



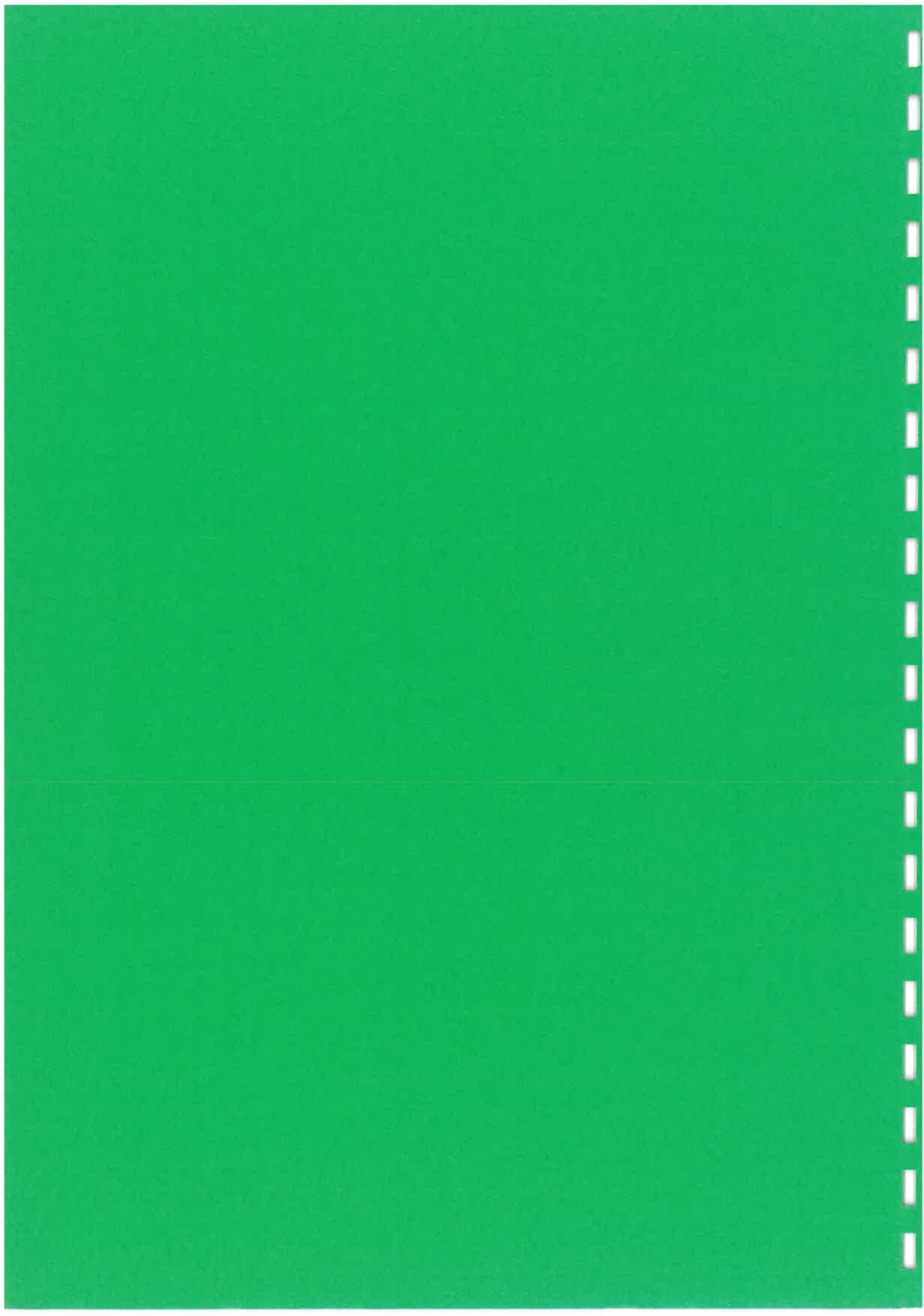
PAHIATUA
ECOLOGICAL REGION
PROTECTED NATURAL AREA
SURVEY

**- A Survey to Identify Important
Unprotected Natural Features Using
an Abbreviated Survey Technique**

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PROTECTED NATURAL AREA SURVEY OF PAHIATUA ECOLOGICAL REGION

Introduction

Using as its background the information compiled in the "Stage I Protected Natural Area Survey of the Pahiatua Ecological Region", this report describes the results of an "on-site" survey of a wide selection of individual natural areas in the Woodville and Puketoi Ecological Districts.

The report deals only with areas which are not as yet formally protected. Existing Protected Natural Areas (PNA's), although sometimes visited in the course of the present survey, are not reported on here.

The brief of the field investigation included map reference identification of individual natural areas, landowner, area, altitude, landscape and vegetation cover class.

The description includes species lists in appropriate cases with emphasis on vegetation classification and notes on dominant species, unusual species, and unexpected new distribution records. No attempt has been made to compile check-lists of indigenous species in the areas visited.

The physical condition of natural areas, weed status, degradation threats and fencing have been noted and an attempt has been made to rank areas with regard to their conservation value.

Information on bird-life in the Pahiatua Ecological Region is already documented. Other native fauna e.g. lizards and bats, have been noted where appropriate. No records of invertebrates appear in the present report.

The methodology employed in the survey entailed visiting sites known to the author as a result of many years residence in the ecological region. In many cases local residents in selected parts of different country communities were consulted and provided invaluable local guiding assistance to the best natural areas. Careful perusal of topographical maps of the series NZMS 260 was a necessary complement with this approach.

As mentioned above the report of this survey is largely botanical and it should provide enough information to enable a selection for preservation of "the best of what is left".

The findings of field survey confirm the conclusions of the

original reconnaissance in respect of the inadequacy of protected natural areas in the Pahiatua Ecological Region, not only in terms of total area, but also in the relative proportions of vegetation classes.

Although none of the remaining natural areas are now in a completely natural unchanged condition, the survey has been able to identify many areas of high conservation value whose formal protection would go some way towards redressing the existing inadequacies.

Analysis of the brief plant lists of the individual sites examined will disclose a few new records, but it will provide some information on the geographic range of some indicator species.

Some species and botanical associations are now unrepresented in their former sites and can now only be found in places such as roadside banks and railway reserves.

Widespread support for conservation on the part of landowners has been noted and good co-operation with the survey has been obtained.

Acknowledgements

I wish to thank the numerous landowners, local residents, Department of Conservation Officers, and special interest group representatives who have rendered invaluable assistance and advice in this survey.

Methodology

Reports on Woodville Ecological District (WED) and Puketoi Ecological District (PED) were prepared following field inspections of all significant areas identified from topographical maps and accumulated local knowledge of the author.

Vegetation cover classes are defined on each described site using the criteria illustrated and described in the book "The Vegetation Cover of New Zealand" by PFJ Newsome, except that the term "hardwood" has been replaced by the term "broadleaved".

Sites are merit rated in a scale of 1-2-3. Rating 1 denotes the highest conservation rating.

All described sites are numbered and full map references given. The sites are similarly numbered on the maps.

Sites in Woodville Ecological District are number in blue-black ink.

Sites in Puketoi Ecological District are similarly numbered in red ink.

Some wetland sites are marked in gold ink. These are included in the present survey but it is intended to later describe them in more detail in a separate wetland report.

On map sheet U23 part of the course of the Manawatu river is heavily outlined in green ink. This green marking denotes the zone of *Clematis vitalba* invasion as recorded in the recent *Clematis vitalba* survey by Mrs Anne Hilson.

PROBLEMS OF CONSERVATION IMPLEMENTATION IN A DEVELOPED AREA
(as identified during the field inspection process)

1. Remaining natural areas are already well below the desirable proportion of total area - so all natural areas are of conservation value.

Some vegetation types are now extremely rare in natural sites but are mostly represented in narrow roadside strips, inside the roading reserve.

Many farm bush areas are of low indigenous tree cover, thinning out to woodland and pasture. These areas often contain a few large podocarps worthy of protection in their own right. Fencing and enrichment planting pose dilemmas here because grazing values are significant.

2. There are virtually no completely unmodified natural stands left and conservation effort needs to be directed to preserving many areas that fall far short of the ideal.

Many farmers have unwittingly become effective de facto conservationists as a result of fencing off vegetated gullies and other steep faces for stock management reasons.

Widespread interest in conservation exists in the farming community of this district. There are many fenced and unfenced private reserves. Unfortunately the *Clematis vitalba* threat has a pronounced negative effect on the value of their preservation efforts.

Clematis vitalba poses by far the major threat to bush areas particularly along the Manawatu River and its tributaries. Apart from the physical problem of dealing with *Clematis vitalba* the defeatist attitude of many land managers is compounding the problem.

Survey of the ecological region finds far too many of the better quality bush remnants are effectively fenced, but still grazed at regular planned intervals, because of the farmers belief that complete exclusion of farm animals would lead to increasing *Clematis vitalba* invasion. .

The same fear has deterred many others from fencing-off otherwise valuable natural areas.

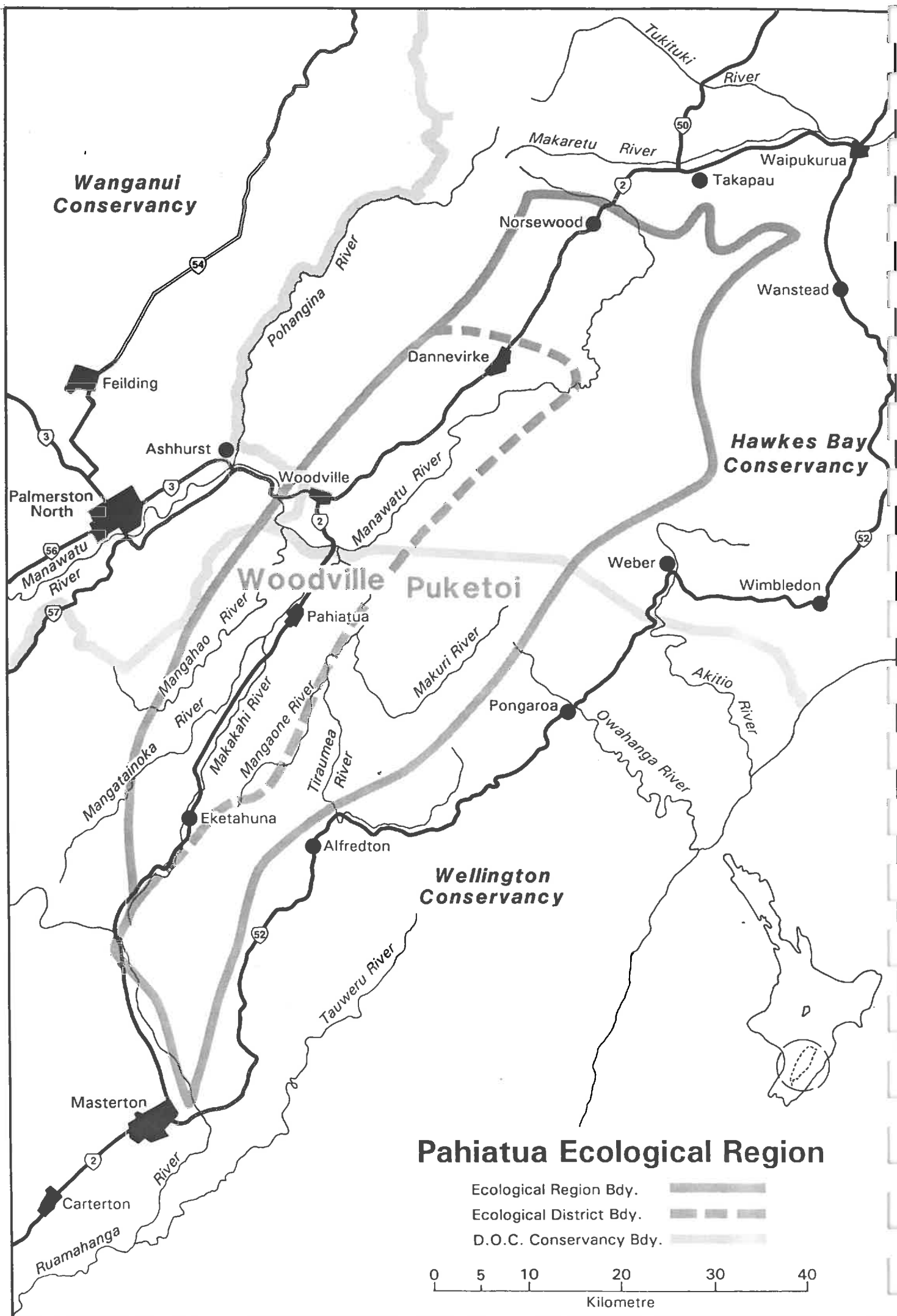
3. Most of the farmers with natural areas suitable for some form of protection have heard of QEII National Trust but a majority appear ignorant of Protected Private Land covenants under DOC.
4. For varying reasons implementation of protection of natural areas in this ecological region will of necessity have to be attempted by informal means. This applies particularly to roadside areas and also to some areas on farms.

An ideal situation would be for a DOC officer to regularly visit and be available for management advice when requested.

In the case of valuable roadside areas there should be kept a catalogue of these sites and the officer's tasks in this regard should be to establish an informal friendly contact with a local body road maintenance operator of lower management level.

In the present economic climate this idea is probably unattainable but thought may well be given to the appointment of an honorary ranger for this task.

5. To have areas of roading reserve noted on the district scheme could also help in this regard.



RECOMMENDED AREAS FOR PROTECTION FOR WOODVILLE ECOLOGICAL
DISTRICT (WED)

WED SITE 1

MAP REFERENCE: T24 512908

AREA: 8 ha

ALTITUDE: 100 m

LANDOWNER: Ormond Estate

GEOLOGY: Soil

LANDSCAPE: Alluvial plain and adjacent wetland.

FENCING: Fenced with stock exclusions from central area. Peripheral woodland and wetland is unfenced.

VEGETATION: Central area of pasture and podocarp - broadleaved forest. Peripheral area of woodland and wetland.

Tawa dominant, kahikatea, matai, totara, *Nestegis cunninghamii*, *Laurelia novaezelandiae*, titoki, *Melicytus ramiflorus*, *Melicytus micranthus*, *Lophomyrtus bullata*, *Coprosma tenuicaulis*, *Coprosma areolata*.

Some fine very large kahikatea and matai trees in woodland outside the fenced area.

Area has probably been logged in distant past. There is only 50% tree cover abundance rating inside the fence. The rest is long pasture grass.

Clematis vitalba is present, but it is not bad and there is a regular control programme.

The fenced area is managed by the family as a private non formalised reserve.

ADJACENT WETLAND: Oxbow creek and wetland with 100m of *Typha* and *Carex secta* with about 100m of open water. Mallard and grey duck present.

10 pair black swan bred here in spring of 1990.

Diversity Rating:	1
Naturalness:	2
Representative Quality:	1
Viability:	2

Certainly the best example of this forest type near Woodville.

CONSERVATION RATING: 1

WED SITE 2

MAP REFERENCE: T24 524895

AREA: 2ha

LANDSCAPE: Woodland on alluvial plain.

VEGETATION: About 30 large cabbage trees in an unfenced group.

CONSERVATION RATING: 3

WED SITE 3

MAP REFERENCE: T24 525875

OWNER: Judd Property

SIZE: 1 ha

ALTITUDE: 100m, Riverside lowland alluvial plain.

SOIL: Parent material

CLIMATE:

VEGETATION: Pasture and podocarp-broadleaved woodland. Tawa dominant. Unfenced.

CONSERVATION RATING: 3

WED SITE 4

MAP REFERENCE: T24 496825

DESCRIPTION: Map reference area and adjacent areas of vegetation on hillsides west of Ridge Road. Grassland and mixed indigenous scrub pockets each of approximately 0.5-1.0 ha in gully heads of streams draining west to Mangahao river.

ALTITUDE: 200M

VEGETATION: *Leptospermum*, *Melicytus ramiflorus*, tree ferns, Himalayan honeysuckle. Stock access. All of these areas are evolving towards broadleaved forest.

CONSERVATION RATING: 3

WED SITE 5

MAP REFERENCE: T24 522830

DESCRIPTION: Mangatainoka bluff - Railway reserve. Fenced off at top of face and sides. No stock access. Highway scenic value.

AREA: 10 ha

GEOLOGY: Limestone

ALTITUDE: 75-100m Steep hillside and bluffs

VEGETATION: Mixed broadleaved forest and scrub, *Melicytus ramiflorus* - dominant, *Coprosma robusta*, *C. lucida*, *C. grandifolia*, *Hebe stricta*, *Pittosporum eugenioides*, *Metrosideros robusta* - one good tree, kowhai, *Adiantum cunninghamii*, *Blechnum capense*, *Rangiora*, *Coriaria arborea*, *Schefflera digitata*, *Aristotelia serrata*, *Calystegia sepium*, *Cordyline australis*.

WEEDS: *Clematis vitalba* - not heavy infestation, blackberry, Himalayan honeysuckle. No stock problem, weeds main problem. No other threats. Reasonably natural site representative of vegetation on limestone face.

HIGHWAY SCENIC VALUE

CONSERVATION RATING: 2

WED SITE 6

MAP REFERENCE: T24 486807

DESCRIPTION: Vegetation on face of hillside above Mangamutu railway crossing. Fenced. No stock access.

OWNER:

AREA: 2 ha

ALTITUDE: 75-100 m

VEGETATION: Broadleaved forest and scrub. Kanuka dominant. Some large hinau. No *Clematis vitalba* seen. Blackberry, Himalayan honeysuckle.

THREATS: Weeds
Not good representative area.

CONSERVATION RATING: 3

WED SITE 7

MAP REFERENCE: T 24 467785

OWNER: P Cotter

AREA CIRCA: 2 ha

DESCRIPTION: Grassland and mixed indigenous scrub. Unfenced areas with stock access with vegetation in gullies on east side of ridge.

ALTITUDE: 100 m

VEGETATION: A few hinau. Mostly scrub species. *Coprosma rhamnoides*, *Coprosma robusta*, *Coprosma propinqua*, *Melicytus ramiflorus*, manuka. *Olearia virgata*, manuka and small leaved coprosmas on lower margins of scrub stand. Not good natural or representative area. No *Clematis vitalba*.

CONSERVATION RATING: 3

WED SITE 8

MAP REFERENCE: T24 425785

LANDOWNER: McNichol

ALTITUDE:

DESCRIPTION: Three adjacent areas on this reference:

(1) Mixed broadleaved forest and scrub on papa face on west bank of Mangahao river; bounded by river below and fenced-off above.

AREA CIRCA: 10 ha

VEGETATION: *Melicytus ramiflorus* dominant. *Coprosma* spp., *Schefflera digitata*, tree ferns, no *Clematis vitalba* seen.

CONSERVATION RATING: 2

(2) Area of river terrace woodland on opposite banks to (1) above. Tawa dominant. Some very large *Pennantia corymbosa*.

(3) Fenced area with complete stock exclusion on river terrace.

AREA CIRCA: 1 ha.

Mature broadleaved forest. Tawa dominant. *Plagianthus regius*, *Melicytus ramiflorus*, Kowhai, *Coprosoma* sp?. Area has been shut-up for some years, consequently good ground cover and intermediate forest tiers are present.

No *Clematis vitalba*.

Possible river-flooding erosion is main threat.

Good natural area. Representative value high.

CONSERVATION RATING: 1

WED SITE 9

MAP REFERENCE: T24 499705

AREA: 1 ha

ALTITUDE: 150 m

LANDOWNER:

VEGETATION: Broadleaved forest and scrub in gully and low hill below road. Unfenced.

Melicytus sp.? dominant

Coprosma sp. - large leaved. Kowhai

Cordyline banksii

Natural quality - low

No obvious weeds.

Not a good representative area.

CONSERVATION RATING: 3

WED SITE 10

MAP REFERENCE: T24 472733

DESCRIPTION: Pasture and broadleaved forest.

On hillside at altitude 150m

Area < 1.0 ha Unfenced.

Consists entirely of pocket of tawa trees approx 15-20 m in height.

CONSERVATION RATING: 3

WED SITE 11

MAP REFERENCE: T24 466737

AREA: 2 ha

ALTITUDE: 125 m

LAND TENURE: Unfenced

VEGETATION: Pasture and broadleaved-podocarp forest. Totara dominant, tawa, *Knightia excelsa*, kowhai, cabbage trees. No *Clematis vitalba*.

Valuable scenic backdrop from main highway.

Reasonably natural and representative.

Very similar to Site 14.

CONSERVATION RATING: 2

WED SITE 12

MAP REFERENCE: T24 466737

AREA: 2 ha

ALTITUDE: 125 m

GEOLOGY: Soil

LANDOWNER:

VEGETATION: Pasture and broadleaved woodland on alluvial plains on west side of Makakahi river. Tawa, large *Plagianthus regius*, titoki. Unfenced. No *Clematis vitalba*. These trees representative of former vegetation of Mangatainoka - Makakahi flood plains.

THREATS: Animal damage and flooding.

CONSERVATION RATING: 2

WED SITE 13

MAP REFERENCE: T24 457734

LANDOWNER: Hoggard

AREA: 10 ha

ALTITUDE: 125 m

GEOLOGY & SOIL:

Highly fertile flood-plain land adjacent to Makakahi river and Main highway.

VEGETATION: Pasture and podocarp-broadleaved forest. Kahikatea, tawa, matai. At least 12 huge kahikatea and numerous large tawa trees with a few titoki.

By far the largest kahikatea in the district.

The main compact area of trees with highest cover-abundance has been fenced in the past. The fences are in a poor state of repair and there has been light stock access for some years. As a result of this, the intermediate forest tier species are virtually absent. Ground cover is only *Hydrocotyle*, *Paesia scaberula*, and sparse distribution of other browse and trampling tolerant ferns.

Between the formerly fenced area and the river is a woodland area, again holding some fine very large kahikatea.

No *Clematis vitalba*.

THREATS: The main threat is logging of these very valuable kahikatea trees. The landowner is over 80 years old and has no issue. He has carefully cherished these trees throughout his farming lifetime. When the property eventually changes ownership, a new owner might well decide to fell the trees to offset the cost of farm purchase.

Climate, rainfall and hydrological status of the area are well favourable to long term viability of these trees.

This is a fine representative area and it makes a valuable highway scenic backdrop. This area would be worth consideration for purchase, fencing and enrichment planting. The present owners had not heard of protected private land conservation covenants.

Owing to the age of the owners, some conservation initiative here is a case of urgency.

CONSERVATION RATING: 1

WED SITE 14

MAP REFERENCE: T24 463730

AREA: 2 ha

ALTITUDE: 125 m

LAND TENURE: Unfenced

VEGETATION: Pasture and broadleaved-podocarp forest. Totara dominant, tawa, *Knightia excelsa*, kowhai, cabbage trees. No *Clematis vitalba*.

Valuable scenic backdrop from main highway.

Reasonably natural and representative.

Very similar to Site 14.

CONSERVATION RATING: 2

WED SITE 15(1)

MAP REFERENCE: T24 396746

AREA: 2 ha

ALTITUDE: 200 m

LANDFORM: Steep slope above road and below scarps. Papa face. Fenced above. Roding reserve. *Melicytus ramiflorus* dominant. manuka, kanuka, *Hebe stricta*, kamahi, *Cyathea medullaris*, rangiora, *Pseudopanax arboreus*, small totara. No *Clematis vitalba*. A natural representative area with long term viability.

CONSERVATION RATING: 2

An oversight in site numbering has led to a number duplication of "Site 15". This has been corrected by adopting the strategies of using Site 15(1) and Site 15(2).

WED SITE 15(2)

MAP REFERENCE: T24 379726

PROPERTY OWNER: E A Fouhy

ALTITUDE: 175 m

CLIMATE:

This site is a vantage point for overlooking vegetation on river flats and steep hillfaces on East banks of Mangahao river. Two sites "A" are typical areas of pasture and podocarp-broadleaved forest on alluvial flat terrains. Totara of medium size are dominant. Also present are tawa, titoki, *Plagianthus regius*. Most patches of forest of area 1-2 ha. No *Clematis vitalba*. Unfenced.

"B" site is podocarp-broadleaved-kanuka forest and scrub on steep face below a fenced-off scarp. Area about 2 ha. Kanuka dominant. Kamahi, tawa and small totara.

Mangahao river valley from Marima Domain T24 397743 to the Scout Camps at road bridge crossing at T25 701348:-

Numerous pockets of medium height podocarp-broadleaved-kanuka forest and woodland on alluvial river flats throughout. Site 15(2) A is typical. There are also other examples of podocarp-broadleaved forest and scrub on steep slopes below a fenced scarp as in Site 15(2)B.

There are a few examples of grassland and *Leptospermum* scrub in overall isolated pockets further east on the hills towards Hukanui.

Forest on the flats of the Mangahao river looks healthy and natural. Fertile soil and adequate rainfall ensures long term viability. Largely these forest areas are unfenced because the Mangahao river is subject to unpredictable high floods with frequent loss of fencing.

The areas of podocarp-broadleaved-kanuka forest and scrub on slopes eg. Site 15(2)B have been fenced for stock management purposes.

CONSERVATION RATING: 2

Bracken fern seen only as remnants in narrow road reserves outside boundary fences. Cattle on most farms have eliminated bracken-fernland in this district.

WED SITE 16

MAP REFERENCE: T25 348701

OWNER: Scout camp area at Waiwera

ALTITUDE: 240 m

AREA: 2 ha

Podocarp-broadleaved woodland on alluvial plain. Totara dominant. *Melicytus ramiflorus*, tawa, *Plagianthus regius*, kanuka, manuka, *Coprosma rotundifolia*.

Forest on hillside above road is podocarp-broadleaved forest with tawa, small totara, hinau, kamahi and one conspicuous large rata. Good representative area.

CONSERVATION RATING: 2

WED SITE 17

MAP REFERENCE: T25 341 616

AREA: 1.0 ha

ALTITUDE: 250 m

VEGETATION: Grassland and mixed indigenous scrub. Manuka-kanuka scrub with broadleaved species on eastern face of low hill. Unfenced.

CONSERVATION RATING: 3

WED SITE 18

MAP REFERENCE: T 25 378568

LANDOWNER: B J Lochore

AREA: 12 ha

ALTITUDE: 260 m

LANDFORM: On alluvial terrace above gorge of Makakahi river. Podocarp-broadleaved forest. Tawa dominant, small totara, hinau. Intermediate forest tiers present. No *Clematis vitalba*. Fenced and stock excluded. Appears to be a private reserve. No evidence of previous logging. A good natural representative area.

CONSERVATION RATING: 1

With the exception of the noted natural areas, the country of Hukanui, Nireaha, Rongokokako and Kaiparoro is mostly fully developed high producing pastoral country with no significant bush, scrub, wetland or fernland.

From the main highway bridge at T25 380559 towards Eketahuna there is podocarp-broadleaved woodland along the Makakahi river and similar forest type natural areas below the scarp on the west bank.

Site 18 is a good representative example of forest in this area.

WED SITE 19

MAP REFERENCE: T25 380650

TENURE: Railway land Reserve - Fenced

AREA: 1.0 ha

GEOLOGY: Riparian alluvial plain.

ALTITUDE: 200 m

VEGETATION: Pasture and broadleaved forest. Tawa dominant. *Plagianthus regius*. Podocarp probably removed in past. No *Clematis vitalba*. Blackberry and convolvulus out of control. No longer a good natural or representative area. Weeds are too bad and area is too small for long term viability.

CONSERVATION RATING: 3

WED SITE 20

MAP REFERENCE: T24 482757

ALTITUDE: 150 m

AREA: 15 ha

LANDOWNER:

LANDSCAPE: Pasture and podocarp-broadleaved.

VEGETATION: Forest on low hill.

Area is fenced and is intermittently grazed at long intervals. Some dense cover and some regeneration. Tawa dominant. Titoki, hinau, *Melicytus ramiflorus*, *Myrsine australis*, matai, totara, *Hedycarya arborea*, *Coprosma areolata*, *Coprosma rotundifolia*, *Lastreopsis velutina*, *Asplenium hookerianum*, *Pellaea rotundifolia*, *Blechnum filiforme*. No *Clematis vitalba*. Himalayan honeysuckle and blackberry present.

This fenced-off area is woodland-pasture closest to the road. Higher up the hill there is good cover abundance rating with forest understory species present and good ground cover. Tui and pigeons seen. This area has probably been "selectively" logged in distant past. Main threat is weeds.

CONSERVATION RATING: 2

WED SITE 21

MAP REFERENCE: T24 476755

ALTITUDE: 150 m

LANDOWNER:

AREA: 10 ha

LANDSCAPE: Riparian alluvial terrace along Makakahi River.

VEGETATION: Pasture and podocarp-broadleaved forest with woodland continuing downstream towards confluence with Mangatainoka river. Tawa dominant - some large trees. Matai - 2 trees, titoki, hinau, *Plagianthus regius*, *Hoheria sexstylosa*, cabbage trees. Kowhai, *Pittosporum eugenioides*. *Coprosma* spp. No *Clematis vitalba*. Area is fenced but stock have access. Rubbish has been dumped. A good representative area.

Naturalness - about Rank 2

Significant highway scenic backdrop value. Pigeons and fantails seen.

CONSERVATION RATING: 2

WED SITE 22

MAP REFERENCE: T 24 440726

ALTITUDE: 160 m

LANDSCAPE: Alluvial plain along river.

VEGETATION: Podocarp-broadleaf forest. Tawa dominant. Miro, *Meliccytus ramiflorus*. Kowhai. *Coprosma areolata*. Intermediate forest-tier species present. No *Clematis vitalba*. *Tradescantia* present. Area is well-fenced with complete stock exclusion. Regeneration proceeding rapidly.

THREATS: Weeds, possums.

Good representative area.

CONSERVATION RATING: 1

WED SITE 23

MAP REFERENCE: T24 439716

ALTITUDE: 150 m

LANDOWNER: R Mabey

AREA: 1.0 ha

LANDSCAPE: Riparian alluvial plain.

VEGETATION: Broadleaved forest and woodland. All tawa. No podocarp left. No *Clematis vitalba*. No ground cover or fences. Intermediate tier species. Without enrichment planting and long term protection this small area would not be viable.

CONSERVATION RATING: 3

Mangatainoka river has numerous small areas of podocarp-broadleaved woodland along riverbanks from Hukanui to Pahiatua. This is predominantly tawa, and few large podocarps remain.

WED SITE 24

MAP REFERENCE: T25 384674

ALTITUDE: 200 m

LANDOWNER: Dougherty

AREA: 5.0 ha

LANDFORM: Poorly drained area on alluvial plain.

VEGETATION: *Leptospermum scoparium* scrub and adjacent wetland species. *Leptospermum* dominant. *Olearia virgata* - uncommon. Tree ferns - a few. *Coprosma rotundifolia* seedlings. *Histiopteris incisa*. Blackberry. No *Clematis vitalba*. Area fenced. Adjacent small wetland with common *Juncus* species.. Good natural area, representative of scrublands once commenced in the district.

CONSERVATION RATING: 2

WED SITE 25

MAP REFERENCE: T25 399681

ALTITUDE: 200 m

LANDOWNER: The property is managed by an estate and the farm is occupied by a sharemilker who takes pride in protection of this fenced bush reserve. It is a private reserve protected in the will by the intent of the testator.

AREA: 1.0 ha

LANDSCAPE: Alluvial plain close to Mangatainoka River.

VEGETATION: Podocarp-broadleaved forest. Tawa dominant, some large kahikatea. All forest tiers represented. Good diversity. Much *Coprosma areolata*. No *Clematis vitalba* or other bad weeds. Fenced with complete stock exclusion for many years.

Naturalness rating - high

Diversity rating - high

Representative rating high, good long term viability

No imminent threats under present tenure. This is easily the best example of the tawa-podocarp forest remnants along the Mangatainoka River.

CONSERVATION RATING: 1

WED SITE 26

MAP REFERENCE: T24 460751

ALTITUDE: 150 m

LANDOWNER:

AREA: 1.0 ha

LANDSCAPE: Flat alluvial plain.

VEGETATION: Pasture and broadleaved forest woodland. This is a diffuse unfenced grouping of residual large tawa trees with complete stock access and no lower tier forest species surviving. Although long-term viability of this stand is nil, the large trees make a scenic impact.

CONSERVATION RATING: 3

WED SITE 27A

MAP REFERENCE: T24 440726

AREA: 5.0 ha

ALTITUDE: 150 m

LANDOWNER: Francis, QEII Conservation Covenant

LANDSCAPE: Flat riparian alluvial plain.

VEGETATION: Podocarp-broadleaved forest. Tawa dominant. Fenced with stock exclusion and some enrichment planting. Area not examined by entry and inspection.

CONSERVATION RATING: 2

WED SITE 27

MAP REFERENCE: T24 660900

AREA: 15.0 ha

ALTITUDE: 225 m

LANDOWNER: D Druce

LANDSCAPE: Hillside face vegetated from ridge to Awapiko Stream.

VEGETATION: Podocarp-broadleaved forest. Tawa dominant, totara, rimu, matai, maire, *Melicytus ramiflorus*. Tree ferns. Intermediate forest tier and ground cover intact. No *Clematis vitalba*. No bad weeds. Fenced and carefully tended. No stock access.

Natural values - high

Diversity - high

Representative values high

Complete plant list for this area available from owner's brother -Mr AP Druce, DSIR Land Resources Division, Lower Hutt.

This is a private reserve but it may become a QEII covenant reserve if negotiations proceed. No conservation threats.

CONSERVATION RATING: 1

WED SITE 28B

MAP REFERENCE: T24 655896

AREA: 5 ha

ALTITUDE: 175 m

LANDOWNER:

LANDSCAPE: Upper slopes of low hill.

VEGETATION: Broadleaved forest and scrub. Kanuka and tawa dominant. Tree ferns, *Melicytus*. Fenced.

CONSERVATION VALUE: 3

WED SITE 29

MAP REFERENCE: T24 624872

AREA: 10 ha

ALTITUDE: 175 m

LANDOWNER:

LANDSCAPE: Upper face of low hill.

VEGETATION: Kanuka-broadleaved forest and scrub. Kanuka dominant. Tawa. *Melicytus ramiflorus*. Tree ferns. No totara. Unfenced.

CONSERVATION RATING: 3

WED SITE 30

MAP REFERENCE: T24 681911

AREA: 15 ha

ALTITUDE: 150 M

LANDOWNER: Patterson Scenic Reserve. Administered by Tararua District Council.

CARETAKER: Wilfred Poulton, Address - Woodville.

LANDSCAPE: Valley floor, Terrace and low hill.

VEGETATION: Podocarp-broadleaved forest and scrub. Tawa dominant. Totara, matai, rimu, kahikatea, kanuka, kowhai. *Clematis vitalba* - a little bit near the road. *Tradescantia* - one small colony near the stream. Fenced and good stock exclusion.

THREATS: - *Clematis vitalba*. Has probably had some early logging.

CONSERVATION RATING: 1

This is a good reserve and much cherished by local Kumeroa people.

MAP REFERENCE: T24 from point 681911 to 670938 Otawhao Stream and Cemetery Road. There is good pasture and podocarp-broadleaved forest and woodland along the course of this stream. Totara, kowhai. This area is very suitable for protection by fencing-off stream gullies and terrace vegetation. Two areas here have been fenced and are under QEII covenants. Further covenanting is planned.

LANDOWNER: Mr Perry
Good representative area

CONSERVATION RATING: 1

WED SITE 31

MAP REFERENCE: T23 689070

AREA: 12 HA

ALTITUDE: 240 m

LANDOWNER: 2 owners and 2 titles, G Gibson and K Currie, complicated fences. One part has stock access.

LANDSCAPE: Alluvial plains. Flat terrain with stream tributary flowing through bush.

VEGETATION: Podocarp-broadleaved forest and woodland. Tawa dominant. Totara. All forest tiers well represented in the stock exclusion area. Good species diversity. No *Clematis vitalba*. A little blackberry, burdock, ragwort and wild strawberry. Evidence of some old historical logging. Good long-term viability. Threats: stock trampling, possums, weeds.

Naturalness rating 1

Representative rating 1

One of the better examples of this vegetation type in this district.

CONSERVATION RATING: 1

WED SITE 32

MAP REFERENCE: T23 675036

AREA: 5 ha

ALTITUDE: 200 m

LANDOWNER: A Charmley

LANDSCAPE: Alluvial plain

VEGETATION: Podocarp-broadleaved forest and woodland. Probably logged in distant past. Few totara and matai are left. Tawa dominant. Titoki, miro, kowhai. Good forest and floor diversity. *Fuchsia excorticata* x *perscandens*. Small leaved shrubs at forest edges. No *Clematis vitalba*. Area fenced in part for stock management. Native pigeons.

Naturalness rating - 2

Representative rating - 2

Viability rating - 1

CONSERVATION RATING: 2

WED SITE 33

MAP REFERENCE: T23 650035

AREA: 5 ha

ALTITUDE: 200 m

LANDOWNER: B Charmley

LANDSCAPE: Alluvial plain

VEGETATION: Pasture and podocarp forest and woodland. Totara dominant. Kowhai. No tawa. One large kahikatea. *Melicytus*. Area fenced 6 years ago and maintained as an informal private reserve. *Clematis vitalba*, 2 vines only. Attack planned.

Diversity rating - 2

Naturalness rating - 2

Representative rating - 2

Long-term viability - 1

CONSERVATION RATING: 2

WED SITE 34

MAP REFERENCE: T23 655019

AREA: 25 ha

ALTITUDE: 200 m

LANDOWNER: N T Wrenn

LANDSCAPE: Low hills and streamsides

VEGETATION: Pasture and podocarp-broadleaved forest and woodland. Totara and kowhai dominant. 8 large kahikatea, one rimu, hinau, matai, tawa, kanuka, titoki, large *Melicope simplex*. Middle forest tier species present but very little ground cover. Unfenced, sheep grazing. No bad trampling. Epiphytes and lianes present. No *Clematis vitalba*. No other bad weeds. Fencing would be difficult as bush is not in one circumscribed area. Fencing of part of it would be best option, or else fence the whole area and attempt enrichment planting.

Long term viability rating - 2

Accessability rating - 2

Representative rating - 1

Naturalness - 2

An adjacent wetland in this block : *Olearia virgata*, *Carex secta* trunks. On account of its size, diversity and good representative rating this would be one of the best examples of podocarp-broadleaved forest in this area.

CONSERVATION RATING: 1

Gaisford Road and Jackson Road T24
Kowhai-totara woodland prevails here.

WED SITE 34A

MAP REFERENCE: T24 649947

AREA: 20 ha

ALTITUDE: 150 m

LANDOWNER: M Beatson

LANDSCAPE: Face of low hill descending from ridge crest to Raparapawai stream and continuing as a long riparian strip to road bridge.

VEGETATION: Podocarp-broadleaved forest. Totara dominant. Some large kahikatea, matai. Titoki-kowhai. *Paratrophis microphylla*, *Cordyline banksii*, *Fuchsia perscandens* and *F. excorticata*. Small-leaved shrubs, *Melicope simplex*, *Melicytus micranthus*, *Lophomyrtus obcordata*, *Coprosma rhamnoides*, *Coprosma areolata*, *Coprosma rotundifolia*. Unfenced but would be easy to fence effectively. No obvious trampling. No *Clematis vitalba* or other bad weeds. The Raparapawai Stream here is in a stable bed and the large podocarp trees growing on its banks makes the area scenically attractive.

Diversity rating - 1

Naturalness rating - 1

Representative rating - 1

Viability - 2

CONSERVATION RATING: 2

WED SITE 35

MAP REFERENCE: T24 585886

AREA: 10 ha

ALTITUDE: 200 m

LANDOWNER:

LANDSCAPE: Upper face of low hill

VEGETATION: Kanuka-broadleaved forest and scrub. Kanuka dominant. *Melicytus*, tree ferns.

CONSERVATION RATING: 3

WED SITE 36

MAP REFERENCE: T24 578870

AREA: 2.0 ha

ALTITUDE: 100 m

LAND TENURE: Roding reserve - Tararua District Council

GEOLOGY AND SOIL: Sandstone

LANDSCAPE: Stable roadside bluff above river.

VEGETATION: Mixed indigenous scrub. Manuka, *Hebe stricta*, *Melicytus ramiflorus*, *Coprosma robusta*, *Coriaria arborea*, Rangiora. *Blechnum capense*, *Adiantum cunninghamii*, flax, *Machaerina sinclairii*, *Gnaphalium subrigidum*. No bad weeds.

Diversity rating - 1

Naturalness - 1

Representative rating - 1

Viability - 1

Only threat is road-widening, watertable clearance for visibility, spraying. Road widening by mining into this tall rock face appears unlikely.

This is a good natural representative area and its condition should be regularly monitored as recommended in the management suggestions that accompany this report.

CONSERVATION RATING: 2

WED SITE 37

MAP REFERENCE: T24 585895

AREA: 20 ha

ALTITUDE: 200 m

LANDOWNER:

LANDSCAPE: Rolling hills.

VEGETATION: Kanuka-broadleaved forest and scrub. Kanuka dominant.

CONSERVATION RATING: 3

WED SITE 38

MAP REFERENCE: T24 570781

AREA: 2.0 ha

ALTITUDE: 200 m

LANDSCAPE: Face of hill

VEGETATION: Broadleaved forest and scrub. *Clematis vitalba* - very heavy infestation.

CONSERVATION RATING: Nil

Clematis vitalba in the Ngaturi region is in places as bad as Taihape bad sites.

WED SITE 39

MAP REFERENCE: T24 577781

AREA: 1.5 ha

ALTITUDE: 100 m

LANDOWNER: Barry Scott

LANDSCAPE: Riverside terrace

VEGETATION: Lowland podocarp-broadleaved forest. Tawa dominant. Totara area fenced and stock excluded for last 3 years. Some regeneration. *Coprosma areolata*, *Phymatosorus scandens*, *Blechnum procerum*, *Blechnum filiforme*, *Lastreopsis glabella*. *Clematis vitalba* is present but is being successfully eliminated.

THREATS: *Clematis vitalba*.

Long-term viability rating - 2

Naturalness rating - 2

Diversity - 2

Representative rating - 2

CONSERVATION RATING: 2

SITE 40

REFERENCE: T24 544810

AREA: 0.5 ha

ALTITUDE: 150 m

LANDOWNER: Harvey Estate

LANDSCAPE: Face of low hill

VEGETATION: Broadleaved forest and scrub. Tawa dominant. Manuka-kanuka periphery. Gorse. Unfenced.

CONSERVATION RATING: 3

WED SITE 41

REFERENCE: T24 579812

AREA: 4.0 ha

ALTITUDE: 150 M

LANDOWNER: B Carthew

LANDSCAPE: Face of low hill. Fenced, but stretched intermittently with sheep as required to control *Clematis vitalba*.

VEGETATION: Lowland podocarp - broadleaved forest. Tawa dominant. Kahikatea - a few trees 10-15 m height. Titoki, hinau, *Knightia excelsa*, *Melicytus*, *Pennantia corymbosa*, *Blechnum fluviatile*, *Polystichum vestitum*.

Weeds: a very little *Clematis vitalba*, under control; Himalayan honeysuckle - only a few.

Birds - wood pigeons, tuis, fantails.

Diversity rating - 2

Viability - 2

Naturalness rating - 2

Representative rating - 2

A private reserve with good intention for maintenance and QEII covenanting. Fear of *Clematis vitalba* explosion has been a factor in not maintaining stock exclusion.

CONSERVATION RATING: 2

Clematis vitalba is locally very bad on the papa country in the Ngaturi-Kanuka region Millers road and Waituna road are comparable with Taihape areas.

WED SITE 42

MAP REFERENCE: U23 764018

AREA: 5.0 ha

ALTITUDE: 175 m

LANDSCAPE: Face of low hill.

LANDOWNER: Chase - Maori land

FENCING: Unfenced but has plans for creating a reserve.

VEGETATION: Pasture and podocarp-broadleaved forest. Tawa dominant. Some good large totara. No *Clematis vitalba*. *Melicytus*, titoki.

Diversity rating - 2

Naturalness rating - 2

Representative - 2

CONSERVATION RATING - 2

WED SITE 43 & 44

MAP REFERENCE: U23 772015 & 782013

AREA: 2 areas each 2.0 ha

ALTITUDE: 225 m

LANDOWNER:

LANDSCAPE: Face of low hill and descending to banks of gorge.

FENCING: Areas unfenced.

VEGETATION: Pasture and podocarp-broadleaved forest. Tawa and totara. *Clematis vitalba* - under control.

CONSERVATION RATING: 2

WED SITE 45

MAP REFERENCE: U23 779028

AREA: 5.0 ha

ALTITUDE: 150 m

LANDOWNER:

LANDSCAPE: Riparian vegetation along course of Tokitoki Stream and face of low hill.

FENCING: Area partly and occasionally lightly grazed with sheep to control *Clematis vitalba*.

VEGETATION: Lowland podocarp-broadleaved forest. Kowhai, Totara dominant. Kanuka, *Melicytus ramiflorus*, *Pittosporum tenuifolium*, *Pseudopanax crassifolius*, *Hoheria sexstylosa*, *Hebe stricta*. *Nestegis montana*, *Coprosma rigida*. Manuka. Flax. *Cordyline australis*.

No *Clematis vitalba* seen, but it is probably present because this is a bad section of the Manawatu river for this weed.

THREATS: *Clematis vitalba*. Stock access.

Diversity rating - 1

Naturalness rating - 2

Representative rating - 1

CONSERVATION RATING: 1

WED SITE 47

MAP REFERENCE: U23 755016

AREA: 4.0 ha

ALTITUDE: 150 m

LANDOWNER: J Riddel

LANDSCAPE: Riparian vegetation extending upstream to low hill.

FENCING: Area unfenced. Cattle have access.

VEGETATION: Pasture and podocarp-broadleaved forest. Totara dominant. Large matai trees. *Pseudopanax crassifolius*, kowhai, titoki, miro. *Melicope simplex*, *Pseudopanax anomalus*. *Lophomyrtus obcordata*. *Coprosma propinqua*, *Coprosma rigida*.

WEEDS: Blackberry. No *Clematis vitalba*.

Diversity rating - 1

Naturalness rating - 2

Representativeness rating - 2

Threats - weed invasion. Cattle trampling.

CONSERVATION RATING: 2

WED SITE 48

MAP REFERENCE: U23 727002

AREA: 1.0 ha

ALTITUDE: 150 m

LANDOWNER: Turner

LANDSCAPE: Alluvial terrace.

FENCING: Area fenced with stock exclusions.

VEGETATION: Mixed broadleaved forest. Tawa dominant.

Diversity rating - 3

Representative rating - 2

Naturalness rating - 2

Long-term viability - 3

Area too small

CONSERVATION RATING: 3

WED SITE 49

MAP REFERENCE: U23 728018

AREA: 5.0 ha

ALTITUDE: 150 m

LANDOWNER: Turner

LANDSCAPE: Alluvial plain

FENCING: Area unfenced. Tree stock access.

VEGETATION: Pasture and podocarp-broadleaved forest. Central area of tall forest with peripheral woodland. Very tall straight totara, matai and titoki, *Nestegis cunninghamii*, *Melicytus ramiflorus*. No intermediate tier species or ground cover remaining. No *Clematis vitalba* seen but this is a *Clematis vitalba* infested section of Manawatu river. Large kanuka trees in peripheral woodland.

ANIMALS: The gecko *Hoplodactylus maculatus* is numerous here. Road access here for taking of river metal crushing and disused concrete bins can be seen. Property owner would like to fence and exclude stock but threat of *Clematis vitalba* influences his decision to continue grazing.

These fine large trees are representative of the former podocarp rainforest of the Manawatu alluvial plain. Although only the upper tier of the original forest remains here this area would warrant reservation and enrichment planting.

CONSERVATION RATING: 1

WED SITE 50

MAP REFERENCE: T24 619993

AREA: 20 ha

ALTITUDE: 200 m

LANDOWNER: M Genet

LANDSCAPE: Face of low hill, stream, lake and wetland.

FENCING: Area unfenced.

VEGETATION: Broad-leaved forest and scrub. Wetland vegetation. Kanuka and *Melicytus* dominant. Very few small totara. *Pseudopanax arboreus*, *Pseudopanax crassifolius*. *Weinmannia racemosa*, *Olearia rani*, tree ferns. *Coprosma rotundifolia*, *Urtica ferox*. Supplejack, not much ground cover. *Asplenium bulbiferum*.

Botrychium australe - so far the only record in the district! Blackberry, no *Clematis vitalba*. Threats - blackberry, stock access.

Adjacent wetland - bush stream flowing into a lake of about area 1.0 ha with fringing *Typha*, rushes and *Carex secta*. *Olearia virgata*. Good wildlife habitat. This would be one of the best wetlands in the district. It is not on WERI register!

The bush and wetland could easily be fenced and the landowner is a co-operative type. There is a smaller similar forest and scrub area a little further up the same stream.

Diversity rating - 1
Naturalness rating - 2
Representative rating - 1
Viability - 2

CONSERVATION RATING: 1

WED SITE 51

REFERENCE: T24 594970

AREA: 1.0 ha

ALTITUDE: 150 m

LANDSCAPE: Low hill face above stream.

FENCING: Unfenced

VEGETATION: Kanuka-broadleaved-podocarp forest and scrub, kanuka dominant. One hinau. Few small totara, *Melicytus*, tree ferns.

Diversity rating - 3

Naturalness rating - 3

Representative value - 3

Viability - 3

CONSERVATION RATING: 3

WED SITE 52

MAP REFERENCE: T23 617018

AREA: 0.25 ha

ALTITUDE: 240 m

LANDSCAPE: Wetland on alluvial plain

FENCING: Fenced

VEGETATION: *Typha*. *Olearia virgata*, open water. Area adjacent to a dwelling house. Too small.

CONSERVATION RATING: 3

WED SITE 53

MAP REFERENCE: T23 653011

AREA: 0.2 ha

ALTITUDE: 200 m

LANDSCAPE: Gently sloping roadside reserve 100 x 20m

FENCING: Fenced from farmland only.

VEGETATION: Broadleaved forest and scrub. *Pseudopanax crassifolium*. *Astelia fragrans*. *Pittosporum ralphii*, *Pseudopanax arboreus*. *Olearia virgata*. *Olearia rani*. *Weinmannia racemosa*, manuka. *Parsonsia capsularis*. *Pseudopanax anomalus*. *Coprosma rigida*. *Coprosma rhamnoides*. *Pimelea longifolia* recorded in this place in the past. Not seen here today.

This is a densely vegetated roadside strip of high conservation value. It should be part of a selected group of similarly sited "reserves" noted on the district scheme and regularly monitored by an honorary ranger. (See notes on conservation problems and recommendations for developed areas).

CONSERVATION RATING: 2

WED SITE 54

MAP REFERENCE: T23 669011

AREA: 2.0 ha

ALTITUDE: 180 M

LANDOWNER: P D Wrenn

LANDSCAPE: Face of low hill

FENCING: Unfenced

VEGETATION: Pasture and broadleaved forest and woodland. *Melicytus ramiflorus*. Kowhai, titoki, tree ferns. No *Clematis vitalba*.

Naturalness rating - 3

Representative rating - 2

Long-term viability - 3

CONSERVATION RATING: 3

WED SITE 55

MAP REFERENCE: T23 691029

AREA: 5.0 ha

ALTITUDE: 150 M

LANDOWNER: Maori land - spokesman Roger Pearce

GEOLOGY AND SOIL:

CLIMATE:

LANDSCAPE: Wetland on alluvial plain. Forms a floodplain between Otaramaho and Kumeti Streams as central feature in a paddock bounded on west by State Highway and on the east by Wellington-Napier railway line.

FENCING: Main wetland unfenced and has stock access.

VEGETATION: *Typha*, rush, sedge and *Olearia* wetland. No open water. A central area of *Typha* with *Salix* sp. and a few very large *Olearia virgata* surrounded by *Juncus*, *Carex* and pasture species. *Juncus planifolius*, *Juncus articulatus*. *Juncus bufonius*, *Eleocharis acuta*, *Carex ovalis*, *Carex geminata*. *Ranunculus flammula*, *Cortaderia fulvida*, *Coprosma tenuicaulis*, *Coprosma rigida*, *Coprosma robusta*, *Carex secta*, *Blechnum minus*. *Histiopteris incisa*. *Hypolepis tenuifolium*, bracken fern, *Muehlenbeckia australis*. Blackberry. *Dicksonia fibrosa*. *Gastrodia*.

Representative rating - 1

Naturalness rating - 2

Diversity rating - 1

Longterm viability - 2

ANIMALS: pukeko.

This wetland is not on WERI register. It has nearly all the ecologically important wetland species expected in the district, including some uncommon ones.

CONSERVATION RATING: 1

WED SITE 56

MAP REFERENCE: U23 759018

AREA: 4.0 ha

ALTITUDE: 125 M

LANDOWNER: Western half of lake - J Riddel (upstream eastern half of lake owned by Mr Chase (Maori land), cf Site 42.

LANDSCAPE: Lake Mahanga-iti and adjacent pasture contiguous with Site 47, on alluvial plain.

VEGETATION: Wetland eutrophic mire merging to shrubland-pasture at western end of lake.

A shallow lake about 500 m long x 75 m wide with open water fringed by a narrow belt of *Typha* mainly on south side. *Carex secta* and *Juncus* species mainly at west end. These are here heavily stock-trampled.

Lake side species and emergents by this lake are of poor development and low diversity.

The shrubland pasture of the western end of the lake is outstanding! There is an exceptionally fine stand of 80-100 large specimens of small-leaved shrubs in two main groupings. The majority of these shrubs are *Olearia virgata*, but there are also many *Coprosma propinqua* among them. All of these shrubs appear healthy and of maximum size for the species. There is no regeneration.

ANIMALS: Mallard and grey duck and dabchick and pukeko regularly seen. Reports of bittern and crane are unconfirmed.

WEEDS AND THREATS: No bad weeds. No *Clematis vitalba*. Stock trampling is main threat.

FENCING: The eastern half of the lake has untidy fencing and semi-derelict sheds and yards reflecting pig-farming operations. The western half of the lake is unfenced and shares cattle grazing with Site 47.
Both landowners are co-operative types.

Diversity rating - 3
Naturalness rating - 2
Representative rating - 1
Viability - 2

The shrubland is as fine an example of this association as can be found in the ecological district and arguably the best in Hawkes Bay.

CONSERVATION RATING: 1

WED SITE 57

MAP REFERENCE: U23 735043

AREA: 25.0 ha

ALTITUDE: 200 m
Dannevirke Oxidation Ponds - 2 ponds of about 12.0 ha

FENCING: Fenced and stock excluded.

LANDSCAPE: Manmade ponds with stone and concrete walls.

VEGETATION: No emergent plants from the sheets of open water.
No lakeside wetland plants.

ANIMALS: All the common waterbirds of Hawkes Bay occupy these ponds intermittently. Breeding records no known. Good wildlife habitat.

CONSERVATION RATING: 2

WED SITE 58

MAP REFERENCE: U23 750031

AREA: 20 ha

ALTITUDE: 125 m

LANDOWNER: Oxbow wetland and adjacent forest and scrub is divided between two owners: M Lund and one Mr Randson (? Ramsom).

FENCING: Oxbow wetland is fenced off with stock exclusion.

LANDSCAPE: Oxbow wetland with extensive areas of open water. Vegetated face of low hill on north face of wetland. Dwelling house and buildings of horticultural enterprise half-encircled by the Oxbow.

VEGETATION: Wetland eutrophic mire subtended by low hill face clothed in mixed forest and scrub. Much open water. Dense healthy stand of *Typha orientalis* in many places. *Carex secta*. *Carex geminata*. Kowhai. Kanuka, a few small totara. Mixed forest and scrub with tree ferns. *Clematis vitalba* - bad infestation.

ANIMALS: All common wetland birds seen here regularly. Bittern and spotless have not been seen here by present owner. With extensive areas of *Typha* and an oxbow of nearly 1 km in total length this appears ideal crane habitat. Ideal wetland bird habitat.

CONSERVATION RATING: 1

WED SITE 59

MAP REFERENCE: T24 498850

AREA: 5.0 ha

ALTITUDE: 100 m

GEOLOGY AND SOIL: Limestone scarp

FENCING: Area fenced with stock exclusion.

LANDSCAPE: Scarp and steep face above flats of the Mangahao river.

VEGETATION: Podocarp-kanuka-broadleaved forest and scrub. Totara, kanuka, *Melicytus*, tree ferns.

CONSERVATION RATING: 2

WED SITE 60

MAP REFERENCE: T25 444656

AREA: 5.0 ha

ALTITUDE: 200 m

LANDOWNER: R Algie

LANDSCAPE: Face of low hill.

FENCING: Fenced with stock exclusion.

VEGETATION: Podocarp-broadleaved forest and scrub. Tawa dominant. Tree ferns, one large totara. Weeds - no *Clematis vitalba*.

Naturalness rating - 2

Diversity rating - 2

Representative rating - 2

Diversity - 3

CONSERVATION RATING: 2

SITE 61

MAP REFERENCE: T25 427587

AREA: 10.0 ha

ALTITUDE: 300 m

LANDOWNER: M Davies

LANDSCAPE: Face of low hill descending to Ohuha Stream.

FENCING: Unfenced at present but easy terrain to fence off. Fencing and stock exclusion planned by owner.

VEGETATION: Mixed broadleaved-kanuka-podocarp forest and scrub. Tawa dominant. Totara, kanuka. Tree ferns. Weeds - Himalayan honeysuckle. No *Clematis vitalba*. The area gives impressions as being largely a "second growth" stand. Landowner wishes to conserve and has unsuccessfully approached QEII trust for funds to allow fencing.

Naturalness rating - 2

Representative rating - 2

Diversity rating - 2

Viability - 2

CONSERVATION RATING: 2

WED SITE 62

MAP REFERENCE: T25 350646

AREA: Area of the originally surveyed road reserve was 9.5ha. The present forest and woodland remnant is 2.0ha. The unfenced totara island is approximately 0.5ha in area.

ALTITUDE: 200 m

LANDOWNER: Tararua District Council. Present legal status uncertain. It is probably zoned for protection under former Eketahuna County Council District Scheme.

LANDSCAPE: Alluvial flat alongside river - Mangatainoka.

FENCING: The larger woodland area is fenced and has a good shelterbelt of Mexican cypress on the South and West. The isolated island of Totara trees is unfenced and has restricted stock access.

VEGETATION: Area A: The 2.0ha fenced area is a woodland remnant of mixed podocarp-broadleaved forest and scrub. One large kahikatea. Tawa, *Melicytus ramiflorus*, large *Plagianthus regius*. Small-leaved *Coprosma* spp, *Pennantia corymbosa*, *Metrosideros diffusa*, *Rubus australis*, *Rhipogonum scandens*, tree ferns, *Phymatosorus diversifolius*, *Pyrrosia serpens*. Numerous juvenile totara 1-2m height have been planted at 4m centres with good survival rates although there is some stock damage.

Weeds - *Clematis vitalba* was noted but a little ragwort was seen.

Area B: This is the 0.5ha unfenced island of approximately aged totara trees with straight trunks and breast-height diameter in excess of 80cm. There is free access of farm stock and the only lower forest tier present is a dense stand of very old *Melicope simplex* on the downstream riverside margin of the Totara.

EROSION: The fenced 2.0ha area is not erosion-threatened but there is a dangerous threat to the Totara island and some urgent protection work is necessary.

GRAZING: Evidence of illegal grazing

Naturalness rating - 2

Diversity rating - 3

Representative rating - 3

Viability - 1

CONSERVATION RATING: 2

This area rates a high conservation value because of its totara content, and on account of it being the only bush remnant in the immediate Nireaha district.

WED SITE 63 & 64

MAP REFERENCE: T25 511681 & 519690

ALTITUDE: 150 m

LANDOWNER: McLaughlin

AREA:

LANDSCAPE: Alluvial plain and low hill

FENCING: A reverted neglected farm property with fencing off of the better cleared areas on the flats. No stock exclusion from the forest and scrub areas. Weeds - Gorse is principal weed. *Clematis vitalba* not seen.

VEGETATION: Manuka-kanuka-broadleaved forest and scrub. This property has a long history of pastoral neglect and mismanagement. It has been almost entirely reverted manuka and kanuka with gorse for more than 60 years. Under present ownership parts of the flats have been cleared recently. Extensive areas of manuka-kanuka-broadleaved scrub with very old gorse.

Manuka-kanuka-broadleaved species and tree ferns emerge in many places above the gorse. *Melicytus ramiflorus* and light tawa bush on periphery in a few places. Several separate gullies with tree ferns and tawa. A little scattered tawa woodland pasture along riverbank.

Representative rating - 3
Naturalness rating - 3
Diversity rating - 3
Viability - 2

Area of some scientific interest as a good example of native regeneration through gorse to forest and scrub.

CONSERVATION RATING: 2

WED SITES 65, 66, 67,

MAP REFERENCE: T24 519702, 514705, 517708

AREAS: 10, 15, 10 ha

ALTITUDE: 150 m

These three areas similar in vegetation and conservation rating to sites 63 and 64.

CONSERVATION RANKING: 2

WED SITE 68

MAP REFERENCE: T24 534766

AREA: 4.0 ha

ALTITUDE: 150 m

LANDOWNER:

LANDSCAPE: Face of low hill

FENCING: Unfenced. Stock access.

VEGETATION: Pasture and kanuka-broadleaved forest and scrub.
Melicytus ramiflorus. Tawa, kanuka.

Representative rating - 3

Naturalness rating - 3

Diversity rating - 3

Viability - 3

CONSERVATION RATING: 3

**Table 1: Recommended Areas for Protection -
Woodville Ecological District -
Conservation Ranking = 1**

Site No	Map Ref	Owner	Area (ha)	Type	Conservancy
1	T24,512908	Ormond Estate	8.0	B/P,W	Hawke's Bay
8	T24,425785	McNichol	10.0	B,	Wellington
13	T24,457734	Hoggard	10.0	B/P,	Wellington
18	T25,378568	B J Lochore	12.0	B/P,	Wellington
22	T24,440726	?	?	B/P,	Wellington
25	T25,399681	?	1.0	B/P,	Wellington
27	T24,660900	D Druce	15.0	B/P,	Hawke's Bay
30	T24,681911	Perry	?	B/P,	Hawke's Bay
31	T23,689070	Gibson and Currie	12.0	B/P,	Hawke's Bay
34	T23,655019	N T Wrenn	25.0	B/P,	Hawke's Bay
45	U23,779028	?	5.0	B/P,	Hawke's Bay
49	U23,728018	Turner	5.0	B/P,	Hawke's Bay
50	T24,619993	M Genet	20.0	B/P,W	Hawke's Bay
55	T23,691029	Maori	5.0	W	Hawke's Bay
56	U23,759018	Riddell/Chase	4.0	W	Hawke's Bay
58	U23,750031	Lund/Randson	20.0	W	Hawke's Bay

Notes: B/P = Broadleaved/Podocarp Forest
 W = Wetland

**Table 2: Recommended Areas for Protection -
Woodville Ecological District -
Conservation Ranking = 2**

Site No	Map Ref	Owner	Area (ha)	Type	Cons'y
5	T24,522830	?	10.0	B,Sc	Wgtn
8	T24,425785	McNichol	10.0	B	Wgtn
11	T24,466737	?	2.0	B/P	Wgtn
12	T24,466737	?	?	B	Wgtn
14	T24,463730	?	2.0	B/P	Wgtn
15 (1)	T24,396746	?	2.0	B,Sc	Wgtn
15 (2)	T24,379726	E A Fouhy	?	B/P,Sc	Wgtn
16	T25,348701	Scout Ass	2.0	B/P	Wgtn
20	T24,482757	?	15.0	B/P	Wgtn
21	T24,476755	?	10.0	B/P	Wgtn
24	T25,384674	Dougherty	5.0	B,Sc	Wgtn
27A	T24,440726	Francis	5.0	B/P	Wgtn
32	T23,675036	A Charmley	5.0	B/P	H/Bay
33	T23,650035	B Charmley	5.0	P	H/Bay
34A	T24,649947	M Beatson	20.0	B/P	Wgtn
36	T24,578870	Tararua D.C	2.0	Sc	Wgtn
39	T24,577781	B Scott	1.5	B/P	Wgtn
41	T24,579812	B Carthew	4.0	P	Wgtn
42	U23,764018	Chase	5.0	B/P	H/Bay
43	U23,772015	?	2.0	B/P	H/Bay
44	U23,782013	?	2.0	B/P	H/Bay
47	U23,755016	J Riddel	4.0	B/P	H/Bay
53	T23,653011	Road Reserve	0.2	B,Sc	H/Bay
57	U23,735043	D/virke Ox.Pond	25.0	W	H/Bay
59	T24,498850	?	5.0	P,Sc	Wgtn
60	T25,444656	R Algie	5.0	B/P,Sc	Wgtn
61	T25,427587	M Davies	10.0	B/P,Sc	Wgtn
62	T25,350646	Tararua D.C	2.5	B/P,Sc	Wgtn
63	T25,511681	Mc Laughlin	?	B,Sc	Wgtn
64	T25,519690	McLaughlin	?	B,Sc	Wgtn
65	T24,519702		10	B,Sc	Wgtn
66	T24,514705		15	B,Sc	Wgtn
67	T24,517708		10	B,Sc	Wgtn

Notes: B/P = Broadleaved/Podocarp Forest Sc = Native Shrub
P = Podocarp Forest B = Broadleaf
W = Wetland

**Table 3: Recommended Areas for Protection -
Woodville Ecological District -
Conservation Ranking = 3**

Site No	Map Ref	Owner	Area (ha)	Type	Cons'y
2	T24,524895	?	2.0	C	H/Bay
3	T24,525875	Judd Property	1.0	B/P	H/Bay
4	T24,496825	?	?	B,Sc	Wgtn
6	T24,486807	?	2.0	B,Sc	Wgtn
7	T24,467785	P Cotter	2.0	B,Sc	Wgtn
9	T24,499705	?	1.0	B,Sc	Wgtn
10	T24,472733	?	<1.0	B	Wgtn
17	T25,341616	?	1.0	Sc	Wgtn
19	T25,380650	Railway Reserve	1.0	B	Wgtn
23	T24,439716	R Mabey	1.0	B	Wgtn
26	T24,460751	?	1.0	B	Wgtn
28B	T24,655896	?	5.0	B,Sc	H/Bay
29	T24,624872	?	10.0	B,Sc	H/Bay
35	T24,585886	?	10.0	B,Sc	H/Bay
37	T24,575895	?	20.0	B,Sc	H/Bay
40	T24,544810	Harvey Estate	0.5	B,Sc	Wgtn
48	U23,727002	Turner	1.0	B	H/Bay
51	T24,594970	?	1.0	B/P,Sc	H/Bay
52	T23,617018	?	0.25	W	H/Bay
54	T23,669011	P D Wrenn	2.0	B	H/Bay
68	T24,534766	?	4.0	B,Sc	Wgtn

Notes: C = Cabbage Tree
B/P = Broadleaved/Podocarp Forest
B = Broadleaved Forest
Sc = Native Scrub
W = Wetland

RECOMMENDED PROTECTED AREAS FOR PUKETOI
ECOLOGICAL DISTRICT (PED)

PED SITE 1

MAP REFERENCE: U23 776134

AREA: 1.0 ha

ALTITUDE: 300m

LANDOWNER: R D Turner

LANDSCAPE: Riparian site on low hills. Bull creek and
branch of Mangatera Stream

FENCING: Unfenced

VEGETATION: Mixed podocarp-broadleaved woodland.
One small kahikatea, rimu, matai, kamahi, tawa,
titoki, *Pennantia corymbosa*, *Carpodetus serratus*

CONSERVATION RATING: 3

PED SITE 2

MAP REFERENCE: U23 776135

AREA: 0.5ha

ALTITUDE: 300m

LANDOWNER: R D Turner

LANDSCAPE: Oxbow wetland

FENCING: Unfenced

VEGETATION: One small kahikatea
Typha wetland, *Carex geminata*, *Carex secta*
Weeds - No bad weeds
Diversity rating 3
Naturalness rating 3
Representativeness rating 2
Viability rating 3

CONSERVATION RATING: 3

PED SITE 3

MAP REFERENCE: U23 776130

AREA: 1.0ha

ALTITUDE: 300m

LANDOWNER: R D Turner

LANDSCAPE: Low hillside

FENCING: Unfenced

VEGETATION: Mixed broadleaved forest and pasture. Similar species to PED Site 1

CONSERVATION RATING: 3

PED SITE 4

MAP REFERENCE: U23 762151

AREA: 1.0ha

ALTITUDE: 350m

LANDSCAPE: Low rolling hills

VEGETATION: Podocarp woodland
Totara monoculture

CONSERVATION RATING: 3

MANGATERA STREAM

Main tributaries have mixed broadleaved-podocarp vegetation forming a very sparse riparian woodland of which Sites PED 1 and 2 are representative examples. No kowhai seen here and it may be uncommon in the Tataramoa district.

PED SITE 5

MAP REFERENCE: U23 827068

AREA: 4.0ha

ALTITUDE: 200m

LANDOWNER: J C Gore

LANDSCAPE: Oxbow wetland

FENCING: Unfenced. Stock access with browsing and pugging.

VEGETATION: This oxbow lake has not been artificially drained, but it is progressively drying out spontaneously year by year. When seen in a dry weather episode in March 1991 the remaining area of open water had temporarily become completely dry.

A central area of *Typha* surrounded by mixed wetland species.

Olearia virgata, *Carex secta*. Other small *Carex* species, *Juncus* species, *Coprosma tenuicaulis*, *Coprosma propinqua x robusta* hybrid, *Astelia fragrans*. Kahikatea, twelve moderate sized trees.

Weeds - No bad weeds

Animals - Pukeko and black fronted dotterel seen

Diversity rating 2

Naturalness rating 2

Representative rating 2

Viability rating 2

CONSERVATION RATING: 2

PED SITE 6

MAP REFERENCE: U23 892206

AREA: 5.0HA

ALTITUDE: 300m

LANDOWNER: Southern Star Abbey

LANDSCAPE: Gently sloping riverbank and terrace

FENCING: Area fenced - Minimal stocking with young cattle.
Stock exclusion is planned.

VEGETATION: Podocarp-broadleaved forest and pasture.
Totara, kahikatea, *Sophora tetraptera*, mata, hinau, *Melicytus ramiflorus*, *Nothofagus solandri* - several. *Nothofagus fusca* one only. *Nestegis cunninghamii*.

Weeds - Blackberry
- No *Clematis vitalba*

Diversity rating	2
Naturalness rating	2
Representative rating	1
Viability rating	1

CONSERVATION RATING: 1

PED SITE 7

MAP REFERENCE: U23 892197

AREA: 5.0ha

ALTITUDE: 300m

LANDOWNER: Southern Star Abbey

FENCING: partly fenced with stock exclusion.

LANDSCAPE: Small river terrace below "whiterock" a spectacular white sandstone bluff. A vegetated terrace between the road and the top of the bluff. The area is scenically attractive and is a well known picnic area.

VEGETATION: On the cliffs: *Leucopogon fasciculata*, kowhai, *Melicope simplex*, *Pseudopanax anomalus*, *Lophomyrtus obcordata*, *Neomyrtus pedunculata*.

On the terrace above the cliffs there is a monoculture stand by totara with tall straight trunks which trees contrast with the branching totara trees found in the adjacent woodland - pasture

Diversity rating	2
Naturalness rating	1
Representative rating	1
Viability rating	1

CONSERVATION RATING: 1

PED SITE 8

MAP REFERENCE: U23 834243

AREA: 1.0HA

ALTITUDE: 280m

LANDOWNER: Rakautatahi Station

LANDSCAPE: Steep riverbank on Mangapatea Stream

FENCING: Area unfenced at watercourse. Fenced at break of terrace.

VEGETATION: Mixed broadleaved scrub.
Melicytus ramiflorus, *Coprosma robusta* and *Coriaria arborea* are dominant. Also present are *Helichrysum aggregatum*, *Hebe stricta*, *Aristotelia serrata*.

Weeds - Gorse, Himalayan honeysuckle, blackberry
- No *Clematis vitalba*

Diversity rating	3
Naturalness rating	3
Representative rating	2
Viability rating	3

CONSERVATION RATING: 3

PED SITE 9 - HERETAUNGA ECOLOGICAL DISTRICT

MAP REFERENCE: U23 832258

AREA: 5.0HA

ALTITUDE: 300m

LANDOWNER:

LANDSCAPE: Podocarp woodland. A very fine park-like woodland of large totara trees in a flat paddock traversed by a vehicle track.

FENCING: Unfenced, grazing

VEGETATION: No weeds

Diversity rating
Naturalness rating
Representative rating
Viability rating

CONSERVATION RATING: 1

PED SITE 10

MAP REFERENCE: U23 902141

AREA: 20 HA

ALTITUDE: 300m

LANDOWNER: D I Finch

LANDSCAPE: Deep gorge and high riparian terrace. At point 902141 there is an almost sheer mudstone cliff of 150 feet which is vegetated and of very high scenic value.

FENCING: The gorge is fenced off for stock safety reasons.

VEGETATION: Popoiahoea Stream from point x to point x.

1. On cliff face - broadleaved forest and scrub. Kowhai, *Cordyline banksii*, *Cortaderia* sp: *Blechnum capense*, *Phormium colensoi*, *Gnaphalium subrigidum*

2. On less steep places:
Pittosporum tenuifolium
Pittosporum eugenioides
Melicytus ramiflorus
Sophora tetraptera
Leucopogon fasciculatus
Parsonsia heterophylla
Coprosma rhamnoides
Pseudopanax crassifolius

3. North terrace on true right hand bank above the gorge is a stand of large *Nothofagus solandri*.

Weeds - No *Clematis vitalba*. A little blackberry only in lower reaches of the gorge.

Diversity rating	1
Naturalness rating	1
Representative rating	1
Viability rating	1

Outstanding ecological/scenic value

CONSERVATION RATING: 1

PED SITE 11

MAP REFERENCE: U23 951107

AREA: Less than 0.1 ha

ALTITUDE: 450m

LANDOWNER: Tararua District Council

FENCING: Within road reserve. No stock access.

VEGETATION: Mixed indigenous scrub
Hebe stricta, bracken dominant
Parsonsia heterophylla growing semi-prostrate
among the bracken.

CONSERVATION RATING: 3

PED SITE 12

MAP REFERENCE: U23 965112

AREA: 50 ha

ALTITUDE: 300m

LANDOWNER: P Ropiha

FENCING: Unfenced. No stock exclusion.

VEGETATION: Mixed broadleaved forest and scrub. Kanuka
dominant.
Kowhai, *Melicytus ramiflorus*
Tree ferns. *Hoheria sexstylosa*, *Pittosporum*
tenuifolium and *P. eugenioides*.
Knightia excelsa. *Myoporum laetum*

Weeds - No *Clematis vitalba*

Threats - Logging kanuka for firewood

Diversity rating - 2
Representative rating - 1
Natural value rating - 1
Viability rating - 1

CONSERVATION RATING: 2

PED SITE 13

MAP REFERENCE: U23 951100

AREA: Less than 0.1 ha - A side cutting on roadside a little further south from Site 11.

ALTITUDE: 450m

LANDOWNER: Tararua District Council

FENCING: Within roading reserve. No stock access.

VEGETATION: Mixed indigenous scrub.
On top of the bank and on ledges are, *Pittosporum ralphii*, *Coprosma robusta* and *Hebe stricta*. On steeper places, *Gnaphalium subrigidum*. *Metrosideros colensoi*, *Phormium cookianum*, *Euphrasia cuneata*, *Parahebe catarractae*, *Blechnum* "green bay".

Diversity rating	1	No bad weeds
Natural value rating	2	
Representative rating	2	
Viability rating	1	

This is the only *Pittosporum ralphii* record found so far in Pahiatua Ecological Region and it may be close to southern limit of its present range.

CONSERVATION RATING: 1

PED SITE 14 It appears no site was allocated this number.

PED SITE 15

MAP REFERENCE: U23 945100

AREA: 5.0 ha

ALTITUDE: 667m

GEOLOGY: Limestone

LANDOWNER: M Snaddon

LANDSCAPE: Highest peaks of Raikatea range with steep rock
couloirs on the eastern face of the cliff.

VEGETATION: Mixed broadleaved scrub on terraces and in rock
couloirs.

Coprosma robusta, *Cordyline australis* kowhai *Hebe stricta*,
Phormium cookianum, manuka, *Cortaderia fulvida* Rangiora.

Dracophyllum - not recorded.

Leatherwood scrub species - not recorded.

Weeds - no weed problem

Threats - grazing by goats

Scenic values - spectacular

Diversity rating 3

Natural value rating 2

Representative rating 1 on account of scenic values.

Viability rating 2

CONSERVATION RATING: 1

PED SITE 16

MAP REFERENCE: U23 923099

AREA: 2 areas of each, 5.0 ha

ALTITUDE: 360m

GEOLOGY:

LANDOWNER: R Chadwick

LANDSCAPE: Face of low hill

VEGETATION: Podocarp - broadleaved forest. Totara dominant. Kahikatea, Rimu, Miro. *Carpodetus serratus*, Hinau, *Knightia excelsa*, Kamahi, Kanuka, *Melicytus ramiflorus*, *Melicytus lanceolatus*, *Pennantia corymbosa*, *Hedycarya arborea*, *Coprosma grandifolia*, *Coprosma rotundifolia*, *Coprosma robusta*, *Coprosma rhamnoides*, *Pittosporum tenuifolium*, *Lachnagrostis glabella*, *Asplenium bulbiferum*, *Asplenium polyodon*, *Asplenium flaccidum*.

Weeds - no weed problem

Threats - possum browses

Diversity rating	1
Natural value rating	1
Representative rating	2
Viability rating	1

CONSERVATION RATING: 1

PED SITE 17

MAP REFERENCE: U23 985150

AREA: area < 0.5 ha

ALTITUDE: 500m

GEOLOGY:

LANDOWNER: J Edgecombe

LANDSCAPE: Limestone bluff on Tourere range

VEGETATION: Shrubland and pasture. Rangiora, *Coprosma robusta*. *Olearia solandri*. A few large ngaio trees. *Libertia ixioides*, *Blechnum capense* (*sensu Allan*), *Gnaphalium subrigidum*, *Adiantum cunninghamii*. Other bluffs in the area held in addition to the above: *Cordyline australis* and *Coprosma areolata*.

Most limestone bluffs and scarps at this range had little vegetation.

Weeds - no weed problem

Threats - possum browses

Fencing - unfenced but stock access difficult on steep faces

Diversity rating

Natural value rating

Representative rating

Viability rating

CONSERVATION RATING: 2

PED SITE 18

MAP REFERENCE: U23 985168

AREA: area 40.0 ha

ALTITUDE: 450m

GEOLOGY:

LANDOWNER: D F von Dodelszen

LANDSCAPE: Face of hill and denuding valley

VEGETATION: Podocarp - broadleaved forest and pasture. An area of about 40.0 ha of good cover abundance forest in a circumscribed area near the head of the valley continuing as riparian woodland and pasture downstream in the Maharakeke stream.

Second tier species dominant. *Melicytus ramiflorus*, *Hoheria sexstylosa*. *Pennantia corymbosa*. Kahikatea trees, large 8 or 9. Totara - one only. Rimu - one. Matai and Miro - a few. Tawa - a few. Nikau - one. *Macropiper excelsum*, *Knightia excelsa* - common. *Coprosma rotundifolia*, *Coprosma robusta*. *Lastreopsis glabella*. *Asplenium hookerianum*. *Polystichum richardii*. *Asplenium flaccidum*. *Hypolepis tenuifolia*. *Pellaea rotundifolia*. *Clematis paniculata*. *Parsonsia capsularis*. Supplejack. *Metrosideros colensoi*.

Weeds - no bad weeds, no *clematis vitalba*

Threats - heavy trampling by cattle is apparent but there is good survival of second tier trees and shrubs. Few ground cover ferns although good diversity of fern species.

Diversity rating	1
Natural value rating	2
Representative rating	1
Viability rating	2

Presence of Nikau, *Macropiper* and Ngaio in the Tourere Range is interesting. Nikau and Ngaio occur in the Eastern side of the Puketoi range but not in the Puketoi Ecological district apart from here.

This is the northern-most bush remnant in the Puketoi ED and by far the best area in the Tourere range block.

CONSERVATION RATING: 1

PED SITE 19

MAP REFERENCE: U23 960240

AREA: area 1.5 ha

ALTITUDE: 200m

GEOLOGY:

LANDOWNER: Joint ownership by NZ Blind Institute, Paulsen Estate

LANDSCAPE: Low riparian terrace

VEGETATION: Podocarp woodland and pasture. Twenty tall Kahikatea trees. Totara, Matai, Titoki.

Densest part of the bush is 0.5 ha but the trees of the woodland extend about 0.5 km along the banks of the stream.

Diversity rating	3
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 20

MAP REFERENCE: U23 964223

AREA:

ALTITUDE: 390m

LANDOWNER:

LANDSCAPE: A low hill

VEGETATION:

CULTURAL VALUES: The site of a maori pa important in late pre-European history.

Ngahape Road on extreme north-east side of Puketoi ED shows some kowhai-kanuka woodland and pasture following the watercourses.

Summit ridges of the northeastern corner of the Puketoi ED and the Tourere Range in particular are open rolling high pastureland with very little native vegetation. The limestone scarps and cliff faces are disappointing.

Site PED 17 would be one of the best of them.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING:

PED SITE 21

MAP REFERENCE: U23 949148

AREA: 2.5 ha

ALTITUDE: 400m

GEOLOGY:

LANDOWNER: F A von Dadelszen

LANDSCAPE: Face of hillside

FENCING: Unfenced with stock access

VEGETATION: Podocarp - broadleaved forest and pasture. Kanuka dominant. A few totara. Matai uncommon. Tawa, *Knightia excelsa*. *Sophora tetraptera*. *Cordyline australis*.

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 22

MAP REFERENCE: U23 919156

AREA: 20.0 ha

ALTITUDE: 300m

GEOLOGY: Mudstone and limestone outcrops

LANDOWNER: M Taylor - north side of Waikopiro Stream
H McLean - south side of Waikopiro Stream

LANDSCAPE: River gorge and riparian terrace

FENCING: Fenced on both sides of gorge, but occasional stock access from south side

VEGETATION: Podocarp - broadleaved forest and scrub. Beech forest woodland on terrace. *Nothofagus solandri* dominant. Totara. Rimu. *Melicytus ramiflorus*, *Pseudopanax crassifolius*, Rangiora. *Pittosporum tenuifolium*, *Helichrysum aggregatum*, *Coprosma rhamnoides*. *Corokia buddleioides*, *Leucopogon fasciculatus*. *Olearia rani*. *Cordyline australis*. *Phormium cookianum*. *Coprosma robusta*. *Coprosma lucida*. *Coprosma rigida*. *Carpodetus serratus*. *Hoheria sexstylosa*. *Pittosporum eugenioides*. *Parsonsia capsularis*. *Polystichum richardii*. *Pellaea rotundifolia*.

Weeds - a very small amount of blackberry. No *Clematis vitalba*
Scenic values - one waterfall of about 25m height

Birds - tui, bellbird, white-faced heron

Animals - long tailed bat. One seen at night hawking insects around a boy's eeling lamp. Signals later heard on a bat detector.

A good representative example of the beech forest of Puketoi ED with a record of *Corokia buddleioides* not found elsewhere in northern part of PED.

Diversity rating	1
Natural value rating	2
Representative rating	2
Viability rating	1

CONSERVATION RATING: 1

PED SITE 23 No site allocated this number

PED SITE 24

MAP REFERENCE: U23 869139

AREA: 5.0 ha

ALTITUDE: 250m

GEOLOGY: Mudstone and limestone outcrops

LANDOWNER: Tararua District Council - Council Reserve
D Magon

LANDSCAPE: Banks of Makotuku stream as far as confluence
with Manawatu river.

FENCING: Unfenced. Stock access.

VEGETATION: Podocarp - broadleaved forest and pasture. Tawa
dominant. Totara, *Pseudopanax crassifolius*, *Dicksonia*
squarrosa, *Cyathea dealbata*. *Pittosporum tenuifolium*.
Pittosporum eugenioides. *Melicytus ramiflorus*, Titoki, *Melicope*
simplex. *Sophora microphylla*, *Sophora tetraptera*. *Myrtus*
obcordata, *Paratrophis microphylla*. Rangiora, *Pennantia*
corymbosa. *Nestegis montana*, Kahikatea, Matai, Miro, *Myrsine*
australis.

Weeds - Blackberry. No *Clematis vitalba*. No *Nothofagus*
solandri in the reserve area but it is present in beech woodland
further upstream.

Diversity rating	1
Natural value rating	1
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 25

MAP REFERENCE: U24 925901

QEII Open Space Covenant 1987, but not listed in
PNA Stage I survey report.

AREA: 6.0 ha

ALTITUDE: 360m

GEOLOGY:

LANDOWNER: D S Rowling

LANDSCAPE: Ridge and hillface in headwaters of Red river
tributary and Akitio river.

FENCING: Area fenced - no stock.

VEGETATION: Podocarp - broadleaved forest and scrub. Tawa
dominant. A few small rimu. Occasional *Nothofagus solandri*,
Hedycarya arborea, *Melicytus ramiflorus*. *Leucopogon*
fasciculatus, *Carpodetus serratus*. *Pseudowintera axillaris*,
Myrsine australis.

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	1

CONSERVATION RATING: 2

Speedy road locality:

Many mixed manuka-broadleaved scrub areas in high west facing
gullies. Most of these are of no more than 5.0 ha.

Manuka dominant. Kanuka is uncommon. *Olearia solandri* common.
Olearia virgata is occasional, even on dry faces. *Cyathodes*
acerosa, *Leucopogon fasciculatus* and *Cassinia leptophylla*.

PED SITE 26

MAP REFERENCE: U24 912935

AREA: 5.0 ha

ALTITUDE: 300m

GEOLOGY:

LANDOWNER: Mark Franklin

LANDSCAPE: Rolling hillside and gully.

FENCING: Unfenced. Stock access and cattle trampling.

VEGETATION: Podocarp - broadleaved forest and pasture. Tawa dominant. Totara, kahikatea. *Pennantia corymbosa*, Pukatea, Miro, Matai, *Lophomyrtus obcordata*, *Olearia virgata*. No native ground cover remains.

Weeds - no bad weeds.

Threats - stockgrazing.

Diversity rating	2
Natural value rating	2
Representative rating	3
Viability rating	3

CONSERVATION RATING: 3

PED SITE 27

MAP REFERENCE: U24 928979

AREA: 1.0 ha

ALTITUDE: 300m

GEOLOGY:

LANDOWNER: Cliff Meredith

LANDSCAPE: Face of hill

FENCING: Unfenced

VEGETATION: Mixed podocarp - broadleaved forest and pasture.
Tawa dominant with some totara.

CONSERVATION RATING: 3

PED SITE 28

MAP REFERENCE: U24 923977

AREA: 5.0 ha

ALTITUDE: 300m

GEOLOGY:

LANDOWNER: Cliff Meredith

LANDSCAPE: Low rolling hill

FENCING: Fenced, but stock appear to get access

VEGETATION: Manuka and broadleaved scrub. Manuka dominant.
Kanuka absent. *Olearia solandri*. *Coprosma rhamnoides*.
Pittosporum tenuifolium. *Leucopogon fasciculatus*. *Cyathodes*
acerosa.

Diversity rating	3
Natural value rating	3
Representative rating	1
Viability rating	2

CONSERVATION RATING: 3

PED SITE 29

MAP REFERENCE: U24 895935

AREA: 4.0 ha

ALTITUDE: 250m

GEOLOGY:

LANDOWNER: T James now known as "Murray James SR"
QEII Open Space Covenant since 1990

LANDSCAPE: Banks of a Mangamaire stream tributary

FENCING: Fenced and stock exclusion

VEGETATION: Podocarp - broadleaved forest. Totara, Rimu, Matai, Miro, Several large kahikatea, hinau tawa absent. *Nestegis cunninghamii* (black maire) *Melicytus ramiflorus*, *Pittosporum tenuifolium*. *Myrsine australis*. *Melicope simplex*. *Melicytus micranthus*. *Lophomyrtus obcordata*. *Nothofagus solandri* (2 trees). *Pseudopanax anomalus*. *Pseudopanax crassifolius*. *Coprosma rotundifolia*. *Adiantum cunninghamii*. *Polystichum richardii*.

No bad weeds. Intermediate forest tier species present but very little ground cover owing to stock access until last two years.

Diversity rating	1
Natural value rating	1
Representative rating	2
Viability rating	1

CONSERVATION RATING: 1

This site may be the southern limit range of *Nothofagus solandri* in the eastern catchment valleys of the Manawatu river system of PED.

PED SITE 30

MAP REFERENCE: U24 890929

AREA: 10.0 ha

ALTITUDE: 250m

GEOLOGY:

LANDOWNER: T James

LANDSCAPE & VEGETATION: Lake and eutrophic mire of cultural origin. *Typha*-fringed open water. Depth unknown. Small area of *Carex geminata*. Some *Salix spp.* and exotic plantings.

Wildlife values - black swan - breeding
dabchick - breeding
grey duck and mallard - visitors

Perch well established.

Commercial uses - eels trapped annually and many perch caught in nets.

Recreational values - duckshooting. Perch fishery not exploited to date. Boating.

This lake should be on WERI inventory.

FENCING: Fenced and stock exclusion

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	1

CONSERVATION RATING: 1

PED SITE 31

MAP REFERENCE: U23 894175

AREA: 1.0 ha

ALTITUDE: 300m

GEOLOGY:

LANDOWNER: David P Laws

LANDSCAPE & VEGETATION: Artificial lake formed by dam across steep gully. Deep impounded meandering area of open water 500 m in length. *Salix* trees and pasture to water edge. No *Typha* or *Carex* sp. No emergent vegetation. Pasture and *Juncus* species only at shallow upstream end of lake.

Wildlife values:- Pukeko and mallard ducks and a few domestic geese. Water is too deep to provide feed for dabbling duck species.

Lake would be deep and cold enough to support introduced exotic fish species, e.g. perch. No known introduction of fish.

Recreational values:- Boating, swimming. Potential for fishing. Duck shooting not permitted.

FENCING: Unfenced

Diversity rating	3
Natural value rating	3
Representative rating	3
Viability rating	2

CONSERVATION RATING: 2

PED SITE 32

MAP REFERENCE: U23 893150

AREA: 2.0 ha

ALTITUDE: 220M

GEOLOGY:

LANDOWNER: Tararua District Council

LANDSCAPE: Steep face of mudstone -papa sidecutting on road side above Manawatu river.

VEGETATION: Mixed broadleaved scrub. *Rangiora*, *Coprosma robusta*, *Hebe stricta*, *Melicytus ramiflorus*, *Coriaria arborea*, *Carmichaelia arborea*, *Pseudopanax arboreus*, Bracken fern, *Blechnum capense* (Sensu Allan), *Ranunculus hirtus*, *Polystichum richardii*, *Geniostoma ligustrifolium*, *Adiantum cunninghamii*, *Phymatosorus diversifolius*, *Gnaphalium subrigidum*, *Senecio rufiglandulosus*, *Myrsine australis*, *Kowhai* sp, *Poa anceps*

THREATS: Concrete plastering of the watertable, a practice which is becoming increasingly widespread in the district, has partly destroyed the habitat of *Senecio rufiglandulosus*.

This area is a good example of a habitat of partly cultural origin becoming valuable as a refuge for plant species elsewhere uncommon or under threat.

FENCING:

Diversity rating	1
Natural value rating	2
Representative rating	1
Viability rating	2

CONSERVATION RATING: 2

PED SITE 33

MAP REFERENCE: U24 774892

AREA: 3.0 ha

ALTITUDE: 250M

GEOLOGY:

LANDOWNER: B Ellingham

LANDSCAPE: River terrace and gully. Two areas on each side of road.

VEGETATION: 1. Podocarp-broadleaved forest. Totara dominant. Matai, Hinau, Kahikatea juveniles 4m height. *Melicytus ramiflorus*, *Coprosma rotundifolia*. *Coprosma tenuicaulis*. *Pseudopanax anomalus*. *Myrsine australis*.

Stock access - no ground cover in area west of the road. One smaller area on east side of the road around house is similar vegetation but it is fenced and has ground cover of young *Macropiper excelsum*.

2. On gully south of 1 above the same species occur and in addition the following: *Pseudopanax arboreus*, *Parsonsia capsularis*. Rangiora, Tawa. *Carpodetus serratus*. Many large totara with the epiphytes. *Astelia solandri*, *Collospermum hastatum*. *Asplenium flaccidum*, *Farina autumnalis*. *Pennantia corymbosa*. *Pittosporum tenuifolium*. *Coprosma rhamnoides*.

FENCING:

CONSERVATION RATING: See ratings for 34A

PED SITE 34

MAP REFERENCE: U24 763882

AREA: 2.0 ha

ALTITUDE: 280M

GEOLOGY:

LANDOWNER: B Ellingham

LANDSCAPE:

VEGETATION: Podocarp-broadleaved forest and pasture. Totara dominant. Kahikatea, Rewarewa, Kanuka. *Olearia rani*.

CONSERVATION RATING: See rating for Site 34A

PED SITE 34A

MAP REFERENCE: U24 768884

AREA: 2.0 ha

ALTITUDE: 300M

GEOLOGY:

LANDOWNER: B Ellingham

LANDSCAPE:

FENCING: Unfenced

VEGETATION: Kanuka scrub, low forest and pasture. Kanuka plants are probably of tree classification dimensions. *Coprosma rhamnoides* abundant as an understory.

Ratings for B Ellingham areas Sites 33, 34, 34A inclusive.

Diversity rating	1
Natural value rating	2
Representative rating	1
Viability rating	1

The landowner is sympathetic towards conservation. This is the best natural area in Waitahora district.

CONSERVATION RATING: 1

PED SITE 35

MAP REFERENCE: U24 956928

AREA: 7.0 ha

ALTITUDE: 630M

LANDOWNER: G Bennett. Property in final negotiation stage for Open Space Covenant with QEII Trust.

LANDSCAPE: Summit of Whangai trig hill and gully face above headwater tributary of Red River branch of Akitio river.

FENCING: Area recently fenced with stock exclusion.

VEGETATION: Description taken from author's notes on a botanizing visit on 28.3.74. This site was not visited on the 1991 PNA survey. Podocarp-broadleaved forest and scrub. Scrub formation dominated by *Leptospermum scoparium*, *Cassinia sp*, and *Olearia solandri* is present on east and west faces of the upper reaches of Red River Valley. The more sheltered places the following enter the formation: *Olearia virgata*, *Cordyline banksii*, *Helichrysum glomeratum*, *Gaultheria antipoda*, *Rangiora*, *Lagenifera pumila*, *Carpodetus serratus*, *Coprosma lucida*, *Beilschmiedia tawa*.

Small colonies of *Nothofagus solandri* are found mainly on west-facing dry spurs.

There are some sheltered faces on the west side of the upper reaches of Red River where there are a few large live trees, Matai, Miro, Tawa and Rewarewa. One large rata, *Metrosideros robusta* was surviving in 1974. A number of scattered conspicuous dead trunks project above the scrub and second growth. These dead trunks could be rata or tawa.

At trig summit of Whangai is *Danthonia* pasture with scattered shrubs of *Pseudowintera colorata*, Manuka, *Olearia solandri*, *Olearia virgata* and *Coprosma rhamnoides*.

A few yards down the sheltered south face a dense *Pseudowintera colorata* forest begins. This continues down the slope and is accompanied by *Olearia virgata*, *Myrsine australis*, Maire, *Griselinia littoralis*, *Schefflera digitata*, *Leptopteris hymenophylloides*. *Blechnum chambersii*.

Montane rainforest remnants of greater diversity survive over the divide on the eastern slopes of the Whangai massif.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 1

PED SITE 36

MAP REFERENCE: U24 779914

AREA: 2.0 ha

ALTITUDE: 250M

GEOLOGY:

LANDOWNER: D Hooper-Smith

LANDSCAPE: Rivers terrace and sloping hillside surrounding house.

FENCING: Partly fenced and stock access prevented by escarpment terrain.

VEGETATION: Podocarp - broadleaved forest. Totara dominant. Tawa, Hinau, *Hebe stricta*, *Coprosma robusta*. *Coriaria arborea*. Tree ferns. Lianes and epiphytes. *Macropiper* and fern ground cover. All forest tiers presented.

Diversity rating	1
Natural value rating	1
Representative rating	2
Viability rating	1

CONSERVATION RATING: 1

PED SITE 37

MAP REFERENCE: U24 789918

AREA: 1.0 ha

ALTITUDE: 240M

GEOLOGY:

LANDOWNER: D Hooper-Smith

LANDSCAPE: River terrace 2 sites

FENCING:

VEGETATION: 1. Downstream area alongside river. Mixed podocarp-broadleaved forest 0.5 ha. Totara dominant. Matai. *Sophora microphyllum*. *Pseudopanax anomalus*. *Cordyline australis*. *Earina mucronata*.

2. Fenced area at foot of hill upstream from are (1). Mixed podocarp hardwood forest and scrub with adjacent woodland. Totara, Kahikatea, *Paratrophis microphylla*, *Pseudopanax anomalus*, *Melicope simplex*, *Lophomyrtus obcordata*, *Coprosma rigida*. *Pittosporum tenuifolium* seedlings. *Polystichum vestitum*.

Area (2) has good diversity and is fenced, but like Area (1) it is too small for long-term viability.

Diversity rating	2
Natural value rating	3
Representative rating	3
Viability rating	3

CONSERVATION RATING: 3

PED SITE 38

MAP REFERENCE: U23 945045

AREA: 2.0 ha

ALTITUDE: 300M

GEOLOGY:

LANDOWNER: D McKenzie

LANDSCAPE: Eastward facing face of low hill

FENCING: Unfenced. Stock access

VEGETATION: Broadleaved forest and scrub and pasture. *Pseudopanax arboreus* - dominant. *Pseudopanax crassifolius*. *Pseudopanax anomalus*. *Knightia excelsa*. *Pittosporum tenuifolium* and *Pittosporum eugenioides*. *Weinmannia racemosa*, Kanuka, Tree ferns, *Melicytus ramiflorus*. *Coprosma robusta*.

An unusual feature of this bush remnant is a large stand of densely spaced lancewood trees and tall poles forming a thicket impenetrable to cattle. They are all very old trees and this type of monoculture of lancewoods occurs at one end of the bush remnant occupying an area of about 30 square metres.

This association is unique in my experience. The bush remnant is circumscribed and would be easy to fence.

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 39

MAP REFERENCE: U23 949019

AREA: 2.0 ha

ALTITUDE: 300M

GEOLOGY:

LANDOWNER: A G Waterworth

LANDSCAPE: River terrace

FENCING: Stock access

VEGETATION: Shrubland, rushland and pasture. *Juncus* species dominant. *Olearia virgata* - a large stand of mature trees in undamaged condition. A few small Kahikatea. No other shrubs.

There are probably more than 200 *O.virgata* here and it is probably the largest stand of this species in PED.

No weed problem.

Diversity rating	1
Natural value rating	2
Representative rating	3
Viability rating	2

CONSERVATION RATING: 1

Upper Mangapuaka catchment. Kanuka and *Nothofagus solandri* in many places, particularly on upper faces and hard ridges.

PED SITE 40

MAP REFERENCE: U24 762936

AREA: 2 area each approx 2.5 ha

ALTITUDE: 350M

GEOLOGY:

LANDOWNER: B Hooper-Smith

LANDSCAPE: Mid slope faces in Mangakokako catchment of Waewaepa range.

FENCING: Both areas fenced. No access to farm stock.

VEGETATION: Mixed podocarp - broadleaved forest. Hinau dominant. *Knightia excelsa* abundant. *Hedycarya arborea*. *Melicytus ramiflorus*. Totara uncommon. Matai, Rimu, Kanuka, *Cordyline banksii*. *Coprosma rotundifolia*. *Myrsine australis*. *Metrosideros colensoi*. *Metrosideros diffusa*. *Astelia solandri*. *Asplenium flaccidum*. *Farina mucronata*. *Rhipogonum scandens*. *Muehlenbeckia complexa*. *Rubus* species. *Urtica ferox*.

No weed problem.

All forest tier species represented.

Threats - deep and possum browsing.

These two areas are a good example of the hinau prevalent forest type of the western valleys of the Waewaepa range.

QEII Open Space Covenant

Diversity rating	1
Natural value rating	2
Representative rating	1
Viability rating	1

CONSERVATION RATING: 1

Downstream from Site 40 woodland of kanuka, *Knightia* and Hinau continues towards the end of Mangakokako road where Kowhai enters the association.

PED SITE 41

MAP REFERENCE: U24 799908

AREA: 2.0 ha

ALTITUDE: 326M

GEOLOGY:

LANDOWNER: Lake on boundary of two properties:-
B Hooper-Smith
A Holyoake Estate

LANDSCAPE: Lake of mass increment geomorphic origin.

FENCING:

VEGETATION: Narrow band *Typha* around circumference. Lake of maximum depth 10M. 90% open water. *Typha* wetland of length 50M at one end. A few *Carex secta* at other end. No *Characeae* in lake. Narrow band of mixed manuka, hardwood scrub around one quarter of circumference. Some exotic plantings at western end.

WILDLIFE VALUES: Mallard - shooting. Swan breeding 1990. Does not maintain a large duck population. Lake too deep for dabbling ducks.

RECREATIONAL VALUES: Duck shooting. Boating, No established fishing.

Diversity rating	3
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 42

MAP REFERENCE: U24 796963

AREA: 2.0 ha

ALTITUDE: 400M

GEOLOGY:

LANDOWNER: W J W Kerr

LANDSCAPE: Face of hill and shallow gully

FENCING: Area unfenced with stock access

VEGETATION: Pasture and broadleaved forest and scrub. *Melicytus ramiflorus*, Titoki, Tawa, *Hoheria sexstylosa*, *Hedycarya arborea*, Cabbage trees. *Coprosma virescens*. This is uncommon in P.E.D. *Myoporum laetum* (ngaio) A new record for Waewaepa range. This species not previously recorded west of the P.E.D. - Eastern Hawke's Bay E.D watershed. Ground cover heavily infested with *Urtica ferox*. No bad weeds.

Diversity rating	2
Natural value rating	2
Representative rating	3
Viability rating	2

CONSERVATION RATING: 2

PED SITE 43

MAP REFERENCE: U24 801964

AREA: 1.0 ha

ALTITUDE: 250M

GEOLOGY:

LANDOWNER: R H Blyth

LANDSCAPE: Swampy stream headwater of Mangatoro River

FENCING: Unfenced. Stock access

VEGETATION: Wetland pasture and scrub.
Olearia virgata shrubland merging downstream to mixed hardwood forest and scrub. No bad weeds

Diversity rating	3
Natural value rating	3
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 44

MAP REFERENCE: U24 838992

AREA: 1.0 ha

ALTITUDE: 225M

GEOLOGY:

LANDOWNER: Tararua District Council

LANDSCAPE: Steep side-cutting and hillface above road.

FENCING: Area fenced at tops of the bank and bounded by road below.

VEGETATION: Podocarp-broadleaved forest and scrub

Rangiora)
Coprosma robusta) dominant
Coriaria arborea)

Hoheria sexstylosa, *Dracophyllum strictum*, *Ourisia macrophylla*, *Phormium cookianum*, Matai, Hinau, *Cortaderia fulvida*, *Asplenium flaccidum*, *Blechnum capense* (sensu Allan), *Poa anceps*, *Pseudopanax arboreum*.

Notable plants:- This is only record of *Dracophyllum strictum* in Hawke's Bay. *Ourisia macrophylla* colony here is very much endangered. Most of the plants disappeared where part of the bank fell down. The few remaining *Ourisia* are growing on the side of the watertable. They will disappear where County Council decide to scoop out and concrete the ditch. They do a lot of this!

Although sited in the roadside opposite Ngapaeruru Scenic Reserve this site should be monitored by a ranger to protect the notable plants.

Diversity rating	1
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 1

PED SITE 45

MAP REFERENCE: U23 906058

AREA: 5.0 ha

ALTITUDE: 300M

LANDOWNER: Ferguson

LANDSCAPE: Face of rolling hills

FENCING: Fenced with stock access.

VEGETATION: Podocarp - broadleaved forest and woodland.
Kahikatea, Matai, Tawa, Kowhai, Titoki.

Diversity rating	2
Natural value rating	2
Representative rating	1
Viability rating	2

CONSERVATION RATING: 2

PED SITE 46

MAP REFERENCE: U23 920058

AREA: 2.0 ha

ALTITUDE: 400M

LANDOWNER: Ferguson

LANDSCAPE: Steep hillside below limestone scarp

FENCING: Unfenced. Livestock stock access.

VEGETATION: Mixed podocarp hardwood forest and pasture.
Melicytus ramiflorus dominant. *Totara, Miro, Kowhai.* Tree
ferns *Knightia excelsa.*

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 47

MAP REFERENCE: U24 893975

AREA: 20 ha

ALTITUDE: 350M

LANDOWNER: Unrecorded

LANDSCAPE: Hillslope and gully

VEGETATION: Manuka scrub. Almost a *Leptospermum scoparium* monoculture. A little *Olearia solandri* present also. This site is a representative example of three or more similar areas of manuka scrub on Mangamaire Road a branch of Ngapaeruru Road.

Tunakore Stream, a tributary of Mangamaire Stream, part of the Mangatoro catchment.

Diversity rating	3
Natural value rating	2
Representative rating	1
Viability rating	3

CONSERVATION RATING: 2

PED SITE 48

MAP REFERENCE: U24 800950

AREA: 5.0ha

ALTITUDE: 250M

LANDOWNER: W J W Kerr

LANDSCAPE: Steep banks of gorge

FENCING: A fenced off water course

VEGETATION: Podocarp - broadleaved forest and scrub. Totara and Kowhai dominant. Kahikatea - several large areas. *Pseudopanax crassifolius*.

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	1

CONSERVATION RATING: 2

PED SITE 49

MAP REFERENCE: U24 786846

AREA: 5.0ha

ALTITUDE: 700M

LANDOWNER: Waewaepa Station

LANDSCAPE: Summit ridge and adjacent face of Puketoi range.

FENCING: Area fenced. Stock exclusion.

VEGETATION: Mixed subalpine scrub. On west face dense cushions of *Pseudopanax anomalum* dominant. *Pseudowintera colorata*, *Hebe stricta*, *Melicope simplex*, *Coprosma foetidissima*, *Coprosma rotundifolia*, *Olearia arborescens*, *Polystichum vestitum* No *Dracophyllum* recorded here.

Diversity rating	2
Natural value rating	1
Representative rating	1
Viability rating	2

CONSERVATION RATING: 2

PED SITE 50

MAP REFERENCE: U24 786846

AREA: 50.0ha

ALTITUDE: 6.700M

GEOLOGY:

LANDOWNER: Puketoi State Forest

LANDSCAPE: Steep western face of Puketoi range below the scarp.

FENCING:

VEGETATION: Podocarp - broadleaved forest and scrub. Marked contract between the brown windblown divaricating subalpine scrub on the windward side to the lush green vegetation on the leeward side of the range. *Pseudopanax anomalus* and *Pseudowintera colorata* now relatively inconspicuous in the greater diversity of forest species.

Rangiora, *Melicytus ramiflorus*, *Astelia fragrans*, *Hebe stricta*, *Tawa*, *Griselinia littoralis*, *Olearia rani* and *Olearia arborescens*.

A few old standing tall deal trees and those could be possibly *Metrosideros robusta* or *Miro*.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 2

PED SITE 51

MAP REFERENCE: U24 708718

AREA: 5.0 ha

ALTITUDE: 768 M

LANDOWNER: P Champion

LANDSCAPE: Summit ridge and adjacent westerly face of Puketoi range.

FENCING: Unfenced. Stock access.

VEGETATION: Mixed subalpine scrub. *Pseudopanax anomalum* dominant. *Pseudowintera colorata*. *Polystichum vestitum*. *Coprosma rhamnoides*. *Coprosma* unnamed (aff. *C. parviflora* A.P Druce). *Olearia arborescens*. *Olearia ilicifolia* and *arborescens*. *Rangiora*. *Griselinia littoralis*. *Cordyline indivisa*. *Astelia fragrans*. *Gnaphalium keriense*. *Nertera setulosa*. *Ourisia macrophylla*. *Luzuriaga parviflora*.

On the exposed sites the scrub is dense and wind-shapen and includes mainly the *Pseudopanax anomalus*, *Pseudowintera colorata* and the small leaved *Coprosma*'s. The other species occur on the more sheltered sites. *Olearia colensoi* was recorded by the author near this site in 1947. It was not found on this occasion. It may now be locally extinct in the Puketoi range, but after a lapse of 44 yrs it is difficult to remember the exact place where I found it. My recollection is of a small colony of no more than thirty or forty *Olearia colensoi*, large shrubs growing on the summit of a small knob on the main divide ridge.

This was the only known record of *Olearia colensoi* growing east of the Tararua's and Ruahine's. It may be genetically different from main range populations. A further search would be desirable.

Weeds - No bad weeds.

Threats - The area is fenced at the crest of the range by the Puketoi State Forest boundary fence, but cattle have access to the scrub forest on the Champion property. There is considerable trampling and pugging on wet sheltered sites, but the windblown divaricating shrub associations on the exposed faces are too dense for stock to penetrate.

Diversity rating	1
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 52

MAP REFERENCE: U24 735922

AREA: 20.0 ha

ALTITUDE: 250 M

GEOLOGY:

LANDOWNER: Ransom partnership

LANDSCAPE: Banks of gorge and some adjacent river terrace.

FENCING: Both sides of gorge.

VEGETATION: Mixed podocarp-broadleaved forest and woodland from reference 716938 to above roadend. Kanuka and kowhai dominant. Rimu, Totara. Some very large Hinau trees. Lancewood. Good understory and ground cover. Stock exclusion from this gorge for many years.

Diversity rating	1
Natural value rating	2
Representative rating	2
Viability rating	1

CONSERVATION RATING: 1

PED SITE 53

MAP REFERENCE: U24 785082

AREA: 4.0 ha

ALTITUDE: 300 M

GEOLOGY:

LANDOWNER: Unrecorded

LANDSCAPE: Face of low hill.

FENCING: Unfenced. Stock access.

VEGETATION: Broadleaved woodland. Tawa trees only.

Diversity rating

Natural value rating

Representative rating

Viability rating

CONSERVATION RATING: 3

PED SITE 54

MAP REFERENCE: U24 710764

AREA: 15.0 ha

ALTITUDE: 350 M

GEOLOGY:

LANDOWNER: W B & M A Reid

LANDSCAPE: Face of hill at foot of Puketoi range.

FENCING: Area fenced but not regularly grazed. Used only for 24hr duration spells as shelter for shorn sheep.

VEGETATION: Podocarp-broadleaved forest.
Tawa dominant.
No totara or rimu seen. Possible removed by pioneer logging.
Hinaiu numerous. Miro
Carpodetus serratus, *Pseudowintera axillaris*.
Blechnum discolor. *Pennantia corymbosa*.
Blechnum fluviatile. *Leptopteris hymenophylloides*.
Asplenium polyodon.
Asplenium bulbiferum. *Asplenium flaccidum*.
Rhipogonum scandens. *Metrosideros colensoi*.

Intermediate forest trees and ground cover reasonably intact.

Weeds - small amount of *Clematis vitalba*. Not seen by author

Diversity rating	1
Natural value rating	1
Representative rating	1
Viability rating	1

CONSERVATION RATING: 1

Upper Makuri valley
General area HC
U24 711770

Woodland of podocarp-broadleaved forest and scrub. Tawa dominant. Manuka. Hoheria. Miro. Tree ferns. *Cordyline banksii*. *Blechnum capense* (sensu Allan).

CONSERVATION RATING: 2

PED SITE 55

MAP REFERENCE: U24 715827

AREA: 4.0 ha

ALTITUDE: 760 M

GEOLOGY:

LANDOWNER: R Burn

LANDSCAPE: Eastern face of Waewaepa range.

FENCING: This area is fenced with no stock access

It is a good representation of subalpine mountain scrub forest of the Waewaepa range.

VEGETATION: Podocarp-broadleaved forest and scrub. Plants on the windswept crest of the Waewaepa range have features in common with the subalpine scrub on the Puketoi range, but there are also some differences.

On Waewaepa range the dominant exposed plants are *Pseudopanax anomalum*, dominant in the Puketoi range was not seen on this Waewaepa site.

On the eastern side of the main ridge other species enter the association: *Myrsine salicina*, *Melicytus lanceolatus*, *Podocarpus hallii*, *Griselinia littoralis*, *Pseudopanax colensoi*, *Pseudopanax edgerleyi*, *Coprosma foetidissima*, *Olearia arborescens*, *Olearia rani*, *Leptospermum scoparium*, *Carpodetus serratus*, *Polystichum richardii*.

Weeds - no bad weeds

Diversity rating	1
Natural value rating	1
Representative rating	1
Viability rating	1

CONSERVATION RATING: 1

PED SITE 56

MAP REFERENCE: U24 720820

AREA: 14.0 ha

ALTITUDE: 500 M

GEOLOGY:

LANDOWNER: R Burn

LANDSCAPE: Face of hill and gullies above Makairo track road.

FENCING: Fenced. No stock access.

VEGETATION: Podocarp-broadleaved forest and scrub.

Representative rating similar to Site 55.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 1

PED SITE 57

MAP REFERENCE: U24 725812

AREA: 2.5 ha

ALTITUDE: 400 M

GEOLOGY:

LANDOWNER: R Burn

LANDSCAPE: Steep banks on gorge of an unnamed tributary of Mangatoro river.

FENCING: Stock exclusive of limestone scarp on one side and Makairo road on the other.

VEGETATION: Broadleaved forest and scrub. Scenic values.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 2

CAVES (marked CX on maps)

The Coonoor locality has numerous tomos and several known caves from which sub-fossil bones of extinct birds have been recovered.

CX U24 723815	Guided recreational visits available
CX U24 732801	Guided recreational visits available
CX U24 740793	This is probably the site recorded as "Coonoor Cave" from which moa bones were first recovered in this district early this century.

UPPER MANGATORO VALLEY

General Area H.C.

U24 740830

Pasture and broadleaved forest and woodland. *Hoheria sexstylosa*. Tawa. *Knightia excelsa*.

CONSERVATION RATING: 2

LOWER MANGATORO VALLEY

General Area H.C.

U24 828984

Podocarp broadleaved forest and treeland. Kowhai and Totara dominant. Matai.

CONSERVATION RATING: 2

PED SITE 57A

MAP REFERENCE: T24 645845

AREA: 15.0 ha

ALTITUDE: 300 M

GEOLOGY:

LANDOWNER: Unrecorded

LANDSCAPE: Hillside and roadside cutting.

FENCING:

VEGETATION: Podocarp-broadleaved forest and scrub. Tawa dominant. Few podocarps only. *Knightia excelsa*. Tree ferns. Rangiora, *Coprosma robusta*. *Cortaderia fulvida*. *Coriaria arborea*. Hinau. Matai. *Hoheria sexstylosa*. *Gnaphalium subrigidum*.

Weeds - no *Clematis vitalba*.

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 58

MAP REFERENCE: T25 676680

AREA: Not circumscribed

ALTITUDE: 350 M

GEOLOGY:

LANDOWNER: DOC, probably part of Puketoi State Forest

LANDSCAPE: Hillside in vicinity of saddle on Makuri-Pongaroa road.

FENCING:

VEGETATION: Mixed manuka broadleaved scrub. Manuka dominant. Small kamahi shrubs. Bracken. *Lycopodium fastigiatum*. *Griselinia littoralis*. *Euphrasia cuneata*. *Coprosma robusta*. *Cortaderia toetoe*. *Parahebe decora*. *Thelymitra longifolia*. *Hoheria sexstylosa*, *Myrsine salicina*, *Rangiora*. *Pseudowintera colorata*. *Melicytus ramiflorus*. Taller forest deep in the gully eastwards contains Hall's Totara and Miro. *Rhopalostylis sapida*, (nikau palm) occurring here is a new record for Puketoi range.

This record is a sample area for mid altitude slopes on the southern faces of the Puketoi range at the headwaters of a Makuri river tributary. Scrub on the ridges marked CG in red is manuka dominant. On the higher ridges and faces ? CF the scrub is *Pseudowintera colorata* dominant.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 2

PED SITE 59

MAP REFERENCE: T25 605686

AREA: 20.0 ha

ALTITUDE: 250 M

GEOLOGY:

LANDOWNER: G Murfitt. The main area here and the south bank of Makuri river may be part of Makuri gorge Scenic Reserve.

LANDSCAPE: Face of hill and downstream river bank.

FENCING: Unfenced. Limited stock access.

VEGETATION: Podocarp broadleaved forest and woodland. Tawa dominant. Totara, Matai, Miro, Tree ferns. Nikau palms, *Melicytus ramiflorus*. *Astelia solandri*. Tawa dominant woodland on the riverbanks continues 400-500m downstream through the farm property.

Diversity rating	2
Natural value rating	1
Representative rating	2
Viability rating	2

Good scenic backdrop value.

CONSERVATION RATING: 2

PED SITE 60

MAP REFERENCE: T25 603663

AREA: 8.0 ha

ALTITUDE: 450 M

GEOLOGY:

LANDOWNER: J Jackson

LANDSCAPE: Face of hill above Mt Marchant Stream.

FENCING: Area fully fenced but grazed intermittently by cattle.

VEGETATION: Podocarp broadleaved forest and scrub. *Melicytus ramiflorus* and *Hoheria sexstylosa* dominant. Hinau, Tawa. *Macropiper excelsum*. *Kahikatea* - 3 trees, large. *Astelia solandri*, *Griselinia lucida*. All forest tiers still present despite some trampling by cattle.

Weeds - no bad weeds.

Diversity rating	2
Natural value rating	2
Representative rating	1
Viability rating	1

CONSERVATION RATING: 1

PED SITE 60A

MAP REFERENCE: T25 603663

AREA: < 20' x 20'

ALTITUDE: 450 M

GEOLOGY:

LANDOWNER: Tararua District Council

LANDSCAPE: Bank of roadside cutting immediately outside fence of Site 61.

FENCING: Unfenced from road.

VEGETATION: Cliff herbfield. *Ourisia macrophylla* and *Gnaphalium subrigidum*. This *Ourisia* colony which has been present for very many years was formerly much larger. There are still in excess of thirty plants present in a concentrated area. The corner of the road has been widened in recent years causing a loss of at least seven eighths of the original *Ourisia* area.

This site requires monitoring by a ranger. (Site similar recommendations for Site 44).

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 1

PED SITE 61

MAP REFERENCE: T25 645645

AREA:

ALTITUDE: 500 M

GEOLOGY:

LANDOWNER: DOC Puketoi State Forest

LANDSCAPE: Southeast face and upper basins of Puketoi trig point.

FENCING:

VEGETATION: Mixed podocarp-broadleaved forest and scrub. Tawa and 2nd forest tier species dominant. Some emergent Miro trees. Mixed *Pseudowintera colorata* scrub higher up. Marked erosion and forest degradation evident.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING:

PED SITE 62

MAP REFERENCE: T25 638638

AREA:

ALTITUDE: 400 M

GEOLOGY:

LANDOWNER: DOC Puketoi State Forest
Robbie

LANDSCAPE: Face of hill on lee side of Puketoi Range at a watershed divide.

FENCING: Unfenced

VEGETATION: Mixed broadleaved-podocarp forest and scrub. Manuka, *Coprosma foetidissima*, *Coprosma rhamnoides*, *Pseudowintera colorata*, *Griselinia littoralis*, *Melicytus ramiflorus*, *Polystichum vestitum*. Tree ferns. *Metrosideros diffusa*. A few isolated Halls' totara on the ridges. *Olearia virgata*, *Geniostoma ligustrifolium*, *Rangiora*, *Blechnum discolor*, *Blechnum fluviatile*, *Pseudowintera axillaris*. *Schefflera digitata*. *Asplenium flaccidum*, *Blechnum capense* (sensu Allan), *Microlaena avenacea*, *Astelia solandri*, *Dicksonia squarrosa*, *Tmesipteris elongata*, *Coprosma grandifolia*. *Leptopteris hymenophylloides*

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 2

Scrub on lower hill faces north of Puketoi Road in general area CH. *Pseudowintera colorata* and *Coprosma* dominant scrub.

PED SITE 63

MAP REFERENCE: T25 600655

AREA:

ALTITUDE: 450 M

GEOLOGY:

LANDOWNER: S Morrison

LANDSCAPE: Face of low hill

FENCING: Area fenced with stock exclusion

VEGETATION: Mixed broadleaved forest. Tawa dominant. Intermediate forest tier species present. *Coprosma grandifolia* - big trees. *Pseudowintera axillaris*. Good fern ground cover. *Blechnum fluviatile*, *Asplenium bulbiferum*, *Cyclosorus pennigerus*, *Phymatodes diversifolium*, *Leptopteris hymenophylloides*, *Dicksonia squarrosa*, *Polystichum richardii*, *Rhipogonum scandens*.

Weeds - no bad weeds. No stock trampling.

Diversity rating	2
Natural value rating	1
Representative rating	2
Viability rating	1

This site which is already fenced would be a good candidate for negotiation as an Open Space Covenant.

CONSERVATION RATING: 1

PED SITE 63A

MAP REFERENCE: T25 602657

AREA: 7.5 ha

ALTITUDE: 450 M

GEOLOGY:

LANDOWNER: S Morrison

LANDSCAPE: Face of low hill on opposite side of road from Site 63.

FENCING: Unfenced. Stock access.

VEGETATION: Podocarp-broadleaved forest and pasture. Tawa dominant. 8 tall Kahikatea trees. Intermediate forest tier species present and many ground cover ferns. Significant stock trampling. *Hoheria sexstylosa*. *Melicytus ramiflorus*. *Pennantia corymbosa*, *Schefflera digitata*. Tree ferns. Epiphytes.

Diversity rating 2

Natural value rating 2

Representative rating 2

Viability rating 2

Landowner has plans to fence and reserve this area.

CONSERVATION RATING: 2

PED SITE 64

MAP REFERENCE: T25 562608

AREA: 12.0 ha

ALTITUDE: 280 M

GEOLOGY:

LANDOWNER: Unrecorded

LANDSCAPE: Hillside below road

FENCING: Unfenced. Stock access.

VEGETATION: Mixed broadleaf forest and scrub. Tawa dominant.
Cyathea medullaris. *Melicytus ramiflorus*. *Pseudopanax*
crassifolium, *Rangiora*, *Knightia excelsa*. *Macropiper excelsum*,
Coprosma rhamnoides.

Weeds - no bad weeds.

Diversity rating	3
Natural value rating	3
Representative rating	3
Viability rating	3

CONSERVATION RATING: 3

PED SITE 65

MAP REFERENCE: T25 563615

AREA: 5.0 ha

ALTITUDE: 300 M

GEOLOGY:

LANDOWNER: Unrecorded

LANDSCAPE: Rolling hilltop

FENCING: Unfenced

VEGETATION: Pasture and broadleaved forest and scrub. Tawa dominant.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 3

PED SITE 66

MAP REFERENCE: T25 579623

AREA: 5.0 ha

ALTITUDE: 350 M

GEOLOGY:

LANDOWNER: T Nelson

LANDSCAPE: Face of low hill

FENCING: Unfenced

VEGETATION: Pasture and broadleaved forest. Tawa dominant.

Diversity rating

Natural value rating

Representative rating

Viability rating

CONSERVATION RATING: 3

Roadside banks on Puketoi Road. *Gnaphalium subrigidum* and *Gnaphalium keriense* conspicuous in many places.

PED SITE 67

MAP REFERENCE: T25 573626

AREA:

ALTITUDE: 400 M

GEOLOGY:

LANDOWNER: Tararua District Council

LANDSCAPE: Precipitous limestone cliff above road. Cliff at least 25m high.

FENCING: Not required

VEGETATION: *Gnaphalium subrigidum* and *Libertia ixioides* conspicuous.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING:

PED SITE 225

MAP REFERENCE: T25 519618

AREA: 10.0 ha

ALTITUDE: 175m

GEOLOGY:

LANDOWNER: J Lewis

LANDSCAPE: Face of low hill

FENCING: Fenced. No stock access

VEGETATION: Mixed hardwood forest and scrub. Tawa dominant.

Diversity rating 2
Natural value rating 2
Representative rating 2
Viability rating 2

CONSERVATION RATING: 2

PED SITE 226

MAP REFERENCE: T25 517606

AREA: 10.0 ha

ALTITUDE: 150 M

GEOLOGY:

LANDOWNER: White

LANDSCAPE: Face of low hill

FENCING: Fenced by Catchment Board subsidy in 1983

VEGETATION: Podocarp-broadleaved forest and scrub. Exotic shelter planting of *Acacia melanoxylon* and Redwood trees on windward side. Tawa dominant. Some large totara, Matai, Kahikatea, *Knightia excelsa*. *Nestegis cunninghamii*, *Sophora microphylla*. Outside fenced area is white pine woodland pasture with numerous trees of about 30m height. *Myrsine salicina*, *Myrsine australis*, *Melicytus ramiflorus*.

Weeds - no bad weeds.

Diversity rating	1
Natural value rating	2
Representative rating	1
Viability rating	1

CONSERVATION RATING: 1

PED SITE 227

MAP REFERENCE: T25 468591

AREA: 5.0 ha

ALTITUDE: 200 M

GEOLOGY:

LANDOWNER: I Hislop

LANDSCAPE: Low hill and adjacent gully

FENCING: Unfenced with stock access

VEGETATION: Podocarp-broadleaved forest. Many large trees but intermediate forest tier species much depleted. Tawa dominant. A few large Kahikatea and many small ones. Rimu not recorded. Tree ferns. One large hinau. *Nestegis cunninghamii*. *Knightia excelsa*. *Elaeocarpus hookerianus*. *Coprosma rotundifolia*. *Coprosma areolata*. *Melicope simplex*. Lancewood.

Weeds - no bad weeds.

Diversity rating	1
Natural value rating	2
Representative rating	1
Viability rating	2

CONSERVATION RATING: 1

PED SITE 228

MAP REFERENCE: T25 478568

AREA: 12.0 ha

ALTITUDE: 275 M

GEOLOGY:

LANDOWNER: R Monson
QEII covenant approach intended

LANDSCAPE: Upper face and ridges of rolling hill

LOGGING: Some evidence of pioneer era logging

FENCING: Unfenced with stock access

VEGETATION: Podocarp-broadleaved forest. Tawa dominant. Large rimu and large *Knightia excelsa*. Large kahikatea, *Nestegis montana*. A cabbage tree with a very large *Astelia fragrans* as an epiphyte. *Griselinia lucida* growing epiphytic upon *Hedycarya arborea*. *Melicytus ramiflorus*, *Melicope simplex*. Totara not recorded but possibly missed out in the notes. Poor ground cover. *Pittosporum tenuifolium*. *Pseudopanax anomalus*.

ANIMALS: the skink *Cyclodina ornata*. Animal 6" long with striated tail. "Tear drop" white plate below eye and pink abdomen. Animal captured, examined and immediately released. Species determination confident. This lizard is recorded as rare south of Palmerston North.

Diversity rating	2
Natural value rating	1
Representative rating	2
Viability rating	1

CONSERVATION RATING: 1

PED SITE 229

MAP REFERENCE: T25 470551

AREA: 2.0 ha

ALTITUDE: 200 M

LANDOWNER: Groves

LANDSCAPE: Face of hillslope above stream

FENCING: Not recorded

VEGETATION: Broadleavedrest and scrub. Tawa dominant. Area ringed with *Pinus radiata*. No nature emergent trees.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 3

PED SITE 230

MAP REFERENCE: T25 465543

AREA: 1.0 ha

ALTITUDE: 200 M

LANDOWNER: Groves

LANDSCAPE: Culturally made lake in valley floor

FENCING: Unfenced

VEGETATION: Open water. *Typha*. *Rushes*. *Carex*. *Olearia virgata*.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 3

PED SITE 231

MAP REFERENCE: T25 431512

AREA: 0.5 ha

ALTITUDE: 300 M

LANDOWNER: R Bowie

LANDSCAPE: Flat ridge top

FENCING: Unfenced. Stock access

VEGETATION: Podocarp-broadleaved woodland. Kamahi dominant.
A few totara. Rimu. Maire. No lower forest tiers. No native
ground cover. Owner is interested in a formal protection.

Diversity rating	2
Natural value rating	3
Representative rating	3
Viability rating	3

CONSERVATION RATING: 3

PED SITE 232

MAP REFERENCE: T25 430517

AREA: 10.0 ha

ALTITUDE: 300 M

LANDOWNER: D Rigby

LANDSCAPE: Low hill and adjacent gully

FENCING:

VEGETATION: Pasture and mixed broadleaved forest and scrub -
Mostly woodland. Manuka and kanuka dominant. Kamahi. A few
Knightia excelsa.

Diversity rating	
Natural value rating	
Representative rating	
Viability rating	

CONSERVATION RATING: 3

PED SITE 68

MAP REFERENCE: T25 671674

AREA: 10.0 ha

ALTITUDE: 780 M

GEOLOGY:

LANDOWNER: L Tylee. On ridge boundary with Puketoi State Forest.

LANDSCAPE: Summit ridge of Puketoi range near Mt Butters.

FENCING: State Forest fenced with good stock exclusion. Farm grazed to crest of the range.

VEGETATION: Upper montane and subalpine scrub. On exposed side *Pseudopanax crassifolius*, *Coprosma rhamnoides* and *Pseudowintera colorata* are dominant. *Coprosma foetidissima*, *Griselinia littoralis*, *Olearia arborescens*, *Olearia ilicifolia*, *Astelia fragrans*, *Polystichum vestitum*, *Melicytus lanceolatus*, *Urtica ferox*, *Myrsine divaricata*.

No weeds

Threats - grazing on exposed side of this scrub has had little impact on the dense stand of cushion and divaricating bushes. Scrub forest on sheltered side of the ridge is in good condition.

Diversity rating	1
Natural value rating	1
Representative rating	2
Viability rating	1

CONSERVATION RATING: 2

It would be simple to fence off 10 ha of this scrub on the windward side of the boundary fence to provide a representative example of the wind tolerant scrub of the Puketoi range.

PED SITE 69

MAP REFERENCE: T25 - 436511

AREA: 8.0 ha

ALTITUDE: 300 M

GEOLOGY:

LANDOWNER: McDonald Farm

LANDSCAPE: Face of low hill

FENCING: Unfenced stock access

VEGETATION: Mixed manuka, kanuka-broadleaved scrub. Manuka and kanuka dominant. *Knightia excelsa*, *Hoheria sexstylosa*. *Cordyline banksii*. *Hebe stricta*. *Blechnum capense* (sensu Allan). *Gnaphalium keriense*.

Diversity rating	3
Natural value rating	2
Representative rating	3
Viability rating	3

CONSERVATION RATING: 3

PED SITE 70

MAP REFERENCE: T25 406489

AREA: 5.0 ha

ALTITUDE: 350 M

GEOLOGY:

LANDOWNER: J P Paulik, Kowhainui

LANDSCAPE: Shallow gully on low hill

FENCING: Unfenced but very little access by sheep.
Trespass by neighbours feral goats.

VEGETATION: Mixed podocarp-broadleaved forest. Tawa dominant. Rimu, Hinau, Manuka. *Fuchsia excorticata*. *Carpodetus serratus*. Kamahi. One large kahikatea. *Nestegis lanceolata* (*Olea*). *Pennantia corymbosa*. Tree ferns. Reasonable ground cover and intermediate forest tiers.

Weeds - A very little gorse and blackberry on one margin only.

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	2

One of the better areas in a locality with few good bush remnants. Owner interested in covenanting.

CONSERVATION RATING: 1

PED SITE 71

MAP REFERENCE: T25 361411

AREA: 5.0 ha

ALTITUDE: 200 M

GEOLOGY:

LANDOWNER: Ewen Cameron

LANDSCAPE: Face of low hill and gully

FENCING: Fenced and area retired 10 years

VEGETATION: Podocarp-broadleaved forest. Tawa dominant. Matai. Hinau. Pokaka. Titoki. *Melicytus ramiflorus*. Totara occasional only. *Myrtus obcordata*. *Paratrophis microphylla*. *Melicope simplex*. *Coprosma rhamnoides*. *Coprosma areolata*. *Coprosma rotundifolia*. Tree ferns. Intermediate forest tier species present. Good regeneration. Abundant regenerating. *Coprosma areolata* - one metre tall. Abundant hinau seedlings. Good ground cover. *Blechnum fluviatile*. *Pellaea rotundifolia*. *Lastreopsis glabella*.

Weeds - Blackberry abundant but not forming thickets. No *Clematis vitalba* seen.

Diversity rating	1
Natural value rating	2
Representative rating	1
Viability rating	1

CONSERVATION RATING: 1

PED SITE 72

MAP REFERENCE: T25 378421

AREA: 8.0 ha

ALTITUDE: 250 M

GEOLOGY:

LANDOWNER: Ewen Cameron

LANDSCAPE: Face of low hill

FENCING: Not fenced. Area awkward to fence or accident of shape and not being a discrete circumscribed area of bush.

VEGETATION: Podocarp-broadleaved forest and scrub plus pasture. Tawa dominant. Rimu logged in pioneering days. Stock access. No remaining understorey.

Diversity rating	2
Natural value rating	3
Representative rating	3
Viability rating	3

CONSERVATION RATING: 3

PED SITE 73

MAP REFERENCE: T25 388421

AREA: 4.0 ha

ALTITUDE: 300 M

GEOLOGY:

LANDOWNER: Ewen Cameron

LANDSCAPE: Gorge and adjacent steep hillside

FENCING: Area fenced but restricted grazing with sheep.

VEGETATION: Podocarp-broadleaved forest and pasture. Tawa dominant. Totara. Small shrub species. Miro. Nikau. Two senescent nikau palms occur here. This is the only record of Nikau south of the central Puketoi range and Makuri gorge.

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 74

MAP REFERENCE: T25 379431

AREA: 1.0 ha

ALTITUDE: 200 M

GEOLOGY:

LANDOWNER: Ewen Cameron

LANDSCAPE: Gully behind homestead

FENCING: Area fenced. Lay history of retirement

VEGETATION: Podocarp-broadleaved forest. Tawa dominant.
Good understorey.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 2

PED SITE 75

MAP REFERENCE: T25 382435

AREA: 2.0 ha

ALTITUDE: 250 M

GEOLOGY:

LANDOWNER: Ewen Cameron

LANDSCAPE: Face of low hill

FENCING: Ring-fenced. 3 years retirement

VEGETATION: Podocarp-broadleaved forest. Tawa dominant.
Hinau. Totara. Kanuka. Small leaved shrubs.

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	1

CONSERVATION RATING: 2

PUKETOI ED AREA ON MAP SHEET T25 SOUTH OF THE HASTWELL AREA

Apart from circumscribed areas of natural vegetation which are noted specifically as numbered sites, most of the natural vegetation occurs as scattered shrublands and woodlands which are best noted very briefly with reference to the roads and watercourses.

Some of these roads may be traversed for considerable distances offering no more than a sight of pasture.

Bower Road

Patches of scattered manuka shrubland in gullies.

Jacksons Line

Patches of manuka shrubland in gullies.

Donovan's Road and adjacent Kopuaranga riverbank

Woodland.

PED SITE 76

MAP REFERENCE: T26 347392 (marginally outside PED)

AREA:

ALTITUDE: 200 M

LANDOWNER: Wellington Regional Council

LANDSCAPE: Roadside reserve

FENCING:

VEGETATION: *Hymenanthera alpina*. Numerous shrubs growing in a broken line along 400M of fenceline. This is a montane - subalpine species and a colony in this site is unusual although it has been recently recorded in other places in the Wairarapa hill country. I have not seen it elsewhere in PED.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 2

PED SITE 77

MAP REFERENCE: T26 340368 (marginally outside PED)

AREA:

ALTITUDE:

LANDOWNER: Wellington City Council

LANDSCAPE: Roadside Reserve

VEGETATION: *Hymenanthera alpina*. Numerous shrubs growing in a broken line along 400m of fenceline. This is a montane - subalpine species and a colony in this site is unusual although it has been recently recorded in other places in the Wairarapa hill country. I have not seen it elsewhere in P.E.D.

CONSERVATION RATING: 2

PED SITE 78

MAP REFERENCE: T26 381335

AREA: 4.0 ha

ALTITUDE: 200 M

LANDOWNER: J Lawson and Ian McLaren

LANDSCAPE: River terrace and adjacent hillside

FENCING: Area unfenced. Stock access

VEGETATION: Podocarp-broadleaved forest. Tawa dominant.
Totara, Titoki. Kahikatea.

This would be an easy fencing retirement proposition.

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 79 and 79A

MAP REFERENCE: T26 380326

AREA: 1.5 ha

ALTITUDE: 200 M

LANDOWNER: LGJ Spite

LANDSCAPE: Face of low hill

FENCING: Both areas unfenced

VEGETATION: Broadleaved forest and scrub. Tawa dominant.
Not closely examined.

Diversity rating	
Natural value rating	
Representative rating	
Viability rating	

CONSERVATION RATING: Undetermined

PED SITE 80

MAP REFERENCE: T26 382355

AREA: 10.0 ha

ALTITUDE: 250 M

GEOLOGY:

LANDOWNER: Peter Wyeth

LANDSCAPE: Face of low hill

FENCING: Unfenced

VEGETATION: Podocarp-broadleaved forest. Tawa dominant.
totara. Kahikatea. *Knightia excelsa*.

Forest not entered.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: Not determined

PED SITE 81

MAP REFERENCE: T26 360373

AREA:

ALTITUDE: 200 M

GEOLOGY:

LANDOWNER: P Brophy

LANDSCAPE: Riverbank

FENCING: Unfenced stock access

VEGETATION: Mixed podocarp-broadleaved woodland. Kowhai.
Totara. Titoki. Kanuka. Kahikatea.

Nothofagus solandri. One tree seen. This is the first beech tree seen in the Puketoi ED south of Mangapuaka catchment.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 3

PED SITE 82

MAP REFERENCE: T25 320469

AREA: 45.0 ha

ALTITUDE: 500 M

GEOLOGY:

LANDOWNER: F A Scarr

LANDSCAPE: Wide gully and adjacent flat spur

FENCING: Partly fenced. Stock access by cattle

VEGETATION: Podocarp-broadleaved forest. Mixed beech-podocarp-broadleaved forest. Beech dominant mostly red beech but one *Nothofagus truncata* seen.

rimu - only small rimu remain from previous logging.

Knightia excelsa.

Miro numerous. No Matai seen

Weinmannia racemosa

Carpodetus serratus

Hedycarya arborea

Pennantia corymbosa

Coprosma grandifolia

Coprosma rugosa

Coprosma virescens

Coprosma rhamnoides

Pseudowintera axillaris

Tawa not numerous here

Schefflera digitata

Pseudopanax crassifolius

Elaeocarpus dentatus

Myrsine salicina

Nestegis cunninghamii

Totara - only a few juvenile totara

Kahikatea - seedlings and a few juveniles only

Ferns

Cyathea smithii

Cyathea dealbata

Dicksonia squarrosa

Blechnum discolor

Blechnum fluviatile

Blechnum chambersii

Blechnum colensoi

Blechnum nigra

Leptopteris hymenophylloides

Asplenium bulbiferum

Asplenium flaccidum

Phymatosorus diversifolius

Pyrrosia serpens

Hymenophyllum - two species seen
Astelia solandri
Collospermum hastatum
Rhipogonum scandens
Metrosideros diffusa
Metrosideros fulgens
Metrosideros perforata

Weeds - Only a few blackberry seen. No *Clematis vitalba*.

Threats - Much trampling by cattle. Ground cover fern found mainly near inaccessible watercourses.

Animals

Wood pigeons, grey warblers and fantails. Whiteheads heard but not seen. Tomtits reported here by DOC field officer but not seen on present visit.

With its high species diversity and viable shape and size this would be a fine conservation acquisition if it became available. Cattle grazing in this block should be stopped!

Diversity rating	1
Natural value rating	2
Representative rating	1
Viability rating	1

CONSERVATION RATING: 1

PED SITE 83

MAP REFERENCE: U23 859141

AREA: 1.5 ha

ALTITUDE: 260 M

GEOLOGY:

LANDOWNER: Benachie Farm Ltd
Manager W L Findlay

LANDSCAPE: Stream gully and adjacent hillside

FENCING: Area unfenced with stock access

VEGETATION: Pasture and podocarp-broadleaved woodland. The vegetation of this site has been described in detail in an ecological survey written as a Massey University assignment for a Botany Stage III paper by J F Findlay. Copy available on request. The original bush on this site was tawa dominant forest with rimu, totara, matai and miro in addition to the lower forest tier species. All mature rimu were logged in previous years.

The site has examples of forest species, riparian vegetation, wetland, and pasture species.

Check list of species as below:

* Adventive exotic species

Monocot Trees

Cordyline australis

Dicot Trees and Shrubs

Alectryon excelsus
Carpodetus serratus
Carmichaelia arborea
Coprosma grandifolia
Coprosma robusta
Coprosma lucida
Coprosma crassifolia
Coprosma rhamnoides
Coprosma tenuicaulis
Coriaria arborescens
Gaultheria antipoda
Hebe stricta var *egmontiana*
Fuchsia excorticata
Geniostoma ligustrifolia
Elaeocarpus dentatus
Elaeocarpus hookerianus
Hoheria sexstylosa
Melicope simplex
Melicytus micranthus

Melicytus ramiflorus
Nestegis cunninghamii
Nestegis montana
Myrsine australis
Myrsine divaricata
Myrsine salicina
Pennantia corymbosa
Pittosporum eugeniioides
Pittosporum tenuifolium
Pseudopanax crassifolius
Sophora microphylla
Weinmannia racemosa
Lophomyrtus obcordata
Crataegus monogyna *
Rubus ulmifolius *
Beilschmiedia tawa
Paratrophis microphylla

Gymnosperm Trees

Podocarpus totara
Prumnopitys ferruginea
Prumnopitys taxifolia
Dacrycarpus dacrydioides

Dicot Lianes

Clematis forsteri
Metrosideros colensoi
Metrosideros diffusa
Muehlenbeckia australis
Muehlenbeckia complexa
Parsonsia heterophylla
Rubus cissoides
Rubus schmidelioides

Grasses

Agrostis capillaris *
Anthoxanthum odoratum *
Cortaderia fulvida *
Dactylis glomerata *
Festuca rubra
Glyceria fluitans *
Holcus lanatus *
Cynosurus cristatus *
Lolium perenne *
Notodanthonia racemosa
Poa pratensis *
Poa trivialis *

Ferns

Adiantum cunninghamii
Asplenium bulbiferum
Asplenium flaccidum
Blechnum chambersii
Blechnum discolor
Blechnum capense (sensu Allan)
Blechnum fluviatile

Blechnum penna-marina
Cyathea dealbata
Dicksonia fibrosa
Dicksonia squarrosa
Hymenophyllum demissum
Pellaea rotundifolia
Phymatosorus diversifolius
Pneumatopteris pennigera
Polystichum richardii
Pteridium esculentum
Pyrrosia serpens
Paesia scaberula
Leptopteris hymenophylloides

Sedges

Carex inversa
Eleocharis acuta
Isolepis pottsii
Uncinia clavata
Carex secta

Rushes

Juncus articulatus *
Juncus bufonius *
Juncus effusus *
Juncus polyanthemus *

Monocot herbs (other than orchids sedges grasses and rushes)

Astelia fragrans
Astelia solandri
Lemna minor *

Coprosma tenuicaulis is near the limit of its range and *Isolepis pottsii* appears to be a new record for Hawkes Bay.

Herbs (All exotic adventivé)

<i>Trifolium repens</i>	white clover
<i>Trifolium subterraneum</i>	subterranean clover
<i>Trifolium dubium</i>	suckling clover
<i>Lotus pedunculatus</i>	lotus major
<i>Polygonum hydropiper</i>	willow weed
<i>Nasturtium microphyllum</i>	watercress
<i>Mimulus moschatus</i>	
<i>Myosotis scorpioides</i>	
<i>Cirsium arvense</i>	California thistle
<i>Cirsium lanceolatum</i>	scotch thistle
<i>Taraxacum officinale</i>	dandelion
<i>Hypochoeris radiata</i>	cats ear
<i>Crepis capillaris</i>	hawkesbeard
<i>Leontodon autumnalis</i>	smooth hawkbit
<i>Ranunculus repens</i>	creeping buttercup
<i>Verbascum thapsus</i>	woolly mullein
<i>Rumex acetosa</i>	sorrel
<i>Aphanes sp</i>	parsley piert
<i>Rumex obtusifolius</i>	dock
<i>Bellis perennis</i>	dairy

Plantago lanceolata
Mentha pulegium
Mycelis muralis
Arctium lappa
Erodium moschatum

narrow leaved plantain
penny royal
burdock
storksbill

Lichens

Parmelia sp

Mosses

Thuidium laeviusculum
Fisidens oblongifolus

Liverworts

Marchantia foliacea
Monocloa forsteri
Riccardia sp

Weeds - Blackberry, No *Clematis vitalba*
Threats - Grazing by farm animals. Possums

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	3

CONSERVATION RATING: 2

Waewaepa Range - Woodville Owahanga Road

PNA investigations in this area were directed to two farm properties having a boundary with Waewaepa Scenic Reserve.

These are (1) The J K Beech property to the south of the reserve and (2) The holding of G R Forster Pratt on the western slopes of the Waewaepa range containing the headwater catchments of the Mahoui and Waitakotorua streams.

These properties have been marked as sheet T24 as follows:

The western boundary of Waewaepa Scenic Reserve is unfenced and local landowners were consulted in roughly outlining the informal boundary shown in black ink.

Black ink also denotes the area farmed by G A Forster Pratt.

The J K (Kelly) Beech property is outlined in red ink.

Area marked E, T24 640790 is a QEII covenanted block owned by A Waugh, and area D, T24 648785 is the Makuri Conservation Scenic Reserve.

- (1) The J K Beech property has more than one third of its area remaining in indigenous cover. The area immediately south and east of T24 674784 has high scenic values with good quality mature podocarp hardwood forest in a high montane forest stream catchment comparable with the best in Waewaepa Scenic Reserve. (Vide PED Site 84).

As one approaches the main tributary of the Makuriiti stream there is evidence of past logging, and few rimu trees remain (vide PED Site 85).

Historically much of this property was logged and the timber extraction route was down the Makuriiti stream to a mill near Makuri.

With the exception of ridge A, T24 664784 (PED Site 86) the west facing slopes of this block are vegetated with pasture and mixed broadleaved and manuka scrub and tree ferns.

Ridge A has a profile of tall rimu trees, tawa, and mixed forest tier species but there is a track down the spur and the area is heavily damaged by cattle trampling.

The Beech property is a large heavily vegetated rapidly reverting "run-off" with no resident management. It is completely uneconomic in its present state and would be uneconomic to clear and develop in the present, and indeed in the foreseeable future economic climate.

Sheep were removed several years ago. It has a population of cattle including undocked calves and at least ten unmarked entire wild bulls. Attempts to remove the cattle

continue but meet with little success. Deer trapping operations were the main source of income on this property in the recent past, but this now appears to have ceased.

The property has been offered for sale but continues to attract no interest.

With its high rainfall, regeneration in this area is rapid. Provided all the cattle are removed, all the numerous areas of mixed manuka-broadleaved scrub in the gullies on the western side of the property should quickly develop into areas of greater species diversity.

With its scenic, ecological, and recreational values combined with its regeneration capacity and low economic potential, this property could be recommended as a relatively low cost Crown purchase for addition to Waewaepa Scenic Reserve.

- (2) The G A Forster Pratt property is a viable farming proposition lacking the problems of the J K Beech land holding.

Conservation interest here centres on the blocks B and C T24 675 795 and T24 684 805. These are good quality mature montane podocarp-broadleaved forest. An aerial survey here counted over 200 rimu trees. There are a few surviving live rata trees. The area is unfenced and there is some stock access.

The forest quality here is similar to the best of the southwest (sheltered) side of Waewaepa Scenic reserve (Site 87 PED).

Fortunately the best rimu trees here would be inaccessible for any method other than helicopter logging.

Animals

Local settlers report wood pigeons abundant and population may be increasing.

Tuis, bellbirds and moreporks present. Falcons occasionally seen.

Tom tits regularly seen. Green geckos not uncommon. Paradise ducks have increased in last few years. No reports of bats.

Weeds

Clematis vitalba is in the area in small amounts and is being actively attacked.

PED SITE 84

MAP REFERENCE: T24 674784

AREA: 75 ha

ALTITUDE: 600 M

GEOLOGY:

LANDOWNER: J K Beech

LANDSCAPE: Montane hanging valley and adjacent hillside

FENCING: Unfenced Limited stock access

VEGETATION: Podocarp-broadleaved forest. Rimu and Tawa dominant. Miro. *Knightia excelsa*. *Carpodetus serratus*. *Pseudowintera axillaris*. *Pseudowintera colorata*. *Coprosma grandifolia*. *Hoheria sexstylosa*. Tree ferns. *Olearia rani*. *Melicytus ramiflorus*. Good ground cover ferns.

Diversity rating	1
Natural value rating	1
Representative rating	1
Viability rating	2

CONSERVATION RATING: 1

PED SITE 85

MAP REFERENCE: T24 676769

AREA: 10.0 ha

ALTITUDE: 450 M

GEOLOGY:

LANDOWNER: J K Beech

LANDSCAPE: Steep hill side above montane stream

FENCING: Unfenced. Limited stock access

VEGETATION: Podocarp-broadleaved forest but no rimu trees left. Tawa dominant. *Nestegis lanceolata*. A small grove of about six trees. First record in this range. A stream side cliff face with *Metrosideros diffusa* cover and isolated clumps of *Collospermum micropermum* rooted in some of the crevices.

Diversity rating	2
Natural value rating	2
Representative rating	2
Viability rating	2

CONSERVATION RATING: 2

PED SITE 86

MAP REFERENCE: T24 664784

AREA: 6.0 ha

ALTITUDE: 450 M

GEOLOGY:

LANDOWNER: J K Beech

LANDSCAPE: Broad west facing spur

FENCING: Unfenced. Stock access. Much cattle trampling

VEGETATION: Podocarp broadleaved forest and pasture. Tawa dominant. Rimu. *Knightia excelsa*. *Pseudowintera axillaris* is abundant. *Olearia rani*. *Melicytus ramiflorus*. *Rhipogonum scandens*. *Astelia solandri*. *Asplenium flaccidum*. *Metrosideros diffusa*. Tree ferns.

Cattle pugging very bad. Ground cover ferns eliminated but *Microlaena avenacea* survives in a few patches.

Diversity rating
Natural value rating
Representative rating
Viability rating

CONSERVATION RATING: 2

PED SITE 87

MAP REFERENCE: T24 675805

AREA: 75 ha

ALTITUDE: 600 M

GEOLOGY:

LANDOWNER: G R Forster Pratt

LANDSCAPE: Montane flat spur and hillside

FENCING: Unfenced. Stock access limited

VEGETATION: Podocarp-broadleaved forest. Tawa dominant. 200 rimu trees approx. *Pseudowintera axillaris*. *Carpodetus serratus*. *Knightia excelsus*. Intermediate forest tier species present.

Diversity rating	2
Natural value rating	1
Representative rating	1
Viability rating	1

This area would be regarded as a most desirable conservation acquisition for QEII covenanting or Crown purchase.

CONSERVATION RATING: 1

**Table 4: Recommended Areas for Protection -
Puketoi Ecological District -
Conservation Ranking = 1**

Site No	Map Ref	Owner	Area (ha)	Type	Cons'y
6	U23,892206	Southern Star Abbey	5.0	B/P	H/Bay
7	U23,892197	Southern Star Abbey	5.0	P,Sc	H/Bay
9	U23,832258	?	5.0	P	H/Bay
10	U23,902141	D I Finch	20.0	B,Sc	H/Bay
13	U23,951100	Tararua DC	0.1	Sc	H/Bay
15	U23,945100	M Snaddon	5.0	B	H/Bay
16	U23,923099	R Chadwick	10.0	P/B	H/Bay
18	U23,985168	D Von Dadelszen	40.0	P/B	H/Bay
22	U23,919156	M Taylor & H McLean	20.0	P/B	H/Bay
29	U24,895935	M James (Snr)	4.0	P/B	H/Bay
30	U24,890929	T James	10.0	W	H/Bay
33	U24,774892	B Ellingham	3.0	P/B	H/Bay
34	U24,763882	B Ellingham	2.0	P/B	H/Bay
34A	U24,768884	B Ellingham	2.0	K,Sc	H/Bay
35	U24,956928	G Bennett	7.0	P/B,Sc	H/Bay
36	U24,779914	D Hooper-Smith	2.0	P/B	H/Bay
39	U23,949019	A G Waterworth	2.0	Sc	H/Bay
40	U24,762936	B Hooper-Smith	5.0	P/B	H/Bay
44	U24,838992	Tararua DC	1.0	P/B,Sc	H/Bay
52	U24,735922	Ransom Partnership	20.0	P/B	H/Bay
55	U24,715827	R Barn	4.0	P/B,Sc	H/Bay
56	U24,720820	R Barn	14.0	P/B,Sc	H/Bay
60	T25,603663	J Jackson	8.0	P/B,Sc	Wgtn
60A	T25,603663	Tararua DC	0.2	Sc	Wgtn
63	T25,600655	S Morrison	?	B	Wgtn
226	T25,517606	White	10.0	P/B,Sc	Wgtn
227	T25,468591	I Hislop	5.0	P/B	Wgtn
228	T25,478568	R Monson	12.0	P/B	Wgtn
70	T25,406489	J P Paulik	5.0	P/B	Wgtn
71	T25,361411	Ewen Cameron	5.0	P/B	Wgtn
82	T25,320469	F A Scarr	45.0	P/B,Be	Wgtn
84	T24,674784	J K Beech	75.0	P/B	Wgtn
87	T24,675805	G R Forster Pratt	75.0	P/B	Wgtn

Notes: B/P = Broadleaved/Podocarp Forest
P = Podocarp Forest
Sc = Native Scrub
W = Wetland
Be = Beech
K = Kanuka

**Table 5: Recommended Areas for Protection -
Puketoi Ecological District -
Conservation Ranking = 2**

Site No	Map Ref	Owner	Area (ha)	Type	Cons'y
5	U23,827068	J C Gore	4.0	W	H/Bay
12	U23,965112	P Ropiha	50.0	B,Sc	H/Bay
17	U23,985150	J Edgecombe	<0.5	Sc	H/Bay
19	U23,960240	N Z Blind Institute, Paulsen Est	1.5	P	H/Bay
21	U23,949148	F Von Dadelszen	2.5	P/B	H/Bay
24	U23,869139	Tararua DC	5.0	P/B	H/Bay
25	U24,925901	D S Rowling	6.0	P/B,Sc	H/Bay
31	U23,894175	D P Laws	1.0	W	H/Bay
32	U23,893150	Tararua DC	2.0	B,Sc	H/Bay
38	U23,945045	D McKenzie	2.0	B,Sc	H/Bay
41	U24,799908	B Hooper-Smith, A Holyoake Est	2.0	W	H/Bay
42	U24,796963	W J Kerr	2.0	B,Sc	H/Bay
43	U24,801964	R H Blyth	1.0	W	H/Bay
45	U23,906058	Ferguson	5.0	P/B	H/Bay
47	U24,893975	?	20.0	Sc	H/Bay
48	U24,800950	W J Kerr	5.0	P/B,Sc	H/Bay
49	U24,786846	Waewaepa Station	5.0	B,Sc	Wgtn
50	U24,786846	Puketoi State Forest	50.0	P/B	Wgtn
51	U24,708718	P Champion	5.0	B,Sc	Wgtn
54	U24,710764	W B & M A Reid	15.0	P/B	Wgtn
57	U24,725812	R Burn	2.5	B,Sc	Wgtn
HC	U24,828984	?	?	P/B	H/Bay
57A	T24,645845	?	15.0	P/B,Sc	Wgtn
58	T25,676680	DOC(?)	?	B,Sc	Wgtn
59	T25,605686	G Murfitt	20.0	P/B	Wgtn
62	T25,638638	Robbie	?	P/B,Sc	Wgtn
63A	T25,602657	S Morrison	7.5	P/B	Wgtn
225	T25,519618	J Lewis	10.0	B,Sc	Wgtn
68	T25,671674	L Tylee	10.0	Sc	Wgtn
73	T25,388421	Ewen Cameron	4.0	P/B	Wgtn
74	T25,379431	Ewen Cameron	1.0	P/B	Wgtn
75	T25,382435	Ewen Cameron	2.0	P/B,Sc	Wgtn
76	T26,347392	Wellington RC	?	Sc	Wgtn
77	T26,340368	Wellington CC	?	Sc	Wgtn
78	T26,381335	J Lawson & I McLaren	4.0	P/B	Wgtn
83	U23,859141	Benachio Farm Ltd	1.5	P/B	Wgtn
85	T24,676769	J K Beech	10.0	P/B	Wgtn
86	T24,664784	J K Beech	6.0	P/B	Wgtn

Notes: P/B = Podocarp-Broadleaved Forest
B = Broadleaved Forest
P = Podocarp Forest
Sc = Native Scrub
W = Wetland

**Table 6: Recommended Areas for Protection -
Puketoi Ecological District -
Conservation Ranking = 3**

Site No	Map Ref	Owner	Area (ha)	Type	Cons'y
1	U23,776134	R D Turner	1.0	P/B	H/Bay
2	U23,776135	R D Turner	0.5	W	H/Bay
3	U23,776130	R D Turner	1.0	B	H/Bay
4	U23,762151	?	1.0	P	H/Bay
8	U23,834243	Rakautatahi Station	1.0	B,Sc	H/Bay
11	U23,951107	Tararua DC	<0.1	Sc	H/Bay
26	U24,912935	M Franklin	5.0	P/B	H/Bay
27	U24,928979	C Meredith	1.0	P/B	H/Bay
28	U24,923977	C Meredith	5.0	B,Sc	H/Bay
37	U24,789918	D Hooper-Smith	1.0	P/B	H/Bay
53	U23,785082	?	4.0	B	H/Bay
64	T25,562608	?	12.0	B,Sc	Wgtn
65	T25,563615	?	5.0	B,Sc	Wgtn
66	T25,579623	T Nelson	5.0	B	Wgtn
229	T25,470551	Groves	2.0	B,Sc	Wgtn
230	T25,465543	Groves	1.0	W	Wgtn
231	T25,431512	R Bowie	0.5	P/B	Wgtn
232	T25,430517	D Rigby	10.0	B,Sc	Wgtn
69	T25,436511	McDonald Farm	8.0	B,Sc	Wgtn
72	T25,378421	E Cameron	8.0	P/B,Sc	Wgtn
81	T26,360373	P Brophy	?	P/B,Sc	Wgtn

Notes: P/B = Podocarp-Broadleaved Forest
B = Broadleaved Forest
P = Podocarp Forest
Sc = Native Scrub
W = Wetland