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# **The Status of Wetlands in the Manawatu**

A THESIS

PRESENTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE MASTER OF APPLIED SCIENCE IN

NATURAL RESOURCE MANAGEMENT AT

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PALMERSTON NORTH

NEW ZEALAND

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# Abstract

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Wetlands have been severely degraded throughout history, particularly by agricultural activities. In addition, legislation has played a role in the sustainability of this resource. The purpose of this study was to determine the status of wetlands within the Manawatu, requiring an assessment of the physical attributes of the wetland, as well as reviewing the legislation, policies and plans governing how these areas are managed.

The objectives were to determine whether wetlands should be protected, and if so are they adequately preserved within a sample group. The sample group was determined by a number of factors including site access, landowner permission, and time restrictions. If it is shown that these wetlands are not in acceptable environmental condition, then details of what should be done to improve their status are included.

To achieve these objectives a wetland field assessment sheet that could be used by someone not familiar with the various plant and animal species found around wetlands, was designed. This field assessment sheet assessed the surrounding land use, threats, functions (of the wetland), and assessment of other attributes such as bank stability, water quality, and the effects of humans in the area. This field assessment sheet was necessary in order to determine whether the wetlands in the selected group were adequately preserved.

Relevant wetland legislation and planning documents were also assessed. These were used to determine whether wetlands are given adequate protection under current laws such as the Resource Management Act (1991).

Aerial photographs at a scale of 1:27 500 were used to identify the changes in numbers of wetlands between the 1940s and 1990s, and to measure the change in size of the sampled wetlands between the same time period. A main result showed that wetlands are generally increasing in number within four random aerial photo transects. The wetlands that were selected for field assessment proved to be in reasonable environmental condition. Zones within the wetlands that need improvement lie within the amount and composition of bank vegetation

surrounding the wetland. In almost all cases, the average width of the surrounding riparian margin was less than five metres.

Analysis of the legislation and planning documents showed that great emphasis is placed on those wetlands that are identified as being of national or regional significance. Those wetlands that are not classified as such are left to the maintenance of the landowner. Ultimately the status of these wetlands, not identified as being of regional or national significance, lies in the good will of the landowners. In most case studies, landowners were aware and mindful of the wetlands on their property. It is this attitude that must not change if the desired outcome is a continuation of wetlands throughout the region.

It is concluded that a regional wetland plan or strategy should be designed in order to give greater importance to those wetlands not identified in the Regional Policy Statement (1998), so their status is more likely to be preserved. This plan should contain encouragement for landowners to provide a more suitable buffer zone around their wetlands – not only for the provision of suitable habitat for wildlife, but also to act as a filter for nutrients entering the wetland system.

*To Gran'ma*

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