

A NATIONAL CONSERVATION ORDER

Brophy, Patrick (1986)

Brophy

A national conservation order on lake Wairarapa - a
farmers view point

ON



LAKE WAIRARAPA :

THE FARMER'S VIEW POINT.

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A national conservation order on
lake Wairarapa-a farmers view point

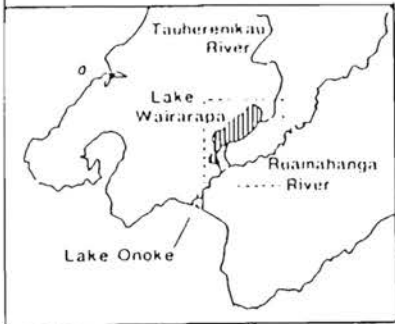
A NATIONAL CONSERVATION ORDER
ON LAKE WAIRARAPA
A FARMERS VIEWPOINT

BY PATRICK J BROPHY

"WOODLEIGH"
KOPUARANGA
MASTERTON

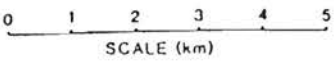
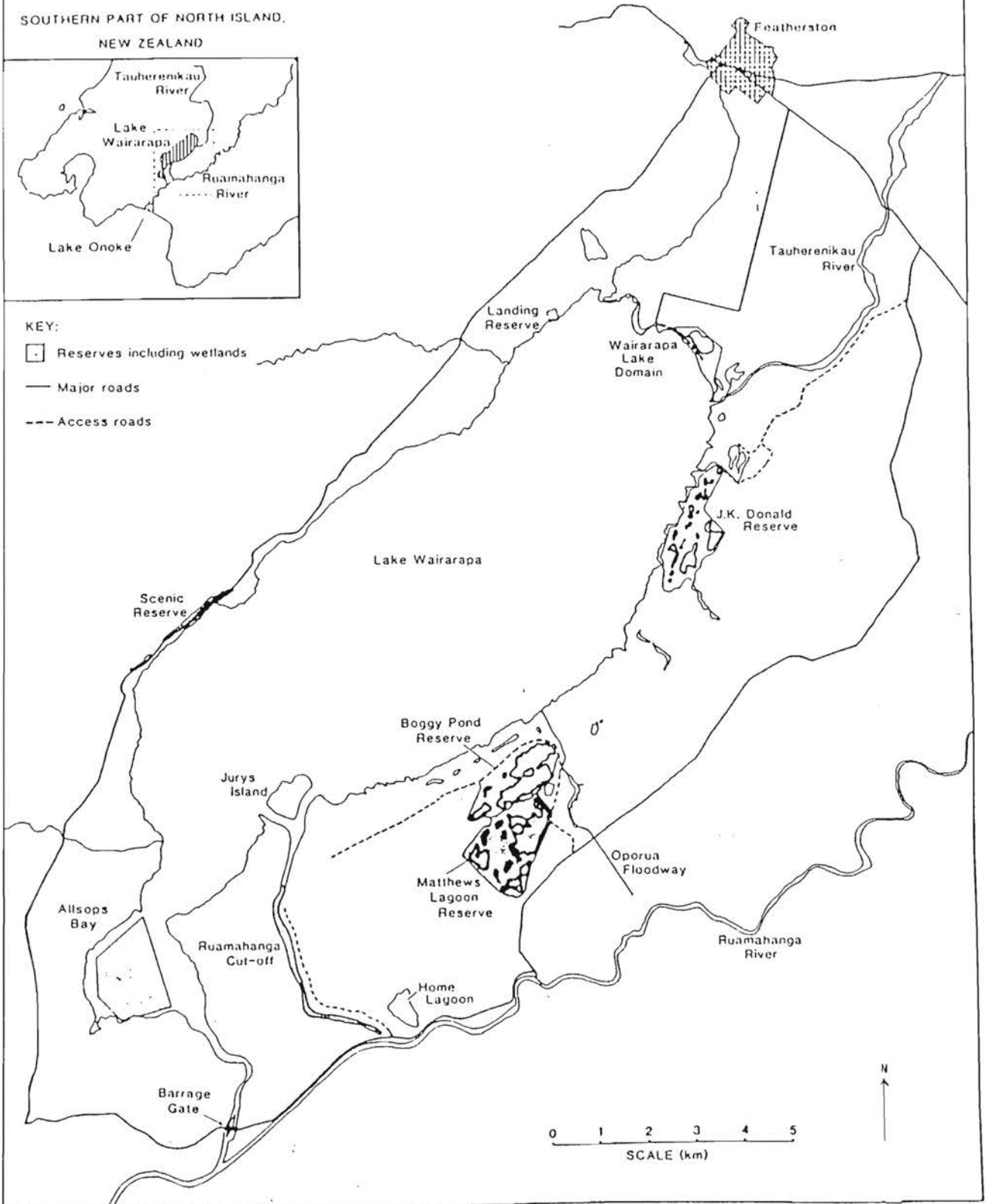
LOCATION OF LAKE WAIRARAPA AND ADJACENT WETLAND RESERVES

SOUTHERN PART OF NORTH ISLAND,
NEW ZEALAND



KEY:

- Reserves including wetlands
- Major roads
- - - Access roads



P R E F A C E

The Author carried out research on this subject to assist the local farming community in their efforts to prevent a National Conservation Order on Lake Wairarapa.

My grateful thanks go to the following persons and organisations from whom I gathered information or with whom the issue was discussed.

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Mr M Moran) - Lakeside farmers
Mr P Moran)
Mr M Pearse)

Mr J Taylor)
Mr J Matheson) - Federated Farmers
Mr E Chapman)

Officers of the Wairarapa Catchment Board
Officers of the Ministry of Agriculture and
Fisheries
Representatives of the Tui Dairy Company
Officers of the Wairarapa United Council

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Patrick J Brophy

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INTRODUCTION

This report is a response to the proposal of a National Conservation Order on the waters of Lake Wairarapa. The opinions and requirements of the farming community of the region have been researched and are reflected in this manuscript.

Because the issue is intimately related to the livelihood of farmers and the emotive ties of farmers to their land the author makes no apology for bias in this study.

SCOPE OF THIS REPORT

This report will review some parts of the pertinent legislation and commentaries on these by others to establish the basis of the Conservation order legislation. It will consider the multiple use of the water resources of Lake Wairarapa and its environs and comment on proposals for alternative uses. The substance of objections to this order by the farming community and others will be discussed. Appendages will contain maps of the area delineating location; land use; soil types; tenure; wetland areas. Submissions of objections by Federated Farmers; Tui Dairy Company; Wairarapa Catchment Board and others are also included.

A preliminary draft Water Conservation order from the National Water and Soil Conservation Authority is also included.

APPLICATION FOR A NATIONAL WATER CONSERVATION ORDER ON
LAKE WAIRARAPA

by National Executive
of Acclimatization Societies

GENERAL INTENTIONS

- (1) The formal application for a National Water Conservation order under the Water and Soil Conservation Act 1967 seeks to protect Lake Wairarapa in its present state and ensure that rivers and streams that contribute water to it are allowed to do so in their present manner. The present "wetland complex" is dependent on these inflows.
- (2) The application has been made to protect the wildlife habitat values of Lake Wairarapa and the associated recreational values of the applicant.
- (3) To achieve the desired level of protection the applicant has requested a high (10.3m) and low (10.0m) lake level regime. The contour of the high level defines the lake edge and the low level is that below which no drainage or extraction must draw the water level.
- (4) The applicant requests no restriction on domestic or stock water supplies from any source.

QUALIFYING CRITERIA

The applicants consider a National Water Conservation Order is warranted because the Lake Wairarapa wetland complex meets six of the eight criteria set by the authoritative international conservation body of the United Nations (I U C N).

The wildlife values of Lake Wairarapa are documented by the Wildlife service of the N.Z. Department of Internal Affairs as being of national importance. (Moose 1984).

The eastern shallows of the lake are an important habitat for more than 80 species of birdlife.

SPECIFIC TERMS

- (1) Order to apply to Lake Wairarapa and all contributory rivers and streams.
- (2) Order to preserve Lake Wairarapa in its natural state.
- (3) Order to protect outstanding recreational and wild-life habitat.
- (4) Order to provide for retention in its present state the quantity and level of natural water in Lake Wairarapa and the quantity and rate of flow in its tributaries.
- (5) Order to provide minimum and maximum lake levels.
- (6) Order to define the boundary of the lake at 10.3 metres above official datum.
- (7) Order to prohibit damming or diversion of the water of any tributary.
- (8) Order to restrict the granting of water rights on the water of Lake Wairarapa.
- (9) Order to require Catchment Board to operate lake level water control structure in the primary interest of wildlife habitat.

PART I

REVIEW OF LEGISLATION:

WATER AND SOIL CONSERVATION ACT (1967)

This act establishes legislative controls on the promotion and use of natural water. (Section 20). To determine a water right for large users a type of cost benefit analyses is undertaken.

Environmental interests have often been defeated at Planning Tribunal level under this system which favours economically quantifiable development interests. It is difficult to enumerate the values of natural ecosystems. (Water and Soil Conservation Act. Davis NZIAS).

WILD AND SCENIC RIVERS LEGISLATION AMENDMENT (1981)

The 1981 amendment to the Water and Soil Conservation Act (1967) was brought about by a decade of pressure from environmental groups for Government to introduce legislation recognising and protecting the outstanding wild and scenic, recreational or other natural values of our landscape.

The current view of the environmental groups is that the legislation lacks coverage of some key areas requiring protection. They seek extension of section 20 (a) of the 1981 amendment to cover wetlands as the current act.

- (1) does not incorporate protection of adjacent land to a body of water or controls on land use;
- (2) does not apply to wetland.

This amendment was intended to meet the deficiencies in the laws covering natural water which allowed the demands of developers to outweigh conservation. Davis (1985). Interprets the intention as conservation rather than multiple use and quotes the following sentence from the act in support of his claim "... to recognise and sustain the amenity afforded by waters in their natural state."

Although public perception is that national resources should sustain a variety of uses the Nature Conservation Council believes some specific waters may have only a primary purpose, namely conservation.

NATIONAL AUTHORITY VIEW POINT

A director of the National Water and Soil Conservation Authority in 1976 stated his view of the main objectives behind the regulation of mans use of water.

- (a) multiple use objective
- (b) maintain the resource in a satisfactory state for future generations
- (c) the natural order should not be destroyed but may be modified

Some changes to these views were recorded after the 1981 amendment.

- (a) multiple use objective blending development conservation and preservation.
- (b) maintain the resource in a satisfactory state and augment to sustain uses if necessary.
- (c) the intrinsic and cultural values of the natural order to be recognised as an important factor in regulating uses.

Catchment Boards and other water authorities are required by their charter to take the above points into consideration when considering an application for a right to use or discharge water or effluent into a waterway.

AQUATIC ECOSYSTEMS

Lakes, rivers and estuaries provide habitats for a wide range of species. Terrestrial activities by the population may have varied effects on these systems e.g., eutrophication; drainage; water redirection. Reserves have been set aside for preservation of threatened landscape features. At present about 10% of the land area of New Zealand is gazetted in reserves but most of this is above 300 metres M.S.L. Some of this country's most threatened landscape features are coastlines; lake margins; wild and scenic rivers; lowland indigenous forest; thermal areas and tussock grassland. (Nature Conservation Council 1981). Most include water as a major component of their natural features.

The view of the scientific community is given in a paper by Mark (1983).

"The purpose of the interest of the scientific community should be to convince the present generation of N.Z. that future citizens have the right and opportunity to view remnants of the past environment." Sufficient reserves must be provided to meet this aim.

IRRIGATION REQUIREMENTS

There are currently 180,000 ha under irrigation in N.Z. (Chandler and Lewthwaite 1982) and Taylor (1982) estimates likely future potential at 500,000 ha (Two and a half times the present area under irrigation) at average seasonal requirements of 500mm/ha/year and a peak rate of 0.7 cubic metres/second/hectare.

Poor representation of the interests of agriculture could deny large areas of productive land the water necessary to reach full potential in the future.
R.K. Howard 1983.

CONFLICT BETWEEN ENVIRONMENTAL VALUES AND DEVELOPMENT NEEDS

In the view of J R Burton (Agricultural Science 1985) there has been conflict over competing water use for the past twenty years. For example the issues of the Motu, Rakaia and Clutha Rivers and Lake Manapouri. In the case of the Rakaia River the issue was between the requirements of the in-stream users and the irrigation requirements of agriculture. The outcome of this conflict indicates a radical change of policy direction for the nation. Competing uses were for the first time excluded for the benefit of the in-stream requirement. Burton concludes "... it seems fashionable today to oppose development; denigrate primary industry and seek to preserve the existing environment in a state of suspended animation." This preservation appears to exclude the dynamic nature of the environment which has changed and will continue to change over time.

If we wish to improve living standards, educational and cultural opportunities then economic growth is a necessity. Primary industry must prosper and resource development must continue if we are to achieve these things. A balanced programme of development and conservation is essential: one is no good without the other unless we wish to spend our future in a mechanised cesspool or petrified forest.

Multiple objective planning is the tool suggested by Burton (1985) and others as the best means of achieving this balance.

MULTIPLE OBJECTIVE PLANNING

Multiple objective planning is based on the fact that in N.Z. spatial distribution of water is poor and these resources do not always coincide with optimum use areas. There is considerable potential for multiple use by Hydrogeneration/irrigation/recreation.

It is argued that current water use objectives should include

- (a) economic efficiency,
- (b) regional development goals,
- (c) environmental management needs,
- (d) social needs
- (e) resource maintenance

Planning was almost non existent in the 1967 Water and Soil Act which regionalised administration and concentrated on allocation and quantity Management of the water resource.

The proposed new Water and Soil Bill proposes policy statements and management plans for water and soil use but these appear to be still mainly regional in their scope.

Development plans should be national and should provide answers to the questions

for what ?

for where ?

for why ?

Management of the resource could then remain in regional hands with the multiple use of the water resource being balanced against defined national requirements.

PART II

LAKE WAIRARAPA, A MULTIPLE USE WATER RESOURCE

Most people in Wellington and the Wairarapa know of Lake Wairarapa although few of them are familiar with the lake and its environs.

It is the largest lake in the southern north island and is situated near the coastline in southern Wairarapa. It is nearly seven and one half thousand hectares in area and is fed by the Tauherenikau River from the North and the Ruamahanga River from the South. Many smaller streams make intermittent contribution to the lake from the western side which is contiguous with the foothills of the Rimutaka Range.

The lake bed grades rapidly on the western side from foreshore to open water but the very low gradient of the bed on the eastern side means a broad zone of fluctuating vegetation occurs and there is a complex gradation from open water through tidal flats and wetlands to the dryland of the eastern border.

The southern exit to the lake is controlled by a spillway structure which serves the dual purpose of flood control of the Ruamahanga River when its exit to the sea is blocked and lake level control, allowing water from the river to add to the waters of the lake when summer water levels drop below the desired minimum level.

The last major movement in the structural geology in the area took place in 1855 when the bed of the lake tilted upward against the West Wairarapa fault line resulting in the natural draining of a vast tidal swamp covering a much greater area. Since this time it has been slowly aggrading due to silt and aggregate accumulation from its tributories. This aggregation together with the wave action in the shallows will eventually cause the eastern shoreline to progress westwards.

Lake Wairarapa is characterised by its shallowness, having a maximum depth of only 2.5 metres at normal water level. The water is turbid due to wave action spurned by the prevailing westerly winds. These winds also create a "wave push effect which can lift the surface of the lake on the eastern or leeward side by up to 2 metres in severe wind conditions. This causes problems for the farmers on the eastern side when it happens during times of high (10.4) lake levels, as water may over-top their stopbanks and become impounded inside these banks for considerable periods. The wave action is responsible for the formation of intermittent silt bars in the eastern tidal zone.

Lake Wairarapa is a freshwater lake as the saline sea water is prevented from entering through the narrows between the Lake and Lake Onoke by the barrier of the barrage control gates on the Ruamahanga River.

CLIMATE:

The climate of the lake and its environs is similar to lowland areas of eastern New Zealand: cold wet winters followed by hot, often very dry summers.

Rainfall is influenced by a "rain - shadow" effect from the contiguous Rimutaka Range and varies from 1500mm/year on the western side, to 1000mm/year on the eastern side.

Martinborough lies nearby to the East and here the rainfall is only 850 mm/year. The area receives about 1200 - 1300 sunshine hours per year. This fact coupled with the high proportion of "growing degree days" above 10°C. (1000 - 1100) ensures a high versatility of potential use for the soils of the lakeside environment.

FLOODING:

This was once a common natural event due to the prevalence of high intensity rainfall in the tributary headwaters and hinterland. Extensive work by the Wairarapa Catchment Board (estimated at \$13 million) has mainly confined the flooding to the normal river courses and the Oporoua spillway leading from the Ruamahanga River directly into the lake.

The barrage gates, a water control structure, were constructed under this programme to release floodwaters into Lake Wairarapa to prevent over-flow of stopbanks and subsequent farmland inundation when the outlet to the sea through Lake Onoke is blocked by an intermittent gravel bar.

Lowland surrounding the eastern and southern side of the lake is drained by pumping excess water into

either the lake or the Ruamahanga River.

SOIL PATTERN OF THE LAKE ENVIRONS

The soils on the western side of the lake range from steepland soils from greywacke to minor accumulations of alluvium and colluvium, often wet and poorly drained. On the eastern side and northern end there are extensive areas of young alluvial soils belonging to the recent and gleyed recent classes. These are among the most naturally fertile soils in New Zealand. They are classified by Cowie and Gibbs (1975) as CLASS I for food production.

In the southeast there is an area of windblown sand dunes belonging to the yellow-brown sand class. These would have a potential for intensive use comparable to similar soils under horticulture in the Levin - Otaki district. Because of the nature of their deposition environment there are shallow and stony soils associated with the recent soils of the river terraces especially in the northwest. Irrigation is essential for optimum production on these soils.

Drainage and water table control is necessary on the eastern side to prevent soil waterlogging. Further drainage development will be needed to attain the full potential of these soils.

IRRIGATION

The area is characterised by an unpredictable underground water resource and limited surface water supplies. There is an operational Water Management Plan in operation by the Wairarapa Catchment Board on the Tauherenikau delta.

The total lake catchment excluding the Ruamahanga River equals 48,000 ha. Developed farmland accounts

for 30,900 ha; the total area of crown land comprising the lake is 7,400 ha and already reserved wetland areas a further 1,600 ha.

Irrigation is carried out on about 2,300 ha mainly by mechanical means. Half of this requirement comes from surface waters and the remainder from subterranean sources. There is a potential for 16,300 ha of farmland to be irrigated and the water requirement for this amounts to 865 cubic metres per summer season.

The Tauherenikau River's lowest recorded total discharge into the lake is 143 cumecs and its average discharge is 4.6 times the present extraction.

Seventy percent (70%) of the potential area for irrigation would need to be serviced by underground supply but the remainder would be adequately supplied by surface waters in the region.

If this requirement was taken from the Tauherenikau River it would account for 260 cumecs. There would still be adequate surplus river flow to maintain the lake level against evaporation.

LAND USE POTENTIAL

Use of the soils of the area for horticulture and intensive dairy farming are the most obvious potential uses. The current price of farmland in the Wairarapa makes intensive development attractive given adequate availability of finance and skilled labour. There are limited areas of suitable land available for intensive development in the Wairarapa and the study area is among the better parts.

The region is particularly suited to stone and pip

fruits; kiwifruit and grapes. Soil limitations can be overcome for horticultural uses and the cost is of minor importance compared to the total cost of orchard establishment.

Water supply is critical given the high cost of this sort of enterprise establishment.

Potential earnings to the Wairarapa region of \$11 million dollars annually are envisaged if the potential of the area is fully realised. If the 200,000 ha of inadequately drained land was totally developed the expected return would increase by a further \$7 million.

Total resource yield under optimum management would therefore reach \$18 million per annum.

Appropriate water resource management is necessary for this potential growth to be attained to the benefit of the wider community.

VEGETATION

The western lake margins grading quickly into deeper water restrict the areas of wetland vegetation to the narrow lakeside margin. The eastern side and northern end, because of very low gradients of the shoreline have extensive areas of wetland vegetation e.g., rushes, native swamp grasses etc.

The water levels in the lake vary because of climatic, wind and water management influences, the position of the shoreline moves laterally some 800 metres in places during the year. Areas of dryland within the lake-bed show significant areal variability and considerable development of grasses and clovers develop seasonally. Some adjoining farmers use these for seasonal grazing of livestock.

WILDLIFE HABITAT

Apart from the open water of the lake used mainly by water birds for security, the major area of importance to wildlife, the eastern shoreline complex, supports two important groups of bird life. Waders and water-fowl.

Waders are frequently found along the terrestrial-aquatic boundary and are attracted by extensive mud flats and shallow water associated with the lower summer lake level. These birds are rarely found on farmland.

Water-fowl refers to aquatic birds including swans, geese and ducks. These birds are mainly bottom feeders in aquatic environments but often migrate to nearby farmland to feed on grain crops and pasture.

An extensive definitive study of the birdlife of the area has been made by the Wildlife Division Internal Affairs Department.

RESERVES

There are four wildlife reserves surrounding Lake Wairarapa. (See map appendix).

Boggy pond	161 ha
Matthews reserve	202 ha
J K Donald reserve	162 ha
Lake reserve	27 ha
	<hr/>
	552 ha
	<hr/>
Total wetland area	1467 ha
Other swampland & ponds	710 ha
Vegetated marshland	371 ha

Matthews Reserve is kept artificially high by pumping water from large farmland drainage ditches via the

Catchment Boards floodpumps at Te Hopai.

Boggy pond was isolated by closed stop banking but because of fluctuations in groundwater and evaporation losses this was breached between the pond and Matthews Lagoon. The two still remain connected.

J K Donald reserve consists of three ponds parallel to the lake shore. These have also been connected to the lake to try to maintain summer water levels. These connections also operate as drainage channels for surface runoff accumulation.



AREA between the Oporua floodway and J. K. Donald reserve considered by the Wildlife Service as the most valuable to wildlife.

PART III

REASONS FOR THE SEEKING OF A CONSERVATION ORDER

The development and management of the riparian zone and adjoining farmland on the eastern side of Lake Wairarapa has caused some conflict between conservationists/ recreational shooters and local farmers / local authorities.

Since 1956 there has been a continuing process of land reclamation from marshland in the environs of the lake and around the lower Ruamahanga River. Much of this work has been carried out on Crown Land and the subsequently developed farms have been used for farmer settlement under the Governments Land Settlement Scheme.

Expert opinion is that a decline of birdlife population and diversity will occur unless sufficient parts of the whole wetland system are protected in their natural state. The proposal for a system of dykes and polders to reclaim large parts of the shallow eastern and northern lakebed into farmland was seen by conservation interests to be a threat to birdlife in the area. This led to the National Acclimatisation Society applying the conservation order pathway to their attempts to retain the endemic wildlife and recreational bird breeding areas.

The polder scheme, originally part of the Lower Wairarapa Development Scheme, was discontinued because of doubtful economic return in the current political climate. It was also evident to the various authorities concerned that the most extensive of the planned polder schemes would have severely reduced

the wetland areas available to wildlife.

The National Body of the Acclimatisation Societies chose to continue to pursue total protection of the waters of the lake because of a perceived shift of public opinion towards preservation of natural resources and ecosystems.

The Nature Conservation Council determined that one of their priorities is protection of wetlands and quite a number of influential scientific groups have given their support to this aim.

A desire by local recreational shooters to manage the swan and mallard duck population, for hunting was also a factor in seeking an order.

The proposed conservation order on the lake and its tributaries restricts the use of the natural water resource and the regime of lake level control. This may reduce the threat to the natural environment but also imposes a predominant right to the use of the water resource for protection of that environment. Primary producers and other water users will thus take second place in allocation of one of the regions primary resources.

There are alternative pathways to achieve an adequate level of protection for the natural environment. One of these is a Water Resource Management plan. If this was instigated by the Regional Council and written into the District Scheme of the Featherston County Council the objectives of the conservationists could be largely met with due consideration to other water users.

REGIONAL DEVELOPMENT

The restrictive elements of a Water Conservation Order in this case will have detrimental consequences

to the commercial, cultural and social development of the lower Wairarapa Valley. Some 40,000 ha will be affected to some degree. Summarily restricting the drainage and irrigation potential of the region will deprive the community of almost \$20 million/annum of possible economic activity (pers. comm. MAF officers Masterton) any decision to curtail this potential in the regional or national interest must be brought clearly before the public.

Adequate compensatory provisions must be erected in tandem with any management plan. It is the view of the writer that if the nation requires the use (protection) of a regional resource at the expense of the community then the nation should stand a major part of that expense.

SUGGESTED OBJECTIVES FOR REGIONAL PLAN

- (a) Preservation of outstanding wildlife habitat features necessary to the maintenance of the natural ecosystem.
(Requirements to be adequately detailed and supported by necessary data).
- (b) Water Resource Allocation Plan prepared by relevant local authority (Catchment Board) using multi-objective planning for current and future needs of all users e.g., agriculture and horticulture; industrial and domestic; recreation and conservation. This plan could be funded by a regional development grant from central Government.
- (c) Lake level controls could be more clearly defined but provision for flood storage from the lower Valley Development Scheme must not be interfered with.

- (d) No restriction should be applied to contributory streams to Lake Wairarapa or local groundwater supplies. The Tauherenikau River already has an operational water management plan and the lake levels can be maintained adequately from the flood flows from this river.
- (e) Management of the Lake should be directed to greater consideration of the requirements of wading birds and other endangered species rather than recreational hunting of waterfowl.
- (f) Funding should be sought from national wildlife and nature organisations to enable suitable development of the habitat within the Lake.
- (g) Definition of an actual legal boundary of the Lake should be carried out. A seasonally translocating boundary is an unsuitable legal definition.

COMPENSATION - LAND & RATING

It is suggested that a reasonable base for compensation for land acquisition if required for conservation could be current market value in a "normal" market situation (i.e. not exceptionally depressed due to introduced negative expectations) plus 20% of normal market value to compensate for loss of physical inputs; personal landscape preference; heritage; family upheaval and the uprooting of a farmers close ties with the land upon which he has lived and worked.

The Lower Wairarapa Valley Development Scheme is

funded through a rate applied by the Catchment Board to all landowners. Some lakeside farmers are paying up to \$20,000/year in rates for flood protection. If a conservation order is placed on the water of the lake which is also part of the L.W.V.D.S. then the Crown should bear a significant part of the rate burden resulting from this scheme. As the annual cost of servicing the scheme funded by rating is \$250,000/year the writer suggests that 40% or \$100,000 should be granted by the Government in lieu of rates applicable to the lake area.

A P P E N D I X

1. APPLICATION FOR CONSERVATION ORDER
2. INTERIM ORDER
3. MAP PRESENT LAND USE
4. MAP LAND TENURE
5. MAP AREAS OF HORTICULTURAL POTENTIAL
6. MAP CONSTRAINTS TO DAIRY FARMING

- OFFICE COPY -

An application for a
National Water
Conservation Order

in respect of

LAKE
WAIRARAPA

NEW ZEALAND ACCLIMATISATION SOCIETIES

INTRODUCTION

Lake Wairarapa and its associated marshlands, swamps and lagoons, has long been recognised as a highly productive wetland ecosystem by conservation interests and recreational hunters. However over the past twenty years the extent of the associated wetlands has been greatly reduced by land drainage, and conversion to pastoral farmland. While the majority of the indigenous peripheral wetlands still remaining are now either fully protected, or in the process of being fully protected by formal reserve status, the lake that comprises the most integral part of this outstanding wetland complex has no formal protection.

The Lake Wairarapa wetland complex meets six of the eight criteria set down by the International Union for the Conservation of Nature and Natural Resources (IUCN) that signify wetlands of international importance. Any one of these criteria is considered sufficient to warrant a wetland being accorded this distinction.

The passing of the Water and Soil Conservation Amendment Act 1981 has made it possible for this outstanding wildlife habitat and recreational hunting area to be given statutory protection for all time. The size of Lake Wairarapa, the nature and productivity of the habitat it provides, and its geographic position in relation to the few remaining large fresh water wetland complexes elsewhere in New Zealand, require that it receive nothing less than the formal protective status possible under this particular statute.

The following formal application for a National Water Conservation Order for Lake Wairarapa covers an area of approximately 7,800 hectares falling entirely within the district administered by the Wellington Acclimatisation Society. This application has been made by the New Zealand Acclimatisation Societies with the support of the Department of Internal Affairs and the Royal Forest and Bird Protection Society, both of which will be providing substantive evidence in support of the proposed National Water Conservation Order in due course.

SUBJECT TO POSSIBLE CHANGE

FORMAL APPLICATION

WATER AND SOIL CONSERVATION ACT 1967: APPLICATION BY THE WELLINGTON ACCLIMATISATION SOCIETY, THE COUNCIL OF NORTH ISLAND ACCLIMATISATION SOCIETIES AND THE NATIONAL EXECUTIVE OF NEW ZEALAND ACCLIMATISATION SOCIETIES PURSUANT TO SECTION 20.A FOR A NATIONAL WATER CONSERVATION ORDER

TO: The Minister of Works and Development

1. THE WELLINGTON ACCLIMATISATION SOCIETY, THE COUNCIL OF NORTH ISLAND ACCLIMATISATION SOCIETIES, AND THE NATIONAL EXECUTIVE OF NEW ZEALAND ACCLIMATISATION SOCIETIES (hereafter collectively referred to as the Applicant) being statutory bodies specifically constituted under the Wildlife Act 1953 which all individually have functions, powers and duties related to and affected by aspects of water conservation HEREBY SEVERALLY APPLY for the making of a NATIONAL WATER CONSERVATION ORDER in respect of Lake Wairarapa on the terms specified below.
2. THE APPLICANT FURTHER APPLIES FOR the said Order to be made on the following terms:-
 - (a) The Order to be applied to Lake Wairarapa (approximate map reference NZMS 260 Sheet S27 985 975) and all rivers and streams contributing water to it, hereinafter referred to as LAKE WAIRARAPA and generally shown in Figure 1 of this application;
 - (b) The Order to preserve, pursuant to Section 20.D.2, LAKE WAIRARAPA as far as possible in its natural state;
 - (c) The Order to protect, pursuant to Section 20.D.2, the outstanding recreational and wildlife habitat features of LAKE WAIRARAPA.
 - (d) The Order to provide, pursuant to Sections 20.D.3. a. and b, for the retention in its natural (present) state of the quantity and level of natural water in Lake Wairarapa, and

the quantity and rate of flow of natural water in its contributing rivers and streams, because of the value of these waters for recreational and wildlife habitat purposes;

- (e) The Order to provide, pursuant to Section 20.D.3.d, for a maximum lake level below which no impediment to still water distribution shall be permitted, and a minimum lake level below which no artificial draw-down of the water level shall be permitted, of Lake Wairarapa;
- (f) The Order to provide, pursuant to Section 20.D.3.d, for this maximum lake level (below which no impediment to still water distribution shall be permitted) to be 10.3 metres above datum on the Wairarapa Catchment Board Gauge at Western Lake, and the minimum lake level (below which no artificial draw-down of the water level shall be permitted) to be 10.0 metres above datum on the Wairarapa Catchment Board Gauge at Western Lake, of Lake Wairarapa;
- (g) The Order to provide, pursuant to Section 20.D.3.c, for a prohibition on the granting of any right under Section 21 or 23 of the Act to dam any of the contributing rivers and streams of Lake Wairarapa.
- (h) The Order to impose, pursuant to Section 20.D.4:
 - (i) A condition, restricting the power of the Wairarapa Catchment Board and Regional Water Board and the Authority to grant any water right in accordance with Sections 21, 23 and 24 of the Act in respect of the waters of LAKE WAIRARAPA, and on the power of the Board to make a general authorisation in accordance with Section 22 of the Act in respect of the waters of LAKE WAIRARAPA, which contravenes any of the terms of this application;
 - (ii) A condition, requiring the Wairarapa Catchment Board to operate the Lake Wairarapa Barrage Gate on the East-West Access Road in accordance with the terms of Section 2.f. of this application, and in recognition of the recreational and wildlife habitat values of LAKE WAIRARAPA;

(iii) Such further conditions, restrictions or prohibitions as may be appropriate to ensure the protection and preservation of the outstanding recreational and wildlife habitat features of LAKE WAIRARAPA.

3. THE APPLICANT FURTHER APPLIES FOR a special exemption to be made from the operation of the Order that allows the issue of any right in respect of natural water to any landowner whose property adjoins LAKE WAIRARAPA, for the purposes of domestic or stock water supply.
4. THE APPLICANT (and each of them) undertakes to supplement the information contained in this application in such a manner as may be required by the Minister pursuant to Section 20.A.2 of this Act.

DATED at Wellington this 19th day of October 1984

THE WELLINGTON ACCLIMATISATION SOCIETY
THE COUNCIL OF NORTH ISLAND ACCLIMATISATION SOCIETIES
THE NATIONAL EXECUTIVE OF NEW ZEALAND ACCLIMATISATION SOCIETIES

each by its authorised agent

WILLIAM BRYCE JOHNSON



William Bryce Johnson
Director of the National Executive of New Zealand Acclimatisation Societies, Secretary of the Council of North Island Acclimatisation Societies, authorised agent of The Wellington Acclimatisation Society.

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FIGURE 1: LAKE WAIRARAPA

1. GENERAL INTENTION OF THE APPLICATION

- 1.1 The formal application seeks to protect Lake Wairarapa in its natural (present) state, and ensure that the rivers and streams that contribute water to it are allowed to do so in their present manner. The present Lake Wairarapa wetland complex (the lake itself plus its associated wetlands) is dependent upon the quantity, quality and rate of flow of these inflows.
- 1.2 The application has been made to protect the wildlife habitat values of Lake Wairarapa, and the associated recreational values that relate to the statutory interests of the applicant. However the applicant is aware that both scientific and other recreational values exist for the lake and it is anticipated that these will become evident following the calling for of submissions and objections to the application in accordance with Section 20.F.2 of the Act.
- 1.3 To achieve the desired level of protection the applicant has stipulated two specific lake levels at which certain restrictions and prohibitions become operative. The upper lake level figure of 10.3 metres describes the lake edge within which no flood protection works are to be permitted. The lower lake level figure of 10.0 metres dictates the level below which artificial draw-down of the lake by use of the barrage gate on the East-West Access Road is not to be permitted. The application also requires the Wairarapa Catchment Board to manage the lake levels in a manner that duly recognises the recreational and wildlife habitat values of the lake.
- 1.4 Finally, and in recognition of the immediate and justifiable needs of adjoining landowners, the applicant has requested that a special provision be made to allow water rights to be issued to such persons for domestic or stock water supply.

2. STATUS OF THE APPLICANT

- 2.1 THE WELLINGTON ACCLIMATISATION SOCIETY is a body corporate specifically constituted by and under the Wildlife Act 1953. The Society's general powers and functions are set out in Section 30 of the Wildlife Act 1953 and (inter alia) include:-
- (a) The protection and preservation ... of all wildlife absolutely protected under the Act.
 - (b) The protection and preservation ... of game and the prevention of any unnecessary diminution in the numbers of game or of any species of game.
 - (c) All such functions and responsibilities in relation to freshwater fisheries as are imposed on (it) by the (now) Fisheries Act 1983 and regulations thereunder.
- 2.2 THE COUNCIL OF NORTH ISLAND ACCLIMATISATION SOCIETIES is a body corporate specifically constituted by the Council of North Island Acclimatisation Societies Regulations 1959 (1959/73) (being regulations made pursuant to Section 72 of the Wildlife Act 1953).
- The functions and powers of the Council are set out in Regulation 5 and (inter alia) include:-
- (i) To deal with matters arising under the Wildlife Act 1953, (now) Fisheries Act 1983, or any other Act, or any regulations made under any such Act, which are of common interest to acclimatisation societies in the North Island:
 - (ii) In matters of common interest to those societies to provide a liaison with the Departments of the Government of New Zealand charged with the administration of the Acts mentioned in paragraph (a) of this regulation:

(iii) To expend in the interests of freshwater fisheries money paid to the Council under any Act or regulations relating to freshwater fisheries:

(iv) Generally to promote the interests of acclimatisation societies in the North Island.

2.3 THE NATIONAL EXECUTIVE OF ACCLIMATISATION SOCIETIES is a body specifically constituted by the Minister of Internal Affairs in exercise of his general power pursuant to Section 41 of the Wildlife Act 1953.

The functions and powers of the National Executive are set out in paragraph 7 of The National Executive Authority 1979 as follows:-

(1) To co-ordinate promote and represent the national interests of the South Island Council and the North Island Council.

In view of the statutory and regulatory provisions referred to above the applicants (and each of them) have powers functions and duties which relate to or could be affected by any aspect of water conservation and are thus qualified to apply for a Water Conservation Order pursuant to Section 20A of the Water and Soil Conservation Act 1967.

3. MULTIPLE USE AND WATER RESOURCE MANAGEMENT

The multiple water use concept, promoted in the Water and Soil Conservation Act 1967, is supported by the New Zealand Acclimatisation Societies. However translation of this concept by water managers into water resource management practices has been the cause of considerable concern to this organisation. In the case of land management practices by landowners adjacent to lakes little consideration has generally been given to the effects of such activities on the ecology of the total lake complex. The encroachment of drained and developed land around lake margins has restricted natural water distribution and storage, and significantly altered water quality.

Ecological values supported by this finite natural water resource have therefore suffered a cumulative down-grading both regionally and nationally.

The significance of the 1981 Amendment to the Water and Soil Conservation Act (1967) to this organisation is therefore twofold. Firstly, it demonstrates Government's commitment to recognise and sustain the amenity afforded by waters in their natural state. Secondly, it provides a mechanism whereby the regional or national perspective becomes an essential component of water resource management decisions made by either regional water boards or the National Water and Soil Conservation Authority. The 1981 Amendment appears therefore to represent a move towards a national water resource management policy, a development which the acclimatisation societies fully endorse.

4. TREATMENT OF THIS APPLICATION AS A NATIONAL WATER CONSERVATION ORDER

In seeking to protect the recreational and wildlife values associated with Lake Wairarapa the Applicant believes this application warrants treatment as a national water conservation order for the following reasons:-

4.1 Section 20.D.2 of the Act requires that those features worthy of protection by a national water conservation order must be "outstanding". While the term 'outstanding' is given no specific interpretation under the Act it is the Applicant's case that 'national significance' can, for the purpose of this application, be held to be adequate justification for the values under consideration also being 'outstanding'. The section titled SUPPORTING EVIDENCE FOR A NATIONAL WATER CONSERVATION ORDER FOR LAKE WAIRARAPA will establish the national significance of the recreational and wildlife values associated with the lake.

4.2 The degree of protection available under the Act is tied to the status of the water conservation order obtained. It is the Applicant's view that such an association illogically complicates the interpretation of the Act and the implications this has for this application must be considered.

The Crown has shown considerable interest in recent years in reducing the size of Lake Wairarapa by establishing dykes (polders) within the lake to enable reclamation of land at present covered by lake water. Such a proposal is no longer being actively promoted but could be re-opened in future. It is therefore important to give immediate consideration at a national level to the preservation of the lake, so that the purposes of the 1981 amendment may be considered and dealt with, before they are compromised by any development proposals. Lake Wairarapa is one of the few remaining large and shallow freshwater lakes in New Zealand suitable for total protection, and such protection is possible only by way of a National Water Conservation Order.

- 4.3 The national significance of the recreational and wildlife values for which protection is sought, and indeed the extent of the possible Crown interest in the reclamation of lake bed, make it entirely appropriate that decisions relating to the allocation of this nationally important water resource be considered by the national water resource managers - the National Water and Soil Conservation Authority. Indeed a national overview in such matters as water resource conservation is the Authority's statutory responsibility.

5. SUPPORTING EVIDENCE FOR A NATIONAL WATER CONSERVATION ORDER FOR LAKE WAIRARAPA

The formal application for a National Water Conservation Order in respect of Lake Wairarapa has been made in favour of the recreational and wildlife habitat values of the lake, as they might relate to the statutory interests and responsibilities of the Applicant.

5.1 RECREATION

The recreational values for which protection through this particular application has been sought are those relating directly and indirectly to the wildlife habitat of Lake Wairarapa. However it should be noted that protection of the wildlife habitat does not automatically confer adequate protection on the perceived recreational values associated with that wildlife habitat - there is more to hunting and

bird-watching than shooting ducks and watching birds.

Application for protection of the recreational values associated with the wildlife habitat of Lake Wairarapa has therefore been made to recognise their related but independent status.

5.2 WILDLIFE

The wildlife values provided by Lake Wairarapa have been identified by the Wildlife Service of the Department of Internal Affairs as being of national and indeed international importance (Moore et al, 1984).

Eighty species of birds have been recorded from Lake Wairarapa and its associated wetlands between 1974 and 1983. Of these 80 species, 57 are birds found predominantly in wetlands. Twenty-four of the wetland bird species have resident populations at Lake Wairarapa and the remaining 33 species visit the wetlands for part of their life cycle (Moore loc.cit.) Apart from the Arctic migrants and the vagrants, the largest group of wetland birds are the 18 indigenous species, while a further 16 species are endemic. Only three are introduced species but these are waterfowl which are significant numerically. Thirteen species of Arctic migrant wading birds are regular summer residents at Lake Wairarapa.

As has been previously noted the Lake Wairarapa wetland complex meets six of the eight criteria set by the IUCN for identifying wetlands of international importance. Such wetlands need meet only one of these criteria to acquire this distinction. Of the 18 wetlands so identified on the New Zealand mainland (Owen, in Environmental Council (NZ) 1983) the Lake Wairarapa complex is the only one in the central and southern North Island. This geographic location also gives the complex a strategic importance as a staging area for wetland species moving between the North and South Island.

Protection of the wildlife values associated with Lake Wairarapa depend entirely upon the maintenance of habitat over the entire area of the lake. Specifically, that section of the lake comprising the eastern shallows from the Tauherenikau River mouth to Allsops Bay provides essential over-wintering (southern summer) grounds for a variety of trans-equatorial migrant wading birds, and habitat for a number of resident and internally migrant waders. This area also supports in excess of 20,000 waterfowl (Moore loc. cit.) principally mallard, grey and shoveler duck and black swan, for part or all of their annual cycle. However in excess of 50,000 waterfowl have been recorded in this section of the lake during peak waterfowl years.

Allsops Bay and the western portion of the lake is important for waterfowl breeding and brood rearing, feeding and moulting. This area is of particular importance to paradise shelduck, being the moulting area for the entire southern Wairarapa population of this species.

The deeper central part of Lake Wairarapa provides a secure moulting and refuge area for all waterfowl, and a feeding area for various species of shags and gulls.

6. CONCLUSION

In making this application for a National Water Conservation Order for Lake Wairarapa the Applicant seeks to establish adequate protection for its outstanding recreational and wildlife habitat values.

In so doing the Applicant is strongly of the view that any claim of common right to the natural waters of Lake Wairarapa must first lie with its present users, on behalf of the which the Applicant is an authorised agent. The recreational and wildlife habitat values of Lake Wairarapa are both in existence and in use, and in the absence of any justified need to the contrary for Lake Wairarapa water these values are well worthy of statutory protection for the benefit of this and future generations of New Zealanders.

BIBLIOGRAPHY

Moore, P.J., Ogle, C.C. and Moynihan, K.T. 1984.

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Owen, K.L. In Environmental Council (N.Z.) 1983.

Wetlands: a diminishing resource. Water and Soil Miscellaneous Publication No.58. National Water and Soil Conservation Organisation.

APPENDIX 1

SUBMISSION TO THE NATIONAL WATER AND SOIL CONSERVATION AUTHORITY
IN RESPECT OF A NATIONAL WATER CONSERVATION ORDER
APPLICATION FOR LAKE WAIRARAPA

SUBMISSION BY THE APPLICANT

THE APPLICATION

The Formal Application for a National Conservation Order in respect of Lake Wairarapa contains a number of terms sought by the Applicant. In the period since the Application was lodged with the National Water and Soil Conservation Authority discussions have been held between the Applicant and a number of Wairarapa Local

Authorities, interest groups and individuals. These discussions have sought to clarify a number of the terms of the Application. The Applicant is satisfied that certain changes to the terms applied for will better reflect the intent of the Application and meet the concerns and requirements of local authorities and affected landowners. These changes will not compromise the protection of the wildlife habitat values associated with Lake Wairarapa.

The Applicant seeks leave in this submission for any Order made in respect of Lake Wairarapa to contain the following amendments to the terms applied for in Section 2 of the Formal Application.

1. Section 2(a) of the Application to read:

"The Order to be applied to Lake Wairarapa (approximate map reference NZMS 260 sheet S 27 985 975) and all rivers and streams, except the Ruamahanga River, contributing water to it, hereinafter referred to as LAKE WAIRARAPA and generally shown in Figure 1 of this application:"

2. Section 2(d) of the Application to read:

"The Order to provide pursuant to Sections 20.D.3 a and b for the retention in its natural (present) state of the quantity and level of natural water in Lake Wairarapa, and the quantity and rate of flow of natural water in its contributing rivers and streams, except the Ruamahanga River, because of the value of these waters for recreational and wildlife habitat purposes. Nothing in this Order shall prevent the passage of water from the Ruamahanga River into Lake Wairarapa in time of flood by means of the Oporua Spillway or the Barrage Gates;"

(Amendments underlined)

Explanation: The Ruamahanga River only contributes water to Lake Wairarapa during flood events, either via the overland spillway (Oporua) or by backflow via the Barrage Gates at the lake outlet. The amendments above clarify this circumstance and recognise that any Order should not compromise the use of Lake Wairarapa as a flood-water storage area. This use is part of the "present" state for which protection is sought. The Wairarapa United Council have raised this as a major concern. That Council's letter to the Applicant of 30 April 1985, and the subsequent reply of 11 June 1985 are attached to this submission for further clarification of this and other aspects of the Application.

"The Order to provide, pursuant to section 20.D.3.d. for a target lake level to be sought for Lake Wairarapa of 10.0 metres above datum on the Wairarapa Catchment Board Gauge at Western Lake, and further that a minimum lake level be sought for Lake Wairarapa of 9.9 metres above datum below which no artificial drawdown of water shall be permitted."

(Amendments underlined)

Explanation: In making application for a minimum level for Lake Wairarapa of 10.0m the Applicant was of the understanding that this reflected the present policy of the Wairarapa Catchment Board in controlling the level of water in Lake Wairarapa. As such, this would describe the "present" state for which protection is sought. The subsequent availability of accurate information from the Wairarapa Catchment Board shows that the implementation of a policy of attempting to control the level of Lake Wairarapa at or about 10.0m above datum has resulted in levels fluctuating from as low as

9.8 metres (drought events) to as high as 11.5 metres (flood events). This management regime has resulted in the present wildlife values associated with the Lake Wairarapa. The amendment to the Application set out above therefore more accurately reflects this present state and as such is sought for an Order protecting that state.

4 Section 2(h) of the Application to read:

"The Order to provide, pursuant to Section 20.D.3.c. for a prohibition on the granting of any right under Section 21 or 23 of the Act to dam or divert any of the contributing rivers and streams of Lake Wairarapa, that would result in a nett loss of natural water from the Catchment of Lake Wairarapa."

(Amendments underlined)

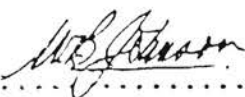
Explanation: The Applicant accepts the submission of the Wairarapa United Council in this regard (Issue E of attached submission to the Applicant, 30 April 1985). The Order does not seek to prevent small scale stock water ponds or similar dams being constructed on minor tributaries, or dams or weirs that do not result in a reduction in the quantity of natural water reaching Lake Wairarapa. The amendment sought to Section 2(h) clarifies the intention of only prohibiting dams that would reduce the quantity of water reaching the Lake.

CONCLUSION

The Applicant submits documented evidence establishing the outstanding nature of Lake Wairarapa as a habitat for wetland wildlife and for recreation, in particular recreational hunting. The making of a National Water Conservation Order for Lake Wairarapa under the terms applied for in the Formal Application, as amended by inclusion of specific statements contained in the above submission, will protect the waters of Lake Wairarapa, and hence the wildlife habitat values provided by those waters.

Dated at Wellington this 8th day of August 1985

Wellington Acclimatisation Society
Council of North Island Acclimatisation Societies
National Executive of New Zealand Acclimatisation Societies



William Bryce Johnson
Authorised agent of the Applicants.

Appendix II

THE NATIONAL WATER CONSERVATION (LAKE WAIRARAPA) ORDER 1986

1 TITLE AND COMMENCEMENT

(1) This order may be cited as the National Water Conservation (Lake Wairarapa) Order 1986.

(2) This order shall come into force on the 14th day after the date of its notification in the Gazette.

2 INTERPRETATION

In this order, unless the context otherwise requires:

"Act" means the Water and Soil Conservation Act 1967.

"Lake Wairarapa" means the area commonly known as Lake Wairarapa, containing approximately x hectares and shown generally on the plan attached to this order, the shoreline of which is the change in vegetation type from predominantly aquatic to predominantly terrestrial.
(See Footnote).

3 OUTSTANDING FEATURES

It is hereby declared that Lake Wairarapa includes outstanding wildlife habitat features.

4 PROHIBITIONS ON WATER RIGHTS

(1) No water right to divert or take any water within Lake Wairarapa shall be granted under Section 21 or Section 23 of the Act.

(2) No general authorisation to divert or take any water within Lake Wairarapa shall be made under Section 22 of the Act.

5 WATER RIGHTS

(1) No water right shall be granted and no general authorisation shall be made in respect of any part of Lake Wairarapa if the effect would be to diminish the outstanding wildlife habitat features of any part of the lake.

(2) Nothing in this order shall be construed as limiting the effect of the second proviso to Section 21(1) of the Act relating to the use of water for domestic needs, for the needs of animals, and for or in connection with fire-fighting purposes.

(3) Nothing in this order shall prevent the renewal of any water right which is current at the commencement of this order.

(4) Nothing in this order shall prevent the issue from time-to-time of water rights in connection with the barrage gates at the outlet of Lake Wairarapa.

FOOTNOTE

A plan and the area are not available at this time. They would be prepared and attached to any final order.

LAKE WAIRARAPA WATER CONSERVATION ORDER

APPLICATION

REPORT ON THE PRELIMINARY CONCLUSIONS

OF THE N WASCA COMMITTEE

INTRODUCTION

In October 1984 the Wellington Acclimatisation Society, the Council of North Island Acclimatisation Societies, and the National Executive of New Zealand Acclimatisation Societies applied for a water conservation order in respect of Lake Wairarapa. The application was referred to National Water and Soil Conservation Authority to be dealt with as a national water conservation order application. To consider the application the National Water and Soil Conservation Authority established a committee comprising Messrs B D Parkes (Chairman), J M Black, B H Jones, P C Macnab and Dr N A Algar.

After considering the extensive submissions made following the public notification of the application the committee has now come to some preliminary conclusions on the application.

THE APPLICATION

The applicant originally sought a water conservation order for Lake Wairarapa and all rivers and streams contributing water to it. The applicant wanted the order to preserve Lake Wairarapa as far as possible in its natural state in order to protect outstanding recreational and wildlife habitat features. The applicant sought a number of restrictions on the management of the lake and the contributing waters.

After the application was publicly notified, a submission from the applicant was received in support of the application. In

that submission, the applicant sought certain amendments to the application. These changes apparently resulted from discussions between the applicant and a number of Wairarapa local authorities, interest groups and individuals which clarified a number of matters. In its submission, the applicant stated that the changes proposed would not compromise the protection of the wildlife habitat values associated with Lake Wairarapa.

The applicant sought the exclusion of the Ruamahunga River from the order, as well as a specific clause recognising and providing for the contribution of the river to Lake Wairarapa via the Oporus spillway or backflow through the barrage gates during flood events. The applicant also sought a different minimum lake level from that applied for, as well as target lake levels which were a new feature. Changes were sought to permit water uses in the tributaries which would not reduce the quantity of water reaching the lake.

The application and the letter from the applicant requesting the changes is included as Appendix I.

Does Lake Wairarapa qualify for a national conservation order?

Firstly, the committee considered whether Lake Wairarapa and the tributaries have, or contribute to, outstanding natural characteristics or features.

In looking at the wildlife values the committee drew heavily on the 1984 Wildlife Service report (Habitat Requirements of Wetland Birds in the lake Wairarapa Wetlands, P J Moore, C C Ogle and K T Moynihan) and a letter from Dr Robertson of Ecology Division, DSIR. Most of the fieldwork for the Wildlife Service report was conducted over two seasons between 23 November 1982 and 24 October 1983. Counts in July and November of 1984 and June of 1985 allowed the Wildlife Service to update aspects of its 1984 report in a July 1985 paper titled "Lake Wairarapa's Wildlife and Wildlife

Habitat : New Findings, 1983-85" by P J Moore, C C Ogle and K T Moynihan. Dr H A Robertson undertook much of the recent fieldwork done in the area.

A water conservation order cannot cover a wetland, as a number of the submissions rightly pointed out. The committee therefore had to define the lake. The committee considered the outer limit of the lake to be the area below which the vegetation changes from land to aquatic (as proposed by the Wairarapa Catchment Board). The committee accepts that the boundary will move over time as the lake is not a static body of water.

The committee firstly considered the significance of the lake by reference to the criteria set down by the International Union for the Conservation of Nature and Natural Resources (IUCN) for a wetland of international significance. Lake Wairarapa is a "wetland" in terms of the IUCN Convention definition, which is:

"Wetlands are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres."

The Wildlife Service National Habitat Register gives the lake itself (as well as the Lake Wairarapa wetland complex overall) a high rating and not an outstanding one. The committee were informed that the emphasis in this New Zealand wide survey is on rare, threatened and endangered species. As a result few freshwater lakes are included in the outstanding wetlands category.

The "Wairarapa Lakes" complex (including both Lakes Wairarapa and Onoke) was identified by the Wildlife Service (K Owen in Environmental Council 1983) as one of 18 wetlands on the mainland which are of international importance. As such, this complex is the only important wetland in the southern and central North Island.

Dr Robertson assessed Lake Wairarapa as an outstanding wildlife habitat. He made this assessment on the basis that Lake Wairarapa is a nationally important site for at least 10 species of bird, and the lake itself satisfies the criteria for a wetland of international importance.

Dr Robertson rated Lake Wairarapa as a nationally important site for three endemic species (NZ Dabchick Podiceps rufopectus, Paradise Shelduck Tadorna variegata and Banded Dotterel Charadrius bicinctus); one subspecies (NZ Shoveler Anas rhynchotis variegata); and five New Zealand populations of subspecies occurring in Australia (Black Swan Cygnus atratus, Grey Teal Anas gibberifrons, Australasian Bittern Botaurus poiciloptilus), Black-fronted Dotterel Charadrius melanops and Pied Stilt Himantopus himantopus leucocephalus. Of the six species of Arctic migrants which regularly (but not invariably) visit Lake Wairarapa, Dr Robertson assessed the lake as one of the most important sites nationally for Golden Plovers Pluvialis fulva, Sharp-tailed Sandpipers Calidris acuminata, and Pectoral Sandpipers Calidris melanotos. It is also an important site for internal migrant species such as Pied Stilts and Banded Dotterels which occur there in larger numbers than breed locally, and for Black-fronted Dotterels and Spur-winged Plovers.

Dr Robertson also noted that Lake Wairarapa is important for breeding birds, particularly the New Zealand Dabchick, Black Swan and Australasian Bittern. It is also a very important moulting site for several species of waterfowl.

The committee concluded that the lake is an outstanding wildlife habitat, as are the adjoining wetlands. The lake therefore qualifies for consideration for a national conservation order.

In evaluating the recreational values of game bird hunting at the lake, the committee relied upon a game season opening survey undertaken by the applicant in 1985. This study found that Lake Wairarapa directly provides recreational hunting for around 230 waterfowl hunters annually for approximately 2,600 hunter days. A further 450 hunters use the adjacent wetlands for a further 2,200 days annually. One half of the participants come from the Wairarapa region. The rest come mainly from the Greater Wellington region.

Comparisons were difficult. However, the committee concluded that the lake is of regional significance for game bird hunting. The other recreational uses of the lake are relatively minor.

Another feature of Lake Wairarapa is of significance. Lake Wairarapa is the largest wetland of its type in New Zealand - a lowland freshwater lake surrounded by marshland and sandflats. Three similar wetlands - Lake Ellesmere (Canterbury), Waituna Lagoon (Southland) and Te Whanga Lagoon (Chatham Islands) are all brackish and at times connect directly with the sea.

WATER REGIME NEEDS

The committee next addressed the question of the water regime needed to protect the outstanding wildlife features. The committee tried to match the revised provisions sought by the applicant against the available technical information. It relied heavily on the follow-up paper to the Wildlife Service report. Shore and vegetation profiles carried out by Wairarapa Catchment Board staff across parts of the lake shore allowed a closer examination of the relationships between lake water levels and vegetation zones by the Wildlife Service.

Another report of value to the committee was one by Dr Robertson of Ecology Division, commissioned by

the WCB. This commented on the Wildlife Service report findings.

The Wildlife Service paper states that to be optimal for wildlife use, the water regime at Lake Wairarapa should be permitted to fluctuate regularly. This will maintain present native plant communities and restrict the spread of exotic plants. The paper also states that the lake should not be held at high levels (above 10.4 m) or low levels (below 10.05 m) for long periods.

The Wildlife Service paper also recommends a water regime for the year whereby the lake:

- a "Be permitted to fluctuate between average levels of 10.1-10.2 m between December and April to permit flowering and fruiting of marsh species and to provide a maximum area of vegetated flats for use by wading birds.
- b Be permitted to fluctuate more widely in late autumn and winter, to provide waterfowl feeding areas around the lake shore, especially in autumn when seeds of many plants, including grasses and exotic weeds, are important foods, yet still to provide wading bird habitat for the large numbers of pied stilts and banded and black-fronted dotterels which use the shore.
- c Be permitted to submerge most of the marsh areas (up to almost 10.4 m) for periods in early spring, to suppress the spread of exotic grasses and "weeds" into short rush and sedge marshes, and into short turf areas. August and September are the months in which dotterels and many waterfowl are absent from the lake and at that time Arctic migratory wading birds have not arrived."

In his report, Dr Robertson suggests that a similar water management regime may be applicable at Lake Wairarapa:

- "1 A water drawdown of the water level to aerate the soil (and to give flood storage capacity).
- 2 Spring flooding to provide accessible food for waterfowl and to control weed plants.
- 3 Summer drawdowns to produce annuals and other food plants.
- 4 Autumn flooding to make marsh foods available to waterfowl."

Dr Robertson considered that the optimum range of lake levels needed to conserve wildlife is between 9.9 m and 10.4 m. In summer lake levels should not be drawn below 10.0 m, but in winter (June-August) they could be taken down to 9.9 m.

The committee concluded that the target level and minimum and maximum lake level provisions sought by the applicant do not sit well with the optimum management regime described in the Wildlife Service paper and by Dr Robertson. The committee also had reservations about basing a recommendation on water regime needs around measurements of water levels taken at the Burlings recorder on the western shore. Wind set-up, with a shallow lake and westerly prevailing wind can result in eastern shore levels higher than the levels recorded on the western shore.

The committee were also constrained by the fact that some of the information known about the lake had only been compiled over a limited period in time. The water regime sought in the application was basically the one which had been studied over a limited period. A longer and/or different period of study might result in a different set of parameters. This was acknowledged by the experts.

The other difficulty the committee had was with the changes suggested by the applicant. The public had been given the

opportunity to make objections and submissions on a different water management regime than the one now sought by the applicant. In particular, the 10.0 target level and the 9.9 minimum (with the applicant conceding in its comments on the public submissions that a 10.4 maximum seemed more appropriate) would have different implications from the parameters set out in the application. If these amendments were to be allowed, a new application with a further round of public submissions would be required.

The committee considered the potential effects on wildlife of reclamation, polders or similar works that would prevent the movement of water across the existing lake bed. The committee concluded that such works have the potential to reduce wildlife habitat area or interfere with the ecosystem. They should be restricted within an area delineated by the lakeshore.

As with lake levels, the committee experienced some difficulty with the applicant's definition of the lake as the 10.3 contour. It does not accord with the definition of the lake that was adopted by the committee (ie, the outler limit of the lake is the point where the vegetation changes from land to aquatic).

The Catchment Board has undertaken a survey of the eastern lake shore and established the point where the vegetation changes from terrestrial to aquatic. This generally falls close to the 10.5 contour but it varies in level from 10.43 to 11.01 m.

CONSEQUENCES OF AN ORDER

The committee considered the implications of making an order in terms of Section 20(B)(6).

The needs of the community for flood storage and control were raised in most submissions. People were concerned that the Wairarapa Catchment Board's operation of the barrage gates should not be constrained by an order. The level of investment

in the flood control works and the risk of and devastation caused by flooding were given as supporting reasons. It was also pointed out that the present wildlife habitat was substantially assisted by the Lake Wairarapa flood control scheme.

The applicant seemed concerned to ensure that the Board continue to operate the barrage gates in the way it does now. The Board has a water right with no expiry date and no conditions on its operation of the barrage gates. However, the Board currently operates the barrage gates in accordance with target levels of 10.0 m in winter and 10.15 m in summer.

The committee concluded that the order should provide for the issue of water rights in connection with the barrage gates at the outlet of Lake Wairarapa. However, the committee recommends strongly to the Board that it produce a water and soil management plan for Lake Wairarapa. Such a plan can detail the policies and standards which will guide the day to day management of the lake and barrage gates within the broad management parameters set by the water conservation order. The proposed review of the water and soil legislation will give a water and soil management plan statutory backing.

The committee considered that an order would have minimal effect on primary and secondary industry. The Polder Scheme was abandoned at the time of the review of the Lower Wairarapa Valley Development Scheme. It is unlikely to be revived. The economic situation facing dairy farming means that reclamation is unlikely to be an economic proposition in the foreseeable future.

It could also restrict the ability to use flood pumps, thereby affecting the drainage of adjoining farmlands. The present lake management regime appears to strike a reasonable balance between the interests of wildlife and the adjoining landowners. A clause in the order would make it explicit that the renewal of water rights is permitted.

The situation with new uses is different. There are, apparently, no specific irrigation or drainage projects proposed for the area in the foreseeable future which the committee needs to take into account. If such schemes eventuate, the Regional Water Board will have to assess their possible impact on wildlife values on a case-by-case basis.

The Lake Wairarapa Crown land study and the Wairio Farm Settlement Management Plan, recently put out for comment by the Department of Lands and Survey, contain options for the use of land around the lake margins. These options are still under consideration, as is a decision on whether the Crown land involved is allocated to the Department of Conservation or the Land Development and Management Corporation.

The committee realised that using the vegetative changes as the definition of the lake boundary would mean that private freehold land belonging to Messrs Moran, Barton and Pearce would be covered by the order. The area involved lies in the length of shore between the Oporua Floodway and the J K Donald Reserve. The Wildlife Service considers that this area is the most valuable to wildlife. Large numbers of waterfowl and waders use this area at all times of the year. Its value is in the extensive marshland, with large areas of shallow water at the lake edge, in backwaters, and in the small pools on the native turf flats. The committee therefore concluded that the private land involved would have to be included in the order. However, the committee considers that the Crown has an obligation to acquire and/or exchange the land concerned and manage it for wildlife conservation.

A large number of objectors were concerned about the implications in including tributary streams in any order. The committee had no evidence that the contributing streams contain outstanding features or characteristics. Furthermore, the Tauherenikau River provides a significant proportion of all inflows into Lake Wairarapa. A regime of optimum levels for Lake Wairarapa can be readily supported by flows from the Tauherenikau River alone. The Tauherenikau River is the subject of a water management plan.

The committee took into account the regional and district planning schemes for the area. Section One of the Wairarapa Regional Planning Section (approved on 20 February 1984) contains objectives for the development of the Wairarapa region. Many of these objectives would support a water conservation order for Lake Wairarapa.

The Featherston County District planning scheme, operative on 14 April 1974, is now overdue for review. That review does not contain any specific provisions related to Lake Wairarapa. A statement of the county's planning proposals in respect of the review came out in December 1984. That document stated that the council believes it is time for some finality on the Lake Wairarapa issue through an assessment of the various options, ranging from reclamation for farm development through to conservation and wildlife protection.

The committee was also aware of the requirement by the Minister of Works and Development that three areas be designated as "Reserve for Government Purposes (Wildlife Management)" - the J K Donald Reserve, Boggy Pond, and Matthews Lagoon - in the Featherston County district scheme. These designations are the subject of appeals to the Planning Tribunal by the Wairarapa United Council, the Wairarapa Catchment Board, the Featherston County Council and others.

The committee noted that a number of groups and individuals do not want the Lake Wairarapa wetlands managed exclusively for recreational game bird hunting. The committee are feels that the waders and other bird species which contribute to the outstanding wildlife value of the Lake Wairarapa wetland, should receive greater consideration than recreational hunting in the management decisions of the future.

A further concern of the committee is the way in which separate actions are underway or proposed. These actions are: reserve proposals, decisions on the allocation of Crown land and its

future management, and the review of the district planning scheme for the area. In addition, a water management plan for Lake Wairarapa is required. The committee considered that it is necessary and timely for one body to assume a co-ordinating role in respect of Lake Wairarapa and its wetlands. The issues involved in the separate actions are interrelated and require comprehensive treatment.

CONCLUSION

The committee concluded that a national water conservation order was justified. The effects on primary and secondary industry and the needs of the community were not such as to outweigh the need to protect the wildlife values of the lake. The flood storage and control function of the lake could be retained without detriment to the wildlife. Provisions in the regional and district schemes for the area would not conflict with an order.

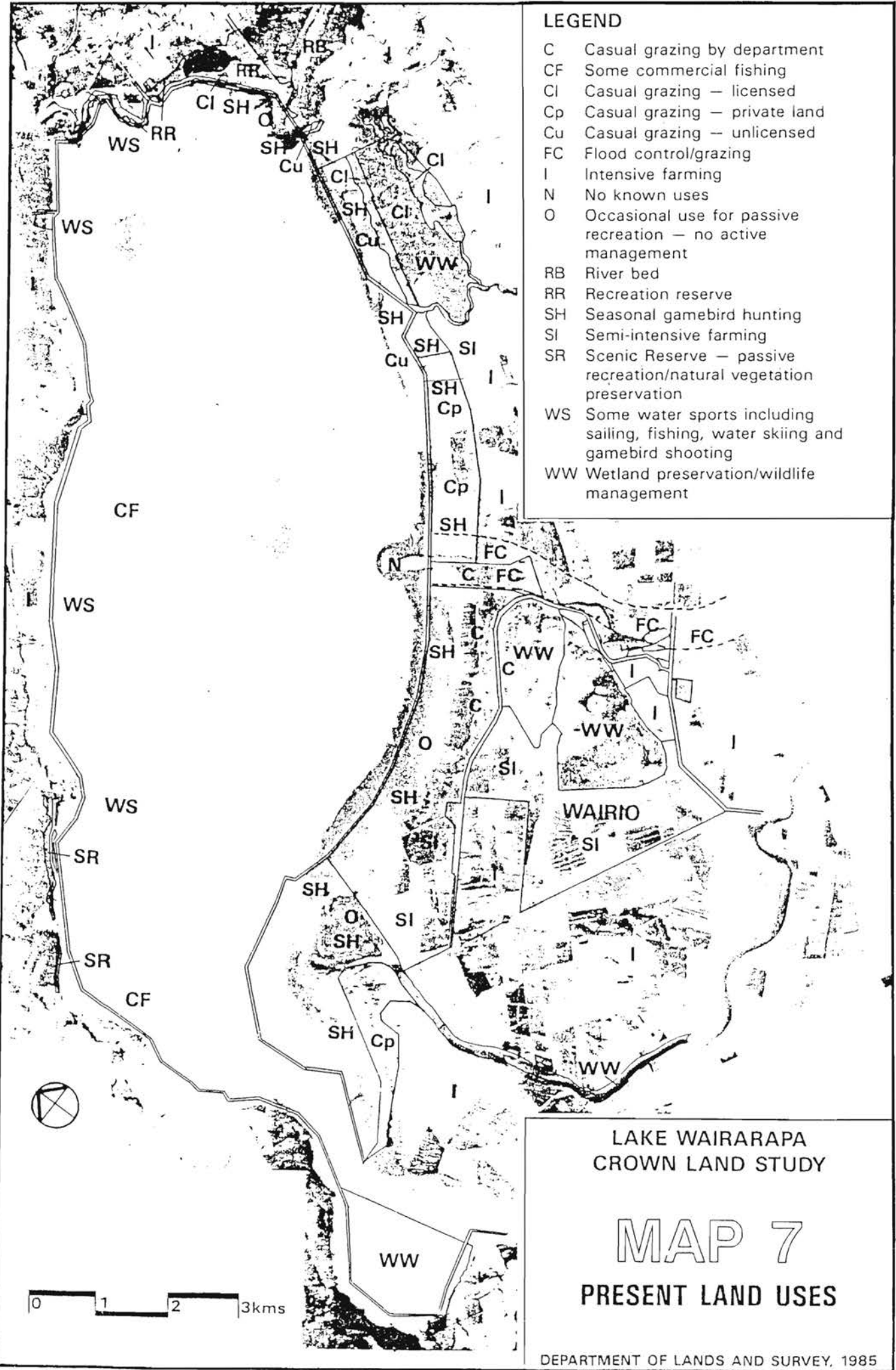
The committee concluded that an order could not set out in detail the water regime requirements for the maintenance of the wildlife habitat. However, an order could protect the wildlife habitat by preventing the issue of water rights that allow the damming or diversion of any water within Lake Wairarapa. It could also prevent the grant of water rights and general authorisations if the effect would be that any part of the lake ceased to contain outstanding wildlife habitat features.

In addition, the committee recommends strongly to the Wairarapa Catchment Board that it produce a water and soil management plan for Lake Wairarapa. Such a plan can set out the policies and standards for the future day to day management of the lake. The community can be involved in the preparation of the water and soil management plan.

The Committee decided not to include the tributary streams and rivers in the draft order. Section 21(3H) means that tributary waters automatically receive a degree of protection. That may be all that is required in the case of the tributaries of lake Wairarapa.

A proposed draft order is attached as Appendix II.

23 September 1986



LEGEND

- C Casual grazing by department
- CF Some commercial fishing
- CI Casual grazing — licensed
- Cp Casual grazing — private land
- Cu Casual grazing — unlicensed
- FC Flood control/grazing
- I Intensive farming
- N No known uses
- O Occasional use for passive recreation — no active management
- RB River bed
- RR Recreation reserve
- SH Seasonal gamebird hunting
- SI Semi-intensive farming
- SR Scenic Reserve — passive recreation/natural vegetation preservation
- WS Some water sports including sailing, fishing, water skiing and gamebird shooting
- WW Wetland preservation/wildlife management

LAKE WAIRARAPA
CROWN LAND STUDY

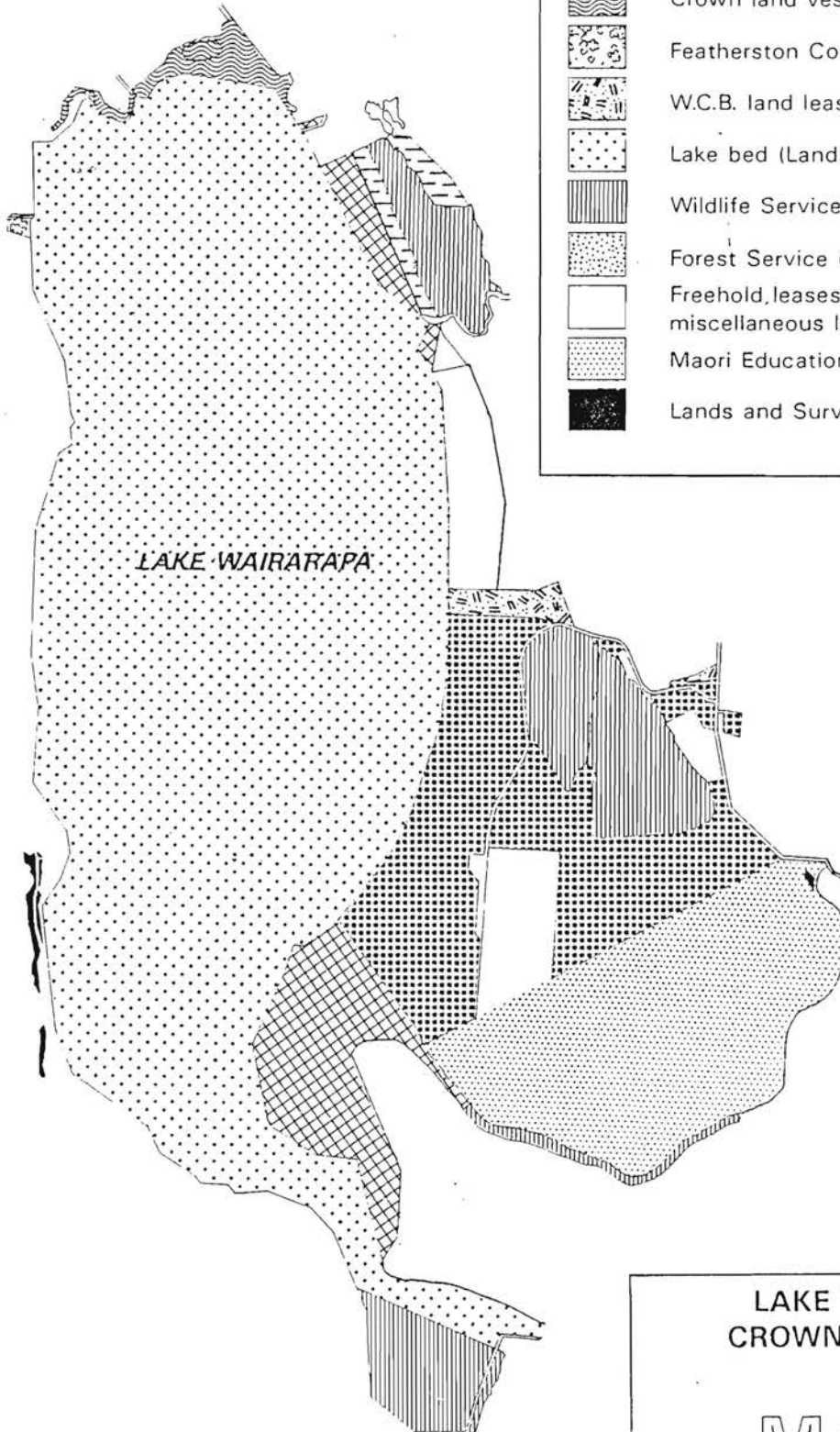
MAP 7

PRESENT LAND USES



LEGEND

-  Wairio Farm (Lands and Survey)
-  Leases and Licences (5 years or less)
-  Unalienated Crown land
-  Crown land vested in F.C.C. (Reserve)
-  Featherston County Council
-  W.C.B. land leased to the department
-  Lake bed (Lands and Survey)
-  Wildlife Service (GPRs)
-  Forest Service (Rimutaka Forest Park)
-  Freehold, leases more than 5 years and miscellaneous leases
-  Maori Education Foundation
-  Lands and Survey reserves








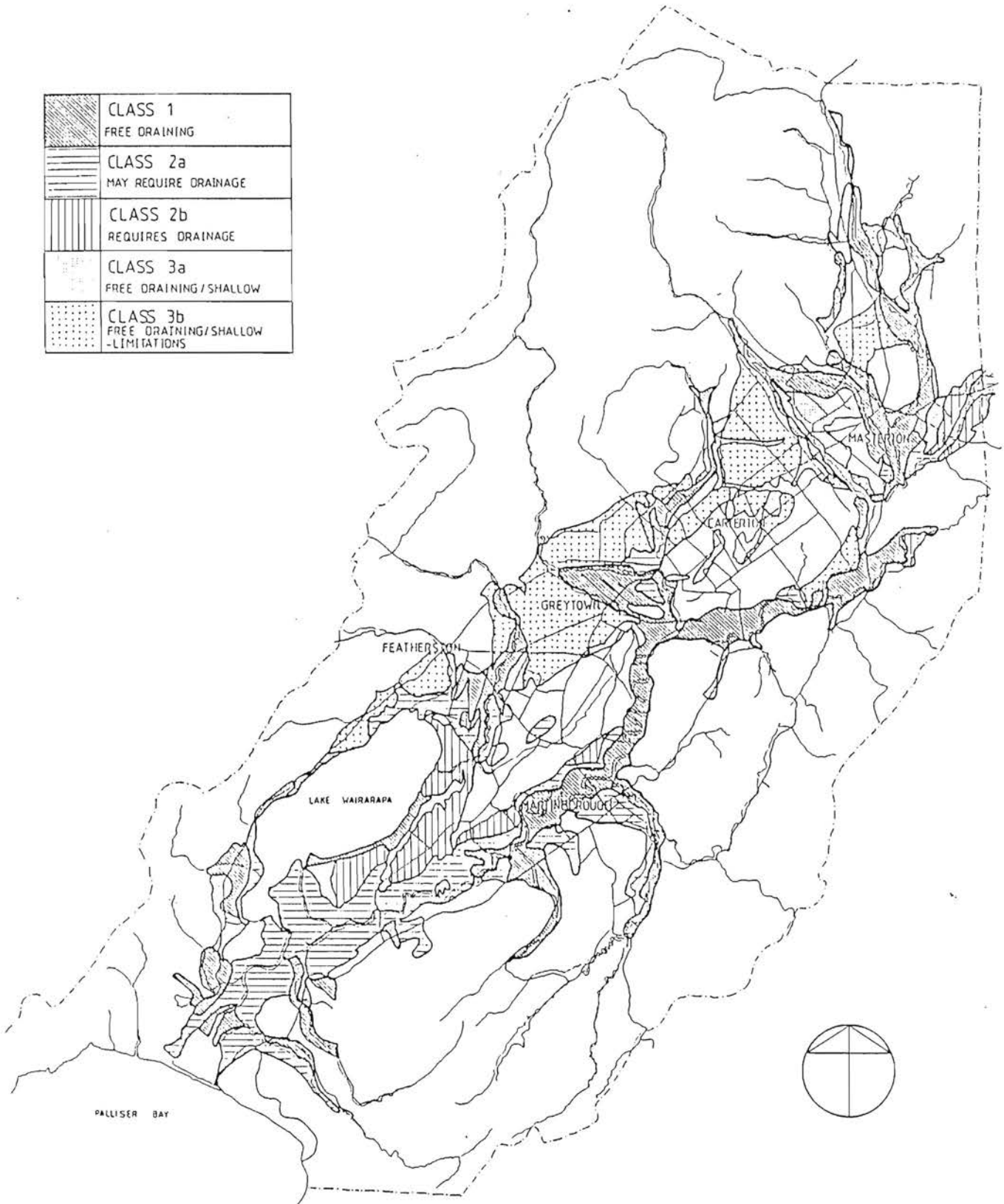
LAKE WAIRARAPA



LAKE WAIRARAPA
CROWN LAND STUDY




MAP 2
LAND TENURE

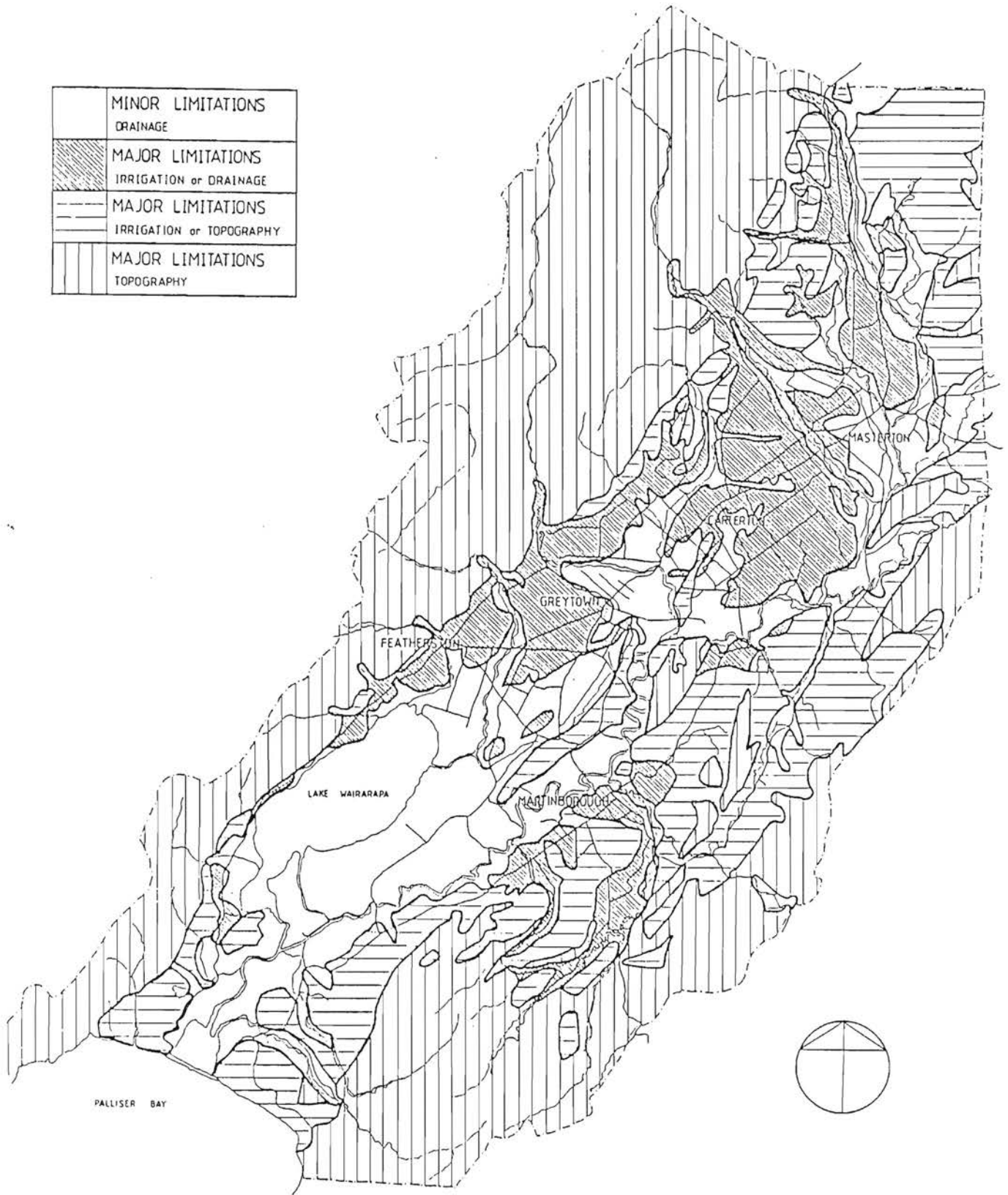
	CLASS 1 FREE DRAINING
	CLASS 2a MAY REQUIRE DRAINAGE
	CLASS 2b REQUIRES DRAINAGE
	CLASS 3a FREE DRAINING / SHALLOW
	CLASS 3b FREE DRAINING / SHALLOW -LIMITATIONS



AREAS OF HORTICULTURAL POTENTIAL

SCALE 1:280,000 approx

	MINOR LIMITATIONS DRAINAGE
	MAJOR LIMITATIONS IRRIGATION or DRAINAGE
	MAJOR LIMITATIONS IRRIGATION or TOPOGRAPHY
	MAJOR LIMITATIONS TOPOGRAPHY



CONSTRAINTS TO DAIRY FARMING

SCALE 1:280,000 approx