IN THE MATTER OF	The Resource Management Act 1991
AND	
IN THE MATTER OF	Hearings on Submissions Concerning the Proposed Horizons Regional Council One for the Manawatu-Wanganui Region

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SUPPLEMENTARY STATEMENT OF EVIDENCE OF AMY HAWCROFT, DEPARTMENT OF CONSERVATION

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Introduction

1 I have prepared this supplementary evidence in response to the supplementary report produced by Fleur Maseyk and to discussions at expert witness caucuses and pre-hearing meetings.

2 This statement will briefly state my position with regard to the four parts of Ms Maseyks' supplementary evidence:

a. Matters discussed by technical experts

b. Matters discussed at pre-hearing meetings

c. Revision of schedule E

d. Other matters

Matters discussed by technical experts

3 I am in agreement with Ms Maseyk on the following matters discussed by technical experts:

a. Addition of tussockland below the treeline habitat to Table E.1.

b. Addition of kowhai-broadleaved forest habitat to Table E.1.

c. Addition of forest or scrub on alluvial terraces, floodplains, shingle fans or sand dunes supporting divaricating plant species habitat to Table E.1

d. Addition of the two forest habitats supporting *Powelliphanta* snails to Table E.1

e. The retention of grassland and sedgeland communities on active duneland and of dune slack wetlands in Table E.1.

4 I note that Ms Maseyk's evidence does not discuss in detail the reasons for the addition or expanded definition of three rare habitats:

i. karst landforms,

ii. screes and boulderfields, and

iii. coastal cliff habitat type (expanded to include inland cliffs, scarps and tors, and indigenous vegetation or bare substrate at the head or toe of coastal cliffs).

5 I do not recall any disagreement between experts as to the ecological value of these rare habitats, their rarity, or suitability for inclusion in Table E.1. However, I am happy to discuss the particular values of these habitats, as outlined in my evidence, in more detail if requested.

6 Ms Maseyk identifies two areas of disagreement between experts.

7 First, I proposed that criteria for assessing the ecological value of a site should include type locality, and this has not been adopted. I believe it should be included, because type localities are important for taxonomy (the science of classifying animals and plants into species), are useful indicators of the past distributions of species and may lead to the re-discovery of species believed to be extinct. I disagree that type locality should not be included in this table because it is a 'human construct'. To some extent, all definitions of species, habitats and ecosystems are human constructs, but they are still useful ways of interpreting and valuing biodiversity.

8 Second, there is disagreement about whether the viability or sustainability of a site should be included in the assessment criteria. I support Ms Maseyk's view that assessment of ecological value should be based on a site's current contribution to regional biodiversity, not its potential to maintain that contribution over an indefinite period. This recognises that some small, degraded sites may represent the remnants of a habitat type otherwise lost and so have high ecological value, although they could require active management (such as weed control) to remain in the landscape in the long term. It also recognises that most habitat types are ephemeral at some time scale. For instance, an oxbow lake will naturally, over many decades, fill with sediment and dry out, but that is not to say that it does not contribute significantly to biodiversity at all the different stages of this process.

9 A habitat's sustainability may be usefully considered when evaluating the potential impact of an activity at a site.

Other matters discussed at pre-hearing meetings

10 I agree with all of the changes summarised in Part II, Table 2 (page 26) of Ms Maseyk's supplementary evidence. As I understand it, these are minor changes to ensure that particular types of artificial habitat - never intended for inclusion in Schedule E - are excluded.

11 I would like to comment also on the discussion about offsets during the pre-hearing meeting on 22nd October 2008. This is not mentioned in Ms Maseyk's supplementary evidence. It is very important, in the case of rare and threatened habitats, that offsets occur in the same habitat type. This is because so little of these habitats remains, and their composition is so distinctive, that any loss is likely to cause irretrievable loss of biodiversity, which cannot be balanced by gain in another habitat. It is also important that the pattern of indigenous habitat across the landscape is maintained or improved, so any offset should take place in the same locality. The scale at which locality applies will vary depending on the species and habitat concerned.

Amendments to Schedule E

12 As noted above, I agree with the inclusion of additional habitat types, and with consequent changes to Schedule E such as inclusion of criteria defining minimum size of those habitats in Table E.2.

13 I agree with the decision to delete Table E.3. This has been the subject of considerable discussion between myself, Ms Maseyk and various expert staff within Department of Conservation. I believe that most - but not all - instances of rare or threatened species occupying indigenous habitat will be protected in habitat types defined in Table E.1 or the Conservation Estate and it is unnecessary for them to be listed separately. This is contingent on the additional habitat types (listed in paragraphs 3 and 4 of this report) being included in Table E.1. I also note that the proposed criteria for assessing ecological value include presence of rare, threatened, or distinctive species, which will enhance their protection. However, the proposed

provisions will not protect rare or threatened species which occur elsewhere in the Region, for example in areas dominated by exotic vegetation or indigenous habitats which were not considered threatened or at risk (i.e. of which a reasonable proportion remains). Other methods are required to protect these species.

14 I agree with the revised habitat definitions and descriptions in Table E.1 shown on pages 36 to 46 of Ms Maseyk's supplementary evidence.

Other matters

15 As noted in my evidence I consider that sites defined as habitat in Table E.1. and meeting the criteria in Table E.2. are highly likely to be significant. I would like to add to Ms Maseyk's comments on this topic.

16 Ms Maseyk's paragraph 79 states that sites which are legally protected can be assumed to be of ecological significance. This is not always the case as some lands administered by the Department of Conservation are protected for other reasons such as historic or recreation value.

17 Ms Maseyk states (paragraph 82) that three of the eight at risk habitat types are likely to support threatened species and so would be considered significant under ecological value assessment criteria. She argues the others are likely to be significant because of their contribution to landscape ecology (connectivity, buffering, etc) and because there is less than 35% of original extent remaining. I support this, but would like to add that it is quite possible that a patch of those four habitat types will support rare or threatened species, including species which require extensive areas of continuous forest and so are unlikely to be found in threatened habitats. Some examples of species that may occur in these habitats in Horizons Region are provided below.

At risk habitat	Rare or threatened species that may be present
Podocarp/kamahi forest	Kaka (*Nestor meridionalis septentrionalis*), North Island brown kiwi (*Apteryx australis mantelli*), green gecko (*Naultinus elegans punctatus*), kirk's kohuhu (*Pittosporum kirkii*), yellow-crowned kakariki (*Cyanohamphus auriceps*).
Hall's totara/ broadleaf forest	New Zealand falcon (*Falco novaeseelandiae* "bush"), short tailed bat (*Mystacina tuberculata rhyacobia*), landsnail (*Powelliphanta marchanti*)
Mountain beech forest	yellow mistletoe (*Alepis flavida*), red mistletoe (*Peraxilla colensoi*), Forest ringlet butterfly (*Dodonidia helmsii*)
Tussockland below treeline	Hookgrass (*Uncinia strictissima*), feeble bent (*Agrostis imbecilla*), grassland wheatgrass (*Stenostachys laevis*), native daphne (*Pimelia aridula*)

Amy Hawcroft

14 November 2008