Toitu te whenua
Land Information
New Zealand

Crown Pastoral Land Tenure Review

Property: Woodbank

Property number: Sc 079

Conservation resources report

As part of the process of tenure review, advice on significant inherent values within the land is provided by Department of Conservation officials in the form of a conservation resources report. This report is the result of outdoor survey and inspection. It is a key piece of information for the development of a preliminary consultation document.

Copied September 2003

CONSERVATION RESOURCES REPORT

WOODBANK PASTORAL LEASE

DOC CONSERVATION RESOURCES REPORT ON TENURE REVIEW OF WOODBANK LEASE.

PART 1

INTRODUCTION

The Woodbank Pastoral Lease is a relatively small run (1276 hectares) about 10 km west of Hanmer on the foot slopes of the Hanmer Range. It is hilly country bounded to the north and west by Hanmer Forest Park, to the south by the river terraces above the Waiau River and to the east by the Grantham River. A smaller, separate block occupies a wooded, west-facing slope on Rodney Hill, east of the Grantham River. It ranges in altitude from about 400 m to 1143 m near Grey Hill. A number of small streams drain eastwards into the Grantham River and southwards into the Waiau River while in the east the Empson River dissects the property flowing from the Hanmer Forest Park and emptying into the Waiau River.

To the north and east of the lease is Hanmer Forest Park, which is managed by the Department of Conservation. To the south of the lease is freehold land held by the lessees while to the east and adjacent to the Rodney block is freehold land held by relatives of the lessees.

The pastoral lease lies in the Miromiro Ecological District of the Molesworth Ecological Region and is characterised by greywacke and argillite ranges to 1875 metres a.s.l. and a glacial outwash basin. No assessment has been made of the ecological district as part of the Protected Natural Areas programme.

PART 2

INHERENT VALUES: DESCRIPTION OF CONSERVATION RESOURCES AND ASSESSMENT OF SIGNIFICANCE

2.1 Landscape

Landscape assessments undertaken recognise the Hanmer Basin as one of Canterbury's more distinctive and memorable landscapes and as a special area, not just for local residents, but to many Cantabrians (Lucas 1995, Glasson 1992).

The hill and mountain backdrop is one of the key factors underlying the landscape values of the Basin. The Hanmer Range, in particular, has been identified as significant regionally and at a district level. The upper slopes of the Range were identified as outstanding mainly due to their naturalness especially the beech forest remnants, the distinctive skyline and the strong visual contrast and physical transition from farmed plain to relatively natural mountainside. The ranges are also highly visible from public roads and strongly enclose the small basin, heightening public appreciation of them.

SH7, a major east-west highway and tourist route, passes around the south side of the basin and out the western end where it enters the Waiau/Hope river valley and travels on to Lewis Pass. The elevated position of the highway affords travellers impressive panoramic views of the whole Basin with the Hanmer Range as a backdrop. The

southwest end of the range curves round towards the highway to form a "portal" between the Basin and the Waiau/Hope valley. This is also a transition point from the drier, tussock and shrub covered hill country and highly modified plains of eastern Canterbury, to the wetter, more mountainous, beech forested and predominantly natural High Country.

Woodbank is a very small and lower part of the enclosing ranges, in the context of the scale of the Basin. It is not a significant part of the skyline and is one of the most distant parts in views from the public roads within the Basin or from Hanmer township. Grey Hill still has value however as part of the long, natural mountain range backdrop to the Basin. It is an end point of the Hanmer Range, tending to draw attention to it.

Its significance in relation to SH7 is quite different. As the highway travels west, Grey Hill is directly and fully in view and dominates the skyline. The highway draws closer and closer to Grey Hill as it nears the west end of the Basin. Here the slopes, immediately across the Waiau River, are only 1.5-2km distant and are the most significant part of the highway experience between McIntosh Flat and Gabriels Gully (a distance of about 6km). They form the portal described above.

The predominant landuses are conservation/recreation and extensive pastoralism. Apart from vegetation disturbance and introduction of exotic species, human modification is largely limited to fencelines and 4WD tracking and the occasional hut and stockyard. Overall, a highly natural and remote landscape character predominates.

2.1.1 Landscape Units

On Woodbank, within the broad landscape type, three distinct landscape units can be identified.

1. Empson River Catchment

This is a small, roughly circular, self-contained, south-facing river catchment flowing directly off Grey Hill into the Waiau River. The upper part is within the Hanmer Forest Park. Altitude ranges from 360-1000m a.s.l. The 4WD track encircling the catchment and the boundary ring fence are the only man-made elements.

The catchment is highly natural with little obvious modification. Natural patterns and processes dominate, particularly the regrowth of kanuka and beech. The catchment is physically and visually continuous with the Conservation Area beyond.

2. Waiau and Grantham Faces

These are the eastern slopes of Grey Hill rising to the lower summit of 1143m a.s.l., forming the lower true right of the Grantham River valley, and the southeast side of the long spur descending southwest from Grey Hill, overlooking the Waiau River. The lower part of these slopes is outside the lease, as freehold farmland (as yet undeveloped). The faces enclose the west end of the Hanmer Basin, forming a "portal" to the Waiau/Hope valley.

A significant natural feature is the remnant beech forest and associated shrublands in the three larger valleys facing the Waiau. Subdividing stock fences are the only man-made element in this unit but they are not visually obvious.

Whilst being more obviously modified (by grazing, burning, etc) the unit retains a strong sense of naturalness overall and contains many natural features such as the beech forest, rock outcrops and subalpine shrubs and tussock on upper slopes. Regrowth of kanuka is a dominant natural process although it is continuously suppressed.

3. Rodney Block

This is a small hill block on the true left side of the Grantham River on the west side of the Rodney spur from Rodney knoll (826m asl) to the toe of the spur. The much larger part of the spur is within the Hanmer Forest Park.

The block has a cover of dense kanuka forest and shrubland with some remnant and emergent beech. Cycles of disturbance are evident with open grassland spur crests and north facing sides, a generation of young kanuka growing up through the grey haze of dead kanuka stems and a generation of more mature kanuka. The unit retains a strong sense of naturalness, however.

2.1.2. Visual Values

Most of Woodbank is visible from a number of public viewpoints. The most significant views are from SH7 as it travels between McIntosh Flat and Ferry Bridge, on the opposite side of the Waiau River to Woodbank. Travelling west, the Waiau Faces (i.e. the southeast side of Grey Hill) are in full and direct view. The pyramidal form of Grey Hill forms an eye-catching skyline. The three valleys with remnant beech forest are also a visual focus. The skyline ridge and upper slopes of the long spur extending southwest from Grey Hill is also a natural visual focus. As the highway nears and passes through the west end of the Basin, the Waiau faces draw closer and closer. In the vicinity of McIntosh Flat there are very clear and direct views of the faces from the Waiau riverbed to their crest.

The Waiau and Grantham faces are visible from the road into Hanmer Springs. This is a more distant view and higher, more rugged skyline peaks on the Hanmer Range dominate visually. Grey Hill is still obviously part of the long natural mountain range backdrop, however.

The Rodney block is clearly visible from SH7. It forms the low foreground to the forest-clad mountainous peaks behind.

2.2. Landforms and Geology

Glacial activity has shaped the high basins and valleys on the property but it is less evident than in the mountains further south. Scree and rock outcrop are common especially at higher altitudes intermixed with alpine and snow tussockland, subalpine shrubland and fellfield.

The basin flats are glacial outwash from the Pleistocene (Quaternary) Period while the hills are strongly-indurated greywacke and argillite, part of the Torlesse Group from the Triassic (Mesozoic) Period.

The Hope Fault runs in an east-west direction along the Waiau and Hanmer Rivers on the southern boundary of the property.

2.3. Climate

The climate is subhumid to humid with annual rainfall of 1400 to 2500mm. Predominate winds are from the northwest.

2.4 Vegetation

Much of the land has been cleared of forest and shrubland in the past with only small remnants of the original mountain beech and broadleaf forest species remaining, mainly in the bottom of deep gullies. However large areas of seral kanuka, broom and bracken fernland indicate that the land is steadily reverting back to forest. Only some of the lower slopes, mainly those facing the Waiau and Grantham rivers remain in rough pasture and some of these have large patches of broom and scattered kanuka and matagouri shrubs on them. The result of all the clearing and consequent reversion is to form a mosaic of plant communities scattered across the property.

The major plant communities include:
1. grassland communities i.e. exotic grassland, hard tussock (*Festuca novae-zelandiae)* with exotic grasses and native herbs, small shrubs and grasses and snow tussock (*Chionochloa rigida)*
2. bracken (*Pteridium esculentum)*
3. fernland and shrubland, including low kanuka shrubland, native mixed shrubland with hard tussock, shrubland of rocky ground and broom (*Cytisus scoparius)* shrubland.
4. forest, both tall kanuka (*Kunzea ericoides)* and mountain beech (*Nothofagus solandri* var. *cliffortioides)* forest.

Hard Tussock Grassland

Above about 700 m and often extending much lower (below 500 m), grassland areas are dominated by hard tussock. At lower altitudes, the hard tussock is widely spaced with exotic grasses prominent as well as small native grasses such as blue tussock (*Poa colensoi*), *Deyeuxia avenoides* and small native herbs and rushes. Higher up the exotic component reduces with a denser hard tussock cover and higher native component. In damper ground and seepage areas rushes can be prominent (*Juncus* and *Carex* spp.) with silver tussock (*Poa cita)* occurring on areas with higher nutrient levels such as slumps and riparian places. On the eroded western boundary ridge the vegetation is a mix of hard tussockland and shrubland with a variety of native shrubs including *Pimelea oreophila*, *Gaultheria novae-zelandiae*, *Gaultheria crassa*, *Pentachondra pumila*, tutu (*Coriaria sarmentosa)*, *Coprosma doesemanii*, *Leucopogon fraseri*, *Leucopogon colensoi*, tauhinu *(Ozothamnus leptophylla)*, *Hebe* sp., *Dracophyllum uniflorum*, *Olearia cymbifolia* and manuka. Native herbs such as *Celmisia spectabilis*, *Celmisia traversii*, *Anisotome flexuosa*, *Brachyglottis bellidioides*, harebell (*Wahlenbergia albomarginata)*, the orchids *Thelymitra longifolia* and *Caladenia lyallii*, the native grasses blue tussock and *Rytidosperma setifolia* and wood rush (*Luzula rufa)* also occur here. The grey moss *Racomitrium lanuginosum* is a prominent member of this community. This

community occupies relatively small areas but occurs on rocky ridge tops and knobs throughout. Small patches of *Hieracium pilosella* are frequently present and some *Hieracium praealtum*.

Snow Tussock (*Chionochloa rigida*) Grassland

Small areas of snow tussock occur along the northern boundary, above 900 m.

Exotic Grassland (pasture)

Pasture, with mainly exotic grasses such as sweet vernal (*Anthoxanthum odoratum*) and brown top (*Agrostis capillaris*), is confined generally to the lower slopes, below 700 m, and more particularly, to the hill slopes facing the Waiau and Grantham Rivers. About half of this is below the lease boundary. More extensive areas of pasture must have been developed previously but bracken, broom and kanuka have invaded much of this. Kanuka, in particular, occurs in patches in the existing pasture. Small areas of pasture remain in the Empson catchment but it appears to be disappearing under broom and kanuka. About one quarter of the lease area is still in some sort of exotic grassland or pasture.

Bracken Fernland

Bracken patches occur on several mid-altitude slopes. As bracken matures it opens up and forms a suitable nursery for the seedlings of shrub and tree species such as beech and kanuka.

Shrubland

Young kanuka could be described as shrubland when it is only one to two metres tall and on this property much of the kanuka is in this category where it forms mainly pure stands but often with emergent mountain beech and occasionally other native shrubs (*Coprosmas*, matagouri). On exposed, eroded, rock knobs and ridges and in some of the hard tussock grassland, a variety of native shrubs grow. A typical site is on top of knob 944 m. Here, where most soil has been blasted away by the wind, grasses are few with mosses and shrubs dominating. Grey moss is prominent with other moss species and lichens growing over large areas of exposed rockfield. Native shrubs include *Helichrysum parvifolium*, *Exocarpus bidwillii*, tauhini *(Ozothamnus leptophylla)*, *Olearia cymbifolia*, *Leucopogon colensoi*, *Dracophyllum uniflorum*, *Podocarpus nivalis*, *Gaultheria crassa* and dwarfed manuka and kanuka. Other plants here include *Aciphylla aurea*, *Lycopodium scariosum*, *Kelleria dieffenbachii*, *Craspedia lanata*, *Blechnum penna-marina*, everlasting daisy (*Anaphalioides bellidioides)*, *Scleranthus uniflorus*, and *Lagenifera cuneata*.

A rock outcrop contains *Coprosma* sp. "alpina" and *Coprosma intertexta*. Other shrubs occurring throughout the shrubland, except in pure kanuka stands, are *Coprosma propinqua*, *Coprosma rugosa*, *Discaria toumatou* (matagouri), prickly heath (*Cyathodes juniperina)*, mingimingi (*Leucopogon fasciculata)* and *Hebe subalpina*. Manuka forms only a minor component of small areas. In places bright green patches of the native nitrogen fixer, tutu (*Coriaria sarmentosa*), can be seen.

Broom and Gorse

Patches of broom can be found in many parts of the lease primarily in the lower parts of gullies but large areas of broom are present in the Empson River catchment especially at lower altitudes. Single plants appear to occur throughout the lease area, many chewed right down by stock and hares and/or rabbits. One stock-trimmed gorse (*Ulex europaeus*) bush was seen at about 800 m altitude. Kanuka can be expected to over-top and suppress these plants in time.

Kanuka

At present kanuka forms different age stands reflecting past clearance by fire. Young stands are actively invading both exotic and hard tussock grasslands. Older stands of larger trees occur where fires have missed small areas and in damper gullies. There is no particular pattern. The largest trees, with trunks up to about 200 mm in diameter, were seen on the Grantham River flats, in gullies and as isolated trees in thickly regenerating kanuka. On rocky knobs and ridges, kanuka tended to be dwarfed and occurred with manuka and other shrubs.

Mountain Beech Forest

Mountain beech occurs throughout the lease as remnant stands, as riparian strips in the Empson River valley bottom and its tributaries, in several gullies draining the south-east faces and as single trees and small clumps rising above kanuka shrubland.

The largest stand of beech occurs in the south-west corner. This is relatively young forest (about 30-40 years of age) with most trees of small circumference. Young broadleaf (*Griselinia littoralis*), lancewood (*Pseudopanax crassifolius*), *Coprosma sp.* "tayloriae", *Coprosma areneta*, *Coprosma colensoi*, prickly heath (*Cyathodes juniperina*), *Olearia arborescens* and *Gaultheria antipoda* form a typically sparse understorey with numerous beech seedlings growing from a mossy forest floor. The bush lawyer and climber, *Rubus cissoides*, is also present. Kanuka, matagouri (*Discaria toumatou*), *Coprosma rigosa* and several native herbs such as *Celmisia traversii* and *Bulbinella angustifolia*, grow around the forest edge. In the valley bottoms, several broadleaf species are associated with the remnant beech stands. They include large broadleaf trees, kohuhu (*Pittosporum tenuifolium*), putaputaweta (*Carpodetus serratus*) and koromiko (*Hebe salicifolia*).

Rodney Block

This area is predominantly tall kanuka forest. Other plants present under this more open canopy kanuka include *Coprosma rigida*, *Coprosma* sp. "tayloriae", *Coprosma rhamnoides*, *Corokia cotoneaster*, *Leucopogon fasciculata*, putaputaweta (*Carpodetus serratus*) and broadleaf.

2.5 Fauna

Birds appear to favour the shrubland areas with bellbird, tomtit, silver-eye and fantail noted. N Z falcon have also been seen.

The Mountain Giant Dragonfly *Uropetala chilumi* has been seen in this area. It is common throughout the eastern South Island. It is the largest dragonfly in New Zealand and is often observed flying over scrub or tussock and perching or basking for long periods on boulders and rock outcrops in the sun.

Other invertebrates noted include one day-flying moth *Asaphodes clarata* which lives on buttercups plants and two species of grasshoppers *Phaulacridium marginale*, which is common throughout New Zealand and *Paprides 'furcifer'* which is common throughout Mid Canterbury.

The Empson River is in good condition for invertebrates with a variety of habitats (runs and riffles) and substrate (fine and coarse gravel). Mayflies, Caddisflies, Stoneflies and Dobsonflies have all been collected from the river.

In the beech forest the ground living invertebrate community is rich with cockroaches, beetles and ants. Along the bush edge large numbers of flies, wasps and grasshoppers have been seen basking in the sunlight.

2.6 Historic

Woodbank was one of the early runs in the Amuri district when it was administered as part of Nelson Province. It originally covered much of the western part of the Hanmer Plain and the hill slopes to the north and west. It was first taken up by George Hooper and then sold to Nathaniel Edwards, George Bennett and William Robinson in 1859. The run was then divided and Edwards and Bennett took the western portion. This was purchased in 1860 by William Atkinson whose descendants still own the freehold and pastoral lease. Progressive freeholding of the lower hills and plain occurred until, in 1980, a little over half of the then lease was surrendered as part of a run plan agreement and the existing lease issued over the remainder.

There is no known historic remnant on the lease.

2.7 Public Recreation

2.7.1 Physical Characteristics

The environment of the upper part of the lease has been modified but is generally dominated by natural vegetation or landscapes. The lower part of the lease has been extensively modified. It is accessible by off road vehicles, mountainbikes, horses and walkers. The area qualifies as a Back Country Experience under the Recreation Opportunity Spectrum.

2.7.2 Legal Access

A legal roadline runs from the end of Woodbank Road to, and up, the Grantham River. A formed track follows this roadline for a while and then diverts off to follow a lane between developed paddocks.

2.7.3. Activities

The only known existing activity is access for hunters into the conservation area to the west i.e. the Tutu Stream area.

PART 3:

OTHER RELEVANT MATTERS & PLANS

3.1. Consultation

NGO's have been notified of the inclusion of Woodbank in the tenure review process and a submission has been received from the Federated Mountain Clubs of N.Z. This submission calls for the provision of legal vehicle access to the Grantham River and foot access to the conservation areas at the head of the Grantham and in the Tutu.

3.2 Regional Policy Statements and Plans

Not applicable.

3.3. District Plans

Woodbank is in the Hurunui District. The proposed District Plan was notified in September 1995 and decisions on the plan were released in August 1997. References have been submitted on the plan and will be considered shortly. In particular, landscape zones may be changed.

That part of the lease east of the Grey Hill ridge is in the Hanmer Basin Management Area. Policies for this area include "the protection of the conservation and landscape values of the Hanmer Basin hillsides and mountains from inappropriate use and development", "the protection of the scenic and conservation values of the Waiau River from inappropriate use and development" and "to improve, maintain and enhance the views of the landscape of the Hanmer Basin from principal roads."

All the lease is in an Area of Significant Landscape, however there is no rules specific to such an area and the general rules covered in the plan apply.

3.4. Conservation Management Strategies and Plans

The draft Canterbury Conservation Management Strategy lists protection of the SH 7 scenic corridor and the use of tenure review to enhance the protection of ecosystems as key result areas.

3.5. Freshwater Fisheries Plans

Not applicable.

PART 4

MAPS ETC.

4.1 Additional Information

(i) Terms and conditions of protective mechanism.

4.2 Illustrative Maps

4.2.1. Topo/Cadastral

4.2.2. Values

Acknowledgements

I would like to thank Rob Hewitt (lessee) for assistance with this survey. Also members of the survey team – Ann Steven (landscape), Neil Simpson (botanical) and Simon Morris (invertebrate ecology).


Woodbank
Topo /Cadastral
River
Waiau
Woodbank
0 0.5 1 1.5 2 Kilometers
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Map prepared 5 March 1999
Topographical map sheet 1:50 000 NZMS 260 M37
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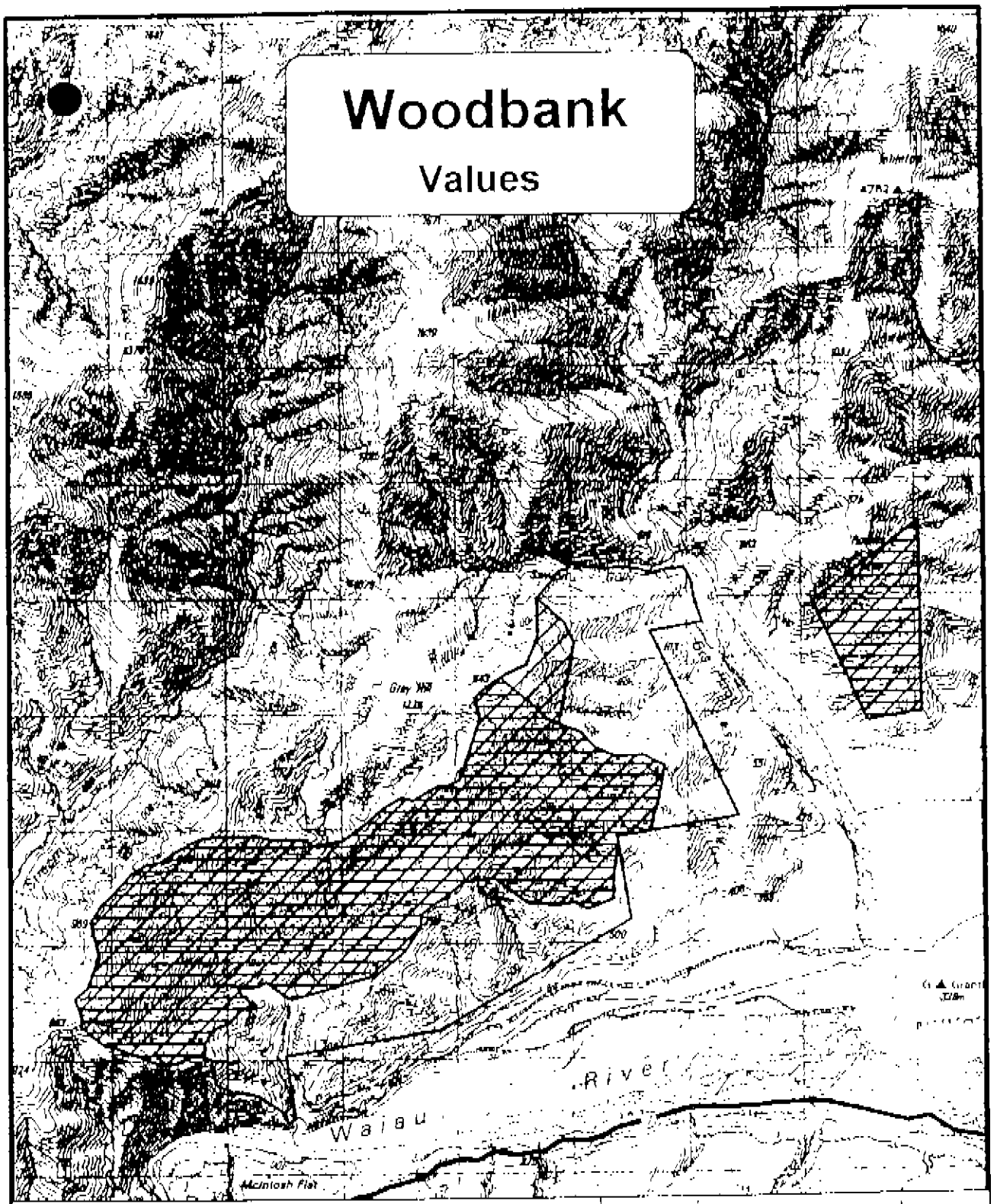

Woodbank
Ecological Value
Landscape Value

N

0 0.5 1 1.5 2 Kilometers

Map prepared 5 March 1999
Topographical map sheet [illegible]