BEFORE THE HEARING PANEL

IN THE MATTER OF	The Resource Management Act 1991 ("the Act")
and	
IN THE MATTER OF	an Application by Weston Lea Limited for land use and subdivision consents for the development of approximately 105 hectares of land at 337 – 461 Peacockes Road, Hamilton
AND	
IN THE MATTER OF	a submission on this application by the Director-General of Conservation.

FURTHER STATEMENT OF EVIDENCE OF JOHN ANDREW RIDDELL
FOR THE DIRECTOR-GENERAL OF CONSERVATION
13 May 2019

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A. INTRODUCTION

1. My name is John Andrew Riddell. I prepared a Statement of Evidence dated 23 April 2019 which sets out my qualifications and experience.

2. This is a further statement of evidence prepared after reading the Evidence-in-Reply by Mr Serjeant, Dr. Flynn and Ms Cummings; and the Evidence-In-Chief ("primary evidence") of Dr Flynn.[1]

3. In this further evidence, I comment on (a) the proposed reliance on adaptive management, (b) the policy guidance with respect to significant natural areas, and (c) pest control.

Corrections to my primary evidence

4. Although I list below corrections to my primary evidence, I do not make any alterations to the analysis and conclusions I make in that evidence. I do agree with Mr Serjeant[2] that some nuance about the protection of habitats is lost in my broad summary statement of the key policy issue with this application, which is given in (identical) paragraphs 4, 120 and 165 of my 23 April primary evidence.[3]

5. I wish to make the following corrections to my 23 April primary evidence:

   - paragraph 60 – in the first line change "three" to "two";
   - paragraph 62, clause d) of policy 11.1, at the top of page 14 – delete "and significant indigenous vegetation" from the third line;
   - paragraph 66, policy 11.2 – replace "significant" with "significance" in the fifth line of the quoted policy;
   - footnote 25, page 20 – delete "not" in the second line;
   - paragraph 158 – insert "sitting" after "policies" and before "under" at the end of the paragraph;

[1]At footnote 5 of my 23 April Statement of Evidence I note that I will report on other evidence that I have read between the lodging of that evidence and the hearing. In addition to the evidence identified in paragraph 2 of this further statement of evidence, I have read the primary evidence of Dr. Parsons, Ms Cummings, and Mr Inger for the applicant; and Mr Parsons for Hamilton City Council. I have skim read the 4 May 2019 Davidson-Watts Ecology report on trapping and radio-tracking long-tailed bats, but leave any comments on that report to Dr Borkin and Ms Pryde.

[2]See paragraph 21 of Mr Serjeant's Evidence-In-Reply.

[3]More complete statements of this policy question are given at, for example, paragraphs 71, 72, 111, and 116 to 119 of my primary evidence.

- paragraph 161 – replace the word "qualifies" in the last line of the paragraph with "qualified";
- paragraph 167 – replace "Four" with "Three" at the beginning of the paragraph, and delete the second bullet point ("should adverse effects on long-tailed bast be remedied or mitigated; and");
- paragraph 171 – replace "needs" with "need" at the end of the fourth line of the paragraph.

B. ADAPTIVE MANAGEMENT

6. The proposal that adaptive management will be used particularly to mitigate adverse effects on long-tailed bats and their habitat is briefly mentioned in the primary evidence of Mr Serjeant, Ms Cummings and Dr Parsons,[4] and most recently in the primary evidence of Dr Flynn.[5]

7. It is only in the Evidence-In-Reply by Mr Serjeant that specific adaptive management consent conditions are proposed in relation to the mitigation of adverse effects on long-tailed bats and their habitats.

8. He proposes new condition 98:[6]

> 98 Adaptive management of the development shall be integrated into the LTBMMP[7] to ensure regular feedback and allow management to adapt to any changing conditions found during monitoring. Adaptive management may include additional on-site mitigation or the cost of off-site habitat restoration or pest control.

9. The objective of a Long-Tailed Bat Monitoring and Management Plan is given in Mr Serjeant's proposed condition 69, at clause (d):

> 69(d) Long tailed bat, with the aim of minimising impacts on bats and their habitat using best practice techniques and mitigating and compensating for the direct loss of foraging, flyway habitat and any potential roosts using

[4]See the following paragraphs in primary evidence: Mr Serjeant 104, 118, proposed consent conditions 147 and 148 (these are on adaptive management to manage water quality); Ms Cummings 1(r), 1(z), 72, 83, 95(k); Dr Parsons 1(g), 85, 101, 105(d). Dr Parsons paragraph 85 is: "Second, should the agreed level of decline in bat activity be detected at the Amberfield site, and be attributable to the development, then an adaptive management plan should be developed and activated to attempt to remedy the decline." I consider that this is a representative description on how adaptive management is envisaged by the applicant to work, i.e., to defer adaptive management planning to after monitoring shows a need for it.
[5]At paragraphs 2(e), 21, 25 and 34 of Dr Flynn's evidence.
[6]I refer here to the set of consent conditions attached to Mr Serjeant's Evidence-In-Reply.
[7]Long-Tailed Bat Management and Monitoring Plan

best practice techniques, as set out in the Long-Tailed Bat Management and Monitoring Plan; and

10. My experience with adaptive management and resource consent applications includes giving evidence on the requirements for adaptive management at the Environment Court hearings on applications for tidal power generation in Kaipara Harbour[8] and for 17 deep shell aquifer water takes on the Aupouri Peninsula.[9]

11. In my opinion, the essential features of adaptive management are (i) that stages of development are set out; (ii) the existing environment is established by robust baseline monitoring; (iii) there are clear and strong monitoring, reporting and checking mechanisms so that steps can be taken before significant adverse effects eventuate; (iv) these mechanisms must be supported by enforceable resource consent conditions which require certain criteria to be met before the next stage can proceed; and (v) there is real ability to remove all or some of the development that has occurred at that time if the monitoring results warrant it.

12. I consider that adaptive management is a technique best suited to development and resource use where the actual and potential impacts are reversible. This is because a basic proposition with adaptive management is that the scale of the development or resource use depends on monitoring results, including where the monitoring results show that there is a need to scale back the level of development or resource use. If scaling back is not likely to result in a recovery in the resource and affected environment, in other words if effects are not likely to be reversible, then a basic proposition behind adaptive management cannot be met. It follows that the adaptive management technique would not be appropriate in that instance.

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[8]Crest Energy Kaipara Limited and ors v Northland Regional Council, decision A132/2009, adaptive management is discussed at paragraphs 97 to 101 and 222 to 229. This decision is one of those cited by the Supreme Court in its discussion on adaptive management in Sustain Pour Sounds v The New Zealand King Salmon Company and ors; [2014] NZSC 40 – see paragraphs 105, 114 and 115.

[9]A Burgoyne/Te Taumatua o Ngati Kuri Research Unit and Director-General of Conservation v Northland Regional Council, Decision [2019] NZEnvC 028; see paragraphs 30 to 35 for a discussion on adaptive management.

13. In my opinion, adaptive management as proposed by the applicant is not appropriate or in accord with the common understanding of adaptive management that I have set out above.

14. Reasons for my conclusion include:

- the limited baseline monitoring with respect to long-tailed bats;
- the monitoring regime is yet to be developed, the proposed consent conditions require it to be provided sometime after the consent is granted;
- the lack of quantified criteria to trigger the use of adaptive management, the proposed consent conditions defer this until after the consent is granted;[10]
- the difficulty of scaling back on development after any consent is granted;
- the potential for adverse effects on long-tailed bats (identified by monitoring) to be irreversible; and
- the overall policy guidance that adverse effects on long-tailed bats and its habitat should be avoided, not mitigated by using adaptive management.

C. SIGNIFICANT NATURAL AREAS

15. I note Mr Serjeant's response to my evidence on the policy guidance in relation to significant natural areas.

16. Clearly we differ on the applicability of the policies in section 20.2 of the Hamilton District Plan, and, to a lesser extent, on the policy direction in the Waikato Regional Policy Statement.

17. I have read Mr Serjeant's evidence in reply, paragraphs 9 to 21, and consider that his comments are largely addressed in my 23 April evidence as follows:

[10] Note also the statement at paragraph 85 of Dr Parsons' evidence that an adaptive management plan would be delayed until monitoring indicates it is required; this is quoted in at footnote 3 of this further evidence.

Serjeant Evidence-In-Reply	Riddell 23 April Evidence
Paragraphs 9-13: whether District Plan section 20 policies only apply to Significant Natural Areas	See my paragraphs 103 to 110. Mr Serjeant makes the point that none of the section 20.2 policies refer to (lower case) significant natural areas. However it is clear, by inspection, that all but the first policy quoted at my paragraph 109, do not apply just to Significant Natural Areas, and would apply to all indigenous ecosystems and habitats, including (lower case) significant natural areas identified in accordance with Appendix 11A of the Waikato Regional Policy Statement. I do agree with Mr Serjeant that the rules and policies *explicitly* applying to Significant Natural Areas[11] cannot be extended to apply to significant natural areas unless, and until, there is a plan change scheduling these further areas as Significant Natural Areas.
Paragraphs 14, 17, 18, 23: discussion on significant habitats, and the application of Appendix 11A of the Waikato Regional Policy Statement.	See my paragraph 67 and footnote 19. The first sentence in Appendix 11A is "The following criteria are to be used to identify areas of significant indigenous biodiversity and their characteristics as they exist at the time the criteria are being applied." Appendix 11A is, then, more than a guide. It is common ground that there is more area at the Amberfield site that is significant natural area (i.e. meets the criteria from Appendix 11A) than is mapped in the Hamilton District Plan. There is a difference between the (bat) ecologists over the amount of area that is significant natural area. Further, method 11.2.3 from the Waikato Regional Policy Statement anticipates situations like this where there is more extensive significant natural area on a site than is identified in the district plan.

[11] Noting that explicit policies protecting Significant Natural Areas can include protection from the effects of activities located outside those mapped Significant Natural Areas.

Serjeant Evidence-In-Reply	Riddell 23 April Evidence
Paragraphs 15, 16: policy 11.2 of the Waikato Regional Policy Statement, overall policy guidance.	See my paragraphs 66, 68 to 72. I agree that policy 11.2 is specific to significant natural areas, and that this policy sets out a requirement to ensure that the characteristics that contribute to its significant are not adversely affected to a specified extent. There are 4 implementation methods listed in the Regional Policy Statement that expand on policy 11.2. Method 11.2.2 is quoted at my paragraphs 68, and discussed further at paragraphs 69 and 70.

18. I state in my evidence there is clear "avoid adverse effects" policy guidance from the Waikato Regional Policy Statement and from the Hamilton District Plan with respect to significant natural areas, and long-tailed bat habitat.

19. This differs from Mr Serjeant's opinion which is, as best I can tell, that the mitigation hierarchy applies in this case and thus that mitigation measures to reduce adverse effects on long-tailed bats and their habitat is acceptable.

20. This difference over policy guidance could explain why the applicant's ecologists emphasise mitigation of adverse effects on long-tailed bats over avoidance.

D. PEST CONTROL

21. At paragraphs 32 and 33 of her primary evidence, Dr Flynn discusses predator control. She expresses scepticism about the efficacy of prohibiting domestic cats, given there are feral cats in the vicinity. She appears to consider that "an effective bylaw" would be necessary to prohibit domestic cats.[12]

22. In relation to pest control across the 139 ha Amberfield property, she states

[12] The last sentence in paragraph 33 of her evidence.

> ... I consider site-wide pest control efforts are likely to be of limited benefit to bats, as sites would be subject to continual re-infestation. (from her paragraph 33)

23. She favours a collective, co-ordinated and large-scale effort across a larger area sometime in the future.

24. Based on my experience with pest control and no cats and dogs conditions with subdivisions, particularly in Northland, I consider that the difficulties of pest control on the Amberfield site are being over-stated.

25. It is, in my experience, common for there to be a subdivision consent condition prohibiting cats and dogs[13] anywhere in Far North District, for example, which is identified as a kiwi concentration area.

26. This is applied consistently as properties are subdivided, so, over time the extent of high concentration kiwi habitat where cats and dogs are prohibited increases.

27. I see no reason why something similar would not occur here if the keeping of cats on any lot in the Amberfield subdivision was prohibited by consent condition. I would expect that a prohibition on the keeping of cats in order to protect long-tailed bats would, over time, extend to other properties within the Peacocke Structure Plan Area and beyond that is within long-tailed bat habitat, as these are subdivided.

28. It is also not unusual for pest control in perpetuity to be imposed as a consent condition on "management plan" subdivisions. These subdivisions include properties of a similar size to Amberfield and larger. Re-infestation is prevented by paying particular attention to the pest control around the borders of the site.

29. In some cases, as neighbouring properties undertake similar subdivision, or as property owners decide to reinstate indigenous habitat, individual pest control areas join up. There is no reason to expect something similar could not occur here, over time, across the Peacocke Structure Plan area.

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[13] With a second condition requiring this to be secured by way of a consent notice

30. In the case of Amberfield, it may be more efficient, in terms of managing re-infestation, to extend pest control over the public riparian edge of the Waikato River adjoining the property, so the river can become one of pest control area borders. This would require both technical advice confirming it is an efficient and effective option re preventing re-infestation, and the agreement of the land administrator of the riparian margin.

Andrew Riddell
13 May 2019