in excavation of the land for over 90 years, the CE line has been mapped by Council in approximation of where the topography once was⁷. I don’t agree with such a method – there is no current (or indeed realistic) proposal to reinstate the site to its historical contours, therefore the landscape needs to be considered as it presents today. However, even if such historical contours were estimated, it remains apparent based on the topography east and west that there would have been several ridgeline peaks within the landform, none providing an obvious first-ridgeline location for the CE line.
33. During the process of reviewing the cross-sections, I noted in three sections that the line I previously recommended in our original submission sat just on the coastal side of the first ridgeline above SH1. We therefore used this additional process to provide a small refinement to the line location such that it now sits behind this first ridgeline in all instances. This is demonstrated in the attachment with the red line on Sheet 12. Please note that the line depicted on Sheets 08, 09 and 10 follow my original recommendation, only the line on Sheet 12 has been updated.
34. Turning then to my use of the *attributes method*, I note Mr Anstey has some reservations about the way I have considered coastal attributes⁸. I understand Mr Anstey’s position, in that the method I used to identify coastal attributes is more commonly associated with identifying natural character. However, I have not used abiotic, biotic and experiential assessments to determine whether natural character

7 Mr Anstey, Paragraph 42

8 Mr Anstry, Paragraphs 44-45

is low, high or significant – but rather as a way to cover the key aspects that contribute to what makes up the coastal environment in terms of its attributes.

35. Rather than dwell on whether this approach was correct or not, I consider that perhaps the most sensible way forward is to link the assessment directly back to Policy 1 of the NZCPS. I provide this assessment as follows:

NZCPS Policy Number	Policy Attributes	Assessment
1.2a	The coastal marine area.	The quarry site is located outside of the CMA.
1.2b	Islands within the coastal marine area.	The quarry site is not an island within the CMA.
1.2c	Areas where coastal processes, influences or qualities are significant, including coastal lakes, lagoons, tidal estuaries, saltmarshes, coastal wetlands, and the margins of these.	<p>All evidence of coastal processes in forming topography have been lost due to the historical quarrying, and as such the quarry site does not display these values. Only the non-quarried landform carries any distinctive signs of coastal erosion, this most evident in the coast-facing hillside above SH2 at the base of the site. In addition some of the older quarried areas of the site that remain bare of vegetation are naturally legible, following the pattern of landforms that extend along this part of the harbour.</p> <p>The only waterway in the site is highly modified and has no immediate margin.</p> <p>Overall, there is very little evidence of coastal processes within the active quarry site, and any that are legible are far from being considered significant.</p>
1.2d	Areas at risk from coastal hazards.	The quarry involves active excavation of surface material to expose bedrock. All such processes are at some risk, but this is strictly managed through the quarrying process and is not directly related to coastal hazards.

		<p>The area that is at key risk from coastal hazards is the coast-facing hillside above SH2 at the base of the site which is directly exposed to the harbour.</p>
1.2e	<p>Coastal vegetation and the habitat of indigenous coastal species including migratory birds.</p>	<p>Within active quarry site essentially all vegetation has been completely removed, including around the modified waterways. Some vegetation has been replanted on the horizontal benches and in historical areas of quarrying or exploration, however these are low-maintenance natives species planted to assist with erosion control, and as such have limited habitat value.</p> <p>The movement of machinery and ongoing blasting activity also means that there is relatively limited birdlife, particularly during operational hours.</p> <p>Beyond the site, including the coast-facing hillside above SH2 and unquarried areas above the site, some coastal vegetation is retained. This has been mapped by ecologists, and has varying degrees of habitat significance, but it is recognised to be modified and only parts are considered to be remnant. Other areas, including the gully at the base of the site, are in various stages of native vegetation regeneration through natural succession and revegetation planting.</p> <p>Overall, it is considered that the active quarry site has very limited coastal vegetation and habitat. The area with more significant coastal vegetation is the coastal facing hillside above SH2 at the base of the active quarry.</p>
1.2f	<p>Elements and features that contribute to the natural character, landscape, visual qualities or amenity values.</p>	<p>In my original assessment I have provided a summary of the abiotic and biotic values that contribute to natural character and landscape values.</p> <p>As identified, the quarry is largely screened from immediate views by the ridgeline above SH2 at the base of the site – with it only being visible from more distant views on the harbour or landforms on the other side of the harbour. Although small, this</p>

		<p>immediate ridgeline above SH2 helps to visually separate the active quarry from the immediate coast.</p> <p>My original assessment also covers the experiential values that contribute to amenity value.</p> <p>I am of the opinion that the active quarry site is limited in its contribution (either positively or adversely) to the wider natural character, landscape, visual and amenity values. Whilst from greater distances the upper parts of the quarry are clearly evident, the activity is increasingly diminished by the dramatic scale of the surrounding landform of the steep coastal escarpment that extends along the western edge of the harbour.</p>
1.2g	Items of cultural and historic heritage in the coast marine area or on the coast.	Any cultural or historical items that may once have existed within the active quarry site have been removed through the extended operation of the quarry.
1.2h	Inter-related coastal marine and terrestrial systems, including the intertidal zone.	<p>There are no inter-related systems within the active quarry site.</p> <p>Beyond the site, including the coast-facing hillside and unquarried areas above the site, some coastal vegetation is retained. As identified above, this has varying degrees of habitat significance, and other areas that haven't been quarried, are in various stages of native vegetation regeneration through natural succession and revegetation planting. It is likely that these areas do contribute to wider inter-related coastal systems and processes, but only in a relatively limited manner. Most likely is the movement of salt-laden air across and around the coastal edge, which influences the type and growth rates of regenerating vegetation on the coast-facing slopes.</p>
1.2i	Physical resources and built facilities, including infrastructure, that have modified the coastal environment.	This is perhaps the most challenging attribute to consider as it is very evident that the quarry has modified the landform adjacent to the coast. The question at hand is whether the quarry is within the CE.

		<p>The cross-sections indicate that the active quarry sits behind the foremost ridgeline. The sections to the east and west show more natural contouring, indicating there is no clear ridgeline until some way back from the coast.</p> <p>Where I land in my assessment is that the active quarry site was likely to have once been in what we now define the coastal environment. However over an extended period of excavation, its relationship to the coast has diminished significantly (as outlined in the points above). Unlike SH2 which hugs the coastline, the active quarry is visually and physically separated from the main area of coastal processes and value.</p> <p>In my opinion, the active quarry site sits more comfortably within the Coastal Context (Zone C) area described in the 2014 BML Report, and only the ridgeline landform adjacent to SH2 is within the CE.</p>
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36. Based on the above assessment against the attributes that define the CE (building on my original assessment), in my opinion the active quarry site does not sit directly within the CE. Rather, I consider that it more suitably aligns with the 2014 BML Report description for Zone C, the Coastal Context as follows:

*“Coastal Context. This area is where coastal elements, patterns and processes have an **influencing presence on the coastal landscape** and would include developed dune ridges which **no longer exhibit significant coastal processes** plus coastal plains, and hill-slopes. This zone generally extends inland from Zone B to where coastal influences are sufficiently diminished. **It is also recognised that some activities occurring within this zone can significantly affect the coastal environment** (Zones A and B), either experientially or physically, to varying degrees. The inland extent of Zone C will not be identified, as it falls outside of the Coastal Environment.”*

37. Therefore, I remain of the opinion that the recommended CE line outlined in my original assessment carried out at a detailed level and drawn on the attached maps is a more accurate depiction of the extent to where CE processes and values can be clearly defined. This conclusion is reached by first considering the location using the

generalised *contour method* adopted by Council, and then refining the location through a detailed assessment of this specific location using the *attributes method*.

CONSISTENCY WITH NZCPS

38. Based on the above assessment of the attributes that make up the CE as defined by Policy 1, I am of the opinion that my recommended CE line is consistent with the requirements of the NZCPS.

CONSISTENCY WITH REGIONAL POLICY STATEMENT

39. Table 2 (Page 24) of the Regional Policy Statement⁹ sets out Objective 3 as follows:

Habitats and features in the coastal environment that have significant indigenous biodiversity values are protected; and

Habitats and features in the coastal environment that have recreational, cultural, historical or landscape values that are significant are protected from inappropriate subdivision, use and development.

40. Objective 4 seeks to ensure “*the natural character of the coastal environment is protected from the adverse effects of inappropriate subdivision, use and development*”. In my opinion the active quarry sits outside the CE and therefore Objective 4 is not relevant to this area. The immediate hillside above SH1 will be subject to this objective, as I consider it is within the CE.
41. Objective 7 seeks to ensure “*the integrity, functioning and resilience of physical and ecological processes in the coastal environment are protected from the adverse effects of inappropriate subdivision, use and development*”. As above, in my opinion the active quarry sites outside the CE and therefore Objective 7 is not relevant to this area.
42. Policy 4¹⁰ requires the Council to identify the landward extent of the CE in District Plans. The assessment of the coastal environment against Policy 1 of the NZCPS,

⁹ Regional Policy Statement for the Wellington Region, Greater Wellington Regional Council 15 December 2023

¹⁰ Policy 4: Identifying the landward extent of the coastal environment – district plans
District plans shall include policies and/or rules to identify the landward extent of the coastal environment using the following criteria:

(a) any area or landform dominated by coastal vegetation or habitat;

which I provide above, covers these aspects off in a more detailed manner, particularly 1.2c, 1.2e, 1.2g, 1.2f and 1.2i which directly align to the criteria outlined. Therefore I consider my assessment is consistent with the requirements of Policy 4.

43. Based on the assessment I have undertaken of the attributes that make up the CE as defined by Policy 1 of the NZCPS, I am of the opinion that my recommended CE line achieves the outcomes sought by Objective 3. Specifically, there are no habitats or features within the active quarry site that have significant indigenous biodiversity, recreational, cultural, historical or landscape values.

CONCLUSION

44. I have undertaken a detailed assessment of the coastal landscape in the immediate location and vicinity of the Horokiwi site. The purpose of this assessment was to accurately define the landward extent of the CE using evidential attributes.
45. As I have outlined, I do not oppose the method of identifying the CE through identifying first ridgelines, but I consider this can only be applied at a broad scale. The original 2014 BML Report achieves this at a scale of 1:50,000 – in my opinion suitable for a District-wide assessment, but not suitable for consideration at a fine-grained scale. Given that the line affects how policy (both at a District and Regional level) is applied to the Horokiwi site, it is important that this is mapped appropriately for this specific site.
46. As identified in the 2014 BML Report, in best practice guidance published by NZILA, and conveyed in Environment Court decisions, the most definitive way of identifying landscape or CE boundaries is through assessment of the attributes of a landscape. Although this cannot be easily achieved at a District scale assessment, this should not rule out applying such a methodology in instances where a more fine-grained approach is required. This is the assessment I have undertaken.
47. On this basis, I consider that my use of the *attributes method* provides Council with a finer-grained and more detailed assessment of the CE around the Horokiwi site, and that through the assessment of the actual landscape and coastal attributes, the

(b) any landform affected by active coastal processes, excluding tsunami;

(c) any landscapes or features, including coastal escarpments, that contribute to the natural character, visual quality or amenity value of the coast; and

(d) any site, structure, place or area of historic heritage value adjacent to, or connected with, the coastal marine area, which derives its heritage value from a coastal location.

process to define the line through this relatively complex (and historically excavated) topography has provided a more robust location for the CE line, rather than relying only on the broad scale *contour method*.

Shannon Bray
NZILA Registered Fellow Landscape Architect



LEGEND Horokiwi Quarry Land Holdings

Site Plan



Horokiwi Quarries Ltd
Proposed District Plan
Submission

FOR EVIDENCE

09 April 2024

Revision 01
Drawn: BML Reviewed: SB

Scale 1:10,000
Print at A3

Sheet 01

Horokiwi_Graphics_24-04-09

www.wayfinder.nz
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Data Sources: Eagle Technology, LINZ, StatsNZ, NIWA, Natural Earth, © OpenStreetMap contributors, Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors

Projection: NZGD 2000 New Zealand Transverse Mercator



Drone Photograph Courtesy Boffa Miskell Ltd

**Drone Photograph 01
Facing North**



Horokiwi Quarries Ltd
Proposed District Plan
Submission

FOR EVIDENCE

09 April 2024

Revision 01
Drawn: BML

Reviewed: SB

Print at A3

Sheet 02

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**Drone Photograph 02
Facing Southeast**

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Q UARRIES LIMITED**

Horokiwi Quarries Ltd
Proposed District Plan
Submission

FOR EVIDENCE

09 April 2024

Revision 01
Drawn: BML

Reviewed: SB

Print at A3

Sheet 03

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**Drone Photograph 03
Facing West**



Horokiwi Quarries Ltd
Proposed District Plan
Submission

FOR EVIDENCE

09 April 2024

Revision 01
Drawn: BML

Reviewed: SB

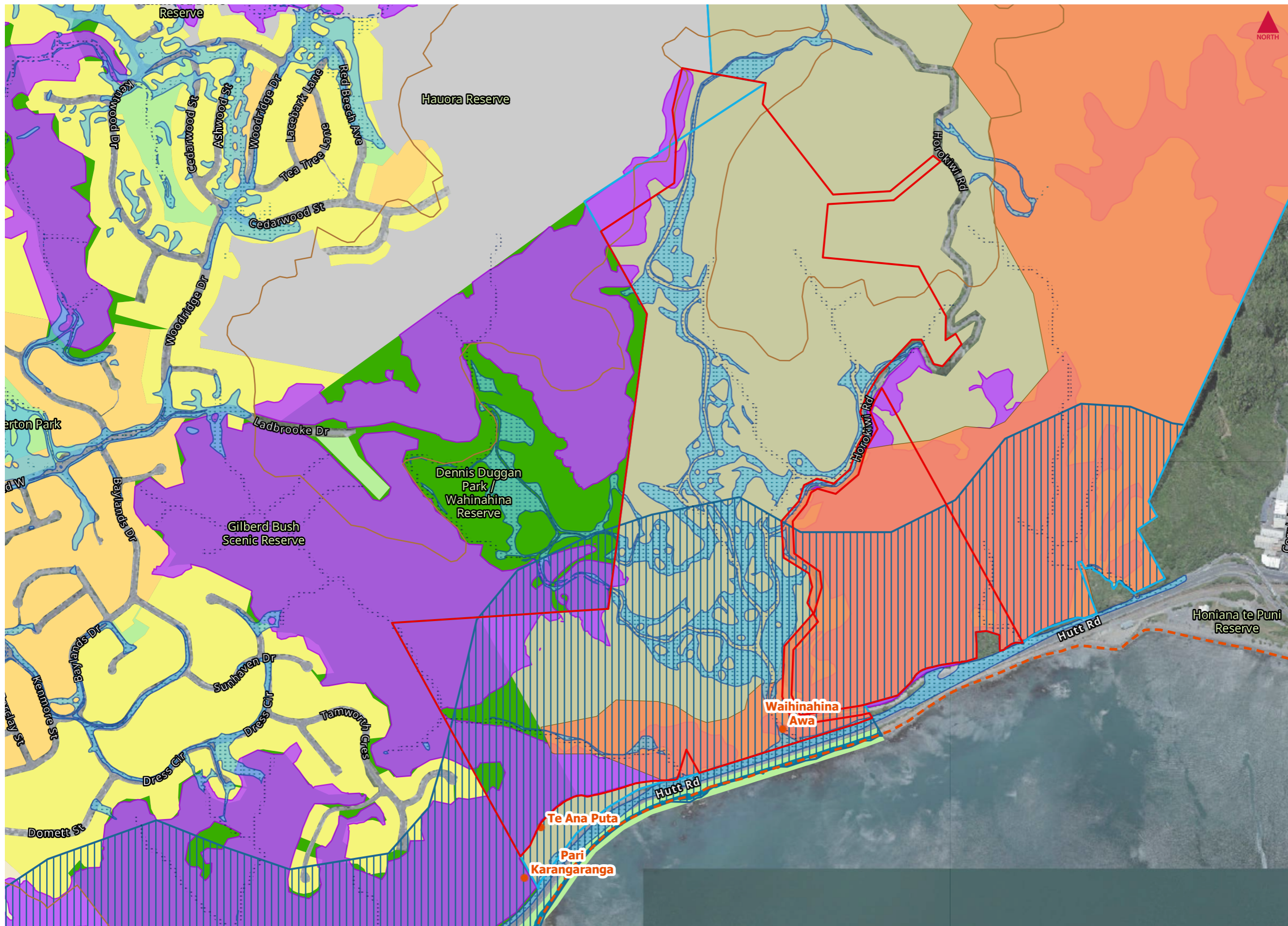
Print at A3

Sheet 04

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Drone Photograph Courtesy Boffa Miskell Ltd



LEGEND			
	Horokiwi Quarry Land Holdings		Sites of significance to Māori points
	Large Lot Residential Zone		Sites of significance to Maori polygons
	General Residential Zone		Hilltops and ridgelines
	Medium Density Residential Zone		Significant Natural Areas
	General Rural Zone		Special Amenity Landscapes
	Natural Open Space Zone		Coastal environment
	Open Space Zone		
	Special Purpose Zone		
	Horokiwi area		
	Medium coastal hazard		
	Flood Inundation Area		
	Overland flowpath overlay		
	Ponding overlay		
	Stream corridor overlay		

Proposed District Plan Zones & Overlays



Horokiwi Quarries Ltd
Proposed District Plan
Submission

FOR EVIDENCE

09 April 2024

Revision 01

Drawn: BML

Reviewed: SB

Scale 1:10,000

Print at A3

Sheet 05

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Data Sources: Eagle Technology, LINZ, StatsNZ, NIWA, Natural Earth, © OpenStreetMap contributors, Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors

Projection: NZGD 2000 New Zealand Transverse Mercator





LEGEND
 Horokiwi Quarry Land Holdings
 Coastal environment

**Proposed District Plan
Coastal Environment**



Horokiwi Quarries Ltd
Proposed District Plan
Submission

FOR EVIDENCE

09 April 2024

Revision 01
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Reviewed: SB

Scale 1:100,000
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Sheet 06

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Projection: NZGD 2000 New Zealand Transverse Mercator



LEGEND
 Horokiwi Quarry Land Holdings
 Coastal environment

**Proposed District Plan
 Coastal Environment**



Horokiwi Quarries Ltd
 Proposed District Plan
 Submission

FOR EVIDENCE

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LEGEND
▭ Horokiwi Quarry Land Holdings
▨ Coastal environment
▭ Recommended Coastal Environment

Recommended Coastal Environment



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 Proposed District Plan
 Submission

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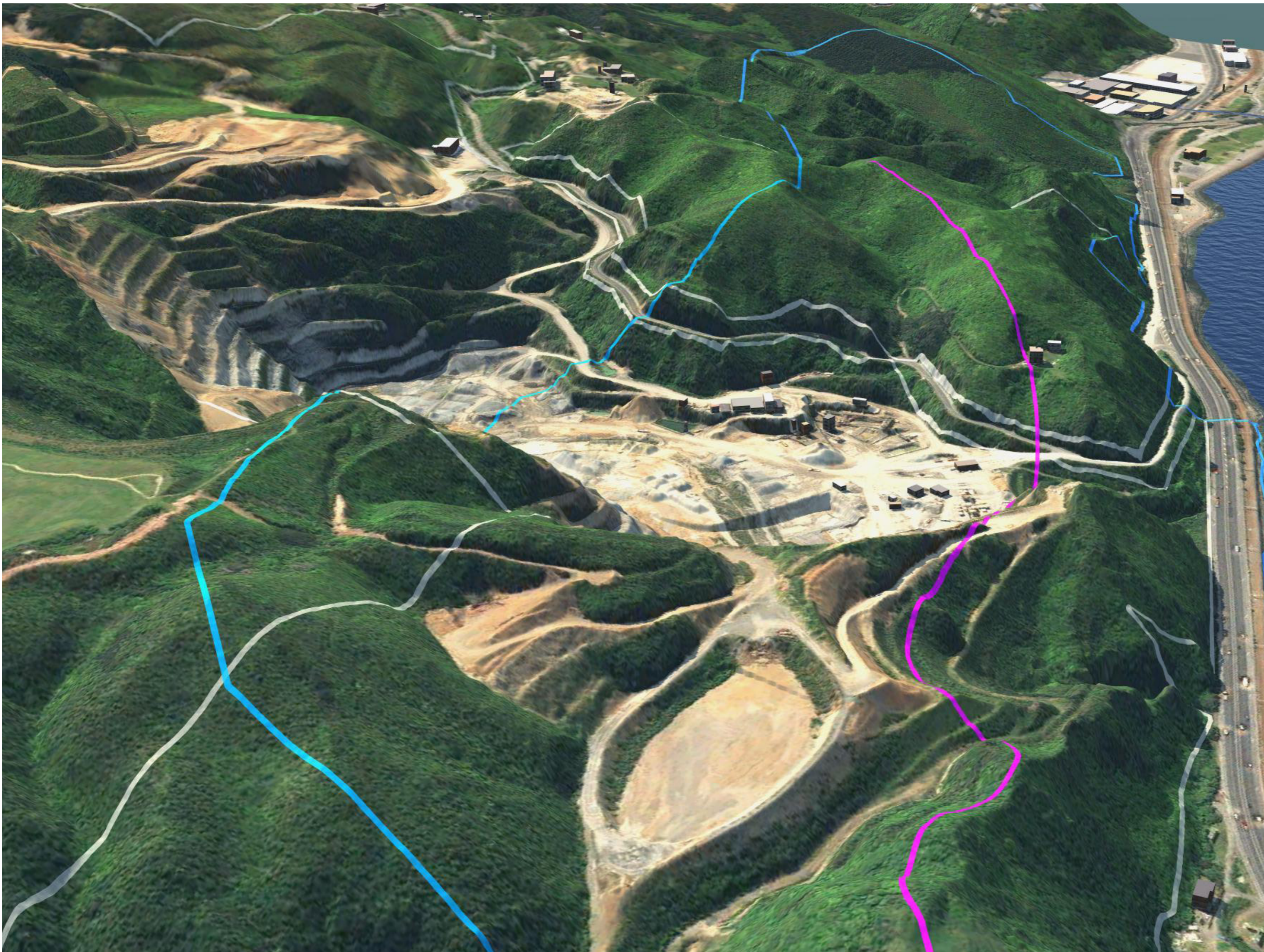
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LEGEND

- Proposed District Plan Coastal Environment Line
- Recommended Coastal Environment Line
- Korokoro Stream Valley Special Amenity Landscape Overlay

Drone Photograph Courtesy Boffa Miskell Ltd

**3D Model
Recommended Coastal
Environment Line**



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Proposed District Plan
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**3D Model
Recommended Coastal
Environment Line**



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LEGEND
— Proposed District Plan Coastal Environment Line
— Recommended Coastal Environment Line
— Korokoro Stream Valley Special Amenity Landscape Overlay

Drone Photography Courtesy Boffa Miskell Ltd



Aerial Photo - 1941

retrolens.nz



Aerial Photo - 1957

retrolens.nz



Aerial Photo - 1969

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**Historical
Aerial Photography**



Horokiwi Quarries Ltd
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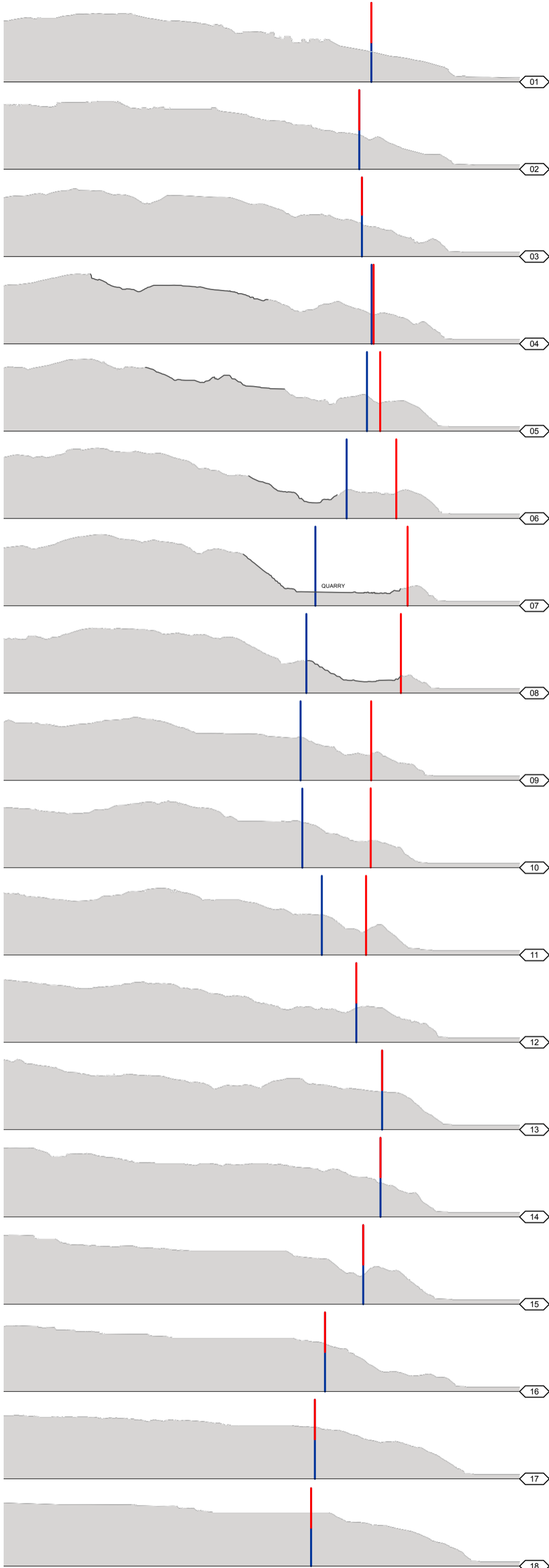
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3 SITE SECTIONS
Scale: 1:18000



1 SITE PLAN
Scale: 1:20000



2 SITE MODEL
Scale: NTS

- KEY
- Council proposed Coastal environment boundary
 - Recommended Coastal environment boundary

SITE SECTIONS



Horokiwi Quarries Ltd
Proposed District Plan
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