

Crown Pastoral Land Tenure Review

Lease name : MIDDLEHURST

Lease number : PM 031

Conservation Resources Report - Part 2

As part of the process of Tenure Review, advice on significant inherent values within the pastoral lease 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.

Note: Plans which form part of the Conservation Resources Report are published separately.

These documents are all released under the Official information Act 1982.

December

10

2.6 FAUNA

2.6.1 Birds and Lizards

Middlehurst Pastoral Lease is within the Tapuae-o-Uenuku ED for which there is little published faunal information. Within the adjacent Dillon ED there are relatively few native bird species and none of these are abundant (Courtney and Arand, 1994). This paucity is largely a reflection of the lack of habitat diversity; there are few natural wetlands, scattered forest and shrubland remnants and limited extent of braided riverbed.

The property is contained within four of the 10km grid squares used by Robertson *et al* (2007) for the Atlas of Bird Distribution in New Zealand. Threatened or 'at-risk' bird species recorded from these squares were eastern falcon (nationally vulnerable 1/4 squares), banded dotterel (nationally vulnerable 2/4 squares), black-fronted tern (nationally endangered 2/4), South Island rifleman (declining 3/4) and New Zealand pipit (declining 2/4). The work of Courtney and Arand (1994) in the adjacent Dillon ED recorded no additional threatened or 'at-risk' species.

Five threatened lizard species have been recorded from adjacent ecological districts: black-eyed gecko (sparse), long-toed skink (sparse), scree skink (gradual decline), rough gecko (gradual decline) and Kaikouras gecko (range restricted).

Bird and lizard species observed on Middlehurst Pastoral Lease are described for two geographic areas of the property. It is only these three areas that were surveyed for their bird and lizard values.

South and West Faces of Mt Lookout

These faces, above the vehicle track and up to 1600m, were surveyed over two days. The habitat varies from tussockland with occasional relict patches of woody vegetation through scree and boulderfield to shattered rocky outcrops.

New Zealand pipit was seen or heard at three locations and several South Island rifleman were present in the one 'stand' of mountain ribbonwood which comprised four of five isolated trees amongst tussock in a gut. One eastern falcon was seen and one heard. A variety of birdlife, mostly introduced passerines with some grey warbler and silvereye, was observed in a well-vegetated eastern tributary of the Winterton River. A stockwater pond was observed to have a pair of paradise shelduck resident on it. Other bird species observed were: swamp harrier, southern black-backed gull, Australian magpie*, chukor*, blackbird*, song thrush*, chaffinch*, goldfinch* and greenfinch*.

A high boulderfield under Mt Lookout provides promising habitat for scree skink but only common skinks were found. Common skink was encountered regularly and within all habitats. Only one gecko was sighted, in a small boulderfield surrounded by tussock. This was captured and identified later from photographs as a Southern Alps gecko.

Middlehurst Stream Headwaters

These headwater tributaries feed into the main Middlehurst Stream; however, with the exception of the main Middlehurst Stream, it is only the small upper headwater areas that occur within the pastoral lease. The main Middlehurst Stream flows northeast off the side of Mt Lookout and has a number of bluff communities with patches of associated shrubland, particularly on the darker, northern side of the stream.

New Zealand pipits were present on the northern ridge of Mt Lookout. Riflemen were present in a fringe of low manuka along a volcanic dyke within the lower bluffs and also in scattered manuka

down the stream bed. Bellbird was observed in a stand of mountain beech at the head of the large eastern tributary of Middlehurst Stream. Grey warbler was also present in the stream bed and bellbirds were encountered in a small patch of mountain beech. Other birds observed were: paradise shelduck, southern black-backed gull, welcome swallow, swamp harrier, Canada goose*, California quail*, chukor*, dunnock*, yellowhammer*, starling*, redpoll* and chaffinch*.

Common skink was the only lizard species found in Middlehurst Stream.

Bird Species Recorded

Twenty-three bird species were recorded from Middlehurst Pastoral Lease, consisting of ten native species (Table 3) and 13 introduced species. Introduced bird species recorded were Australian magpie*, blackbird*, California quail*, Canada goose*, chaffinch*, chukor*, dunnock*, goldfinch*, greenfinch*, redpoll*, song thrush*, starling* and yellowhammer*.

Table 3 Native bird species recorded from Middlehurst Pastoral Lease, February 2010.

Species	Threat status	Distribution on/near property
<i>Threatened and 'at-risk' species</i>		
eastern falcon	nationally vulnerable	Throughout
New Zealand pipit	declining	Mt Lookout.
South Island rifleman	declining	Shrubland and manuka scrub.
<i>Non-threatened species</i>		
bellbird		Low-altitude forest remnants.
grey warbler		Occasional, in woody vegetation.
paradise shelduck		On ponds and swampy pasture.
silvereve		Occasional.
southern black-backed gull		Occasional.
swamp harrier		Throughout
welcome swallow		Middlehurst Stream catchment

Lizard Species Recorded

Only two species of lizard were observed. Common skink was encountered frequently in a variety of habitats. Several individuals were captured to confirm identity. Two geckos were found but only one could be captured for identification.

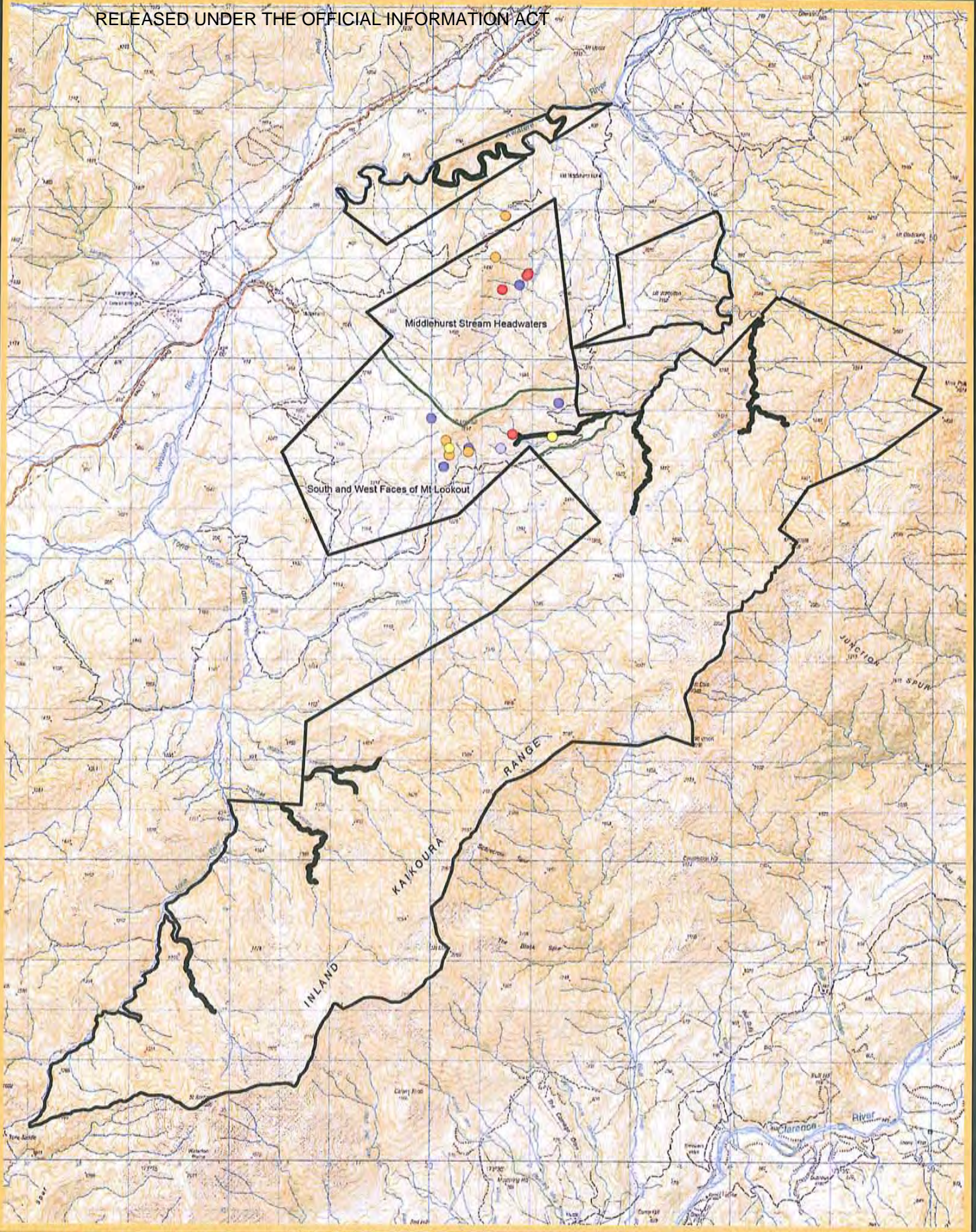
Table 4 Lizard species recorded from Middlehurst Pastoral Lease, February 2010.

Species	Threat status	Distribution on property
common skink	not threatened	Tussockland and boulderfield throughout.
Southern Alps gecko	range restricted	Boulderfield and rock outcrop, Mt Lookout.

Significance of the Bird and Lizard Fauna

Middlehurst Pastoral Lease provides habitat for one threatened bird species: eastern falcon (nationally vulnerable) and two 'at-risk' bird species: New Zealand pipit and South Island rifleman (both declining). The property provides habitat for at least seven other native bird species and two species of lizard: common skink and Southern Alps gecko. Interesting features of the bird fauna are the distribution of South Island rifleman, the low numbers of bellbird and the absence of brown creeper, South Island robin, South Island tomtit and South Island fantail.

Bird and Lizard Values Map



Bird and Lizard Values - Middlehurst Pastoral Lease Conservation Resources Report 2010

Department of Conservation
Te Papa Atawhai

New Zealand Government



- Middlehurst Pastoral Lease
- Middlehurst Bird and Lizard Units
- Eastern falcon
- New Zealand pipit
- South Island rifleman
- Southern Alps gecko
- Common skink

2.6.2 Freshwater Fauna (fish and invertebrates)

Most parts of Middlehurst Pastoral Lease are drained by the Awatere River. A relatively small area drains to Bluff River in the Clarence River catchment. Awatere River tributaries on the property are the Winterton River (including Totara Stream), Middlehurst Stream and Tone River (including George River and William, Thomas and Nesbit streams). The Awatere and Clarence rivers are both free of the large barriers present in some other South Island rivers. This has two important effects on the fish communities: they are more likely to include diadromous species (species with a sea phase in their lifecycle) and fish species are able to migrate between streams.

The Clarence River, including the tributary on the property, is recognised as a 'Type I' Waters of National Importance (Chadderton *et al.*, 2004), meaning that the waterways in this catchment contain special features of national significance. All sections of 'Type I' catchments are of national importance. This significance is because it is in the top ten sites by Natural Heritage Value score in its biogeographical unit; because it has records of blue duck that are less than 10 years old; and also for its threatened bird and plant communities.

The New Zealand Freshwater Fish Database (NZFFD) has 119 records from the Awatere River catchment and 149 records from the Clarence River catchment (at 15th of April 2010). There are seven species recorded from near the boundary of the property in the Awatere River catchment: shortfin eel, longfin eel, torrentfish, koaro, northern flathead galaxias, upland bully and brown trout. There are no records from close to the property in the Clarence River catchment. Two of these species are listed as 'at-risk' (Hitchmough *et al.* 2007): longfin eel (gradual decline) and northern flathead galaxias (range restricted).

The property comprises four main catchments of freshwater habitat. These habitats and the fish and macro-invertebrate species recorded are described below.

Awatere River Margins

This area of approximately 376 hectares comprises the northern part of Middlehurst Pastoral Lease, bordering the Awatere River. The main waterbody here is the Awatere River and its small tributary streams. The river flows through steep hill slopes which support pasture, rock outcrops, shrubland and some taller woody vegetation including willow* on the river margins. All except the steeper parts of this area are accessible to stock and wild animals.

The Awatere River is generally between 12 and 15 metres wide and approximately 200 mm deep, with pools over one metre deep. Tributary streams are up to one metre wide and 100 mm deep when water is present. The Awatere River has a mainly gravel and cobble substrate in the wide river valley sections, but contains a lot more boulder and bedrock in the more confined sections. The tributary streams are generally dirt and silt based, although gravel and bedrock is present in some locations.

Two sites were surveyed in this area. Upland bully was found at both sites; northern flathead galaxias were found at the upper site and torrentfish at the lower site. Longfin eel has been recorded further up the river.

Macro-invertebrate fauna assemblages indicate that the river in this area has good water quality. Species recorded were: mayflies (*Deleatidium lillii*-group and *Deleatidium myzobranchia*-group); caddisfly (*Aoteapsyche* sp.); two-winged flies (*Austrosimulium* spp. and *Chironominae* sp.); flatworm (*Cura* sp.); worm (*Oligochaete* sp.) and horsehair worm (*Gordius* sp.).

Winterton River Catchment

This area of approximately 4944 hectares comprises the Winterton River catchment, in the northeast part of Middlehurst Pastoral Lease, Middlehurst Stream and other unnamed streams. The main waterbodies of this area are Middlehurst Stream, Winterton River and smaller tributary streams, including Totara Stream. A number of wetlands are present, including palustrine seepages, riverine shallow water and palustrine ephemeral wetlands.

Plant communities in this area are scree and herbfield at the highest altitudes and grassland, shrubland and small areas of forest and treeland at lower altitudes. All except the steeper areas are accessible to stock and wild animals and some streams are crossed by vehicle tracks. The waterways in this block vary from half a metre to two metres wide and approximately 100 mm deep with pools up to 400 mm deep. Stream substrates are mainly boulders and cobbles, with occasional areas of gravel and bedrock.

The wetlands vary in size: palustrine seepages are generally up to 20 square metres; riverine shallow water wetlands are about 10 square metres; and, palustrine ephemeral wetlands are a part of a large complex over 1000 square metres. The palustrine seepages and ephemeral wetlands generally have surface water present and the riverine shallow water wetlands are about 100 mm deep. Wetlands have silt, dirt or gravel substrates.

Three sites were surveyed in or adjacent to this area. The only fish recorded was a single small (approximately 15 cm long) longfin eel in Middlehurst Stream. Koaro have been recorded from this catchment on the adjoining Mt Gladstone Pastoral Occupation Licence area.

Macro-invertebrate fauna assemblages indicate that the rivers and streams in this area have very good water quality. Species recorded were: mayflies (*Deleatidium lillii*-group, *Deleatidium myzobranchia*-group and *Nesameletus* sp.); caddisflies (*Aoteapsyche* sp., *Hydrobiosis frater*, *Hydrobiosis* sp., *Olinga feredayi*, *Pycnocentria* sp. and *Pycnocentroides aeris*); two-winged flies (*Austrosimulium* spp. and *Chironominae* sp.); flatworm (*Cura* sp.); and, worm (*Oligochaete* sp.).

Bluff River Headwaters

This area of approximately 200 hectares comprises the upper reaches of Bluff River on the eastern side of the Inland Kaikoura Range. The characteristic water bodies of this area are the small streams that form the headwaters of Bluff River and drain to the Clarence River. This area was not visited during this survey. No sites were surveyed in this catchment.

Tone River Catchment

This area of approximately 5589 hectares comprises the Tone River catchment, in the southern part of Middlehurst Pastoral Lease. Water bodies in this area are the Tone River and its tributaries, including William, Thomas and Nesbit streams and the headwaters of George River. There are also some palustrine seepage wetlands present. Plant communities in this area are scree and herbfield at the highest altitudes and grassland, shrubland and small areas of forest and treeland at lower altitudes. All except the steeper areas are accessible to stock and wild animals and some streams are crossed by vehicle tracks.

Streams are up to one metre wide and 200 mm deep. Waterway substrates vary depending on altitude: upper areas tend to have mainly boulder and cobble substrates while lower areas, especially areas that are more intensively farmed, have silt and dirt substrates. The wetlands are generally up to about 20 square metres with little surface water present and silt and dirt substrates.

One site was surveyed in this area. No fish were recorded. There is a single record of northern flathead galaxias at the confluence of William Stream and Tone River.

Macro-invertebrate fauna assemblages indicate that the rivers and streams in this area have moderate water quality. Species recorded were: mayflies (*Deleatidium lillii*-group and *Deleatidium myzobranchia*-group); caddisfly (*Hydrobiosis* sp.); two-winged flies (*Austrosimulium* spp. and *Chironominae* sp.); flatworm (*Cura* sp.); and, worm (*Oligochaete* sp.).

Species Recorded

Five fish species were recorded during the freshwater fauna survey of waterbodies on Middlehurst Pastoral Lease and other reaches of these waterbodies on the adjacent Mt Gladstone Pastoral Occupation Licence (Table 5). The macro-invertebrate fauna communities were reasonably uniform across the property.

Table 5 Fish species recorded from Middlehurst Pastoral Lease.

Fish Species	Threat Status	Known Distribution on Property
longfin eel	gradual decline	Middlehurst Stream.
koaro	not threatened	Winterton River catchment.
northern flathead galaxias	range restricted	Awatere River.
torrentfish	not threatened	Awatere River.
upland bully	not threatened	Awatere River.

Significance of Freshwater Fauna

Middlehurst Pastoral Lease provides good-quality habitat for fish and macro-invertebrates. Two notable fish species were recorded from the property: longfin eel (gradual decline) and northern flathead galaxias (range restricted). A notable feature is the presence of small, probably young², longfin eel in Middlehurst Stream, indicating recent recruitment in the catchment. The Bluff River tributary of the Clarence River on the property has national significance as part of a 'Type I' Waters of National Importance. This significance is because it is in the top ten sites by Natural Heritage Value score in its biogeographical unit; because it has records of blue duck that are less than 10 years old; and also for its threatened bird and plant communities.

²Approximating age from growth rates is hard to determine and based on a range of external factors (eg. Beentjes & Jellyman 2003).

Aquatic Values Map

2.6.3 Terrestrial Invertebrates

Middlehurst Pastoral Lease has received limited attention from invertebrate zoologists. A few visits were made into the Awatere Valley by early New Zealand collectors. Some DSIR Entomology Division staff made forays into this area in the 1960s. Much of the information gathered lies on label data in invertebrate collections, which remains effectively inaccessible at present. Some species distributions and information can be inferred from information gathered from adjoining areas or properties.

The property lies within a broad range of dry, eastern South Island habitats, from Marlborough south of the lower Wairau River to eastern and central Otago. There appear to be some extensive faunal affiliations within certain groups across this range, while other groups show species changes at intermediate or even quite local scales.

Several threatened moth species, including a number of the species associated with small-leaved *Olearia* occur or once occurred throughout this range. A few are also known from the east coast of the North Island. The threatened *Gingidia*-feeding moth *Gingidiobora nebulosa* has its type locality to the northeast at Coverham and was found in the Ka Whata Tu O Rakihouia Conservation Park southwest of the property, so is likely to occur on the property. This species is also known from Otago, but there are few records from Canterbury.

Other species appear more confined to South Marlborough and North Canterbury, such as the bluff weta, which is known from the upper Hodder River, a few kilometres northeast of the property. The Marlborough giant weta, was formerly widespread through South Marlborough and North Canterbury, but its range has contracted markedly. It is still present in the upper Tone River and Yeo Stream further west. A small population may be present in Kennet River to the west of the property. The Marlborough-North Canterbury area still supports the speargrass weevil, *Lyperobius huttoni*, which can be expected to occur in sites where the subalpine vegetation has not been repeatedly burnt.

Some beetle groups, such as the carabid genera *Cicindela* (tiger beetles), *Megadromus* and the large darkling beetle genus *Mimopeus* have a majority of their species distributed through these eastern areas. Some of these groups have species with quite confined distributions within South Marlborough and/or North Canterbury. A small group of *Mimopeus* species, each with very limited distribution, is centred on the Awatere Valley. The property includes the type locality of at least one species: the high altitude tiger beetle, *Cicindela hamiltoni*, which was originally described in 1921 from Mt Lookout (known at that time as Mowat's Lookout, but wrongly recorded on the specimen label as "Mouat's Lookout"). This is a species with a limited distribution in the South Marlborough-Kaikoura-North Canterbury area, where it occurs at or above an altitude of 1200m.

The expected picture of invertebrate faunal affiliations is therefore of a range of South Island- or New Zealand-wide species; a substantial number of species with greater or lesser distribution through the eastern South Island (some also reaching the North Island east coast); possibly a similar number confined to within the South Marlborough/North Canterbury area; and, some species confined to a limited part of South Marlborough.

A key feature determining the presence/absence of particular invertebrate species and/or their distributions is the nature and composition of vegetation through the area. Areas of primary forest are quite rare in this dry country and act as reservoirs of forest species which once occurred more widely. Grey scrub communities with good plant species diversity are a rich habitat for native herbivorous invertebrates, including a number of rare species. In most habitats, wetlands and their associated flora add considerable diversity to invertebrate communities. Even habitats with more limited vegetation, such as screes and bluffs, have their own distinctive invertebrate communities.

Invertebrate species and habitat observed on Middlehurst Pastoral Lease are described for the five geographic areas of the property that were able to be surveyed.

Middlehurst Stream valley

The main habitats surveyed in this area were:

- extensive bluff habitats with a reasonable diversity of bluff vegetation, including woody species;
- patches of riparian and steeper slope woody vegetation, combining grey scrub species with more substantial trees.

The darkling beetle, *Mimopeus vallis*, an Awatere valley endemic, was collected at a high altitude within this area.

Western Winterton River and Southern Tributary of Middlehurst Stream

The main habitats surveyed in this area were:

- Small forest remnants, mostly consisting of mountain totara and *Phyllocladus* with a few large *Coprosma* and other species; the remnant in the unnamed tributary of Middlehurst Stream had considerably higher plant species diversity than the other sites.

A large number of individuals of “*Harmologa* red stripe” were observed in this area. This species is a member of an undescribed group of species found on turf in short tussock grassland throughout the eastern South Island (John Dugdale, *pers.comm.*).

Despite the small size of some of the forest remnants in this area, they preserve at least some elements of the likely original invertebrate communities, including species specific to particular plant species or species groups. Notable amongst these are at least two species of weevils specific to *Phyllocladus* and podocarps. Given that a number of these invertebrates are flighted, albeit with a likely limited range, the remnants may act as habitats for metapopulations which, between them, sustain the full invertebrate community.

Lower south-eastern slopes of Mt Lookout in the George River catchment

The main habitats surveyed in this area were:

- small, stock-impacted wetlands, largely surrounded by pasture;
- bedrock outcrops forming bluffs and escarpments, mostly at smaller scales lower down but very extensive at higher altitudes on Mt Lookout.

The wetlands appear to have low-moderate plant diversity, with composition ranging from low-growing cushions to taller monocots, providing a moderate range of invertebrate habitats. Invertebrate species diversity within the wetlands is notably higher than in the surrounding pasture. Woody species in this area are limited in number and extent and not usually directly associated with the wetlands. The lower altitude bluff systems support some woody vegetation and potential invertebrate habitat but higher altitude bluffs and associated vegetation contain much greater diversity.

The sites investigated in detail had limited values, but the bluff vegetation higher on Mt Lookout combined with a wetland site indicate that there is a better range of invertebrate habitats above the road. No specific species of note were seen or found.

Upper Winterton River basin

The main habitats surveyed in this area were:

- extensive wetland complexes in the upper and lower parts of the basin;
- small mountain streams with associated seepages and occasional riparian woody vegetation;
- flat grazing land with scattered tussock, hawkweed* and extensive semi-bare ground;
- rockfaces, bluffs and small shingle slips.

Large numbers of the high altitude tiger beetle, *Cicindela hamiltoni*, were observed on the extensive semi-bare flats in the basin. This species is an active diurnal predator occupying open ground above approximately 1200m and has probably benefited from reduction of the original vegetation cover. Its type locality is Mt Lookout.

Large wetlands at this altitude are very rare in the area. The basins in which the wetlands occur appear to have formed from the infill of some small valleys by debris from a large rockslide from the ridge north of Mt Cold. The main wetland has some unusual features. The course of the small stream can be followed through the wetland, but for most of its length the stream channel is divided into a series of slow-flowing, deep pools by peat or peat/mineral dams. At the lower end of the wetland a high dam restricts outflow at the head of a steep drop of 80m to a large stream below. These structures are not common in lower altitude swamps.

Upper George River to Tone Saddle

This area was not visited during the current inspection, but has been described from fieldwork undertaken in the Tone Conservation Area, now part of Ka Whata Tu O Rakihouia Conservation Park, during the 2002 and 2004. The main habitats in this area were:

- extensive rocky steeplands, predominantly high alpine to upper subalpine, with bluffs, rocky ridges, debris falls and screes;
- deeply-incised mountain streams, often with gravel flats of limited extent in the lower reaches;
- limited areas of vegetated river flats/terraces with occasional remnant woody vegetation, including a few mountain ribbonwood trees.

The threatened (gradual decline) *Gingidium* looper moth, *Gingidiobora nebulosa*, has been recorded in the Tone River bed adjacent to the southern end of this area. The bluff weta (sparse) is likely, but not confirmed, to occur in hard-rock bluffs in this area. The Marlborough giant weta (gradual decline) is present on flats beside Tone River as far downstream as Tone Saddle and specimens have been found near Tone River Biv, directly adjacent to the property. It is possible that this species is present on flats and associated habitats around 1100-1200m altitude in some of the lower tributaries of Tone River, as far north as William Stream.

The scree weta was found at over 2000m altitude near the summit of the range and will be present throughout higher sites on the property. This is a widespread but highly variable species of giant weta and is not threatened. The probable presence of bluff weta and Marlborough giant weta is noteworthy: South Marlborough-North Canterbury is the only area in New Zealand where three giant weta species are known to have overlapping distributions. The large range contraction suffered by the Marlborough giant weta over the past 100 years means that this range overlap is now known to occur with certainty only in parts of the Seaward Kaikoura Range. Middlehurst is one of the few other sites where such an overlap in extant populations may still exist.

Species Recorded

Table 6 Notable invertebrate species recorded from Middlehurst Pastoral Lease

Species	Status	Distribution/comments
<i>Cicindela hamiltoni</i>	Not considered threatened; type locality Mt Lookout.	A high-altitude tiger beetle confined to a reasonably limited area within South Marlborough and North Canterbury.
“ <i>Harmologa</i> red stripe”	Threat status undetermined.	One of a group of tortricid moths which are all undescribed. The group is characteristic of turf in short tussock grassland through the eastern South Island.
<i>Mimopeus vallis</i>	Not considered threatened but a local endemic with limited distribution.	Distribution limited to the middle Awatere valley.

Species not found during this survey but likely to be present on the property include the *Gingidia*-feeding moth, *Gingidiobora nebulosa* (gradual decline), and the bluff weta (sparse). Possibly present is the Marlborough giant weta (gradual decline). The location and nature of the property indicate that further threatened species would be likely to be found with more survey time.

Significance of the Invertebrate Fauna

The property appears to have limited altitudinal sequences of indigenous vegetation, with large areas heavily influenced by many years of pastoralism. However, the property does hold several small remnants of forest, which would once have been more extensive, if still partially fragmented, and which appears to support some of their original invertebrate fauna, including forest specific species. There is also a moderate presence of grey scrub and bluff/rockface communities, which also contribute to invertebrate species diversity. The upland wetlands on the property are an unusual feature within the ecological district and hold thriving and diverse invertebrate communities, adding significantly to invertebrate species diversity. The high altitude areas also appear to retain much of their original invertebrate values, given the limited modification to the vegetation communities that has occurred in these areas. The highest values lie in the remnant forest and the large wetland area in terms of their invertebrate values.

Invert Values Map

2.6.4 Problem Animals

Goats* were observed at several locations on the property, notably in the Awatere River gorge and on the mid slopes of the Inland Kaikoura Range. Chamois* are present at higher altitudes and red deer* were observed at mid-altitudes. Pigs* were observed in the Awatere River gorge. There is either evidence or known populations of other pest animals which impact on native communities: in particular hares*, rabbits* and possums*.

2.7 HISTORIC

2.7.1 European Heritage Values

Middlehurst Pastoral Lease (Run 216) is a mid-upper Awatere valley pastoral lease of approximately 11420 hectares. Middlehurst Station (both freehold and pastoral lease) lies along the southern side of the Awatere River between the Winterton and Tone Rivers and runs back to the crest of the Inland Kaikoura Range. The pastoral lease comprises about two thirds of the station; with much of the front country and significant river valleys, notably the George and lower Tone rivers, held in freehold.

Following the New Zealand Company settlement in Nelson in 1841, there was a demand for rural land. The dispute between Maori and European over ownership of the Wairau was, to some extent, resolved by the Wairau Purchase in 1847. This purchase included the Awatere and opened the way for large scale pastoral farming. By 1851 all available land in the Awatere valley had been taken up, apart from Molesworth (Kennington, 1978).

The first leasee of the land that forms Middlehurst was Frederick William Trolove. The 20 year old Trolove, who was from a wealthy Lincolnshire family, had the backing of his wealthy uncle, Dr John Shaw, who assisted in the selection of Middlehurst before returning to England. Frederick Trolove moved onto Middlehurst in August 1851 with 800 sheep and began a homestead at the Winterton River (Kennington, 1978). The site of this house was away from the Awatere-Molesworth travellers route and was very remote. After six months on Middlehurst, Trolove heard that there was still unoccupied country on the east coast. He made a claim with the Nelson Lands Office on the basis that if granted he would relinquish Middlehurst. He was successful and left the run. After Trolove, Sir William Congreve applied for Middlehurst but changed his mind before accepting the lease (Kennington, 1978).

The lease was next taken up in a partnership between Alexander Mowat of Altmarlock (son in law of George McRae) and Captain James Cross who was the Nelson Harbour Master. Mowat and Cross achieved freehold over 5,200 hectares of the run. They ran the property under managers including Cross's son Richard before leasing it to Phillip and Nehemiah McRae between 1869 and 1876. During this time the homestead remained on freehold land near the 'Winterton River'³ (Kennington, 1978). Kennington (1978) suggests that a new homestead was built in 1883 at the present Middlehurst homestead site because it gave better access to the newly completed road down the Awatere via the Upcot Saddle.

The Mowat and Cross partnership lasted until Mowat's death in 1875. At that time his widow, Marjory, took over the property and purchased Cross's share for £9,000; however, Marjory Mowat carried a significant mortgage and was forced to relinquish the run to the New Zealand Trust and Loan Co in 1895. As with many runs at that time depressed wool prices and high rabbit numbers made her position unsustainable (Kennington, 1978).

³ It is possible that this site in fact is on Middlehurst Stream where the present 'Old Middlehurst Hut' now sits. It best fits Kennington's description of the site with its stone walls although the present hut is a comparatively recent replacement of an earlier one (perhaps the original homestead).

The New Zealand Trust and Loan Co. managed the run until 1906 when it was purchased by the owners of Upcot, James and William Stevenson. The Stevenson family continued to run the two stations together until 1995 when the partnership between brothers William and Robert Stevenson dissolved and Robert took over Middlehurst. In 1997, Middlehurst was placed on the market and sold in early 1998 to the present leaseholders, William and Sue MacDonald (Middlehurst Station Limited).

Preliminary research, which included searching old SO plans now held by LINZ and the available publications and documents, gave good indications of the location of old huts, camps, yards and fencelines as well as providing historical context. None of the primary farm buildings are on the pastoral lease.

Awatere Gorge Sites

The front country of Middlehurst Pastoral Lease straddles a gorge section of the Awatere River. This section is characterised by rocky bluffs and tight hairpin bends in the river, the inside points of which usually have small alluvial flats. Many of these small river bend flats would make good camp sites (Maori or European) and were examined closely, but no evidence for this was found.

Stone Walled Paddock

This structure is on a small river terrace on the northern side of the junction of Middlehurst Stream and the Awatere River. It appears to be just inside the boundary of the pastoral lease. A right angled dry stone wall runs along the back of the flat and across its southern end. The lengths of the sides are 120 and 50 metres respectively. The wall is built of volcanic boulders presumably sourced from Middlehurst Stream and is about one metre wide at the base. Only the base course now remains 'in situ' but even so the limited amount of dislodged stone suggests it was never very high. The paddock relies on the five metre Awatere River bank scarp along its western and northern sides for containment. The wall is clearly very old and suggests a relationship with the stone walled old Middlehurst homestead site approximately one kilometre upstream. There is also a very old stand of willows* in the bend approximately 200 metres to the south which may indicate an old hut site. This stand (but no hut) is shown as a willow* plantation on the LINZ Map SO 389 (1896). The willows* are on freehold title.

Winterton River Headwater Sites

The Winterton River rises in the country between Mt Lookout and the Inland Kaikoura Range. Its headwaters cut through reasonably rugged country, much of which is Middlehurst Pastoral Lease.

Cold Camp Whare

This location was thoroughly searched, but did not appear to have any remnants of surface modification, wood, metal or glass anywhere in the general vicinity of the map location of this hut (LINZ Map SO 389, 1896). This is mystifying as the site is in alpine grassland and easily surveyed; so it is presumed that any remains of this hut have been tidied up. The approximate location given above is based on that shown on the 1896 map.

Old Fence, Cold Camp

This is shown on LINZ Map SO 389 (1896) running past the whare, across the basin and up the hill to the south east. It now exists in the form of a few remnant T-iron posts. One at the given location is stamped 'BAYLISS & Co LONDON'. Other occasional iron posts from the same fence were seen to the north west from the Cold Camp saddle.

Wooden Survey Peg, Cold Camp

This is on a flat hill top to the south east of the Cold Camp Whare site and is also the location of a T iron corner post of the fence mentioned above. It is (now weathered) timber and square sectioned. Its purpose is not known but it corresponds with one of the survey points on Gillies' 1896 survey plan (LINZ Map SO 389, 1896).

Hangdog Whare

The section of river, in which this hut is shown on LINZ Map SO 389 (1896), was walked and any land that could have been used to site a hut was examined. The river bed and confined flats all have evidence of recent flood deposits and are covered in gravels. No evidence of this hut was found although black currant bushes were noted at the given location. It is probable that these mark the site of Hangdog Whare.

Upper Tone River Sites

The broad gravel bed of the Tone River provided a reasonably easy horse route to the Tone Saddle. This was a well known route into the Clarence valley and Lake McRae. The only track formation on the Tone River route is an angled climb to the saddle, which is an easy gradient over about 200 metres. This track is about 30 cm wide, of variable definition and lies wholly within the public conservation land, beyond the Middlehurst Pastoral Lease boundary. The only section of the Tone River in Middlehurst Pastoral Lease is on the true right, between Thomas Stream and the public conservation land boundary just below the Tone Saddle. LINZ Map SO 389 (1896) shows flood gates just upstream of Thomas Stream; however, no evidence of these floodgates were found.

Upper Tone Camp

There is a probable camp site approximately three and a half kilometres downstream from Tone Saddle. This is a sheltered small flat area (approximately 30 x10 metres) on the true right, tucked in beneath a large rock. There is a 'warratah' and gooseberry bush in the middle of the flat. No evidence of a fireplace was found.

St Bernard Tributary Camp 1

This camp is shown on LINZ Map SO 389 (1896). The location is a series of small river terraces on the true left of the stream, about 150 metres above its confluence with the Tone River. The area is overgrown with matagouri and briar and there are abundant gooseberry and currant bushes. Although no fireplace was found, a long necked 'ABC' beer bottle was. This would have provided a good camp for musterers or travellers heading to or from the Tone Saddle. LINZ Map SO 653 (1900) shows a foot track leading up this stream, over the summit of St Bernard and down into the Clarence via the Waterloo Plains.

St Bernard Tributary Camp 2

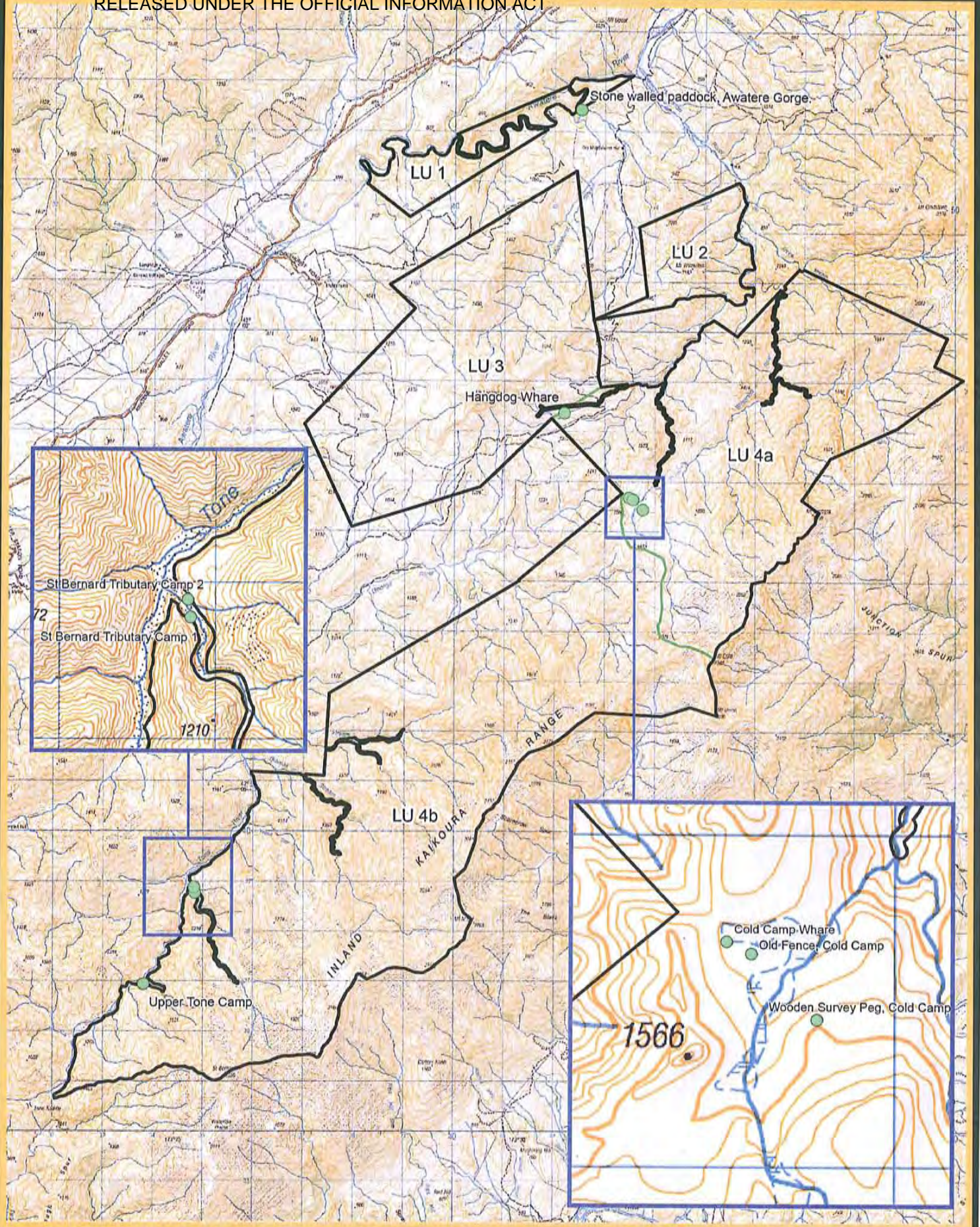
Another camp site was found just downstream and across the stream from St Bernard Tributary Camp 1. This camp is on a small terrace, about two metres above the stream. It consists of a small grassy flat with briar, matagouri, gooseberries and an old mountain ribbonwood. There is an old stone fireplace and fence standard at the eastern end of the terrace. There is also evidence of two tent sites which appeared to have been used recently.

Significance of Historic Resources

On Middlehurst Pastoral Lease, historic sites have moderate to low significant inherent values. These sites are:

- Stone Walled Paddock, Awatere Gorge;
- Cold Camp Whare.
- Old Fence, Cold Camp;
- Wooden Survey Peg, Cold Camp;
- Hangdog Whare;
- Upper Tone camp;
- St Bernard Tributary Camp 1;
- St Bernard Tributary Camp 2.

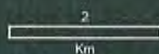
Historic Values Map



Historic Values - Middlehurst Pastoral Lease Conservation Resources Report 2010

Department of Conservation
Te Papa Atawhai

New Zealand Government



- Middlehurst Pastoral Lease
- Historic Sites

2.8 PUBLIC RECREATION

2.8.1 Physical Characteristics

The northwest (lower-altitude) part of the property mostly comprises moderately steep hill country with some gentler terrain in valleys. Steeper slopes and bluffs are present along the Awatere River gorge and at Mt Lookout, including some spectacular bluffs and screes on the south face of Mt Lookout. The southeast part of the property, along the flank of the Inland Kaikoura Range is steep and broken, with extensive rock bluffs and screes. Most lower-altitude parts of the property can be easily traversed on foot; higher altitude parts are mountainous and in many places largely inaccessible. One main vehicle track traverses the property from the homestead in the Awatere valley, around the west flank of Mt Lookout to the middle reaches of Tone River, across the lower southern slopes of Mt Lookout to Middlehurst Stream, and then across the steep slopes high above the Awatere River gorge back to the homestead.

2.8.2 Legal Access

Roads

Access to the property is from Seddon via Awatere Valley Road. Unformed legal access to the property exists along the Awatere, Winterton, Tone and George rivers. Access to the property is also available from areas of public conservation land that adjoin the property.

Adjoining Public Conservation Land

The property adjoins Tapuae-o-Uenuku Scenic Reserve to the northeast, Ka Whata Tu O Rakihouia Conservation Park to the southeast, Molesworth Recreation Reserve to the south and Tone Conservation Area to the southwest.

Marginal Strips

Marginal strips are present within or adjacent to the property along the Awatere, Winterton, Tone and George rivers; along parts of Middlehurst, Totara, William, Thomas and Nesbit streams;; and on some tributaries of these above mentioned rivers.

2.8.3 Activities

Little information has been discovered about recreational use of the property. Existing recreational activities may include four-wheel-driving, hunting, horse-riding and tramping. Higher-altitude parts of the property provide opportunities for climbing and hunting. Heli-skiing has occurred in the past of Mt Cold and St Bernaud. Lower-altitude parts of the property, including the vehicle track, provide good opportunities for horse-riding, mountain-biking, four-wheel-driving, picnicking, tramping and nature study. Mt Lookout and the basin in the upper Winterton River valley provide spectacular settings for recreation.

Significance of Recreation

Significant recreational features of Middlehurst Pastoral Lease are the semi-natural recreation setting at lower altitudes and the highly-natural (though mountainous) recreation setting at higher altitudes on the Inland Kaikoura Range. Mt Lookout and the basin in the upper Winterton River valley are special features.

PART 3 OTHER RELEVANT MATTERS AND PLANS

3.1 CONSULTATION

A request for interested party (NGO) comment was sent out on the 3/3/2010. Interested party consultation comments were received from New Zealand Historic Places Trust. The comments are listed below.

- There are no registered historic areas, wāhi tapu or wāhi tapu areas in the area.
- There are no archaeological sites recorded in the New Zealand Archaeological Association (NZAA) Site Recording Scheme in the immediate area of the lease. This should not be taken as evidence that no sites are present however, as a systematic survey has not been undertaken.
- Middlehurst Pastoral Lease has a history dating back to the mid-nineteenth century (1854) when the first pasturage licence was taken up. A large number of farm buildings from this time occur on the current freehold areas of the station. A number of historic huts sites, mustering tracks, camps, rabbit-proof fencing and other farming sites are present on the pastoral lease, in particular 'Hangdog Whare and Cold Camp Whare' which should be investigated.

3.2 DISTRICT PLANS

Middlehurst Pastoral Lease lies within Marlborough District. The relevant district plan forms part of the Wairau Awatere Resource Management (RM) plan. The Wairau Awatere RM plan is a combined district, regional coastal and regional plan prepared by a unitary council. This plan applies to that part of the district located south of the Wairau River catchment, including the Awatere Valley where this property is located. The Wairau Awatere RM plan became operative on 8 February 2008.

The property is zoned Rural 4 under the Wairau Awatere Resource Management Plan. Under this zoning farming, commercial forestry and protection and conservation forestry are permitted activities. The zoning also allows for home occupations, homestays and one dwelling house per certificate of title as permitted activities. Subdivision is a controlled activity in the Rural 4 zone to a minimum lot size of 20 hectares net site area (excluding access).

The plan has an indigenous forest clearance rule which would require resource consent for clearance of an area of more than 0.1 ha of indigenous forest from any certificate of title, in any twelve month period. It also requires a resource consent for the removal of any indigenous vegetation from a natural wetland which is an area of larger than 200 m². Other indigenous vegetation types are not subject to any plan rule which would prevent their destruction or removal.

The plan requires resource consent for:

- clearance of any woody vegetation;
- cultivation on all slopes greater than 20°;
- excavation and tracking, and filling of land within 8 metres of any permanently flowing river, or the margin of any wetland.

The permitted activity rules are subject to a number of specific conditions. Non-compliance with these conditions makes an activity a limited discretionary activity.

The plan includes a chapter on landscape values. This chapter has a focus on visual amenity, in particular on the identification of outstanding landscape values in accordance with 6 b of the RMA, "the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development". This chapter identifies the property as being part of a landscape type classified as "high inland hills" which features river gorges and contains medium high and high visual qualities for the river gorges. The area is identified as having outstanding values with medium low landscape sensitivity generally and medium sensitivity within the river gorges. The identification of the area as having outstanding landscape value does not change the activity status of activities and structures. Council would be required to take this matter into consideration when assessing applications for discretionary and non-complying resource consents.

The Council has recently commissioned and received a landscape study that encompasses all of Marlborough including Middlehurst Pastoral Lease. The study was circulated to various organisations for comment. The document (Marlborough Landscape Study 2009 Landscape characterisation First Draft Boffa Miskell May 2009) was prepared to assist in the review of the Marlborough Resource Management Plans. It has no legal or statutory weight.

A register of significant heritage resources is included in the plan as Appendix A. There do not appear to be any heritage trees or buildings identified within the property.

3.3 CONSERVATION MANAGEMENT STRATEGIES

Middlehurst Pastoral Lease lies within the South Marlborough part of Nelson-Marlborough Conservancy. Relevant priority objectives for this unit listed in the CMS (Department of Conservation, 1996) are:

- Identify and protect traditional falcon nesting sites in Inland Marlborough.
- Control goats to protect endemic plants at Inland Marlborough.
- Ensure maintenance of historic buildings and provide appropriate interpretation.
- Survey for freshwater fish throughout.
- Investigate the effect of hares and control where required.
- Survey and provide interpretation in conjunction with facilities at historic sites.
- Negotiate access and provide for remote tussockland tramping in Inland Marlborough.
- Maintain facilities and seek opportunities to improve access for recreational hunting, particularly in the Branch and Leatham catchments but also elsewhere in South Marlborough.
- Seek controls on land clearance and prevent fire in Inland Marlborough.
- Protect freshwater fish habitat through statutory advocacy.

3.4 NEW ZEALAND BIODIVERSITY STRATEGY

The New Zealand Government is a signatory to the Convention on Biological Diversity. In February 2000, Government released the New Zealand Biodiversity Strategy. This strategy is a blueprint for managing the country's diversity of species and habitats. It sets a number of goals to achieve this aim. Of particular relevance to tenure review is Goal 3, which states:

- *Maintain and restore a full range of remaining natural habitats and ecosystems to a healthy functioning state, enhance critically scarce habitats, and sustain the more modified systems in production and urban environments, and do what is necessary to:*
- *Maintain and restore viable populations of all indigenous species across their natural range and maintain their genetic diversity.*

PART 4 ATTACHMENTS

4.1 ADDITIONAL INFORMATION

4.1.1 Scientific Names of Species

Plant Species

Species names follow those in the published volumes of New Zealand Flora and the name changes listed in A Checklist of Indigenous Vascular Plants of New Zealand, 10th Revision (*Unpublished Document*, S. Courtney, Department of Conservation, Nelson). Maori names are included for taonga species listed in Schedule 97 of the Ngai Tahu Claims Settlement Act 1998. Naturalised species are indicated by an asterisk (*).

Common name Scientific name

Naturalised species are indicated by an asterisk (*).

adder's tongue	<i>Ophioglossum coriaceum</i>
akiraho	<i>Olearia paniculata</i>
black currant*	<i>Ribes nigrum</i>
black medick*	<i>Medicago lupulina</i>
blue tussock	<i>Poa colensoi</i>
blue wheatgrass	<i>Elymus solandri</i>
bracken.....	<i>Pteridium esculentum</i>
bristle tussock	<i>Rytidosperma setifolium</i>
broad-leaved snow-tussock.....	<i>Chionochloa flavescens</i>
broom*	<i>Cytisus scoparius</i>
browntop*	<i>Agrostis capillaris</i>
carpet grass	<i>Chionochloa australis</i>
Chewings fescue*.....	<i>Festuca rubra</i>
cocksfoot*.....	<i>Dactylus glomerata</i>
coral daisy.....	<i>Helichrysum coralloides</i>
cotton daisy/tikumu.....	<i>Celmisia spectabilis</i>
creeping pohuehue	<i>Muehlenbeckia axillaris</i>
elder*	<i>Sambucus nigra</i>
fierce lancewood	<i>Pseudopanax ferox</i>
golden speargrass/taramea	<i>Aciphylla aurea</i>
gooseberry*	<i>Ribes uva-crispa</i>
Hall's totara	see mountain totara
hard tussock	<i>Festuca</i> spp.
hawkweed*.....	<i>Hieracium</i> spp.
horehound*	<i>Marrubium vulgare</i>
kanuka.....	<i>Kunzea ericoides</i>
kapuka/broadleaf	<i>Griselinia littoralis</i>
kohuhu	<i>Pittosporum tenuifolium</i>
kowhai.....	<i>Sophora microphylla</i>
lawyer	<i>Rubus schmidelioides</i>
manuka.....	<i>Leptospermum scoparium</i>
matagouri	<i>Discaria toumatou</i>

matai.....	<i>Prumnopitys taxifolia</i>
midribbed snow-tussock	<i>Chionochloa pallens</i>
mountain beech	<i>Nothofagus solandri</i> var. <i>cliffortioides</i>
mountain inaka	<i>Dracophyllum rosmarinifolium</i>
mountain ribbonwood/houhi.....	<i>Hoheria lyallii</i>
mountain tauhinu.....	<i>Ozothamnus vauvilliersii</i>
mountain toatoa.....	<i>Phyllocladus alpinus</i>
mountain totara.....	<i>Podocarpus cunninghamii</i>
mountain wineberry	<i>Aristotelia fruticosa</i>
mouse-ear hawkweed*	<i>Hieracium pilosella</i>
nettle.....	<i>Urtica incisa</i>
patotara	<i>Leucopogon fraseri</i>
penwiper	<i>Notothlaspi rosulatum</i>
pine*.....	<i>Pinus</i> spp.
pink broom.....	<i>Carmichaelia glabrescens</i>
porcupine shrub	<i>Meliclytus alpinus</i>
prickly shield fern.....	<i>Polystichum vestitum</i>
prostrate kowhai	<i>Sophora prostrata</i>
pygmy heath	<i>Leucopogon nanum</i>
red clover*	<i>Trifolium pratense</i>
sheep's sorrel*.....	<i>Rumex acetosella</i>
scrub pohuehue.....	<i>Muehlenbeckia complexa</i>
silver tussock/wi.....	<i>Poa cita</i>
snow totara.....	<i>Podocarpus nivalis</i>
snow tussock.....	<i>Chionochloa</i> spp.
soft rush*	<i>Juncus effusus</i>
speargrass/taramea	<i>Aciphylla</i> sp.
St John's wort*	<i>Hypericum perforatum</i>
sweet brier*	<i>Rosa rubiginosa</i>
sweet vernal*	<i>Anthoxanthum odoratum</i>
tall fescue*	<i>Schedonorus phoenix</i>
tall oat grass*	<i>Arrhenatherum elatius</i>
tall tussock	see snow tussock
tauhinu	<i>Ozothamnus leptophyllus</i>
toetoe.....	<i>Cortaderia richardii</i>
vegetable sheep.....	<i>Haastia pulvinaris</i>
viper's bugloss*	<i>Echium vulgare</i>
wall lettuce*	<i>Mycelis muralis</i>
weeping matipo	<i>Myrsine divaricata</i>
wharariki/mountain flax.....	<i>Phormium cookianum</i>
white clover*	<i>Trifolium repens</i>
white fuzzweed.....	<i>Vittadinia australis</i>
wilding pines*	see pine*
willow*	<i>Salix</i> spp.
woolly moss.....	<i>Racomitrium</i> spp.
Yorkshire fog*	<i>Holcus lanatus</i>

Animal Species

Species names follow King (1990) for mammals, Miskelly *et al* 2008 for recent bird name changes and the June 2003 version of the New Zealand Recognized Bird Names list (compiled by C.J.R. Robertson and D.G. Medway for the Ornithological Society of New Zealand Inc.) for the other bird names, Whitaker (1998) for lizards and McDowall (2000) for fish. Maori names are included for taonga species listed in Schedule 97 of the Ngai Tahu Claims Settlement Act 1998. Naturalised species are indicated by an asterisk (*).

<u>Common name</u>	<u>Scientific name</u>
Australian magpie*	<i>Gymnorhina tibicen</i>
banded dotterel	<i>Charadrius bicinctus bicinctus</i>
bellbird/korimako	<i>Anthornis melanura melanura</i>
blackbird*	<i>Turdus merula</i>
black-eyed gecko	<i>Hoplodactylus kahutarae</i>
black-fronted tern	<i>Sterna albobriata</i>
bluff weta	<i>Deinacrida elegans</i>
brown creeper	<i>Mohoua novaeseelandiae</i>
brown trout*	<i>Salmo trutta</i>
California quail*	<i>Callipepla californica brunnescens</i>
Canada goose*	<i>Branta canadensis maxima</i>
chaffinch*	<i>Fringilla coelebs</i>
chamois*	<i>Rupicapra rupicapra</i>
chukor*	<i>Alectoris chukar</i>
common skink	<i>Oligosoma nigriplantare polychroma</i>
deer*	<i>Cervus elaphus scoticus</i>
dunnock*	<i>Prunella modularis</i>
eastern falcon/karearea	<i>Falco novaeseelandiae</i>
goat*	<i>Capra hircus</i>
goldfinch*	<i>Carduelis carduelis</i>
greenfinch*	<i>Carduelis chloris</i>
grey warbler/riroriro	<i>Gerygone igata</i>
hare*	<i>Lepus europaeus occidentalis</i>
Kaikouras gecko	<i>Hoplodactylus</i> aff. <i>maculatus</i> "Kaikouras"
koaro	<i>Galaxias brevipinnis</i>
longfin eel/tuna	<i>Anguilla dieffenbachii</i>
long-toed skink	<i>Oligosoma longipes</i>
Marlborough giant weta	<i>Deinacrida parva</i>
New Zealand pipit/pihoihoi	<i>Anthus novaeseelandiae novaeseelandiae</i>
northern flathead galaxias	<i>Galaxias</i> "Northern"
paradise shelduck/putakitaki	<i>Tadorna variegata</i>
pig*	<i>Sus scrofa</i>
possum*	<i>Trichosurus vulpecula</i>
rabbit*	<i>Oryctolagus cuniculus cuniculus</i>
red deer*	see deer
redpoll*	<i>Carduelis flammea</i>
rough gecko	<i>Heteropholis rudis</i>
scree skink	<i>Oligosoma waimatense</i>
scree weta	<i>Deinacrida connectens</i>
shortfin eel	<i>Anguilla australis</i>
silvereye	<i>Zosterops lateralis lateralis</i>
song thrush*	<i>Turdus philomelos</i>
Southern Alps gecko	<i>Hoplodactylus</i> aff. <i>maculatus</i> "Southern Alps"
southern black-backed gull/karoro	<i>Larus dominicanus dominicanus</i>

South Island fantail/piwakawaka.....	<i>Rhipidura fuliginosa fuliginosa</i>
South Island South Island rifleman/titipounamu	<i>Acanthisitta chloris chloris</i>
South Island robin/kakaruai	<i>Petroica australis australis</i>
South Island tomtit/miromiro	<i>Petroica macrocephala macrocephala</i>
starling*	<i>Sturnus vulgaris</i>
swamp harrier	<i>Circus approximans</i>
torrentfish/piripiripohatu	<i>Cheimarrichthys fosteri</i>
upland bully.....	<i>Gobiomorphus breviceps</i>
welcome swallow	<i>Hirundo tahitica neoxena</i>
yellowhammer*	<i>Emberiza cintrenella</i>

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