

BEFORE THE

Proposed District Plan Hearings Panel of Thames Coromandel
District Council **UNDER** the Resource Management Act 1991

AND

IN THE MATTER

of the Proposed Thames Coromandel District Plan

EXPERT EVIDENCE OF DI LUCAS

December 2014

1. My full name is Diane Jean Lucas. I am a landscape architect with 40 years experience. I am director of Lucas Associates, a landscape planning, design and management practice I established in Canterbury in 1979 and work throughout New Zealand.
2. I hold a Master of Landscape Architecture (planning) and a Bachelor of Science (botany). I am a Fellow of the New Zealand Institute of Landscape Architects (1987), a Registered NZILA Landscape Architect, and, a certified Resource Management hearings commissioner.
3. I have developed natural landscape, natural character and indigenous ecosystems frameworks and assessment methods. My team's projects received the NZILA premier national landscape planning award twice, the only times awarded in the decade, and the NZILA Landscape Planning Gold Award 2008.
4. From assessment experience, research and collaboration I developed the methodology for the Canterbury Regional Landscape Study¹ that resulted in the "Pigeon Bay factors" that form the basis to current accepted best practice² for natural landscape assessment.
5. I researched vegetation in the archaeological landscape including for sample areas in the Hauraki Gulf, at ancient Pa, and in Otago mining lands. I have developed heritage landscape assessment methods and undertaken heritage landscape analyses to contribute to holistic landscape assessments and specifically in reference to s.6(f).
6. I have been involved in a number of natural character studies of lengths of coastal environment in the North, South and Stewart Islands. I have previous involvement in the Hauraki Gulf including some Coromandel areas.
7. I provided input to the review for the 2010 New Zealand Coastal Policy Statement, then to guidance for its implementation, and, specific application including as advisor for the natural character study of the extensive coast of Marlborough³.
8. I have been extensively involved in rural land use planning, in policy development, assessment, design and management for mining, quarry, forestry and farming operations. I have also for several decades chaired a government advisory committee

¹ Boffa Miskell Partners and Lucas Associates. 1993. *Canterbury Regional Landscape Study*.

² Criteria first listed by the Court in *Pigeon Bay Aquaculture Ltd v Canterbury Regional Council* NZRMA 209 [1999] and modified by the Court in *Wakatipu Environmental Society v Queenstown Lakes District Council* NZRMA 59 [2000]

³ *Natural Character of the Marlborough Coast: Defining and Mapping the Marlborough Coastal Environment*, Boffa Miskell, Marlborough District Council, Lucas associates, Department of Conservation. 2014'

involved in assisting landowners' protect significant indigenous biodiversity on private land throughout the country, and also involvement with assisting iwi in protection of biodiversity on their lands.

9. I am familiar with much of the District from various landscape planning work over the decades. My nationwide experience assists in putting the local values in context. I have been asked to appear at this hearing to provide a preliminary assessment of the landscape, amenity and natural character implications of the Proposed Thames Coromandel District Plan (PDP) with respect to mining.
10. I have read the *Code of Conduct for Expert Witnesses in the Environment Court Practice Note* and agree to comply with the Code. The evidence is within my area of expertise, except in relying on the evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
11. For this hearing I have reviewed the Proposed District Plan (PDP), some staff reports, and supporting assessments. I have considered some available information that contributes to the bio-physical aspects (refer excerpts in my attachments). I have explored sample catchments to provide some preliminary consideration of the appropriateness of the PDP methods, and those recently proposed by TCDC staff.
12. The Coromandel Peninsula is special. A special part of Aotearoa New Zealand. That is well-known and indisputable. Why is it special? It is a result of the landscape and natural character, and the amenity they afford. Particularly the intricate coastline encircling complex topography from old volcanoes eroded down to become complex steep hill country falling to a coast where a lowered sea level left infilled valley floors and tidal inlets, starkly contrasting with cliffed headlands and steep-walled bays to white sand beaches. Hard relics protrude cueing to the volcanic past, displayed as pinnacled areas, and as dikes, plugs, domes and columns.
13. It is not just that there is an intricate and enticing coastline that this peninsula is special. The steep ranges of the hinterland form the context, the backdrop, the skyline, the orientation, the heart of the Peninsula. A complex history of tectonic uplift and volcanic activity threw this north-south band of land up into separate prominence in stark contrast to the Hauraki left behind on the west.

14. Whilst long worn down hundreds of metres, a jagged rocky skyline defines and divides the Peninsula and prominent volcanic outcrops remain on the ridgeline. Standing tall and clothed in indigenous vegetation, the Moehau and Coromandel Ranges display an exceptionally natural biophysical landscape character. The Ranges and their individual peaks and dips are known. Long known. Many of them long loved. Including sacred features.
15. The Ranges slope more steeply to the west, to the Hauraki Gulf and Firth. In just a few kilometres, lush forest clothes from below the alpine zone down to about the tidal zone. In the east, from the rugged spine, they slope down across more gentle foothills to the Pacific Ocean.
16. The Coromandel Range is highly natural and well-viewed, from within the Peninsula, from the Hauraki Plains, and from the waters around. Crossed by several roads plus many historic routes and DOC tracks the Range is well-known from "inside" as well as from beyond. Distinctive, it gives the context and backdrop. But it is not mere backdrop to a view. The dramatic terrain, the access and the ecology, the Range is also important as a natural place of associative dimensions - the historic heritage and the cultural associations.
17. The PDP uses the *Brown Coromandel Peninsula Landscape Assessment (2011)* to map Outstanding Landscape and Amenity Landscape overlays. Brown identifies the Coromandel Range as a whole as a natural landmark (page 136), a natural feature (Landscape Unit 64). (my attachment page 4). The Range is an outstanding natural feature and landscape. I note the Marlborough Sounds, Golden Bay and Banks Peninsula have each been recognised as an ONFL at the broad scale, at a national scale. From my assessment, Coromandel Peninsula is also an ONFL at the national scale. Similarly, natural character can be considered at a range of scales.
18. These lands and waters of the Coromandel have a rich cultural history, and, from that continue to contribute rich cultural values today. That is, both heritage and cultural associations are of significance. However, surprisingly and disappointingly, information on the cultural heritage landscapes of the Coromandel does not appear to have contributed to the landscape, amenity or natural character assessments that underpin the PDP. Only recognised heritage and cultural sites are included. I understand that, whilst important, the individual sites are a minor part of the District's heritage landscapes.

19. The Introduction to Brown (2011, page 4) references RMA s.6(b) requirements. Titled "Outstanding Landscapes" the attachment to different landscapes is mentioned. That it is not just how the characteristics are dispassionately viewed, but also how people relate to each different landscape. Brown states "*The landscape values against which the Proposal has been assessed are derived from the factors identified in the Pigeon Bay Aquaculture Limited v Canterbury regional Council case, and the subsequent Wakatipu Environmental Society Inc v Queenstown Lakes District Council case. These factors are now largely accepted as a starting point for the identification of Outstanding Natural Landscapes and have become known as the "modified Pigeon Bay Criteria":*

- *Natural science factors*
- *Aesthetic values including memorability and naturalness*
- *Expressiveness (legibility)*
- *Transient values*
- *Whether these values are shared and recognised*
- *Its value to tangata whenua*
- *Its historical associations.*

These best practice criteria recognise that landscape assessment needs to address biophysical, perceptual and associative dimensions of a landscape. It is not "just the view".

20. However the Brown Introduction then references the Swaffield – Fairweather research into public attitudes⁴. This work involves people being asked to look at separate photos of aspects of a nameless place and rank their preference. Whilst the testing has found great agreement by participants in a preference for naturalness, in my opinion it is a technique that favours the picturesque, a Eurocentric concept. The placelessness of the images would seem fundamentally contrary to a whakapapa to the land. Assessment of a placeless photo does not address the associations that a named place would have. A photo is just a framed image of a part. Visual only. Limited. It does not have the smells, the pounds, the feel, the context or the arrival, amongst many other aspects that affect experience.

⁴ for example, John R. Fairweather, Simon R Swaffield. 1999 "*Public Perceptions of Natural and Modified Landscapes of the Coromandel Peninsula, New Zealand*" Research Report No. 241. Lincoln University

21. Whilst the preference investigations are in my opinion limited in not exploring places or people's relationship to them, just identifying preferred typologies, the data showed the very high importance of naturalness. The results endorse that the future of The Coromandel can be considered to be in protecting and nurturing the naturalness, thus favouring recreation, visitor and lifestyle opportunities rather than mining.
22. On The Coromandel, the steep and rugged topographic complexity provides separation between intricate coastal enclaves; enabling a plethora of coast-related small and special places. Whilst the waters are their focus, the topography contains each place. The hillslopes behind provide the setting; provide the land-based context and recreation; provide landmarks for negotiating on land and on water. The hill context provides the circuitous land-based access that enables each sense of place, each overview, each place separated. Each place's identity, it's community and it's pride.
23. Brown lists their Assessment Criteria which are stated to be Biophysical and Perceptual/Associative Values. Associative values include "Sense of Place". There is no explanation as to how this is assessed. What information contributes? Whilst encouragingly 'The Landscape As A Whole' is assessed, this is in terms of "wild nature" versus "cultured nature", such as found in the pastoral picturesque. The historic associations and the cultural relationships' tangata whenua have with their landscapes do not appear to be included. Whilst recognised as 'accepted practice', these aspects are neither addressed nor their absence explained in the Brown assessment introduction.
24. The lack of recognition of either historical associations or value to tangata whenua is demonstrated when the Brown assessment is explored. For example, in considering the north of the Peninsula, Landscape Unit 2 is the Moehau Range. A well-known cultural taonga. Yet in the assessment description there is no reference to the historic and contemporary importance of Moehau to tangata whenua.
25. The Brown (2011) study identified both Outstanding Landscapes and Amenity Landscapes. As described in the Introduction, Amenity Landscapes are to address RMA s.7(c). Whilst the definition of amenity values is referred to, in including characteristics contributing to pleasantness, aesthetic coherence, and cultural and recreational

attributes, the analysis does not address these dimensions. Whilst the status quo scenic is recognised, what might be cultural attributes for tangata whenua are ignored.

26. Assessing Natural Character under the NZCPS requires that Policy 13 attributes are addressed. Whilst natural character does not include heritage aspects, it does include cultural dimensions. Whilst the wild and scenic are addressed, there is no indication that the Natural Character overlay utilised in the PDP has addressed the mauri of the coastal environment. In my opinion this is a short-coming.
27. The Coromandel Range provides a major east-west separation. In the north The Peninsula is only around 10 km wide. South of Whitianga it's just 30 km across. Yet lands rise to 700 m elevation within just 10 km of either southern coast. Challenging terrain, now accessible, but not too accessible. A concentration of appealing nodes and networks. Now a much sought after place, with more than half the ratepayers being non-resident, plus regularly many thousands of visitors - "holiday makers", recreationists and tourists – the experience and character of The Coromandel in total and at the local need to be very carefully recognised in the PDP.
28. The hills of the Coromandel Peninsula were mostly desecrated for a century. From 1820 the kauri were logged for a century. Lands cleared and scarred through mining. Now, with a predominance of rich deep soils, the steeper lands of the Coromandel are recovering. Secondary forest now clothes most of the Peninsula. Pastoral farming is primarily confined to the wide gentle valley floors. The steep slopes that predominate are well-vegetated, the majority with native cover or with plantation forestry. The vegetative cover of the non-urban Coromandel involves a well-established mosaic of native, pine and pasture.
29. The plantation forestry, first established during The Great Depression, continues today. The predominant Radiata Pine forestry as a monocultural crop means cyclical disturbance every 25 – 35 years. With each cycle, logging, tracks and fire breaks scar the hillsides before the slopes green over once more. Whilst involving considerable soil disturbance, under contemporary forest management practices, increasingly the waterways are somewhat buffered during logging. With re-planting on the deep soils in this climate, the scarred and barren lands are rapidly re-greened and a native understorey re-colonises.

30. Erosion and deposition systems. Water driven. An appropriate approach in analysis is to use a catchment basis.
31. Mining, with the geothermally altered geology meaning the rock of The Coromandel is more fractured, so the ore is lower grade, hence large earthworks are required for a small quantum of product. Various sites in the District have been mined over the last 150 years. The Martha Hill mine at Waihi, which has operated since 1852, has produced 60% of the gold from The Coromandel, but is not within TCDC.

SAMPLE CATCHMENTS

32. Three east coast catchments have been selected to explore assessment and activity status appropriateness Whenuakite, Tairua and Waikawau Bay. Brief note is made re the first.

TAIRUA CATCHMENT (attachment pages 15 -)

A. RANGE

33. The steep Coromandel Range with the dramatic jagged summit and bush-clad slopes forms the western enclosure to the landscape of the Tairua catchment with the Pinnacles close by and assessed as ONL (Brown 2011, Landscape Unit 64) (see my attachments pages 4, 17, 18 and 20).
34. The PDP provides for underground mining as a Non-Complying activity in the Landscape Overlay of the Range. As such the planning and assessment framework to address the considerable and comprehensive values of the Range, and their vulnerability, is questioned.
35. Underground mining is assumed in the staff report to have no adverse effects when it has "no surface expression". Such a concept is seriously questioned. A hole in the ground, even if waste rock is trucked away, is not an absence of surface expression. It is not necessarily an absence of effects. A hole into the land in certain locations could have significant adverse biophysical, perceptual and associative effects.

B. FOOTHILLS

36. Below the Range, the foothills arc around the lowlands of the Tairua Valley. The foothill slopes mapped as Landscape Unit 69 were assessed noted by Brown as entirely clad in native bush. Whilst adjoining the Coromandel Range and of exceptional naturalness, seemingly due to abutting forestry and farmland, Brown rated Landscape Unit 69 as Amenity Landscape (attachment page 17, 20). However the naturalness of these foothill slopes is of exceptional importance as the foreground to the Coromandel Range, and the “scene setters” for the lived in and enjoyed lowlands.
37. It is appropriate to recognise the exceptional amenity value. The high visibility, the importance of much of these foothills to the experience of visitors and locals, and their importance for water-yield to the valley floor and water bodies below, means that contemplation of mining would deserve great care.
38. The Amenity Landscape overlay means that both surface and underground mining would be Discretionary activities. However mining activities are not an activity that would be assumed to be generally appropriate on these lands. Yet that is the intent of Discretionary status. The staff seek that such proposals be typically non-notified and this is of considerable concern. With the Council having such limited underlying assessment information, and the resource of such public importance and vulnerability, the processing of any surface or underground mining proposals would be expected to considerably benefit from public participation.
39. A Natural Character overlay is also mapped across the foothill lands. This layer recognises other values. That is appropriate. Where the Natural Character overlay applies, underground and surface mining would have non-complying status. With an inadequate assessment context, that activity status is questioned.
40. As the attributes to be addressed differ, it is likely appropriate that the Amenity Landscape overlay extends beyond that for Natural Character as mapped by TCDC. The multi-layering of natural character, landscape and amenity value recognition is appropriate. The staff recommend removal of the Amenity Landscape layer. However amenity landscapes addressing s.7c are addressing values that the PDP needs to carefully address. It is important for the amenity of the urban areas and routes that the amenity is maintained and enhanced. The Amenity Landscape overlay requires a review to better address the various attributes. It should not be deleted.

41. The adequacy of the extent of the overlays is untested. A review of their extent and attributes and documentation is supported.
42. Whilst an important statutory tool, the Coastal Environment overlay does not appear to trigger preservation of the natural character of the coastal environment. This requires serious review.
43. Regardless of overlays delineating specific values, the underlying zoning needs to be robust in its methods for addressing the potential landscape, natural character and amenity effects of mining. The underlying zoning of Rural allows for both surface and underground mining to be Discretionary activities, with processing and tailings as non-complying. Given the context, the importance and vulnerability of the Tairua catchment and its contribution to The Coromandel, the planning methods for the Rural Zone do not adequately address mining.
44. In the Tairua Catchment the extensive Conservation Zoning includes areas of crown managed lands of varying status. Any consideration of mining in such lands requires serious assessment. However the PDP provides for underground mining as a discretionary activity, a non-notified activity. This is assessed to not adequately address the importance of this catchment and these lands as part of an outstanding natural part of New Zealand.

CONCLUSIONS

45. The non-urban Coromandel as a complex and highly natural mountain and coast composite is, in overview, an outstanding natural feature and landscape (ONFL). At the local scale, there are extensive ONFL.
46. The land cover of the non-urban Coromandel is predominantly regenerated native bush on steep slopes with a stable mosaic of plantation forestry and farmland focussed on the lower slopes and valley floors. Planning methods need to better recognise the importance and vulnerability of the natural landscape, natural character and amenity values.
47. Considering mining, the prospectivity (attachment page 14), the non-occurrence of the activity for many decades, the changing technology and hence mining practices, means

that potential effects change through time. With the unknown but potential raft and extent of adverse effects, a precautionary approach is considered appropriate.

48. From my preliminary assessment and consideration of documentation regarding the landscape of the non-urban lands, the Outstanding Landscape, Amenity Landscape and Natural Character Overlays would appropriately all be retained, have their mapping methodology revised, and have mining as a Prohibited activity.
49. The Coastal Environment has been largely ignored. Methods are needed to implement NZCPS to preserve the natural character of the coastal environment and implement Policies 13 and 15.
50. The Overlays are under review. The Rural and Conservation zones mapped in the PDP are the methods that need to be relied on to manage potential adverse effects. Given the high values and the high vulnerability to adverse effects, the Conservation and Rural zones would appropriately address all mining as a Prohibited activity to ensure adequate planning occurs.

