

BEFORE THE HEARINGS PANEL

IN THE MATTER of hearings on
submissions concerning
the Proposed One Plan
notified by the
Manawatu-Wanganui
Regional Council

**SECTION 42A REPORT OF MS FLEUR JENNIFER FOSTER MASEYK
FOR THE WATER HEARING
ON BEHALF OF HORIZONS REGIONAL COUNCIL**

1. INTRODUCTION

My qualifications/experience

1. My name is Fleur Jennifer Foster Maseyk. I have a Bachelor of Science (ecology) and a Master of Science (in plant ecology (weed biology) and conservation biology). Both degrees were awarded by the University of Auckland. I have over ten years of post-graduate work experience, having been employed as a terrestrial ecologist variously in New Zealand and overseas, for the Department of Conservation, the Mauritian Wildlife Foundation, and Wildland Consultants prior to Horizons.
2. I have worked for Horizons for five years in various positions, including Research Associate, Strategy Review Officer and Environmental Scientist. For the last year I have held the role of Senior Environmental Scientist – Ecology within the Regional Planning and Regulatory Group.
3. As a Research Associate I was involved with the wetland prioritisation project before project managing and authoring the Regional Pest Plant Management Strategy review. Since the end of 2005 I have lead the terrestrial biodiversity science programme for the Region. Projects I have lead during this time include the assessment of natural areas (including wetlands and forest fragments) for ecological value and significance, and the prioritisation of sites for management. I have also been involved in the Regional Pest Animal Management Strategy review, and the research and monitoring aspects of the management strategy for Totara Reserve Regional Park. A core role of my position is the technical assessment of resource consent applications, and provision of technical advice to both the Consents and Compliance Teams.
4. I have been involved in the Proposed One Plan (POP) since becoming an Environmental Scientist with Horizons (2005). I was asked to lead the formulation of a framework for the protection of indigenous biodiversity on private land suitable for inclusion in a Regional Plan. I lead the technical aspects of the development of the approach for terrestrial biodiversity presented in the POP, and contracted and project managed Landcare Research to conduct core analyses. I compiled Schedule E, with the exception of Table E.3, the intention of which I contributed to, but which was mostly collated by my colleague James Lambie (Environmental Scientist – Ecology) in conjunction with input from key stakeholders.
5. I have read and agree to comply with the Environment Court's practice note, Expert Witnesses – Code of Conduct. The overriding duty to the Environment Court expressed

in paragraph 5.2.1 of this Code will be treated as a duty to this Hearing Panel for the purpose of this hearing.

2. EXECUTIVE SUMMARY

6. I have read the memorandum from Andrew Bashford (Palmerston North City Council) dated 16 October 2009, which raises several issues in regards to wetland classification in Schedule E of the Proposed One Plan (POP):

- (i) The capture of town water supply lakes (specifically the Turitea dams) in the wetland definitions and therefore rules;
- (ii) The classification of Centennial Lagoon as *threatened* habitat type; and
- (iii) The discharge of stormwater to wetland habitat.

7. I have also read the evidence of Braden Austin (Horowhenua District Council) dated 19 October 2009, in which he comments on the discharge of stormwater to Lake Horowhenua.

8. I briefly comment below on the issues raised in the two documents in relation to Schedule E.

9. I recommend that:

- (i) Wetland habitat created and maintained for the purposes of town water supply be specifically excluded from the definitions of wetland habitat in Schedule E (i.e. will not be captured by rules); and
- (ii) Naturally occurring wetland habitat not be excluded from wetland definitions in Schedule E on the basis that it receives stormwater discharge (i.e. will be captured by rules).

3. RESPONSE TO ISSUES RAISED

Turitea water supply dams

10. The inclusion of the Turitea water supply dams in the definitions of wetland habitat within Schedule E was an oversight during the construction of the schedule. It is the intent of Schedule E to exclude areas of wetland habitat specifically designed, installed and maintained for such purposes.

11. Therefore it is entirely appropriate that an additional exclusion criterion be added to Schedule E Table E.2(b) vi to this end.
12. There will be no negative ecological impact as a result of adding such a criterion, and such an approach is consistent with the existing exclusion criteria in Table E.2(b) vi.

Centennial Lagoon and definition of threatened habitat

13. It is acknowledged that the manner in which Schedule E was presented in the POP, particularly in regards 'Lakes and lagoons' (*threatened* habitat) and 'lake and pond' (*no threat* category) was confusing.
14. This confusion was addressed in my evidence in chief to the Biodiversity and Heritage Hearing Panel, and further rectified during the course of the Biodiversity and Heritage Hearing.
15. It is my opinion that such confusion has been adequately removed from the version of Schedule E that appears in the Provisional Determination of the Biodiversity and Heritage Hearing Panel. 'Lakes and lagoons and their margins' (including ox-bow lakes) are clearly classified as *threatened* habitat.
16. It is agreed that Centennial Lagoon is no longer one of the Region's most ecological valuable areas of wetland habitat, and it would be fair to state that the lagoon's amenity and aesthetic values are greater than its current biodiversity value.
17. Nonetheless, and although highly modified, Centennial Lagoon is a natural system and meets the definition in Table E.1 of Schedule E. As discussed during the Hearing, modification or degradation of a system does not exclude an area of habitat from the biodiversity provisions of the POP.
18. The discharge of stormwater into a wetland can be seen as a factor contributing to the modification of that site, just as the presence of exotic species, loss of native species, drainage and surrounding land use, etc act to modify wetland systems.
19. The disadvantages of identifying and scheduling specific mapped sites that meet the Schedule E criteria (as suggested by Mr Bashford) were addressed during the Biodiversity and Heritage Hearing. It was illustrated that this approach would not provide adequate protection to the Region's biodiversity.

20. Specifically excluding Centennial Lagoon from the Schedule E definitions (as also suggested by Mr Bashford) is inconsistent with the overall approach of the biodiversity provisions within the POP, and in my opinion is not a desirable outcome. With a general trend of decline in biodiversity, including a continued loss of wetland habitat, I do not think it is appropriate to 'write off' modified wetland habitat.
21. Likewise, by not rightly recognising Centennial Lagoon, or any other naturally occurring wetland, as wetland habitat we run the risk of losing the option for ecological improvement of the site into the future. Enhancement and creation of habitat will increasingly become important as we attempt to halt the decline of biodiversity. It is considerably more expensive, difficult and protracted to attempt to create habitat than to work with an existing system.
22. In my opinion, it is appropriate to manage, via resource consents, impacts on wetland systems (including stormwater discharge), even when those impacts may be relatively minor. The alternatives would restrict opportunities for alternative management into the future, deviate from a consistent regional approach, and not provide adequate protection for all remaining wetland habitat in the Region.

Lake Horowhenua

23. There are other naturally occurring areas of wetland habitat within the Region where existing activities such as water takes and discharge of stormwater occur.
24. Lake Horowhenua is a good example of a regionally significant wetland system that receives discharges of stormwater.
25. Lake Horowhenua (Waipunahau) is a shallow basin lake on a sand plain just west of the Levin township which covers an area of approximately 390 hectares. The lake margins support wetland habitat including sedgeland, rushland and flaxland. Surrounding the lake, and ecologically connected to it, are a number of named areas of indigenous habitat. These areas include 50 hectares known as Whitiki Swamp and Whitiki Bush (comprising *Coprosma propinqua*-flax shrubland and kahikatea-pukatea swamp forest), and Horowhenua West Bush (2 ha of kahikatea swamp forest). Lake Horowhenua and the associated wetland habitat provide habitat for a number of fauna species, notably indigenous birds and fish, including threatened species such as brown mud fish (*Neochanna apoda*).

26. There are at least two discharges of stormwater into Lake Horowhenua – the Queen Street drain, and a water course north of this drain.
27. Lake Horowhenua is an ecologically and culturally important wetland system and it would be inappropriate to exclude it from regulatory protection.

4. RECOMMENDATIONS

28. A criterion be added to Table E.2(b) vi¹ of Schedule E to read:

- vi. Areas of wetland habitat specifically designed, installed and maintained for any of the following purposes:
 - a) stock watering (including stock ponds), or
 - b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or
 - c) treatment of animal effluent (including pond or barrier ditch systems), or
 - d) waste water treatment, or
 - e) sediment control, or
 - f) any hydroelectric power generation scheme, or
 - g) town water supply.

29. No area of naturally occurring wetland habitat should be:

- (i) excluded from classification as wetland habitat in Table E.1 of Schedule E, or
- (ii) captured in exclusion criteria in Table E.2(b) of Schedule E, or
- (iii) excluded from regulatory protection.

by virtue of being subject to stormwater discharge.

Fleur Maseyk
November 2009

¹ Numbering is as per the Schedule E presented in the Hearing Panel's Provisional Determination.