THAMES-COROMANDEL DISTRICT COUNCIL

VARIATION 3 TAIWAWE CATCHMENT STRUCTURE PLAN

SUPPLEMENTARY SECTION 42A HEARING REPORT
ATTACHMENT 2
PRELIMINARY ECOLOGY PEER REVIEW GERRY KESSELS VARIATIN 3 HEARING

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8 March 2021

Senior Policy Planner
Thames Coromandel District Council
Private Bag
Thames

Attn: Bruce Baker

Our Ref: TCDC. 00626

Dear Bruce,

Variation 3 to the Proposed Thames Coromandel District Plan
(Taiwawe Catchment Structure Plan)
Preliminary ecology peer review

1. Scope

Bluewattle Ecology has been contracted by the Thames Coromandel District Council (TCDC) to provide a review of the ecological assessment and expert evidence supporting Variation 3 to the Proposed Thames Coromandel District Plan (Taiwawe Catchment Structure Plan - TCSP).

This *preliminary* report represents my consideration of the potential ecological effects of the TCSP based on review of relevant material prepared by the applicant and supplied to me by TCDC, including submissions.

The primary documents I have reviewed are:

- Ecological Assessment – Ecological Assessment of a proposed structure plan for 790C Hot Water Beach Road, Hot Water Beach. Prepared by Wildland Consultants Contract Report No. 4800 (hereafter referred to as the EA);
- Statement of evidence of Nicholas Paul Goldwater on behalf of Hot Water Beach (NZ) Ltd Dated 1 March 2021 (hereafter referred to as the SoE);
- The Council section 42A report; and
- Submissions relevant to ecological matters to the Variation.

I have not visited the site.

The EA uses appropriate survey methods to allow for a thorough description/mapping of the existing vegetation and flora values of the locality. However, I have insufficient information before me to be able to assess all of the potential adverse and positive ecological effects associated with the structure plan proposal and how these effects will be avoided, remedied or mitigated. These shortfalls include:

- Insufficient site specific surveys of nationally at risk or threatened indigenous fauna species which may be directly or indirectly affected by the TCSP;
- No application of EcIA guidelines in the ecological assessment process (best practice ecological impact assessment guidelines for use in New Zealand for terrestrial and freshwater ecosystems)[1] ;
- No assessment of the natural freshwater wetlands found on site in accordance with the National Environmental Standards for Freshwater Regulations 2020 (NES-FW); and
- A lack of clarity on how the design and quantum of the proposed mitigation measures have been derived and if their predicted biodiversity benefits over time will sufficiently address the potential construction and operational effects of the structure plan.

In the following sections I elaborate further on these matters.

2. Ecological values of the Taiwawe catchment

The EA describes and maps the flora features of the site well. However, no specific surveys for indigenous fauna were undertaken, apart from spotlighting for fish. Methodology for surveying other fauna species are described in the EA as "incidental observations" (section 2). This is an inadequate way of surveying for species which are often cryptic and nocturnal, is not consistent with current best practice, nor a suitable survey method in a locality such as Hot Water Beach, where the probability of encountering nationally at risk or threatened animals is relatively high.

Degraded forest and scrub remnants in the Coromandel often provide habitat for a number of indigenous birds, fish and herpetofauna, as well as long-tailed bats. A background review was undertaken for fauna in the EA. However, key literature was overlooked, such as the kiwi surveys undertaken in 2015 and 2019 by Patrick Stewart for the Whenuakite Kiwi Care group. Both of these surveys indicate there is a high probability of kiwi being found directly adjacent or within the proposed structure plan area. These surveys are not anecdotal evidence, but rather surveys conducted by a trained kiwi expert using best practice methodology.

In my opinion specific surveys for the following indigenous animals should have been undertaken as part of the structure plan effects assessment process:

- North Island brown kiwi;
- Wetland birds, such as fernbird, bittern and spotless crake;
- Geckos and skinks;
- Hochstetter's frog; and
- Long-tailed bats.

The proximity of the site to Hot Water Beach also means that indirect adverse effects on these sensitive downstream coastal ecosystems and the fauna that support them, such as NZ dotterel, could be possible. Therefore, a wider review of these coastal habitats is also warranted, which has not been undertaken in the EA or the SoE.

The EA and SoE confirm that there are three wetlands on the site. Given the requirements of the National Environmental Standards for Freshwater Regulations 2020 (NES-FW), I would have expected an analysis of these natural wetlands on the site in accordance with the NES-FW, using the MfE wetland characterisation protocols.

[1] Roper-Lindsay, J., Fuller S.A., Hooson, S., Sanders, M.D., Ussher, G.T. 2018. Ecological impact assessment. EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems. 2nd edition.

3. Significant indigenous vegetation and significant habitats of indigenous fauna

The SoE has represented further information on the SNA on site referencing the 2010 WRC report.

Given my knowledge of this locality and a preliminary review of the literature, I consider it possible that the site could be regularly used by nationally at risk or threatened fauna species. A number of the key threatened species range widely across our landscapes, using pastureland and exotic plantation forests, as well as indigenous vegetation. For example, long-tailed bats have very large home ranges that can typically include extensive areas of pasture, indigenous vegetation, and exotic trees to roost in. Further, kiwi are known to use indigenous remnants and exotic plantation stands, and to routinely venture out into pasture to feed. Without targeted fauna surveys it is not possible to determine if the site is being used, either on a regular basis, or as important habitat for sustaining a population on a seasonal basis for key components of the life cycle, of at risk or threatened fauna species.

As confirmed by the EA, the streams within the site are being used by banded kokopu and long-finned eel, thus the site meets criterion 3 of the criteria for determining significance of indigenous biodiversity in section 11A of the Waikato Regional Policy Statement (WRPS); and hence meets the threshold test for section 6(c) of the RMA. Criterion 3 of the WRPS is triggered with the presence of species within any of the 'Threatened' or '*At Risk*' categories within the New Zealand Threat Classification System, not just those within threat categories 'Nationally Critical', 'Nationally Endangered', or 'Nationally Vulnerable' as inferred in the SoE (paragraph 22).

The SoE refers to using the guidelines for determining *the relative importance* of an SNA outlined in Kessels (2010)[2]. It is important to understand that if an area is deemed to be an SNA it meets the threshold test for section 6(c) of the RMA *regardless* of an SNA being classified as 'Local', 'Regional', National' or International' of that SNA using the WRC guidelines.

4. Review of ecological effects assessment

The potential adverse ecological effects associated with a rural-residential type subdivision as proposed by the TCSP include:

a. Construction Effects

- Sediment runoff and surface erosion during construction;
- Damage and removal of forest and wetland vegetation and wildlife habitat during construction; and
- Introduction of weeds and animal pests via construction equipment and materials.

b. Indirect and Operational Effects

- Modification of adjacent SNA areas;
- Wildlife disturbance and reduced breeding success of individual birds;
- Effects of wastewater discharges, stormwater runoff, human disturbance and litter;
- Increased spread of plant weeds and animal pests (domestic and feral) and diseases into adjacent natural areas;

[2] - Kessels et al. 2010. Significant Natural Areas of the Thames-Coromandel District: Terrestrial and Wetland Ecosystems. Kessels & Associates Ltd - Environment Waikato Technical Report 2010/36.

- Decreased water quality and changes to stream and wetland hydrology as a result of the newly established roads and dwellings;
- Potential increased fire risk; and
- Bird strike and roadkill of native fauna associated with traffic and housing.

The EA and SoE have not used current best practice to assess ecological effects of the structure plan. While not mandatory, the assessment of this structure plan using the EcIA guidelines would have allowed for a more comprehensive assessment of ecological effects and led to a clearer understanding of the overall level of ecological effects of the structure plan.

The extent of effects on the potential biodiversity values in this locality, both within the site and adjacent to the site, is significantly hampered by the lack of targeted surveys of nationally at risk or threatened indigenous fauna species. I consider that it would be problematic to delay targeted fauna surveys as part of the EMP. To undertake baseline fauna surveys as part of the EMP creates a level of uncertainty that all ecological effects can be appropriately addressed within the predetermined confines of the conservation areas and policies defined in the structure plan as proposed. These surveys should have ideally been undertaken as part of the ecological assessment. The findings of these surveys would then be used to determine an appropriate scale of subdivision for this site, and to define the spatial and temporal extent of the proposed ecological protection, restoration and enhancement measures, which would in turn be implemented through the EMP.

The EA and SoE provides no clear objectives, quantitative performance standards or desired outcomes around the type and quantum of habitat restoration and enhancement activities needed to address the ecological effects associated with the structure plan, particularly in relation to significant habitats for indigenous fauna and wetlands.

Critical to the determination of whether an ecologically sensitive locality can absorb the adverse ecological effects of a subdivision is the location, density, and scale of the proposed development in relation to the functionality and resilience of the affected indigenous vegetation and habitats of indigenous fauna. The additional biodiversity gains for indigenous fauna as a consequence of the proposed forest protection and restoration proposed are unquantified. There also may be a time lag the between impact and predicted gains? I do not have an understanding from the evidence before me on how these matters have been accounted for in the restoration proposal. I also do not have information on the type, extent and duration of animal pest control measures, so cannot comment on the potential biodiversity gains of these measures against the potential adverse effects associated with an increase in urbanisation in this locality.

<u>Wetlands</u>

I understand that the NES-FW prohibits the complete or partial drainage of all or part of a natural wetland unless it is provided for by other rules in the NES-FW. Development within 100 m of a natural wetland that will result in the complete or partial drainage of all or part of the wetland also requires consideration.

I note that about 2 ha of the proposed structure plan plan area will be paved[3], and thus could have adverse effects on the natural wetlands and streams within the catchment. There is insufficient information supplied for me to understand the extent of these potential effects on natural wetlands and how the structure plan policies and rules will address them.

[3] Statement of Evidence, Philip James Green 1 MARCH 2021

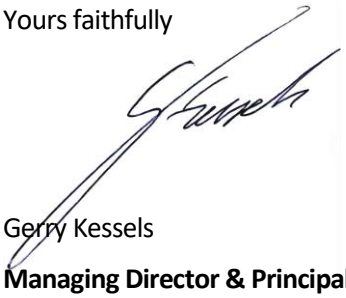
5. Concluding statements

I do not have enough information before me to suggest that the potential adverse effects associated with this structure plan proposal have been adequately addressed, particularly for significant habitats of indigenous fauna.

Well planned and implemented subdivisions can result in net ecological benefits. However, the relatively high and sensitive ecological values and vulnerabilities of this locality mean that a particularly stringent assessment and set of controls is required for any potential development. In my view, the proposed structure plan scenario does not provide sufficient guarantee that this will be achieved.

This is a preliminary review. I am available to assist the commissioners further on these matters if required.

Yours faithfully



Gerry Kessels
Managing Director & Principal Ecologist

BSc (zoology), MREP (hons 1 – wetland ecology)
Accredited Independent Hearing Commissioner

Bluewattle Ecology