

12 July 2022

Isthmus.

Reuben Hansen
Tonkin and Taylor

Dear Reuben,

RE: LANDSCAPE REVIEW OF THE PROPOSAL TO DEVELOP A BARGE HARBOUR ON TE RIMU TRUST LAND/COASTAL WATERS AT TE ARAROA.

1. Further to your correspondence, instructions and discussions with yourself and Darren Bentham, I have undertaken a review of the proposal to develop a barge harbour on Te Rimu Trust land / coastal waters at State Highway 35 (SH 35), Te Araroa. I also undertook a site visit and met with members of Te Rimu Trust on 27 June.
2. The purpose of this Memorandum is to summarise the key landscape and natural character sensitivities and issues that need to be taken into consideration for the consenting and development of the proposed harbour and associated coastal infrastructure.
3. Landscape and natural character matters that pertain to the site and Kawakawa Bay in general, are contained in the Tairāwhiti Resource Management Plan:
 - a) Outstanding Natural Feature or Landscape (ONFL Unit 2) across the Te Araroa landward coastal edge and coastal marine area;
 - b) Wetlands identified by the Gisborne District Council (GDC).
4. Attributes and values of the ONFL Unit 2 will be linked to the presence and ecological value of the wetland identified and the open coastline. It is understood that the proposed location and design of the barge harbour can largely avoid the wetland areas. It is also understood that most of the area within the proposed harbour footprint and surrounding it, including the lower reaches of the Karakatuwhero and Awatere Rivers have been modified by gravel extraction for local road building. The integration of the barge harbour into the existing natural environment and the improvement of wetlands and indigenous vegetation systems will be integral components of any harbour excavation and development in this location.

Proposal

5. Stakeholders in the community of Te Araroa are considering the development of a barge harbour on the land and coastal waters within the Kawakawa Bay on the East Cape. The Te Rimu Trust owns land that is adjacent to the coastal edge which is suitable for the development of a harbour. The purpose of the harbour would be to provide sea-based freight access to other North Island ports, including Gisborne and Tauranga.
6. The Te Rimu Trust are working with HEB Construction Ltd (HEB) and Tonkin and Taylor to explore options and a potential consenting path for a barge harbour proposal on their

land. The current concept¹ design for the barge harbour proposal includes the following components²:

- a) Rock breakwater / training walls extending approximately 400m into the coastal water and 120m apart, perpendicular to the coastline;
 - b) An excavated basin on the landward side of the CMA;
 - c) A dredged channel between the training walls back into the basin;
 - d) Operational hardstand;
 - e) A large stockpile area of dredgings;
 - f) Construction stockpile;
 - g) Access road to the commercial side of the harbour (west);
 - h) Access road (east) and a public carpark;
 - i) A publicly accessible beach within the harbour basin (east);
 - j) Improved wetland areas (south and west);
 - k) Native revegetation planting areas (south and west); and
 - l) Avoidance of an urupa (east) is an important part of the proposal.
7. The concept design is currently necessarily ‘high-level’ and will require refinement as site work and constraints analysis work is completed. Natural wetland, indigenous vegetation enhancement and public access to the harbour and the coastal waters will be integral parts of the proposal, particularly to assist with the coastal access, landscape and natural character matters associated with the site.
8. The development of a strong and coherent theme or concept for the harbour project will also be necessary for successful consenting, including an appropriate te reo project name. During my site visit and hui with Te Rimu Trust discussions relating to Rerekohu, a tupuna of the local hapu, being a fisherman and helping to connect Tangaroa with Papatuanuku in a figurative and literal sense. Rerekohu also binds local Tāngata whenua from Kawakawa Bay and Hicks Bay together as a shared tupuna.
9. Pōhutukawa were identified in the discussions as a particularly symbolic local coastal tree species, with Te Waha o Rerekohu (The mouth of Rerekohu), the largest Pōhutukawa in Aotearoa thought to be over 600 years old, also giving its’ name to the local area school, just over 1km to the east of the proposed harbour site.

Landscape Matters

10. Te Tangi a te Manu (TTaM), The Aotearoa Landscape Guidelines adopted by the New Zealand Institute of Landscape Architects in May 2021 provides the most holistic and up to date guidance for landscape assessment in Aotearoa.
11. TTaM reflects best practice landscape assessment in Aotearoa and has been drafted to incorporate up-to-date guidance from the Environment Court with respect to landscape assessment.

¹ As at 23 June 2022.

² As illustrated on the Offshore and Coastal Engineering Ltd drawings dated 14 June 2022.

12. In particular, four key concepts are addressed in TTatM which inform the range of landscape attributes and values (or 'factors') pertaining to the evaluation of the landscape attributes and values:

- a. the three-dimensional concept of landscape;
- b. the definition of landscape values;
- c. the discussion of the factors that might inform a 'starting point' for describing and evaluating landscape values; and
- d. the rating of landscape values.

Three-dimensional Concept of Landscape

13. As explained in TTatM³:

Landscape embodies the relationship between people and place: it includes the physical character of an area, how the area is experienced and perceived, and the meanings associated with it.

Whenua is the nearest Te Reo term for landscape, although the terms are not directly interchangeable. Whenua contains layers of meaning concerning people's relationship with the land.

Professional practice conceives of landscape as comprising three dimensions: the physical environment, peoples' perceptions of it, and the meanings and values associated with it. This concept, integrated with mātauranga, provides a potential bridge between whenua and landscape.

*The current professional practice of conceptualising landscape as three overlapping dimensions provides a bridge between Te Ao Māori and Te Ao Pākehā meanings: (see **Figure 1** below)*

- *Physical (the physical environment – its collective natural and built components and processes); and*
- *Associative (the meanings and values we associate with places); and*
- *Perceptual (how we perceive and experience places).*

³ Refer TTatM, pages 31 and 32.

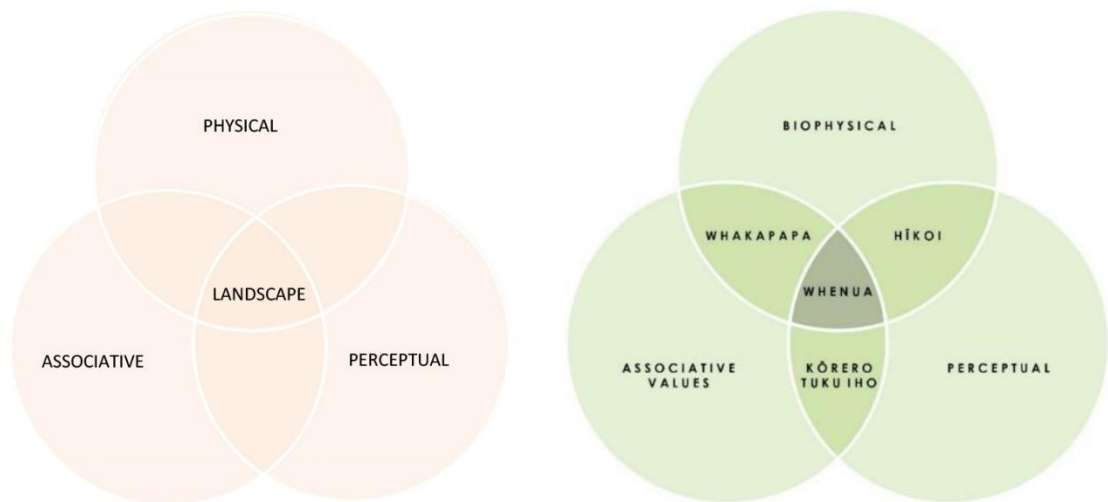


Figure 1: Representation of the bridge between Te Ao Māori and Te Ao Pākehā meaning of landscape. *Source: TTatM, page 32.*

14. Three dimensions of landscape are described as follows:

***‘Physical’** means both the natural and human-derived features, and the interaction of natural and human **processes** over time. Other terms sometimes used for this dimension include **‘natural and physical resources’** (which echoes RMA phraseology), **‘natural and built environment’** (which echoes the Randerson Report phraseology), **‘physical environment’**, **‘biophysical’** (which is potentially problematic if it is taken to mean only the natural aspects of landscape rather than both natural and human features), and **‘geographical’**.*

***Associative** means the intangible things that influence how places are perceived – such as history, identity, customs, laws, narratives, creation stories, and activities specifically associated with a landscape. Such associations typically arise over time out of the relationship between people and place. Tāngata whenua associations are therefore especially relevant because of primacy and duration. Pūrākau, tikanga, whakapapa, and mātauranga are key considerations of the associative dimension from a Te Ao Māori perspective, particularly important when considering matters such as mauri and wairua. Other terms sometimes used for this dimension include **‘intangible’**, **‘meanings’**, **‘place-related’** (sense of place).*

***‘Perceptual’** means both sensory experience and interpretation. Sensory appreciation typically occurs simultaneously with interpretation, knowledge, and memory. What we **know**, **remember**, and **imagine** influences how we perceive a place. While sight is the sense most typically applied to landscape assessment, sensory perception importantly includes all the senses such as sound, smell, touch, and taste (the smell of the forest floor, sounds of a city, feel of the wind, sense of movement in the tides and waterways, tastes of an area’s foods, or of salt on the wind). Other terms sometimes used for the perceptual dimension include **‘sensory’** (which suggests only raw senses and does not capture the cognitive or interpretative aspect that is implied in the term ‘perceptual’), **‘aesthetic’** (which suggests a focus on beauty rather than*

wider appreciation), and ‘**experiential**’ which perhaps better conveys movement and active engagement.

Landscape Values

15. Landscape values are:

...the reasons a landscape is valued – the aspects that are important or special or meaningful. Values may relate to each of the landscape’s dimensions – or, more typically, the interaction between the dimensions. They could relate to the physical condition of the landscape, the meanings associated with certain attributes, and their aesthetic qualities. Importantly, values are embodied in certain physical attributes (values are not attributes, but they depend on attributes).⁴

16. Values are ascribed by people and typically reflect different interests and perspectives, even natural values, which may be referred to as ‘intrinsic’, are values ascribed by people. It is the role of the landscape assessor to provide an impartial assessment of landscape values.⁵
17. The three dimensions are complementary, overlapping, and non-hierarchical⁶. A **list of the typical factors** often considered under the dimensions of landscape includes:

- Physical
- (natural and human):
 - Geology and geomorphology.
 - Topography and hydrology (including drainage patterns).
 - Climate and weather patterns.⁷
 - Soil patterns.
 - Vegetation patterns.
 - Ecological (flora and fauna) and dynamic components.
 - Settlements and occupation.
 - Roads and circulation.
 - Land use – cadastral pattern.
 - Buildings.
 - Archaeology and heritage features.

⁴ TTatM, paragraph 5.6.

⁵ Ibid, paragraphs 5.9 and 5.10.

⁶ TTatM paragraph 4.28.

⁷ Factors are intertwined. For example, high rainfall on the West Coast results in lush vegetation and very active erosion compared to the dry regimes east of the Southern Alps. Much of the topography of the Southern Alps is influenced by glaciation which is also strongly influenced by climate. Characteristic weather patterns are also part of a landscape’s character, such as the Waikato River’s mists, Hauturu-o-Toi’s cloud puff, Canterbury’s Nor-west arch, and Greymouth’s ‘The Barber’ wind.

- Tāngata whenua features.
 - Likely future (permitted or consented) activities in the environment.
- Associative
- Tāngata whenua creation and origin traditions manifest in landscape features.⁸
 - Tāngata whenua associations and experience – (historic, contemporary, and future)⁹ including pūrākau, whakapapa, tikanga, and mātauranga.
 - Tāngata whenua metaphysical aspects such as wairua and mauri.
 - Legal personification of landscape features.
 - Historic associations and stories attached to the landscape since European settlement.
 - Shared and recognised values of a landscape derived from community life including the community’s livelihood, its history and reason for being in that place, places of social life and gathering, places associated with metaphysical meanings such as retreat, contemplation, and commemoration.
 - Landscape values associated with identity such as attributes that are emblematic for an area, places that are central to a community (main street, wharf, park), features that are anthropomorphised.
 - Landscapes that are engaged through activities such traditional food and resource gathering, recreational use, food and wine that reflect a locale, tourism based on landscape experience or appreciation of a landscape’s qualities.
- Perceptual
- Geomorphic legibility (how obviously a landscape expresses the geomorphic processes).
 - Wayfinding and mental maps (legibility or visual clarity of landmarks, routes, nodes, edges, and areas of different character).
 - Memorability.
 - Coherence (the extent to which patterns reinforce each other, coherence between human patterns and underlying natural landscape).
 - Aesthetic qualities.

⁸ Such traditions often explain the appearance of features, whakapapa connections between them and between features and Tāngata whenua, and patterns of occupation and use. Creation and origin traditions are associated with many landscape features – particularly notable examples include Aoraki, Mauao, Taranaki maunga, and Te Mata-o-Rongokako.

⁹ Tāngata whenua have a holistic relationship with landscape in all its dimensions. The highlighting of certain factors in this list is not to be interpreted as restricting tāngata whenua landscape values to such factors.

- Naturalness.
- Views.
- Wildness/remoteness.
- Transient attributes.

18. Such lists are useful reminders but are not intended as a formula:

- Factors straddle dimensions (e.g., ‘naturalness’ is a function of physical, associative, and perceptual dimensions) – it is the interplay between dimensions that is often key.
- Not every factor is relevant everywhere, and factors that are not listed may be relevant.
- The relative weight given to a factor depends on context and issues.
- Assessment and interpretation of such factors (and the conclusions and recommendations that flow from them) is a matter of professional judgement. As with all matters of professional judgement, explanation and reasons are key.

19. The three overlapping dimensions of landscape (i.e. physical, associative and perceptual) draw from factor lists such as the ‘Pigeon Bay factors’¹⁰ and the ‘Lammermoor list’¹¹. The benefit of ‘repacking’ such factors as three overlapping dimensions include:

- Accommodating both tāngata whenua and western world views in a holistic manner.
- Linking the dimensions more directly with the definition of ‘landscape’.
- Providing flexibility to include other relevant factors and criteria depending on context.
- Discouraging use of such checklists as a default formula.

20. The matter of **landscape scale** is also of importance in identifying (and rating) landscape values.

21. The physical scale of the landscapes to which a landscape schedule is to apply (eg regional scale, district scale etc) will influence the ‘grain’ or level of detail in the schedule.

Rating Landscape Values

22. A seven-point rating scale is used for the evaluation of landscape values (and landscape effects). The seven-point scale is recommended as a ‘universal’ scale for the following reasons:

It is symmetrical around ‘moderate’.

It has even gradations.

¹⁰ For example, see NZEnvC C180/99 at [7].

¹¹ For example, see NZEnvC 432 at [50].

It uses neutral terms so does not confuse rating and qualitative aspects.

The scale is therefore suitable for both positive and adverse effects, and for other purposes such as aspects of landscape value and natural character. It can be used in a 'universal' manner. (Emphasis added.)

The seven points provide for nuance of ranking, while being near the practical limit at which such distinctions can be made reliably. For those who struggle with seven points, the scale can be envisaged as three simpler categories (low, moderate, high) with finer steps above, below, and in-between.¹²

very low	low	low-mod	moderate	mod-high	high	very high
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low	moderate	high
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23. Care is required in rating attributes to quantitatively evaluate landscapes for the following reasons:

Conceptually, landscape is the interplay of dimensions – not the sum of their parts.

Value is embodied in specific character and attributes, not the generic criteria/factors that typically make up a scoring framework.

The relative significance of any criterion/factor depends on context.

While in practice a high 'score' for one dimension is often repeated by high scores in the other dimensions (given that the physical, associative, and perceptual dimensions typically resonate with each other), such self-reinforcing tendencies do not always hold true and should not be misconstrued. It is possible for a landscape to have a single over-riding reason for its value.

Some criteria/factors, particularly in more detailed schema, may be in opposition (for example rarity vs representativeness, historic features vs naturalness).

24. The holistic consideration of landscape assessment using both a western and Te Ao Māori approach is useful for the barge harbour project as it integrates the human dimension of understanding the values that apply to an area, in particular Tāngata whenua values. In this instance, the Te Rimu Trust utilizing its' own land to provide for a barge harbour, with an appropriate Te Ao Māori concept is complementary to the restoration and enhancement of the surrounding lands.
25. The area is identified as an outstanding natural feature or landscape (ONFL Unit 2) and will therefore require a detailed assessment of the landscape values and the effects of the proposal on those values.

Natural Character Matters

26. Natural character relates to coastal and freshwater environments under the RMA. The RMA does not define natural character, however its' consideration and in some cases protection is a matter of national importance under Section 6(a). Natural character

¹² See TTatM paragraphs 6.21 and 6.22.

includes natural elements, patterns and processes within the coastal environment within the margins of lakes, rivers and wetlands and how they are perceived and experienced.

27. A widely accepted definition of natural character in common use is:

Natural character is a term used to describe the naturalness of waterbodies and their margins. The degree of natural character depends on:

- *The extent to which natural elements, patterns and processes occur.*
- *The nature and extent of modifications to the ecosystems and landscape/seascape.*
- *The highest degree of natural character (greatest naturalness) occurs where there is least modification; and*
- *The effect of different types of modification upon the natural character of an area varies with the context and may be perceived differently by different parts of the community.*

28. The development of the barge harbour will undoubtedly interrupt natural elements, patterns and processes. This is an unavoidable effect of development in this location. The barge harbour has a functional need to be in the coastal environment, therefore such interruptions to natural elements, patterns and processes are also inevitable.

29. Natural character values are unlikely to be assessed as high or outstanding outside of the coastal marine area or highly valued wetlands. The gravel extraction and processing activities within the site and associated with the two rivers, along with weed infestation, earthworks for the air strip, etc, will all have affected the naturalness of the site. The opportunity to provide increased access to the coastal margin and waters for the community and to restore and enhance wetlands and indigenous coastal vegetation will be integral to any proposal to develop the harbour given the inevitable disturbance to the natural character of the site and in particular the coastal marine area.

Recommendations

30. The development of the Te Araroa barge harbour within an ONFL and in the CMA will have some inevitable adverse effects, which will require overall environmental enhancement in other areas to 'off set' those effects. The location and design of the harbour should take into consideration the following recommendations:

- i) The avoidance, as far as is possible, of disturbance of any parts of the identified wetlands and areas of high conservation value;
- ii) The design and use of rock breakwater / training walls that protrude only far enough into the CMA to provide safe access for vessels using the harbour;
- iii) The design and use of materials in the construction of the harbour that reflect local materials and colours, as far as is possible (e.g, the use of local quarried material and gravels, where available);
- iv) The inclusion of mātauranga Māori in the design and the cultural story telling associated with the harbour development. Tāngata whenua engagement, integration and support of the project, along with the development and integration of an appropriate concept is integral to a successful outcome.
- v) The incorporation of enhanced public access to and along the coastline, including onto the breakwaters / training walls and the public beach inside the harbour. Development of an access road, carpark and other amenities will assist in

enhancing access. A coastal edge track back to the township of Te Araroa is also another opportunity to enhance coastal access.

- vi) The inclusion of wetland enhancement and restoration and coastal indigenous vegetation restoration throughout through the project, as indicated in the concept design, as an integral and ongoing part of the development;
- vii) The careful environmental and ecological design of the mitigation proposals to reflect the existing natural dune, wetland and indigenous vegetation patterns which are parallel and complementary to the coastlines landscape patterns, that is, design in a way that enhances the existing natural landforms, waterways and vegetation.
- viii) The rehabilitation of any 'working areas' required for the construction of the project, including the construction and dredge stockpile areas.

Brad Coombs

Principal

Isthmus