

**Extended Phase 1 Habitat Survey
Cairngorms Local Development Plan**

Site: 005d
Land at Black Island, Blair Atholl

September 2010

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CONTENTS

Summary

1.0 Introduction	4
Background	4
Existing data	4
Designated sites	4
2.0 Survey	5
Method	5
Results	5
Vegetation	5
Fauna	7
3.0 Habitat Suitability for Mammals	9
4.0 References	9

APPENDIX 1 – TARGET NOTES

APPENDIX 2 – PLANT SPECIES LIST

APPENDIX 3 – SURVEY PHOTOGRAPHS

APPENDIX 4 – PHASE 1 CODES

Summary

1. As part of the process of considering the suitability of Site **005d** for inclusion into the Local Development Plan, the Cairngorms National Park Authority (CNPA) has commissioned Landcare NorthEast to undertake a desktop study and initial ecological survey.
2. A desktop study and subsequent ecological survey was conducted at Site 005d, land at Black Island, Blair Atholl on 18 August 2010
3. The 31.5ha proposed development site is located at NN 853654.
4. The main habitats are conifer plantation, broad-leaved semi-natural woodland, stands of ancient Scots pine, regenerated scrub, disturbed open ground supporting arable weeds and other open areas of unimproved species-rich calcareous/mesotrophic grasslands and shingle banks.
5. No notable plant species (those of UK conservation concern – see UK list of Vascular Plants of Conservation Concern <http://www.ukbap.org.uk> - or those listed on the Cairngorms LBAP list of priority species) were noted.
6. Evidence of otter, bat and red squirrel presence were recorded on the site.
7. The site offers suitable breeding and foraging habitat for otter, bats, red squirrels and badgers

1.0 Introduction

Background

1.1 In order to make an assessment on ecological impacts of developments of sites that have been presented for inclusion in the Cairngorms Local Development Plan, CNPA require desktop studies and ecological surveys of each site to be undertaken.

1.2 With regard to this, an extended Phase 1 survey and habitat suitability assessment was conducted at Site 005d, land at Black Island, Blair Atholl, Perthshire.

1.3 The 31.5ha site is located at NN 853654.

1.4 The survey work was conducted by Steff Ferguson and Flora Grigor-Taylor, both experienced wildlife surveyors, chartered environmentalists and members of IEEM.

Existing Data

1.5 A review of the data held on the National Biodiversity Network (NBN) gateway was undertaken to identify species of conservation concern that have been recorded on the proposed development site.

1.6 Common pipistrelle and brown long-eared bat, badger, otter and wildcat records exist at the 10km level for the vicinity of the site. Soprano pipistrelle and red squirrel are recorded within 1km square of the site.

1.7 Also recorded within 10km square of the site – Goldeneye, twite, hen harrier, black grouse, capercaillie, redshank, lapwing, mason bee and Kentish glory. Northern brown argus and pearl bordered fritillary have been recorded within 2km square and Atlantic salmon in the River Garry to a distance of 100m.

Designated Sites

1.8 This site is on the banks of the River Garry, a tributary of the River Tay SAC designated for Atlantic salmon (*Salmo salar*); Brook lamprey (*Lampetra planeri*); Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels; Otter (*Lutra lutra*); River lamprey (*Lampetra fluviatilis*); Sea lamprey (*Petromyzon marinus*).

The eastern section of the site is classified as Long Established woodland of plantation origin (2b) on the inventory of ancient and long-established woodland sites. These are defined as "Sites shown as plantation woodland in c.1860 but not shown as woodland at all in 1750 or shown as plantation on these maps. These are woods that were apparently planted before 1860."

2.0 Survey

Method

2.1 An ecological survey was undertaken on the site on 18th August 2010.

2.2 A Phase 1 Habitat Mapping & Protected Species Survey, also referred to as an extended Phase 1 ecological survey, was undertaken for the site. Standard phase 1 methodology was used, including detailed target notes of notable plant species (those of conservation concern; also those listed on the Cairngorms LBAP list of priority species).

2.3 An assessment of the habitat suitability within the proposed development site for mammal species was also undertaken.

2.4 The standard optimal time to undertake an extended Phase 1 survey is between April and the end of September. The survey time of mid-August is therefore optimal.

2.5 The habitats are described by the use of target notes, annotated to the survey map (see Fig.2). Common species names and scientific names (Stace C (1997) *New Flora of the British Isles. Second Ed.* Cambridge University Press.) are given in the text below.

Results

Vegetation

2.6 This site is on flat ground on the north bank of the River Garry. It comprises a strip of floodplain between the main Perth to Inverness railway line and the riverbank and incorporates a series of paths, open rides and a wayleave from overhead power lines. It is close to the main A9 road.

2.7 The main habitats present are open conifer plantation, broad-leaved semi-natural woodland, stands of ancient Scots pine, regenerated scrub, disturbed open ground supporting arable weeds, open areas of unimproved species-rich calcareous and mesotrophic grasslands and shingle banks. Main species present are listed in Appendix 2.

2.8 Coniferous Plantation Woodland A1.2.2

A variety of conifer plantation types are found, presenting a range of age, species and management methods. In general, the canopy is fairly open, particularly towards the western end of the site, where dominant species are Sitka spruce (*Picea sitchensis*) and Scots Pine (*Pinus sylvestris*) with occasional birch (*Betula* spp) and alder (*Alnus glutinosa*) at the woodland edge. Evidence of thinning and grazing was noted here. Sections of disturbed ground with feed bales support a number of arable weeds – see Target Note 1.

Stands of Scots Pine are evident throughout the site; one stand in particular supports a number of notable ancient trees – see Target Note 2. In addition to spruce and pine, larch (*Larix deciduas*) becomes more frequent towards the eastern edge of the woodland.

2.9 Broad-leaved Semi-natural Woodland A1.1.1

A variety of woodland sub-categories feature here. Naturally regenerating birch and alder wet woodland; mature policy specimens along an old embankment; overhanging riparian willow (*Salix* spp), birch and alder scrub.

Other than small open grassland patches, broadleaves typically form the main vegetation type along the riverbank. Shingle material is being colonised in many places by alder and willow scrub.

Otter prints were noted on sandy substrate below riparian scrub – see Target Note 4

For much of the site, well-established mature broadleaves dominate, with a scattering of conifers in the canopy layer. Dominant species in the canopy are birch, alder, rowan (*Sorbus aucuparia*), willow and bird cherry (*Prunus padus*), with beech (*Fagus sylvatica*) and ash (*Fraxinus excelsior*) occurring occasionally along the embankment at eastern end of the site. The understorey and ground layer are typically well-developed and diverse with frequent evidence of natural regeneration – see Target Note 5. Notable species present in the ground flora include columbine (*Aquilegia vulgaris*), water mint (*Mentha aquatica*), dog's mercury (*Mercurialis perennis*), bladder campion (*Silene vulgaris*), common figwort (*Scrophularia nodosa*) and goldenrod (*Solidago virgaurea*).

2.10 Unimproved Calcareous Grassland B3.1

The interior woodland habitat incorporates small patches of open ground supporting floristically diverse swards, with species characteristic of calcareous conditions. Notable species present include common restharrow (*Ononis repens*), kidney vetch (*Anthyllis vulneraria*), wood sage (*Teucrium scorodonia*), tufted vetch (*Vicia cracca*), ling heather (*Calluna vulgaris*), bird's-foot trefoil (*Lotus corniculatus*) and yarrow (*Achillea millefolium*). Numerous common carder bees were recorded foraging here.

2.11 Unimproved Neutral Grassland B2.1

On open ground, this type of grassland dominates and is largely unmodified (by, for example, artificial fertilisers, slurry, intensive grazing, herbicide or drainage). Consequently it is classified as unimproved, although has been maintained through human intervention as unplanted open ground due to presence of overhead powerlines.

The wayleave runs almost parallel to the railway line along the north edge of the site. Regenerated scrub is evident on this strip of open ground – see Target note 3

2.12 The site is fenced along the railway line and open to River Garry. Posts and lengths of defunct fencing (stockproof and electric) were noted in various states of disrepair within the site. Many disused concrete structures remain on the site, most likely left over from a wartime logging camp constructed for Canadian forestry workers. There are also remains of an old stone embankment and other stone derelict buildings possibly associated with a former water supply system.

The level of noise from passing rail and nearby car traffic is considerable.

Fauna

2.13 Bat droppings, most likely Common or Soprano pipistrelle, were found stuck to the interior wall of a derelict concrete structure in the centre of the site. Otter prints were recorded along the river bank and evidence of squirrel presence was found throughout the site where suitable habitat was present. Signs of squirrel foraging were observed in much of the conifer plantation, particularly where the Sitka spruce canopy was most dense. Signs consisted of chewed cones, some fresh, on the forest floor. See Target Notes for further details.

2.14 Other recorded fauna - common carder bee, buff and white-tailed bumblebees, small white, small tortoiseshell and peacock butterflies, grey and pied wagtails, nesting swallows.

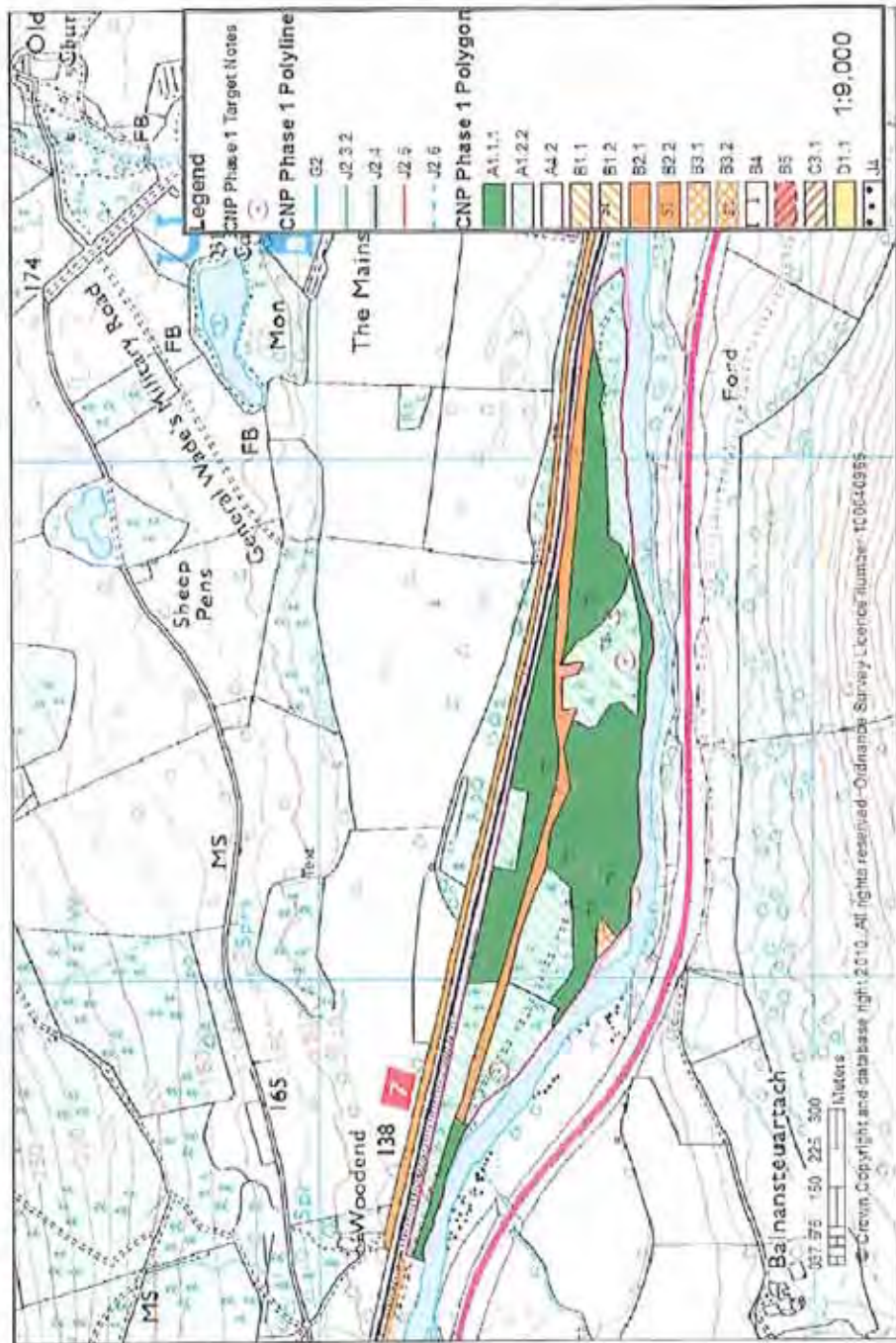
Rabbit, fox, roe deer droppings and prints.

A mink raft was present along the banks of the River Garry, suggesting suspected American mink presence.

Phase 1 Habitat Survey
 Site: 035d
 Landscara North East, Sep 2010



Fig 1 Survey Map





3.0 Assessment of Habitat Suitability for Mammals

3.1 Otter: the site itself offers suitable foraging and breeding habitat for otter and signs of otter presence were recorded during survey.

3.2 Water Vole: the watercourse and associated banks have limited potential for water vole colonisation. However through much of the site, bankside substrate comprises cobbles and therefore offers few burrowing opportunities. Shorter sections of soft sandy substrate do occur.

3.3 Bats: there are plenty of old trees throughout the site, some of which would provide suitable bat roosting sites. The site also offers ample foraging potential. Bat droppings were noted in a derelict concrete structure.

3.4 Red squirrel: signs were recorded throughout the site wherever suitable feeding opportunities were found i.e. below stands of dense Sitka spruce. There are also ample nesting opportunities for red squirrels and it is highly likely that dreys are on site.

3.5 Badger: the site offers suitable breeding habitat and foraging opportunities for badgers. It is highly likely that this site is utilised by foraging and transitory badgers.

4.0 References

JNCC. 1990. Handbook for Phase 1 habitat survey – a technique for environmental audit. 2007 edition. Nature Conservancy Council

Stace, C.A. 1997. New Flora of the British Isles. 2nd Edition. Cambridge University Press.

UK list of Vascular plants of Conservation Concern <http://www.ukbap.org.uk>

Cairngorms LBAP Priority Species List www.cairngorms.co.uk

APPENDIX 1 – TARGET NOTES

T1 - NN 84824 65639

Open areas of disturbed ground amid thinned conifers, colonised by arable weeds—redshank, chickweed, perennial sow thistle, common nettle, white clover, red dead nettle, wild raspberry, spear thistle, ragwort.

T2 - NN 85696 65410

Stand of notably large ancient Scots pines

T3 - NN 86016 65475

Open ground below wayleave for overhead power lines supporting grassland vegetation and recolonising scattered birch and wild raspberry scrub.

T4 – NN 85157 65356

Otter foot prints along sand at river bank

T5 – NN 85206 65456

Ground layer below semi-natural broad-leaved woodland, includes Bladder campion (*Silene vulgaris*), water mint (*Mentha aquatica*), dog's mercury (*Mercurialis perennis*), common fumitory (*Fumaria officinalis*), tufted hairgrass (*Deschampsia cespitosa*), false oat grass (*Arrhenatherum elatius*), wood sorrel (*Oxalis acetosella*), greater woodrush (*Luzula sylvatica*), common dog violet (*Viola riviniana*), wild strawberry (*Fragaria vesca*), common figwort (*Scrophularia nodosa*), hedge woundwort (*Stachys sylvatica*), black knapweed (*Centaurea nigra*), harebell (*Campanula rotundifolia*), germander speedwell (*Veronica chamaedrys*), devil's bit scabious (*Succisa pratensis*), lady's bedstraw (*Galium verum*), selfheal (*Prunella vulgaris*) oak and beech saplings, birch polypore

T6 - NN 85100 65408

Birch-alder wet woodland with rusted dumped vehicle carcasses.

T7 – NN 85375 65501

Derelict concrete hut with bat droppings on wall and nesting swallows

T8 – NN 85610 65379 (and throughout site)

Chewed pine and spruce cones on woodland floor, suggesting red squirrel foraging.

T9 – NN 84598 65776

Open ground below wayleave

Meadow vetchling (*Lathyrus pratensis*), common hogweed (*Heracleum sphondylium*), black knapweed (*Centaurea nigra*), creeping thistle (*Cirsium arvense*), rosebay willowherb (*Epilobium angustifolium*), oxeye daisy (*Leucanthemum vulgare*), lady's mantle (*Alchemilla vulgaris*), broom (*Cytisus scoparius*), bramble (*Rubus fruticosus*), wild raspberry (*Rubus idaeus*), red clover (*Trifolium pratense*), harebell (*Campanula rotundifolia*), germander speedwell (*Veronica chamaedrys*), bird's foot trefoil (*Lotus corniculatus*), white clover (*Trifolium repens*), devil's bit scabious (*Succisa pratensis*), ribwort plantain (*Plantago lanceolata*), yarrow (*Achillea millefolium*), columbine (*Aquilegia vulgaris*), lady's bedstraw (*Galium verum*), selfheal (*Prunella vulgaris*)

APPENDIX 2 – PLANT SPECIES LIST

English	Scientific
Beech	<i>Fagus sylvatica</i>
Bird cherry	<i>Prunus padus</i>
Bird's foot trefoil	<i>Lotus corniculatus</i>
Black knapweed	<i>Centaurea nigra</i>
Bladder campion	<i>Silene vulgaris</i>
Bramble	<i>Rubus fruticosus</i>
Broom	<i>Cytisus scoparius</i>
Cocksfoot	<i>Dactylis glomerata</i>
Columbine	<i>Aquilegia vulgaris</i>
Common alder	<i>Alnus glutinosa</i>
Common ash	<i>Fraxinus excelsior</i>
Common chickweed	<i>Stellaria media</i>
Common dog violet	<i>Viola riviniana</i>
Common figwort	<i>Scrophularia nodosa</i>
Common fumitory	<i>Fumaria officinalis</i>
Common hogweed	<i>Heracleum sphondylium</i>
Common restharrow	<i>Ononis repens</i>
Creeping thistle	<i>Cirsium arvense</i>
Devil's bit scabious	<i>Succisa pratensis</i>
Dog's mercury	<i>Mercurialis perennis</i>
Downy birch	<i>Betula pubescens</i>
European larch	<i>Larix decidua</i>
False oatgrass	<i>Arrhenatherum elatius</i>
Germander speedwell	<i>Veronica chamaedrys</i>
Goldenrod	<i>Solidago virgaurea</i>
Greater woodrush	<i>Luzula sylvatica</i>
Harebell	<i>Campanula rotundifolia</i>
Hedge woundwort	<i>Stachys sylvatica</i>
Kidney vetch	<i>Anthyllis vulneraria</i>
Lady's bedstraw	<i>Galium verum</i>
Lady's mantle	<i>Alchemilla vulgaris</i>
Ling heather	<i>Calluna vulgaris</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Pedunculate oak	<i>Quercus robur</i>
Perennial sow thistle	<i>Sonchus arvensis</i>
Ragwort	<i>Senecio jacobaea</i>
Red clover	<i>Trifolium pratense</i>
Red dead nettle	<i>Lamium purpureum</i>
Redshank	<i>Polygonum persicaria</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Rosebay willowherb	<i>Epilobium angustifolium</i>
Rowan	<i>Sorbus aucuparia</i>
Scots pine	<i>Pinus sylvestris</i>
Selfheal	<i>Prunella vulgaris</i>

Phase 1 Habitat Survey
 Site 005d
 Landcare NorthEast Sep 2010



Silver Birch	<i>Betula pendula</i>
Silka spruce	<i>Picea sitchensis</i>
Spear thistle	<i>Cirsium vulgare</i>
Stinging nettle	<i>Urtica dioica</i>
Tufted Hairgrass	<i>Deschampsia cespitosa</i>
Tufted vetch	<i>Vicia cracca</i>
Water mint	<i>Mentha aquatica</i>
White clover	<i>Trifolium repens</i>
Wild raspberry	<i>Rubus idaeus</i>
Wild strawberry	<i>Fragaria vesca</i>
Willows	<i>Salix</i> spp
Wood sage	<i>Teucrium scorodonia</i>
Wood sorrel	<i>Oxalis acetosella</i>
Yarrow	<i>Achillea millefolium</i>
Yorkshire fog	<i>Holcus lanatus</i>



APPENDIX 3 – SURVEY PHOTOGRAPHS



Thinned conifer plantation – see T1



Mixed broadleaved woodland with clearings



Otter prints on riverbank – see T4



Signs of squirrel foraging – noted throughout dense conifer blocks



Ancient Scots Pines – see T2

APPENDIX 4 – PHASE 1 CODES

PHASE 1 CODE	Description
A1.1.1	Broadleaved woodland - semi-natural
A1.1.2	Broadleaved woodland - plantation
A1.2.1	Coniferous woodland - semi-natural
A1.2.2	Coniferous woodland - plantation
A1.3.1	Mixed woodland - semi-natural
A1.3.2	Mixed woodland - plantation
A2.1	Scrub - dense/continuous
A2.2	Scrub - scattered
A4.1	Broadleaved woodland - recently felled
A4.2	Coniferous woodland - recently felled
A4.3	Mixed woodland - recently felled
B1.1	Acid grassland - unimproved
B1.2	Acid grassland - semi-improved
B2.2	Neutral grassland - semi-improved
B3.2	Calcareous grassland - semi-improved
B4	Improved grassland
B5	Marsh/marshy grassland
C3.1	Other tall herb and fern - ruderal
D1.1	Dry dwarf shrub heath - acid
G2	Running water
J2.3.2	Hedge with trees - species-poor
J2.4	Fence
J2.5	Wall
J2.6	Dry ditch
J4	Bare ground

Extended Phase 1 Habitat Survey Cairngorms Local Development Plan

Site: 005f
Land at Garryside, Blair Atholl

August 2010

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CONTENTS

Summary	1
1.0 Introduction	2
Background	2
Existing data	2
Designated sites	2
2.0 Survey	3
Method	3
Results	3
Vegetation	3
Fauna	4
3.0 Habitat Suitability for Mammals	5
4.0 References	5

APPENDIX 1 – TARGET NOTES

APPENDIX 2 – SURVEY PHOTOGRAPHS

APPENDIX 3 – PHASE 1 CODES



Summary

1. As part of the process of considering the suitability of Site **005f**, Land at Garryside, Blair Atholl for inclusion into the Local Development Plan, the Cairngorms National Park Authority (CNPA) has commissioned Landcare NorthEast to undertake a desktop study and initial ecological survey.

2. A desktop study and subsequent ecological survey was conducted at Site **005f**, Land at Garryside, Blair Atholl on 19 August 2010.

3. The proposed development site is located at NN872650 and comprises approximately 2.2ha.

4. The main habitat is semi-improved acid grassland.

5. No notable plant species (those of UK conservation concern or those listed on the Cairngorms LBAP list of priority species) were noted.

6. The site may provide bat, otter and badger foraging habitat as well as possible water vole habitat.

1.0 Introduction

Background

1.1 In order to make an assessment on ecological impacts of developments of sites that have been presented for inclusion in the Cairngorms Local Development Plan, CNPA require desktop studies and ecological surveys of each site to be undertaken.

1.2 With regard to this, an extended Phase 1 survey and habitat suitability assessment was conducted at Site **005f**, Land at Garryside, Blair Atholl, Perthshire.

1.3 The site is located at NN872650 and comprises approximately 2.2ha.

1.4 The survey work was conducted by Steff Ferguson and Flora Grigor-Taylor, both experienced wildlife surveyors, chartered environmentalists and members of IEEM.

Existing Data

1.5 A review of the data held on the National Biodiversity Network (NBN) gateway was undertaken to identify species of conservation concern that have been recorded on the proposed development site.

1.6 Northern brown argus and pearl bordered fritillary butterflies have been recorded at 2km level, and red squirrel at 1km level.

1.7 Badger, otter, wildcat and bat records exist at the 10km level for the vicinity of the site. Also recorded within 10km square of the site – goldeneye, twite, hen harrier, black grouse, capercaillie, redshank and lapwing.

Designated Sites

1.8 The site is bordered by the River Garry to the south and the River Tilt to the east. Both are part of the River Tay SAC.



2.0 Survey

Method

2.1 An ecological survey was undertaken on the site on 19 August 2010.

2.2 A Phase 1 Habitat Mapping & Protected Species Survey, also referred to as an extended Phase 1 Ecological Survey, was undertaken for the site. Standard Phase 1 methodology was used, including detailed target notes of notable plant species (those of conservation concern; also those listed on the Cairngorms LBAP list of priority species).

2.3 An assessment of the habitat suitability within the proposed development site for mammal species was also undertaken.

2.4 The standard optimal time to undertake an extended Phase 1 survey is between April and the end of September. The survey time of mid-August is therefore optimal.

2.5 The habitats are described by the use of target notes, annotated to the survey map (see Figure 1). Common species names and scientific names (Stace C (1997) *New Flora of the British Isles. Second Ed.* Cambridge University Press.) are given in the text below.

Results

Vegetation

2.6 This site is on level ground with a single step located towards the north of the site, where the ground rises slightly. The level nature of the site indicates it may have constituted a flood plain in the past.

2.7 Main species present are false oat grass (*Arrhenatherum elatius*), Yorkshire fog (*Holcus lanatus*), cocksfoot (*Dactylis glomerata*), tufted hairgrass (*Deschampsia cespitosa*), tufted vetch (*Vicia cracca*), yarrow (*Achillea millefolium*), common hogweed (*Heracleum sphondylium*) and creeping buttercup (*Ranunculus repens*), constituting semi-improved acid grassland, B1.2 (see Target Note 1 in Appendix). Species richness of sward varies across the site, with a greater concentration of forbs towards River Tilt banks (east) as well as towards the north.

2.8 The boundary is a mill lade to the west (see Target Note 2) which has a retaining wall on its west bank. There is some overhanging vegetation and occasional common alder (*Alnus glutinosa*) on the west bank. Water quality appeared poor and emitted a bad odour.

2.9 On the south the site is bound by the River Garry, while the eastern boundary is the River Tilt, which flows into the Garry at the site's southeast corner.

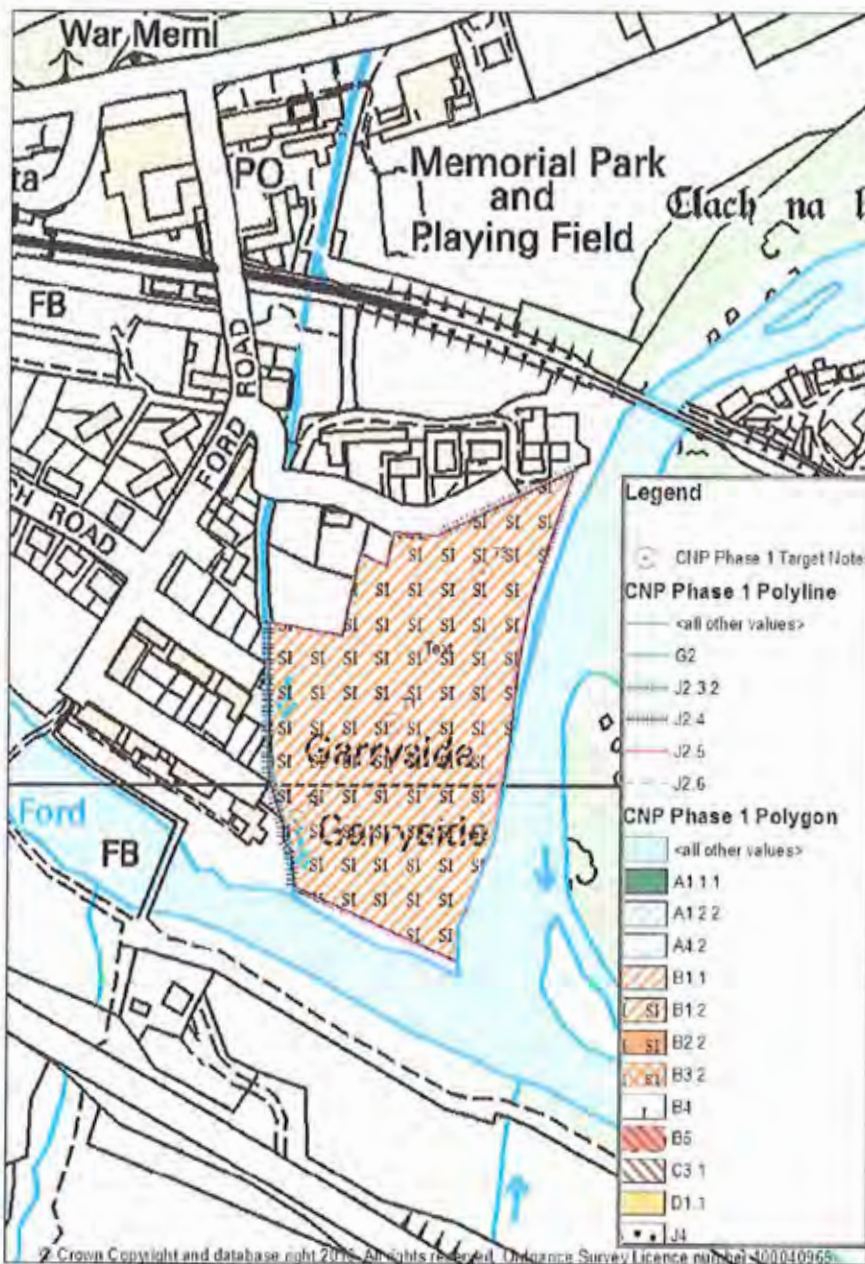
2.10 A small bank forms a step in the site towards the northern end, which displays more species richness and also a non-typical clump of tall vegetation (see Target Note 3)

Fauna

2.11 No species of conservation concern and/or listed on the Cairngorms LBAP list of priority species were noted on site.

2.12 The site was observed to be rich in insects, with a range of foraging butterflies recorded, including peacock, small tortoiseshell and fritillaries, as well as bumblebees and other nectar feeders.

Figure 1: Survey Map





3.0 Assessment of Habitat Suitability for Mammals

3.1 The site itself offers no suitable breeding habitat for bat and red squirrel. No badger setts or otter holts/resting sites were observed. There may be foraging opportunities for badger, otter and particularly bats, as the site attracts a wide range of insects. Limited tree cover is likely to restrict the suitability for bats.

3.2 The mill lade forming the west boundary of the site offers potentially suitable habitat for water vole.

4.0 References

JNCC. 1990. *Handbook for Phase 1 habitat survey – a technique for environmental audit*. 2007 edition. Nature Conservancy Council

Stace, C.A. 1997. *New Flora of the British Isles*. 2nd Edition. Cambridge University Press.

APPENDIX 1 – TARGET NOTES

T1 - NN87241 65029

The main species in semi-improved acid grassland sward:

Cocksfoot	<i>Dactylis glomerata</i>
Common hogweed	<i>Heracleum sphondylium</i>
Common sorrel	<i>Rumex acetosa</i>
Creeping buttercup	<i>Ranunculus repens</i>
Creeping thistle	<i>Cirsium arvense</i>
False oat grass	<i>Arrhenatherum elatius</i>
Germander speedwell	<i>Veronica chamaedrys</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Tufted hairgrass	<i>Deschampsia cespitosa</i>
Tufted vetch	<i>Vicia cracca</i>
White clover	<i>Trifolium repens</i>
Yarrow	<i>Achillea millefolium</i>
Yorkshire fog	<i>Holcus lanatus</i>

T2 - NN 87190 64982

Mill lade forming the western boundary of the site. This is a deep ditch, with a stone retaining wall on its western bank. Water quality appeared poor, emitting an unpleasant odour.

Vegetation is tall and overhangs the open water, with a few common alder *Alnus glutinosa* along the western bank. Clumps of garden loosestrife *Lysimachia* spp. were notable along the banks.

Eastern bank may offer suitable water vole habitat.

Angelica	<i>Angelica sylvestris</i>
Bindweed	<i>Convolvulus arvensis</i>
Common alder	<i>Alnus glutinosa</i>
Field scabious	<i>Knautia arvensis</i>
Meadowsweet	<i>Filipendula ulmaria</i>
Rosebay willowherb	<i>Epilobium angustifolium</i>
Stinging nettle	<i>Urtica dioica</i>
Garden loosestrife (garden escape)	<i>Lysimachia</i> spp.

T3 – 87289 65104

In the northern section, an embankment traverses the site roughly from northeast to south west, forming a small step in the otherwise level plane. Some forbs not found elsewhere on the site were recorded here, as well as an unusual clump of tall vegetation, dominated by Dame's violet *Hesperis matronalis*.

Dame's violet	<i>Hesperis matronalis</i>
Cleavers	<i>Galium aparine</i>
Scentless mayweed	<i>Matricaria perforata</i>
Common restharrow	<i>Ononis repens</i>
Rosebay willowherb	<i>Epilobium angustifolium</i>
Marsh woundwort	<i>Stachys palustris</i>
Burnet saxifrage	<i>Pimpinella saxifraga</i>



APPENDIX 2 – SURVEY PHOTOGRAPHS



Site 005f looking south from bank. River Tilt to left of picture.



Mill lade at site 005f

APPENDIX 3 – PHASE 1 CODES

PHASE 1 CODE	Description
A1.1.1	Broadleaved woodland - semi-natural
A1.1.2	Broadleaved woodland - plantation
A1.2.1	Coniferous woodland - semi-natural
A1.2.2	Coniferous woodland - plantation
A1.3.1	Mixed woodland - semi-natural
A1.3.2	Mixed woodland - plantation
A2.1	Scrub - dense/continuous
A2.2	Scrub - scattered
A4.1	Broadleaved woodland - recently felled
A4.2	Coniferous woodland - recently felled
A4.3	Mixed woodland - recently felled
B1.1	Acid grassland - unimproved
B1.2	Acid grassland - semi-improved
B2.2	Neutral grassland - semi-improved
B3.2	Calcareous grassland - semi-improved
B4	Improved grassland
B5	Marsh/marshy grassland
C3.1	Other tall herb and fern - ruderal
D1.1	Dry dwarf shrub heath - acid
G2	Running water
J2.3.2	Hedge with trees - species-poor
J2.4	Fence
J2.5	Wall
J2.6	Dry ditch
J4	Bare ground

**Extended Phase 1 Habitat Survey
Cairngorms Local Development Plan**

Site: 005g

Land at Middlebridge, Bridge of Tilt, Blair Atholl

September 2010

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CONTENTS

Summary

1.0 Introduction	4
Background	4
Existing data	4
Designated sites	4
2.0 Survey	5
Method	5
Results	5
Vegetation	5
Fauna	5
3.0 Habitat Suitability for Mammals	7
4.0 References	7

- APPENDIX 1 – TARGET NOTES**
- APPENDIX 2 – SURVEY PHOTOGRAPHS**
- APPENDIX 3 – PHASE 1 CODES**

Summary

1. As part of the process of considering the suitability of Site **005g** for inclusion into the Local Development Plan, the Cairngorms National Park Authority (CNPA) has commissioned Landcare NorthEast to undertake a desktop study and initial ecological survey.
2. A desktop study and subsequent ecological survey was conducted at Site 005g, Middlebridge near Bridge of Tilt on 18 August 2010.
3. The proposed development site is 6.3Ha located at NN 878668.
4. The main habitat is Improved Grassland.
5. No notable plant species (those of UK conservation concern - see UK list of Vascular plants of Conservation Concern <http://www.ukbap.org.uk> - or those listed on the Cairngorms LBAP list of priority species) were noted.
6. The site may provide bat and badger foraging habitat.

1.0 Introduction

Background

1.1 In order to make an assessment on ecological impacts of developments of sites that have been presented for inclusion in the Cairngorms Local Development Plan, CNPA require desktop studies and ecological surveys of each site to be undertaken.

1.2 With regard to this, an extended Phase 1 survey and habitat suitability assessment was conducted at Site 005g, Land at Middlebridge, Bridge of Tilt, Blair Atholl, Perthshire.

1.3 The 6.3Ha site is located north of the village of Old Bridge of Tilt at NN 87866B.

1.4 The survey work was conducted by Steff Ferguson and Flora Grigor-Taylor, both experienced wildlife surveyors, chartered environmentalists and members of IEEM.

Existing Data

1.5 A review of the data held on the National Biodiversity Network (NBN) gateway was undertaken to identify species of conservation concern that have been recorded on the proposed development site.

1.6 Badger, otter, wildcat and bat (common & soprano pipistrelle, brown long-eared) records exist at the 10km level for the vicinity of the site. Red squirrel is recorded within 1km square of the site, as well as records at 100m level in mature woodlands at the western site boundary.

1.7 Also recorded within 10km square of the site – Goldeneye, twite, hen harrier, black grouse, capercaillie, redshank, lapwing, pearl-bordered fritillary, Kentish glory and mason bee. Northern brown argus has been recorded within 2km square.

Designated Sites

1.7 Glen Tilt Wood SSSI, designated for its upland mixed ash woodland, is located immediately west of site boundary. The River Tilt, situated approximately 100m from the western edge of the site, is part of the River Tay SAC.

2.0 Survey

Method

2.1 An ecological survey was undertaken on the site on 18 August 2010.

2.2 A Phase 1 Habitat Mapping & Protected Species Survey, also referred to as an extended Phase 1 ecological survey, was undertaken for the site. Standard Phase 1 methodology was used, including detailed target notes of notable plant species (those of conservation concern; also those listed on the Cairngorms LBAP list of priority species).

2.3 An assessment of the habitat suitability within the proposed development site for mammal species was also undertaken.

2.4 The standard optimal time to undertake an extended Phase 1 survey is between April and the end of September. The survey time of mid-August is therefore optimal.

2.5 The habitats are described by the use of target notes, annotated to the survey map (see Fig.2). Common species names and scientific names (Stace C (1997) *New Flora of the British Isles*. Second Ed. Cambridge University Press.) are given in the text below.

Results

Vegetation

2.6 This site is on undulating steeply sloping farmland and comprises improved pasture, grazed by sheep and horses.

2.7 Improved Grassland B4

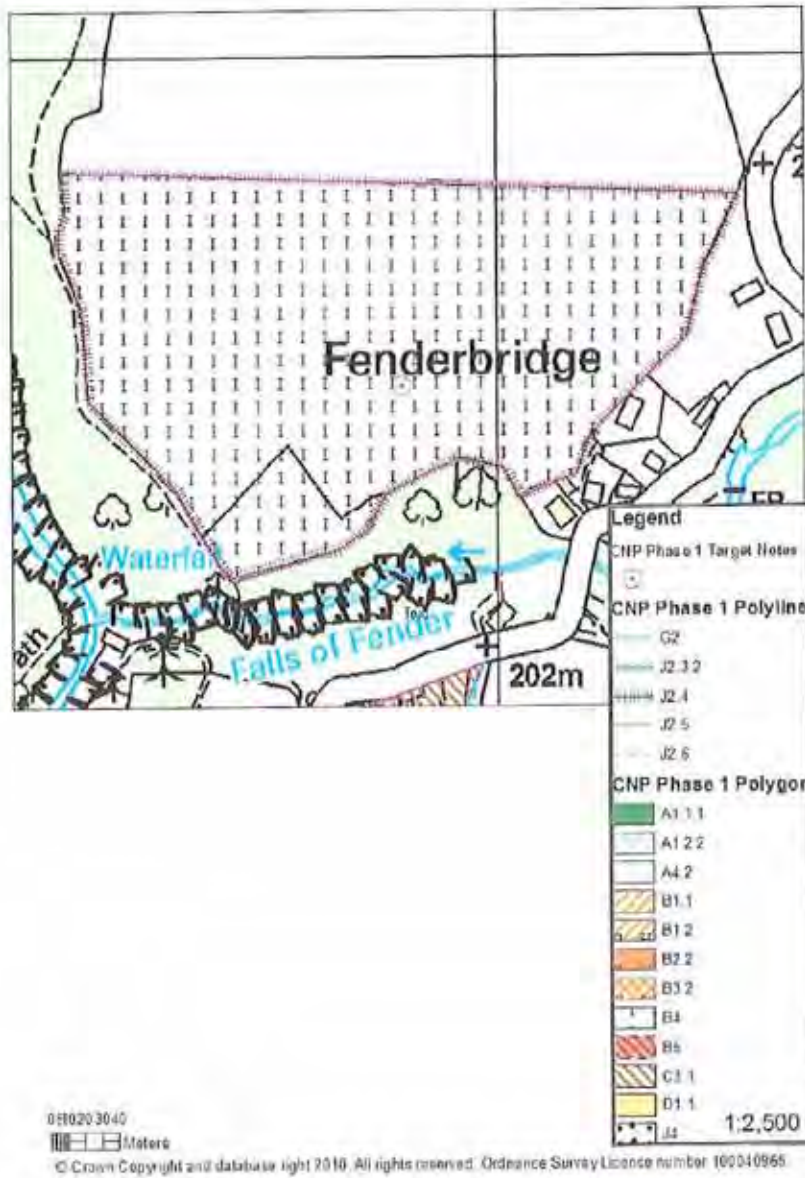
Main species in the sward are perennial ryegrass (*Lolium perenne*), crested dogs tail (*Cynosurus cristatus*), Yorkshire fog (*Holcus lanatus*), white clover (*Trifolium repens*), common mouseear (*Cerastium fontanum*) and daisy (*Bellis perennis*) with patches of common nettle (*Urtica dioica*) and creeping thistle (*Cirsium arvense*).

2.8 The boundary is fenced on all sides. Overhanging mature broadleaf trees of the adjacent Glen Tilt Wood feature along the western site boundary.

Fauna

2.9 No species of conservation concern and/or listed on the Cairngorms LBAP list of priority species were noted on site.

Fig 1 Survey Map



3.0 Habitat Suitability for Mammals

3.1 The site itself offers no suitable breeding habitat for otter, water vole, bat and red squirrel. No badger setts were observed. There may be limited foraging opportunity for badger and bats here.

4.0 References

JNCC. 1990. Handbook for Phase 1 habitat survey – a technique for environmental audit. 2007 edition. Nature Conservancy Council

Stace, C.A. 1997. New Flora of the British Isles. 2nd Edition. Cambridge University Press.

UK list of Vascular plants of Conservation Concern <http://www.ukbap.org.uk>

Cairngorms LBAP Priority Species List www.cairngorms.co.uk

APPENDIX 1 – TARGET NOTES

T1 - NN 87942 66814

Wet spring with small open ditches. Jointed rush (*Juncus articulatus*), soft rush (*J. effusus*), cuckooflower (*Cardamine pratensis*), bristle club-rush (*Scirpus setaceus*)



APPENDIX 2 – SURVEY PHOTOGRAPHS



Site 005g, looking uphill from the western end



Site 005g, from eastern boundary

APPENDIX 3 – PHASE 1 CODES

PHASE 1 CODE	Description
A1.1.1	Broadleaved woodland - semi-natural
A1.1.2	Broadleaved woodland - plantation
A1.2.1	Coniferous woodland - semi-natural
A1.2.2	Coniferous woodland - plantation
A1.3.1	Mixed woodland - semi-natural
A1.3.2	Mixed woodland - plantation
A2.1	Scrub - dense/continuous
A2.2	Scrub - scattered
A4.1	Broadleaved woodland - recently felled
A4.2	Coniferous woodland - recently felled
A4.3	Mixed woodland - recently felled
B1.1	Acid grassland - unimproved
B1.2	Acid grassland - semi-improved
B2.2	Neutral grassland - semi-improved
B3.2	Calcareous grassland - semi-improved
B4	Improved grassland
B5	Marsh/marshy grassland
C3.1	Other tall herb and fern - ruderal
D1.1	Dry dwarf shrub heath - acid
G2	Running water
J2.3.2	Hedge with trees - species-poor
J2.4	Fence
J2.5	Wall
J2.6	Dry ditch
J4	Bare ground

Extended Phase 1 Habitat Survey Cairngorms Local Development Plan

Site: 005h
Land at Pitagowan, Blair Atholl

September 2010

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CONTENTS

Summary

1.0	Introduction	4
	Background	4
	Existing data	4
	Designated sites	4
2.0	Survey	5
	Method	5
	Results	5
	Vegetation	5
	Fauna	6
3.0	Habitat Suitability for Mammals	8
4.	References	8

APPENDIX 1 – TARGET NOTES
APPENDIX 2 – SURVEY PHOTOGRAPHS
APPENDIX 3 – PHASE 1 CODES

Summary

1. As part of the process of considering the suitability of Site 005h for inclusion into the Local Development Plan, the Cairngorms National Park Authority (CNPA) has commissioned Landcare NorthEast to undertake a desktop study and initial ecological survey.
2. A desktop study and subsequent ecological survey was conducted at Site 005h, land at Pitagowan, near Blair Atholl on 18 August 2010.
3. The proposed development site is 2.2ha located at NN 817658.
4. The main habitat is broadleaved semi-natural woodland.
5. No notable plant species (those of UK conservation concern – see UK list of Vascular Plants of Conservation Concern <http://www.ukbap.org.uk> - or those listed on the Cairngorms LBAP list of priority species) were noted. However, the presence of aspen is note-worthy, as the species is important to encourage aspen hoverfly (*Hammerschmidtia ferruginea*) and aspen bracket fungus (*Phellinus tremulae*), both Cairngorms LBAP priority species
6. The site offers suitable breeding and foraging habitat for badgers and bats.

1.0 Introduction

Background

1.1 In order to make an assessment on ecological impacts of developments of sites that have been presented for inclusion in the Cairngorms Local Development Plan, CNPA require desktop studies and ecological surveys of each site to be undertaken.

1.2 With regard to this, an extended Phase 1 survey and habitat suitability assessment was conducted at Site 005h, land at Pitagowan, Blair Atholl, Perthshire.

1.3 The 2.2ha site is located at NN 817658.

1.4 The survey work was conducted by Steff Ferguson and Flora Grigor-Taylor, both experienced wildlife surveyors, chartered environmentalists and members of IEEM.

Existing Data

1.5 A review of the data held on the National Biodiversity Network (NBN) gateway was undertaken to identify species of conservation concern that have been recorded on the proposed development site.

1.6 Common pipistrelle, brown long-eared bat and badger records exist at the 10km level for the vicinity of the site. Otter, Soprano pipistrelle, Atlantic salmon and wildcat have been recorded within 1km square and red squirrels at 100m level.

1.7 Also recorded within 10km square of the site – goldeneye, twite, hen harrier, black grouse, capercaillie, redshank, lapwing, Northern brown argus, pearl bordered fritillary, mason bee and Kentish glory.

Designated Sites

1.7 There are no statutorily designated sites in the survey areas or immediate environs.

2.0 Survey

Method

2.1 An ecological survey was undertaken on the site on 18 August 2010.

2.2 A Phase 1 Habitat Mapping & Protected Species Survey, also referred to as an extended Phase 1 Ecological Survey, was undertaken for the site. Standard Phase 1 methodology was used, including detailed target notes of notable plant species (those of conservation concern; also those listed on the Cairngorms LBAP list of priority species).

2.3 An assessment of the habitat suitability within the proposed development site for mammal species was also undertaken.

2.4 The standard optimal time to undertake an extended Phase 1 survey is between April and the end of September. The survey time of mid-August is therefore optimal.

2.5 The habitats are described by the use of target notes, annotated to the survey map (see Fig.2). Common species names and scientific names (Stace C (1997) *New Flora of the British Isles. Second Ed.* Cambridge University Press.) are given in the text below.

Results

Vegetation

2.6 This site is on uneven ground, situated alongside the main Perth to Inverness railway line, which forms the northern site boundary. The busy B847 runs along the site's southern boundary. The main habitat supported is wet mixed broadleaved woodland, exhibiting abundant signs of natural regeneration in the field and scrub layers.

2.7 Semi-natural Broadleaved woodland A1.1.1

The dominant trees in the canopy are aspen (*Populus tremula*), bird cherry (*Prunus padus*), silver birch (*Betula pendula*), rowan (*Sorbus aucuparia*) and willows (*Salix* spp). Aspen is particularly prevalent towards the western end of the site. The most frequent plants in the ground flora are chickweed wintergreen (*Trientalis europaea*) and Germander speedwell (*Veronica chamaedrys*) along with fine grasses - see Target Note 1.

Conditions are wet for much of the site, particularly towards the western end. Small drainage ditches and wet flushes are present, supporting wetland plants such as broadleaved pondweed (*Potamogeton natans*) and lesser spearwort (*Ranunculus flammula*)

Where the canopy is open, regeneration of all the main canopy species is evident, as well as the occasional oak (*Quercus* sp) seedling. Birch regeneration is dense where the canopy is open below the powerline wayleave - see Target Note 2.

The site is also rich in fungi, typical of this type of woodland (e.g. chanterelle, birch polypore, birch bolete)



2.8 The boundary is fenced on all sides and the level of noise from passing rail and car traffic is considerable.

Fauna

2.9 No species of conservation concern and/or listed on the Cairngorms LBAP list of priority species were noted on site.

The open rides in the woodland were rich in butterflies and other invertebrates.

Fig 1 Survey Map



3.0 Assessment of Habitat Suitability for Mammals

3.1 The site itself offers no suitable breeding habitat for otter or water vole and little opportunity for red squirrels.

There are numerous old trees throughout the site, some of which would provide suitable bat roosting sites. The site also offers foraging potential for bats.

Woodland sections offer good badger habitat, both for foraging and dwelling, although no setts were observed during survey.

4.0 References

JNCC. 1990. *Handbook for Phase 1 habitat survey – a technique for environmental audit*. 2007 edition. Nature Conservancy Council

Stace, C.A. 1997. *New Flora of the British Isles*. 2nd Edition. Cambridge University Press.

UK list of Vascular plants of Conservation Concern <http://www.ukbap.org.uk>

Cairngorms LBAP Priority Species List www.cairngorms.co.uk

APPENDIX 1 – TARGET NOTES

T1 - 81720 65860

Ground flora: most frequent forbs are Germander speedwell (*Veronica chamaedrys*) and chickweed wintergreen (*Trientalis europaea*), alongside heath bedstraw (*Galium saxatile*) and localised extensive patches of blueberry (*Vaccinium myrtillus*). Occasional harebell (*Campanula rotundifolia*), common dog violet (*Viola riviniana*), wild raspberry (*Rubus idaeus*) and devils'-bit scabious (*Succisa pratensis*) present.

T2 - NN81772 65879

Open canopy below wayleave supporting abundant birch regeneration.



APPENDIX 2 – SURVEY PHOTOGRAPHS



Semi-natural woodland, with self-seeded broadleaves

Phase 1 Habitat Survey
Site: 005h
Landcare NorthEast Sep 2010



Aspen features frequently in the canopy and shrub layers, with evidence of spread by root suckers

APPENDIX 3 – PHASE 1 CODES

PHASE 1 CODE	Description
A1.1.1	Broadleaved woodland - semi-natural
A1.1.2	Broadleaved woodland - plantation
A1.2.1	Coniferous woodland - semi-natural
A1.2.2	Coniferous woodland - plantation
A1.3.1	Mixed woodland - semi-natural
A1.3.2	Mixed woodland - plantation
A2.1	Scrub - dense/continuous
A2.2	Scrub - scattered
A4.1	Broadleaved woodland - recently felled
A4.2	Coniferous woodland - recently felled
A4.3	Mixed woodland - recently felled
B1.1	Acid grassland - unimproved
B1.2	Acid grassland - semi-improved
B2.2	Neutral grassland - semi-improved
B3.2	Calcareous grassland - semi-improved
B4	Improved grassland
B5	Marsh/marshy grassland
C3.1	Other tall herb and fern - ruderal
D1.1	Dry dwarf shrub heath - acid
G2	Running water
J2.3.2	Hedge with trees - species-poor
J2.4	Fence
J2.5	Wall
J2.6	Dry ditch
J4	Bare ground

Extended Phase 1 Habitat Survey Cairngorms Local Development Plan

Site: 19a

Land at Ballintoul - Potential Development Site

August 2010

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CONTENTS

Summary	1
1.0 Introduction	2
Background	2
Existing data	2
Designated sites	2
2.0 Survey	3
Method	3
Results	3
Vegetation	3
Fauna	4
3.0 Habitat Suitability for Mammals	5
4.0 References	5

APPENDIX 1 – TARGET NOTES

APPENDIX 2 – SURVEY PHOTOGRAPHS

APPENDIX 3 – PHASE 1 CODES

Summary

1. As part of the process of considering the suitability of Site **19a**, Land at Ballintoul - Potential Development Site, for inclusion into the Local Development Plan, the Cairngorms National Park Authority (CNPA) has commissioned Landcare NorthEast to undertake a desktop study and initial ecological survey.

2. A desktop study and subsequent ecological survey was conducted at Site 19a on 19 August 2010.

3. The proposed development site is located at NN879651 and comprises approximately 3.1ha.

4. The main habitats are improved grassland, currently managed for silage as well as a narrow strip of semi-improved calcareous grassland along the west and north boundary of the site, where no agricultural management has taken place.

5. No notable plant species (those of UK conservation concern - see UK list of Vascular Plants of Conservation Concern <http://www.ukbap.org.uk> - or those listed on the Cairngorms LBAP list of priority species) were noted.

6. The site may provide bat and badger foraging habitat.



1.0 Introduction

Background

1.1 In order to make an assessment on ecological impacts of developments of sites that have been presented for inclusion in the Cairngorms Local Development Plan, CNPA require desktop studies and ecological surveys of each site to be undertaken.

1.2 With regard to this, an extended Phase 1 survey and habitat suitability assessment was conducted at Site **19a**, Land at Ballintoul - Potential Development Site, Blair Atholl, Perthshire.

1.3 The site is located at NN879651 and comprises approximately 3.1ha.

1.4 The survey work was conducted by Steff Ferguson and Flora Grigor-Taylor, both experienced wildlife surveyors, chartered environmentalists and members of IEEM.

Existing Data

1.5 A review of the data held on the National Biodiversity Network (NBN) gateway was undertaken to identify species of conservation concern that have been recorded on the proposed development site.

1.6 Northern brown argus and pearl bordered fritillary butterflies as well as otter have been recorded at 2km level, and red squirrel at 1km level

1.7 Badger, otter, wildcat and bat records exist at the 10km level for the vicinity of the site. Also recorded within 10km square of the site – goldeneye, twite, hen harrier, black grouse, capercaillie, redshank and lapwing.

Designated Sites

1.7 There are no statutory designations on the land surveyed.

1.8 There is a SSSI site approximately 150m east of the site, located within the same parcel of land as the development site. Blair Atholl Meadow SSSI is a thin strip of sloping grassland on fluvio-glacial deposits and is important for the presence of species-rich calcareous grassland, the only known example in Perthshire.

2.0 Survey

Method

2.1 An ecological survey was undertaken on the site on 19 August 2010.

2.2 A Phase 1 Habitat Mapping & Protected Species Survey, also referred to as an Extended Phase 1 Ecological Survey, was undertaken for the site. Standard Phase 1 methodology was used, including detailed target notes of notable plant species (those of conservation concern; also those listed on the Cairngorms LBAP list of priority species).

2.3 An assessment of the habitat suitability within the proposed development site for mammal species was also undertaken.

2.4 The standard optimal time to undertake an Extended Phase 1 Survey is between April and the end of September. The survey time of mid-August is therefore optimal.

2.5 The habitats are described by the use of target notes, annotated to the survey map (see Fig.1). Common species names and scientific names (Stace C (1997) *New Flora of the British Isles. Second Ed.* Cambridge University Press.) are given in the text below.

Results

Vegetation

2.6 This site is on level ground, located in a strip along residential houses and mature gardens to the northwest.

2.7 The main habitat is improved grassland (B4), currently managed for silage or grazed. A strip of semi-improved calcareous grassland (B3.2) lies between the improved sward and the gardens of the residential houses to the northwest, with a range of wildflowers present in the sward, which appears unmanaged.

2.8 The improved grassland consists of commercial grasses and is rich in white clover. The semi-improved strip of tall vegetation has a wide range of plants, including field scabious (*Knautia arvensis*), black knapweed (*Centaurea nigra*), cocksfoot (*Dactylis glomerata*), false oat grass (*Arrhenatherum elatius*), lesser burdock (*Arctium minus*), bindweed (*Convolvulus arvensis*) and meadow cranesbill (*Geranium pratense*).

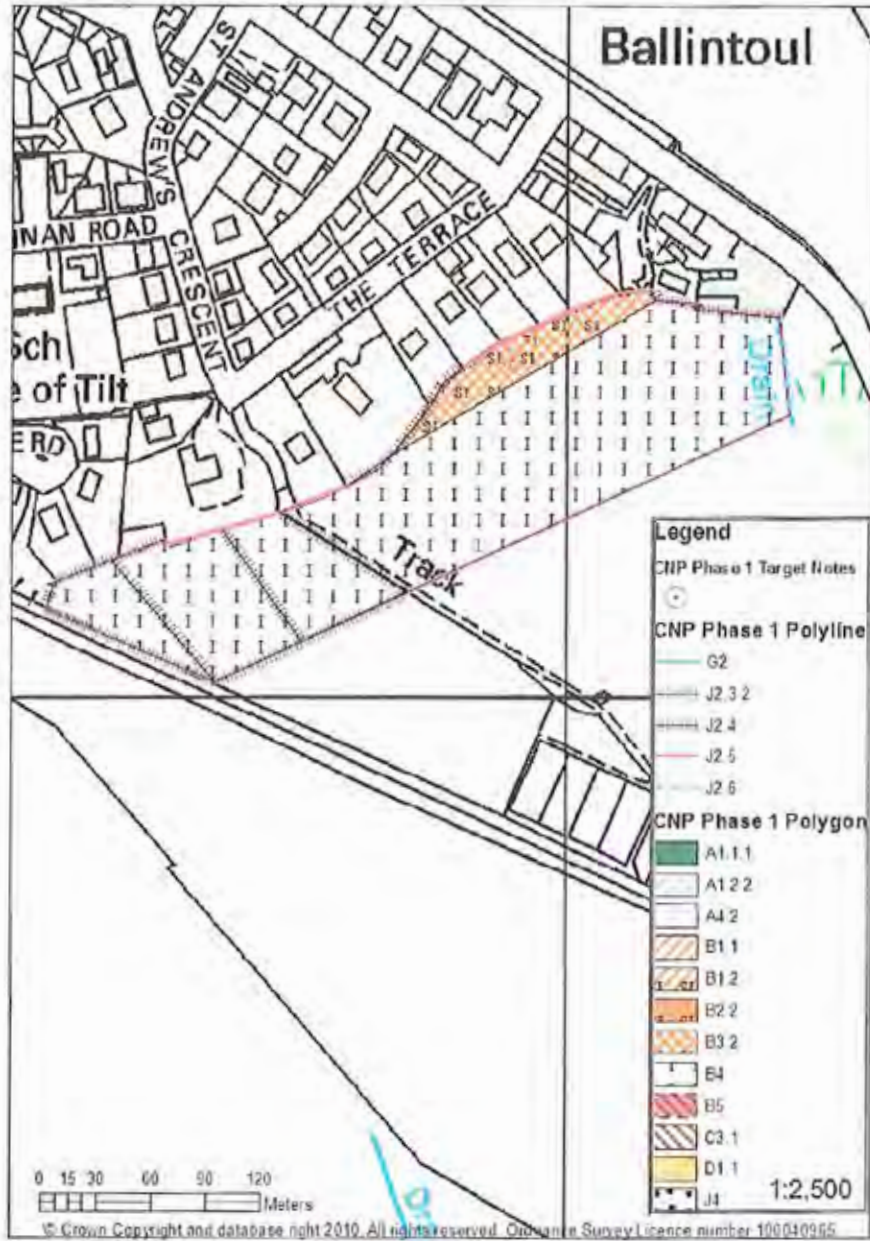
2.9 The boundary of the site consists of garden walls and some fences to the northwest, several fencelines divide the western end of the strip into smaller units currently grazed by sheep, while the main bulk of the site is unfenced along its eastern and northern edge. Mature trees (including gean (*Prunus avium*), sycamore (*Acer pseudoplatanus*), rowan (*Sorbus aucuparia*), Scots pine (*Pinus sylvestris*), ash (*Fraxinus excelsior*) and willows (*Salix spp.*) as well as shrubs including blackthorn (*Prunus spinosa*) and snowberry (*Symphoricarpos albus*) overhang the site to the northwest and a dry ditch lies to the north.

2.10 An access track leading to sewage treatment works to the east bisects the site west-east, also providing access from the residential area to the northwest.

Fauna

2.11 No species of conservation concern and/or listed on the Cairngorms LBAP list of priority species were noted on site.

Fig 1 Survey Map



3.0 Assessment of Habitat Suitability for Mammals

3.1 The site itself offers no suitable breeding habitat for otter, water vole, bat and red squirrel. No badger setts were observed. There may be foraging opportunity for badger and bats here.

4.0 References

- JNCC. 1990. *Handbook for Phase 1 habitat survey – a technique for environmental audit*. 2007 edition. Nature Conservancy Council
- Stace, C.A. 1997. *New Flora of the British Isles*. 2nd Edition. Cambridge University Press.

APPENDIX 1 – TARGET NOTES

T1 - NN 87970 65175

Calcareous grassland bank along unmanaged ground adjoining residential gardens to northwest.

Species recorded:

Bindweed	<i>Convolvulus arvensis</i>
Black knapweed	<i>Centaurea nigra</i>
Broad-leaved dock	<i>Rumex obtusifolius</i>
Cocksfoot	<i>Dactylis glomerata</i>
Creeping buttercup	<i>Ranunculus repens</i>
Creeping thistle	<i>Cirsium arvense</i>
Dogrose	<i>Rosa canina</i>
False oat grass	<i>Arrhenatherum elatius</i>
Field scabious	<i>Knautia arvensis</i>
Gound elder	<i>Aegopodium podagraria</i>
Greater stitchwort	<i>Stellaria holostea</i>
Lesser burdock	<i>Arctium minus</i>
Meadow cranes-bill	<i>Geranium pratense</i>
Raspberry	<i>Rubus idaeus</i>
Red clover	<i>Trifolium pratense</i>
Tufted vetch	<i>Vicia cracca</i>
White clover	<i>Trifolium repens</i>

APPENDIX 2 – SURVEY PHOTOGRAPHS



Site 19a looking north and west, adjoining residential properties and gardens



Site 19a looking south, internal fencing and sheep grazing.

APPENDIX 3 – PHASE 1 CODES

PHASE 1 CODE	Description
A1.1.1	Broadleaved woodland - semi-natural
A1.1.2	Broadleaved woodland - plantation
A1.2.1	Coniferous woodland - semi-natural
A1.2.2	Coniferous woodland - plantation
A1.3.1	Mixed woodland - semi-natural
A1.3.2	Mixed woodland - plantation
A2.1	Scrub - dense/continuous
A2.2	Scrub - scattered
A4.1	Broadleaved woodland - recently felled
A4.2	Coniferous woodland - recently felled
A4.3	Mixed woodland - recently felled
B1.1	Acid grassland - unimproved
B1.2	Acid grassland - semi-improved
B2.2	Neutral grassland - semi-improved
B3.2	Calcareous grassland - semi-improved
B4	Improved grassland
B5	Marsh/marshy grassland
C3.1	Other tall herb and fern - ruderal
D1.1	Dry dwarf shrub heath - acid
G2	Running water
J2.3.2	Hedge with trees - species-poor
J2.4	Fence
J2.5	Wall
J2.6	Dry ditch
J4	Bare ground

Phase 1 Habitat Survey
Site: 19b
Landcare NorthEast August 2010



Extended Phase 1 Habitat Survey Cairngorms Local Development Plan

Site: 19b

Land at Middlebridge - Potential Development Site

August 2010

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CONTENTS

Summary	1
1.0 Introduction	2
Background	2
Existing data	2
Designated sites	2
2.0 Survey	3
Method	3
Results	3
Vegetation	3
Fauna	3
3.0 Habitat Suitability for Mammals	5
4.0 References	5

APPENDIX 1 – TARGET NOTES

APPENDIX 2 – SURVEY PHOTOGRAPHS

APPENDIX 3 – PHASE 1 CODES

Summary

1. As part of the process of considering the suitability of Site **19b**, Land at Middlebridge - Potential Development Site for inclusion into the Local Development Plan, the Cairngorms National Park Authority (CNPA) has commissioned Landcare NorthEast to undertake a desktop study and initial ecological survey.
2. A desktop study and subsequent ecological survey was conducted at Site **19b**, Land at Middlebridge on 19 August 2010.
3. The proposed development site is located at NN879666 and comprises approximately 0.2ha.
4. The main habitat is tall ruderal shrubs.
5. No notable plant species (those of UK conservation concern - see UK list of Vascular plants of Conservation Concern <http://www.ukbap.org.uk> - or those listed on the Cairngorms LBAP list of priority species) were noted.
6. The site may provide bat and badger foraging habitat.

1.0 Introduction

Background

1.1 In order to make an assessment on ecological impacts of developments of sites that have been presented for inclusion in the Cairngorms Local Development Plan, CNPA require desktop studies and ecological surveys of each site to be undertaken.

1.2 With regard to this, an extended Phase 1 survey and habitat suitability assessment was conducted at Site **19b**, Land at Middlebridge - Potential Development.

1.3 The site is located at NN879666 and comprises approximately 0.2ha.

1.4 The survey work was conducted by Steff Ferguson and Flora Grigor-Taylor, both experienced wildlife surveyors, chartered environmentalists and members of IEEM.

Existing Data

1.5 A review of the data held on the National Biodiversity Network (NBN) gateway was undertaken to identify species of conservation concern that have been recorded on the proposed development site.

1.6 Badger, otter, wildcat and bat records exist at the 10km level for the vicinity of the site. Red squirrel is recorded within 1km square of the site.

1.7 Also recorded within 10km square of the site – goldeneye, twite, hen harrier, black grouse, capercaillie, redshank and lapwing, northern brown argus and pearl bordered fritillary.

Designated Sites

1.8 There are no designations applying to the site. Glen Tilt Wood SSSI, designated for its upland mixed ash woodland, is located approx. 200m to the northwest.

2.0 Survey

Method

2.1 An ecological survey was undertaken on the site on 19 August 2010.

2.2 A Phase 1 Habitat Mapping & Protected Species Survey, also referred to as an extended Phase 1 Ecological Survey, was undertaken for the site. Standard Phase 1 methodology was used, including detailed target notes of notable plant species (those of conservation concern; also those listed on the Cairngorms LBAP list of priority species).

2.3 An assessment of the habitat suitability within the proposed development site for mammal species was also undertaken.

2.4 The standard optimal time to undertake an extended Phase 1 survey is between April and the end of September. The survey time of mid-August is therefore optimal.

2.5 The habitats are described by the use of target notes, annotated to the survey map (see Fig.2). Common species names and scientific names (Stace C (1997) *New Flora of the British Isles. Second Ed.* Cambridge University Press.) are given in the text below.

Results

Vegetation

2.6 The site comprises disturbed ground with tall stands ruderal vegetation (C3.1), such as creeping thistle (*Cirsium arvense*) and prickly sow thistle (*Sonchus asper*), stinging nettle (*Urtica dioica*), rosebay willowherb (*Epilobium angustifolium*) and raspberry (*Rubus idaeus*). Between the stands the ground flora consists of colonising species including cleaver (*Gallium aparine*), birch and spruce seedlings (*Betula spp.*, *Picea sitchensis*), daisy (*Bellis perennis*) and ribwort plantain (*Plantago lanceolata*).

2.7 There is evidence of felling, with occasional tree stumps. A single standing mature beech (*Fagus sylvatica*) is located on the roadside.

2.8 A dry ditch and fence form the eastern boundary, with stock fencing to the south and west, and no boundary to the roadside on the north.

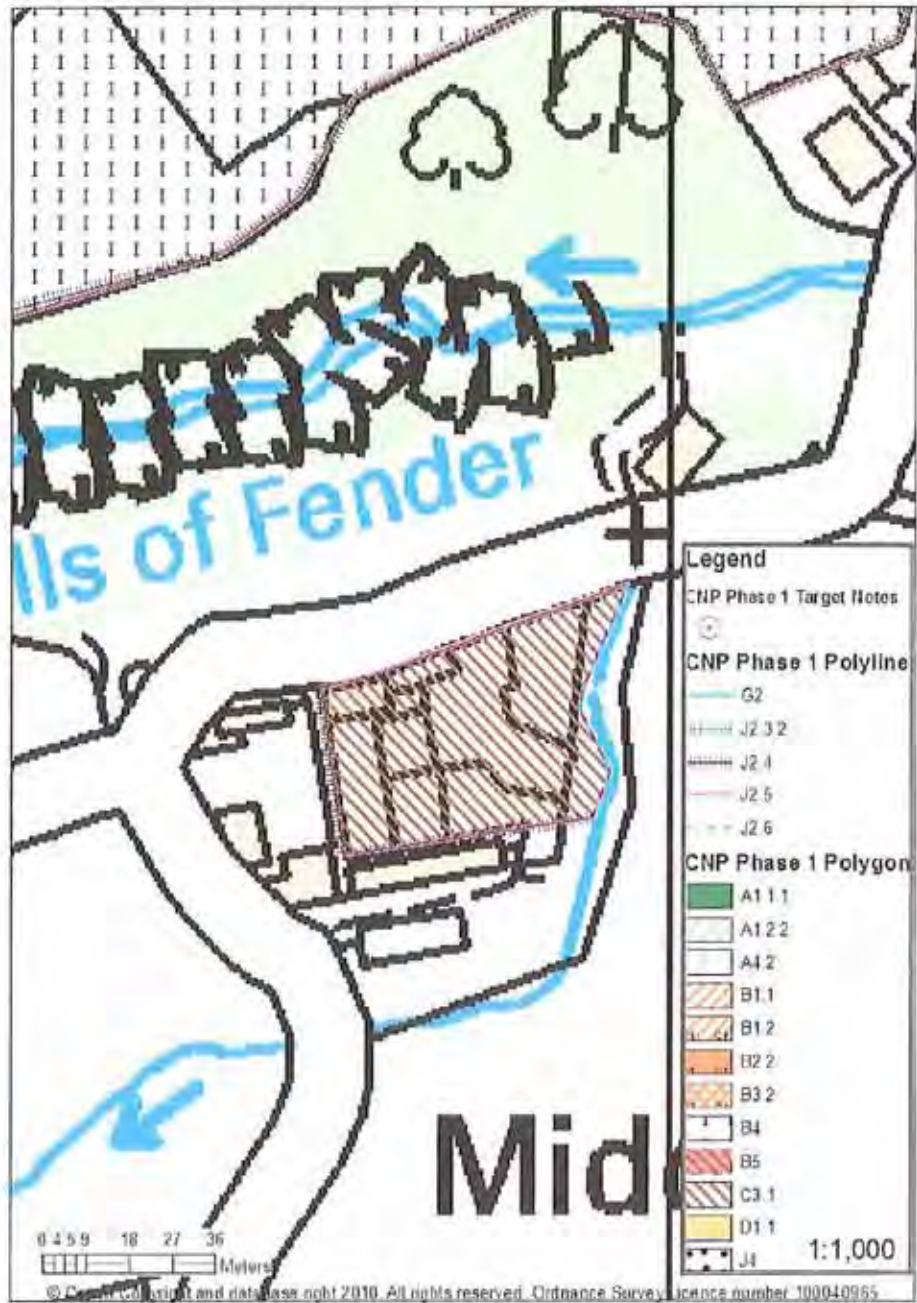
2.9 The dry ditch banks are vegetated by common broom (*Cytisus scoparius*), rowan (*Sorbus aucuparia*), wych elm (*Ulmus glabra*) and Russian comfrey (*Symphyltum x uplandicum*).

2.10 Evidence of maintained mown pathways dissected the site, with domestic chickens foraging amongst the vegetation.

Fauna

2.11 No species of conservation concern and/or listed on the Cairngorms LBAP list of priority species were noted on site.

Fig 1 Survey Map



Phase 1 Habitat Survey
Site 10b
Landcare NorthEast August 2010



3.0 Assessment of Habitat Suitability for Mammals

3.1 The site offers no suitable breeding habitat for otter, water vole, bat or red squirrel. No badger setts were observed. There may be foraging opportunity for badger and bats here.

4.0 References

- JNCC. 1990. *Handbook for Phase 1 habitat survey – a technique for environmental audit*. 2007 edition. Nature Conservancy Council
- Stace, C.A. 1997. *New Flora of the British Isles*. 2nd Edition. Cambridge University Press.

APPENDIX 1 – SURVEY PHOTOGRAPHS



Site 19b viewed from roadside



Tall stands of vegetation on site 19b



Dry ditch on eastern edge of 19b

APPENDIX 3 – PHASE 1 CODES

PHASE 1 CODE	Description
A1.1.1	Broadleaved woodland - semi-natural
A1.1.2	Broadleaved woodland - plantation
A1.2.1	Coniferous woodland - semi-natural
A1.2.2	Coniferous woodland - plantation
A1.3.1	Mixed woodland - semi-natural
A1.3.2	Mixed woodland - plantation
A2.1	Scrub - dense/continuous
A2.2	Scrub - scattered
A4.1	Broadleaved woodland - recently felled
A4.2	Coniferous woodland - recently felled
A4.3	Mixed woodland - recently felled
B1.1	Acid grassland - unimproved
B1.2	Acid grassland - semi-improved
B2.2	Neutral grassland - semi-improved
B3.2	Calcareous grassland - semi-improved
B4	Improved grassland
B5	Marsh/marshy grassland
C3.1	Other tall herb and fern - ruderal
D1.1	Dry dwarf shrub heath - acid
G2	Running water
J2.3.2	Hedge with trees - species-poor
J2.4	Fence
J2.5	Wall
J2.6	Dry ditch
J4	Bare ground

Phase 1 Habitat Survey
Site : 19c
Landcare NorthEast August 2010



Extended Phase 1 Habitat Survey Cairngorms Local Development Plan

Site: 19c

Land at Old Bridge of Tilt - Potential Development Site

August 2010

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CONTENTS

Summary

1.0	Introduction	2
	Background	2
	Existing data	2
	Designated sites	2
2.0	Survey	3
	Method	3
	Results	3
	Vegetation	3
	Fauna	3
3.0	Habitat Suitability for Mammals	5
4.0	References	5

APPENDIX 1 – SURVEY PHOTOGRAPHS

APPENDIX 2 – PHASE 1 CODES

Summary

1. As part of the process of considering the suitability of Site 19c, Land at Old Bridge of Tilt - Potential Development Site, for inclusion into the Local Development Plan, the Cairngorms National Park Authority (CNPA) has commissioned Landcare NorthEast to undertake a desktop study and initial ecological survey.

2. A desktop study and subsequent ecological survey was conducted at Site 19c on 19 August 2010.

3. The proposed development site is located at NN875660 and comprises approximately 4.1ha.

4. The main habitat is improved grassland, currently managed for silage.

5. No notable plant species (those of UK conservation concern - see UK list of Vascular Plants of Conservation Concern <http://www.ukbap.org.uk> - or those listed on the Cairngorms LBAP list of priority species) were noted.

6. The site may provide bat and badger foraging habitat.

1.0 Introduction

Background

1.1 In order to make an assessment on ecological impacts of developments of sites that have been presented for inclusion in the Cairngorms Local Development Plan, CNPA require desktop studies and ecological surveys of each site to be undertaken.

1.2 With regard to this, an extended Phase 1 survey and habitat suitability assessment was conducted at Site 19c, Land at Old Bridge of Tilt - Potential Development Site, Blair Atholl, Perthshire.

1.3 The site is located at NN875660 and comprises approximately 4.1ha.

1.4 The survey work was conducted by Steff Ferguson and Flora Grigor-Taylor, both experienced wildlife surveyors, chartered environmentalists and members of IEEM.

Existing Data

1.5 A review of the data held on the National Biodiversity Network (NBN) gateway was undertaken to identify species of conservation concern that have been recorded on the proposed development site.

1.6 Northern brown argus and pearl bordered fritillary butterflies have been recorded at 2km level, and red squirrel at 1km level.

1.7 Badger, otter, wildcat and bat records exist at the 10km level for the vicinity of the site. Also recorded within 10km square of the site – goldeneye, twite, hen harrier, black grouse, capercaillie, redshank and lapwing.

Designated Sites

1.8 There are no statutorily designated sites in the survey area or immediate environs. Across the road to the west lies woodland classified in the Ancient Woodland Inventory.



2.0 Survey

Method

2.1 An ecological survey was undertaken on the site on 19 August 2010.

2.2 A Phase 1 Habitat Mapping & Protected Species Survey, also referred to as an Extended Phase 1 Ecological Survey, was undertaken for the site. Standard Phase 1 methodology was used, including detailed target notes of notable plant species (those of conservation concern; also those listed on the Cairngorms LBAP list of priority species).

2.3 An assessment of the habitat suitability within the proposed development site for mammal species was also undertaken.

2.4 The standard optimal time to undertake an extended Phase 1 Survey is between April and the end of September. The survey time of mid-August is therefore optimal.

2.5 The habitats are described by the use of target notes where appropriate, annotated to the survey map (see Fig.1). Common species names and scientific names (Stace C (1997) *New Flora of the British Isles*. Second Ed. Cambridge University Press.) are given in the text below.

Results

Vegetation

2.6 This site is on improved farmland, on level ground, bounded by a fence to the west where there is a minor road, and currently unfenced and part of a larger farmed field to the east.

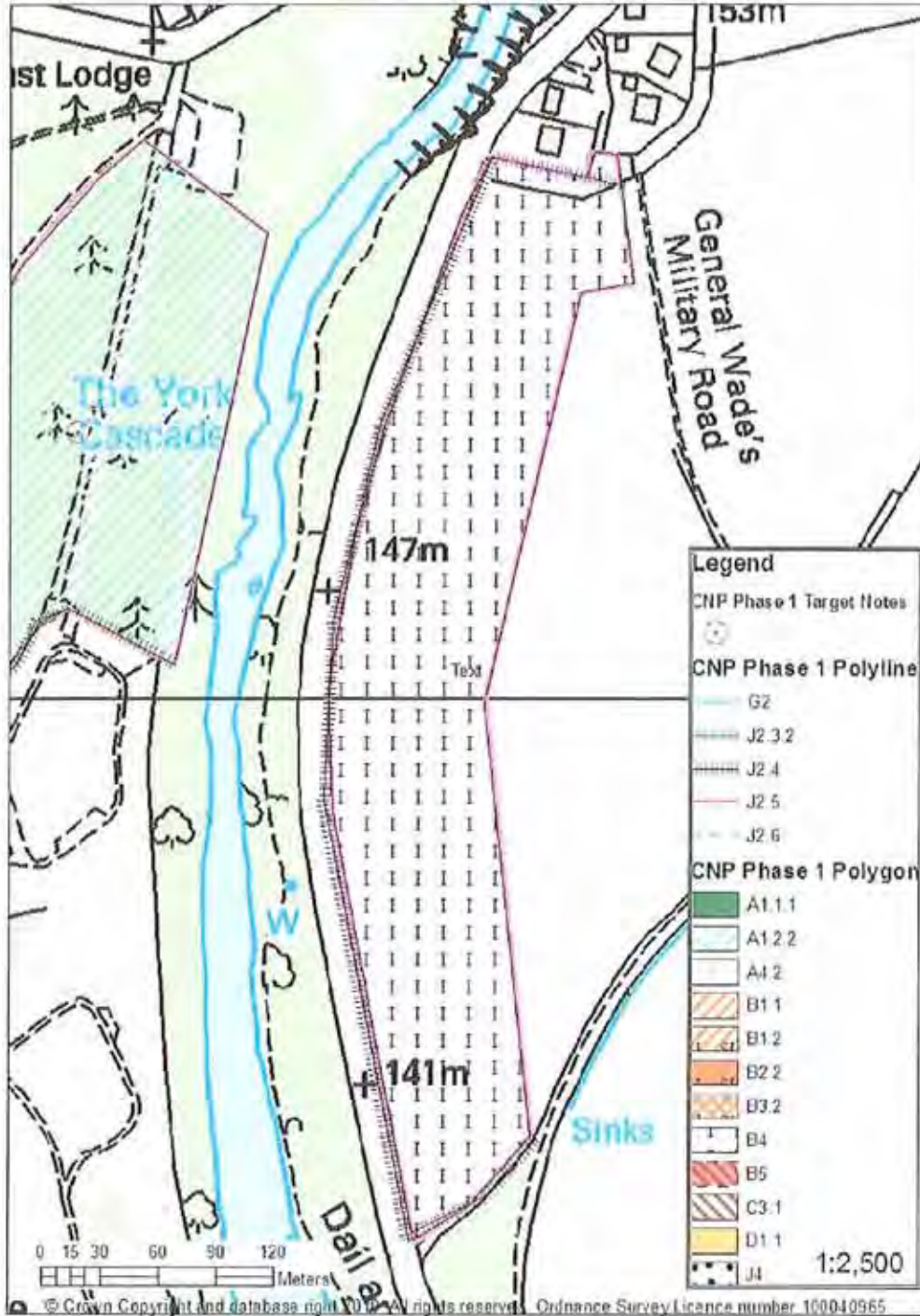
2.7 The sward is one of improved grassland (Phase 1 code B4), which at the time of survey had just been cut for silage. It was therefore not possible to identify grass species. Forbs were generally absent from the sward.

Fauna

2.8 No species of conservation concern and/or listed on the Cairngorms LBAP list of priority species were noted on site.



Fig 1: Survey Map





3.0 Assessment of Habitat Suitability for Mammals

3.1 The site itself offers no suitable breeding habitat for otter, water vole, bat and red squirrel. No badger setts were observed. There may be limited foraging opportunity for badger and bats here.

4. References

- JNCC. 1990. *Handbook for Phase 1 habitat survey – a technique for environmental audit*. 2007 Edition. Nature Conservancy Council
- Stace, C.A. 1997. *New Flora of the British Isles*. 2nd Edition. Cambridge University Press.



APPENDIX 1 – SURVEY PHOTOGRAPHS



Site 19c looking north towards Old Bridge of Tilt.



Site 19c looking northwest, Old Bridge of Tilt in the distance



APPENDIX 2 – PHASE 1 CODES

PHASE 1 CODE	Description
A1.1.1	Broadleaved woodland - semi-natural
A1.1.2	Broadleaved woodland - plantation
A1.2.1	Coniferous woodland - semi-natural
A1.2.2	Coniferous woodland - plantation
A1.3.1	Mixed woodland - semi-natural
A1.3.2	Mixed woodland - plantation
A2.1	Scrub - dense/continuous
A2.2	Scrub - scattered
A4.1	Broadleaved woodland - recently felled
A4.2	Coniferous woodland - recently felled
A4.3	Mixed woodland - recently felled
B1.1	Acid grassland - unimproved
B1.2	Acid grassland - semi-improved
B2.2	Neutral grassland - semi-improved
B3.2	Calcareous grassland - semi-improved
B4	Improved grassland
B5	Marsh/marshy grassland
C3.1	Other tall herb and fern - ruderal
D1.1	Dry dwarf shrub heath - acid
G2	Running water
J2.3.2	Hedge with trees - species-poor
J2.4	Fence
J2.5	Wall
J2.6	Dry ditch
J4	Bare ground

Phase 1 Habitat Survey
Site: 19d
Landcare NorthEast August 2010



Extended Phase 1 Habitat Survey Cairngorms Local Development Plan

Site: 19d

Land at Old Bridge of Tilt - Potential Development Site 2

August 2010

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CONTENTS

Summary	1
1.0 Introduction	2
Background	2
Existing data	2
Designated sites	2
2.0 Survey	3
Method	3
Results	3
Vegetation	3
Fauna	4
3.0 Habitat Suitability for Mammals	5
4.0 References	5

APPENDIX 1 – TARGET NOTES

APPENDIX 2 – SURVEY PHOTOGRAPHS

APPENDIX 3 – PHASE 1 CODES



Summary

1. As part of the process of considering the suitability of Site **19d**, Land at Old Bridge of Tilt - Potential Development Site 2 for inclusion into the Local Development Plan, the Cairngorms National Park Authority (CNPA) has commissioned Landcare NorthEast to undertake a desktop study and initial ecological survey.
2. A desktop study and subsequent ecological survey was conducted at Site **19d**, Land at Old Bridge of Tilt - Potential Development Site 2 on 19 August 2010
3. The proposed development site is located at NN878665 and comprises approximately 0.5ha.
4. The main habitats are semi-improved neutral grassland and semi-natural broadleaved woodland.
5. No notable plant species (those of UK conservation concern - see UK list of Vascular Plants of Conservation Concern <http://www.ukbap.org.uk> - or those listed on the Cairngorms LBAP list of priority species) were noted.
6. The site may provide bat and badger foraging habitat.

1.0 Introduction

Background

1.1 In order to make an assessment on ecological impacts of developments of sites that have been presented for inclusion in the Cairngorms Local Development Plan, CNPA require desktop studies and ecological surveys of each site to be undertaken.

1.2 With regard to this, an extended Phase 1 survey and habitat suitability assessment was conducted at Site 19d, Land at Old Bridge of Tilt - Potential Development Site 2.

1.3 The site is located at NN878665 and comprises approximately 0.5ha.

1.4 The survey work was conducted by Steff Ferguson and Flora Grigor-Taylor, both experienced wildlife surveyors, chartered environmentalists and members of IEEM.

Existing Data

1.5 A review of the data held on the National Biodiversity Network (NBN) gateway was undertaken to identify species of conservation concern that have been recorded on the proposed development site.

1.6 Badger, otter, wildcat and bat records exist at the 10km level for the vicinity of the site. Red squirrel is recorded within 1km square of the site.

1.7 Also recorded within 10km square of the site – goldeneye, twite, hen harrier, black grouse, capercaillie, redshank and lapwing, northern brown argus and pearl bordered fritillary.

Designated Sites

1.8 Glen Tilt Wood SSSI, designated for its upland mixed ash woodland, is located immediately west and north of site boundary. The River Tilt, situated approximately 100m from the western edge of the site, is part of the River Tay SAC.

2.0 Survey

Method

2.1 An ecological survey was undertaken on the site on 19 August 2010.

2.2 A Phase 1 Habitat Mapping & Protected Species Survey, also referred to as an extended Phase 1 Ecological Survey, was undertaken for the site. Standard Phase 1 methodology was used, including detailed target notes of notable plant species (those of conservation concern; also those listed on the Cairngorms LBAP list of priority species).

2.3 An assessment of the habitat suitability within the proposed development site for mammal species was also undertaken.

2.4 The standard optimal time to undertake an extended Phase 1 survey is between April and the end of September. The survey time of mid-August is therefore optimal.

2.5 The habitats are described by the use of target notes, annotated to the survey map (see Fig.1). Common species names and scientific names (Stace C (1997) *New Flora of the British Isles. Second Ed.* Cambridge University Press.) are given in the text below.

Results

Vegetation

2.6 This site comprises 2 distinct units, separated by the public road from Old Bridge of Tilt to Middlebridge.

2.7 To the west of the road the site consists of semi-improved neutral grassland, B2.2 (see Target Note 1), sloping from the road downhill. A track runs diagonally (roughly north-south) through the field. The grassland is dominated by false oat grass (*Arrhenatherum elatius*), cocksfoot (*Dactylis glomerata*), common hogweed (*Heracleum sphondylium*) and black knapweed (*Centaurea nigra*) with abundant red clover (*Trifolium pratense*) and meadow vetchling (*Lathyrus pratensis*), as well as some lady's mantle (*Alchemilla mollis*), germander speedwell (*Veronica chamaedrys*) and clumps of field scabious (*Knautia arvensis*). Occasional patches of raspberry (*Rubus idaeus*) and stinging nettle (*Urtica dioica*). The field is enclosed by a fence and bordering beech (*Fagus sylvatica*) to the south, and blackthorn (*Prunus spinosa*) to the west and north. A small stand of aspen (*Populus tremula*) (approx. 10 individual trees) is located in the most southern corner of the grass field and directly across the road from here (Target Note 2).

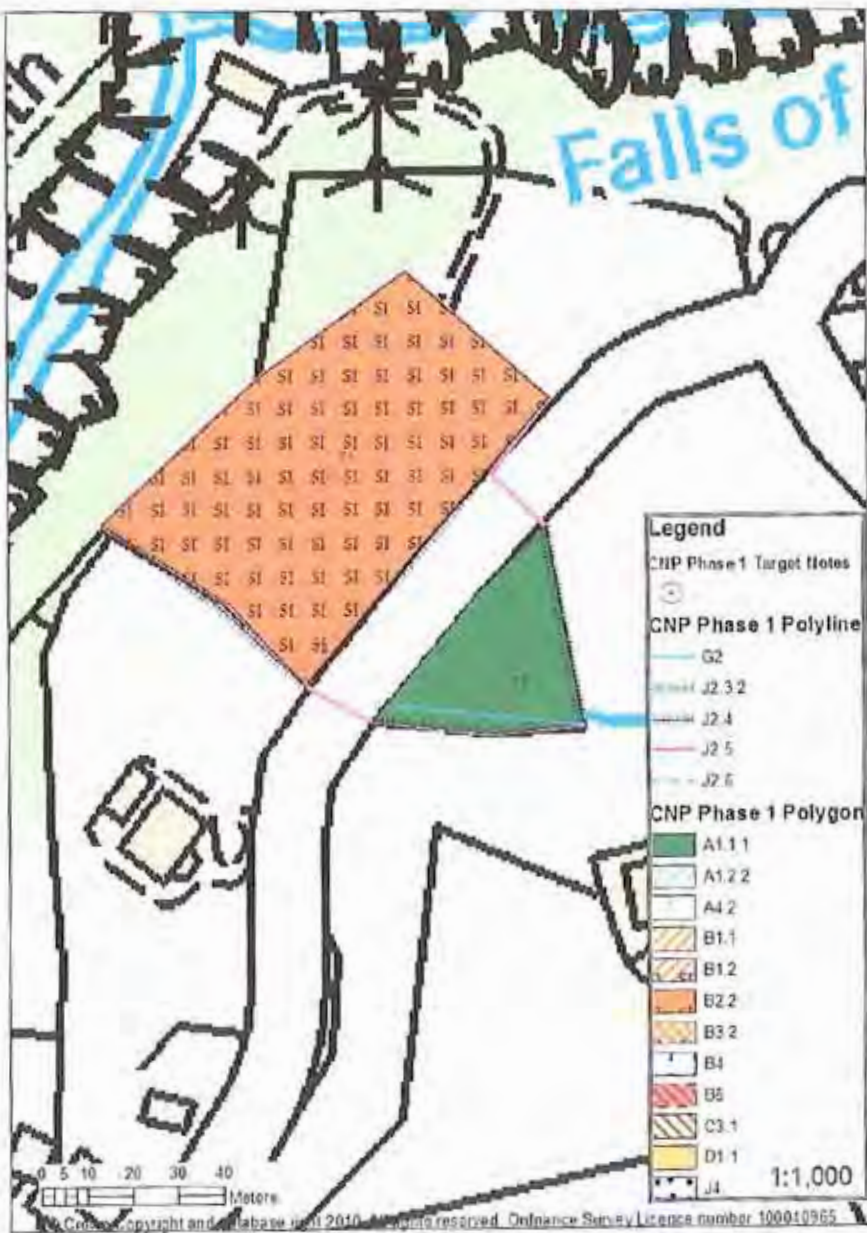
2.8 To the east of the road the site comprises semi-natural broadleaved woodland, A1.1.1. Trees are mostly mature, with the canopy closed and sparse understorey. Main tree species are ash (*Fraxinus excelsior*), beech, wych elm (*Ulmus glabra*), birch (*Betula* spp.), sycamore (*Acer pseudoplatanus*), rowan (*Sorbus aucuparia*) and bird cherry (*Prunus padus*). Ground flora comprises mainly dog's mercury (*Mercurialis perennis*), butterbur (*Petasites hybridus*), with some wood avens (*Geum urbanum*) and bugle (*Ajuga reptans*). The woodland is triangular in outline, with 2 sides fenced and the side facing the road open. Along the southern edge there is a

small burn, which flows past a ruined mill building (Target Note 3) located within the woodland.

Fauna

2.9 No species of conservation concern and/or listed on the Cairngorms LBAP list of priority species were noted on site.

Fig 1 Survey Map





3.0 Assessment of Habitat Suitability for Mammals

3.1 The grassland site itself offers no suitable breeding habitat for otter, water vole, bat and red squirrel. No badger setts were observed. There may be foraging opportunity for badger and bats here.

3.1 The woodland may offer suitable roost sites for bats within the mature trees and potentially the mill ruin, as well as foraging habitat. No badger setts were observed, however the woodland would provide foraging opportunities for this species. No otter signs were noted in or near the watercourse. No red squirrel signs were observed in the wood, and it offers very limited foraging opportunities for this species (occasional hazel *Corylus avellana*). The burn is unsuitable for water voles along this section, with banks defined by a stone wall on the mill side and boulders and stones on the other, thus unsuitable for burrowing, almost continuous shading from overhanging branches and no suitable grassy riparian vegetation.

4.0 References

- JNCC. 1990. *Handbook for Phase 1 habitat survey - a technique for environmental audit*. 2007 edition. Nature Conservancy Council
- Stace, C.A. 1997. *New Flora of the British Isles*. 2nd Edition. Cambridge University Press.



APPENDIX 1 – TARGET NOTES

T1 - NN 87789 66589

Species list semi-improved neutral grassland

Black knapweed	<i>Centaurea nigra</i>
Broad-leaved dock	<i>Rumex obtusifolius</i>
Cocksfoot	<i>Dactylis glomerata</i>
Common hogweed	<i>Heracleum sphondylium</i>
Common ragwort	<i>Senecio jacobaea</i>
Common sorrel	<i>Rumex acetosa</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Creeping buttercup	<i>Ranunculus repens</i>
Creeping thistle	<i>Cirsium arvense</i>
Dandelion	<i>Taraxacum officinale</i>
False oat grass	<i>Arrhenatherum elatius</i>
Field scabious	<i>Knautia arvensis</i>
Germander speedwell	<i>Veronica chamaedrys</i>
Greater stichwort	<i>Stellaria holostea</i>
Lady's mantle	<i>Alchemilla mollis</i>
Lesser burdock	<i>Arctium minus</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Red clover	<i>Trifolium pratense</i>
Stinging nettle	<i>Urtica dioica</i>
Tufted vetch	<i>Vicia cracca</i>

T2 - NN 87785 66549

Aspen (*Populus tremula*) stand of about 10 individuals, on both sides of road.

T3 - NN 87828 66541

Ruined mill building.



APPENDIX 2 – SURVEY PHOTOGRAPHS



View of grassland site 19d from road directly west



View of grassland site 19d from road southwest – note track through centre of site.



Ruined mill set within woodland (Target Note 3)



Woodland 19d – mature trees, lack of understorey



Burn along woodland 19d edge to south

APPENDIX 3 – PHASE 1 CODES

PHASE 1 CODE	Description
A1.1.1	Broadleaved woodland - semi-natural
A1.1.2	Broadleaved woodland - plantation
A1.2.1	Coniferous woodland - semi-natural
A1.2.2	Coniferous woodland - plantation
A1.3.1	Mixed woodland - semi-natural
A1.3.2	Mixed woodland - plantation
A2.1	Scrub - dense/continuous
A2.2	Scrub - scattered
A4.1	Broadleaved woodland - recently felled
A4.2	Coniferous woodland - recently felled
A4.3	Mixed woodland - recently felled
B1.1	Acid grassland - unimproved
B1.2	Acid grassland - semi-improved
B2.2	Neutral grassland - semi-improved
B3.2	Calcareous grassland - semi-improved
B4	Improved grassland
B5	Marsh/marshy grassland
C3.1	Other tall herb and fern - ruderal
D1.1	Dry dwarf shrub heath - acid
G2	Running water
J2.3.2	Hedge with trees - species-poor
J2.4	Fence
J2.5	Wall
J2.6	Dry ditch
J4	Bare ground

J466

**Extended Phase 1 Habitat Surveys for
Proposed Local Development Plan Sites
in the Cairngorms National Park
for the
Cairngorms National Park Authority
by
Northern Ecological Services**

Author	William Latimer MSc PhD CEnv. FIEEM	October 2010
Version	Ist Draft	November 2010
	Final	December 2010

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Introduction and Methodology

Background

Northern Ecological Services (NES) has undertaken a number of Phase 1 habitat surveys of potential development sites (see Table 1 below) for the Cairngorms National Park Authority (CNPA). The Authority is in the process of preparing a Local Development Plan and the results of the ecological surveys will assist in the process of allocation of appropriate areas for development within the Park.

The sites allocated to NES for survey are grouped in two main localities, in the area from around Aviemore to Dalwhinnie along the north-western edge of the Cairngorm mountains, and in the upper Dee catchment in the eastern area of the Park, around the town of Ballater. Surveyors for these two areas were Philip James and Graeme Guy for the Aviemore-Dalwhinnie area and William Latimer for the Ballater area and the surveys were undertaken during the period from late August to the first week of October.

Survey Methods

All sites were subjected to an “extended phase 1 habitat survey” according to the methodology of the Joint Nature Conservation Committee (2003) where habitats have been described and mapped and features of particular ecological interest indicated by target notes.

Habitats of notable ecological value have been identified and evaluated based on the experience of the surveyors and guided by the community analysis of the National Vegetation Classification (Rodwell 1991 et seq) and the nationally adopted guidelines for habitat evaluation at particular geographic spatial scales (IEEM 2006). These guidelines propose the following scale of importance or value:

- International importance
- UK importance
- National importance (England / Northern Ireland / Scotland / Wales)
- Regional importance
- County (or Metropolitan)
- District (or Unitary Authority, City or Borough)
- Local or Parish
- Site level only (limited to the site boundary)

The scale is intended to provide a gradation of areas but exceptions in terminology can arise, e.g. the Highlands are both a unitary authority (normally District level) but with the geographical extent of a Region. The evaluation of the surveyed sites also takes account of the identified presence of species and habitats being the subject of Biodiversity Action Plans (BAP) or the Scottish Biodiversity List (SBL). BAP habitats

and species include those from the UK BAP and the North-east Scotland and Cairngorms local BAPs (NELBAP & CLBAP).

Any evidence for the presence of protected species upon the sites, such as badger, red squirrel or bats has been noted and the suitability of any habitats to host such species has been assessed.

Additional data has been obtained from the National Biodiversity Network Gateway to inform upon the likelihood, where habitats upon or adjacent to the site appear suitable, of a particular species being present upon the site. Records have been interrogated for national UK BAP species and species on the Scottish Biodiversity List and a judgement made as to whether the species in question might derive significant resources from the site (i.e. breeding sites, foraging areas). Where there was some uncertainty as to the current validity of species indicated as present in the 10 km square, a time filter was applied to check for positive records from 2000.

Notable plant species (as recorded on the Scottish Biodiversity List) on the NBN gateway have also been checked but these are generally recorded for the entire 10 km square and hence there is a lack of precision as to the precise location for the record. The list of NBN species is given for each site but likely presence on the site needs to be judged in the light of the habitats present.

Plant species are named in the following site accounts according to Stace (1999). Scientific names and common names of plant species referred to in the text are given in Appendix 1.

Limitations

With the final commissioning of the survey work in mid August, surveys were mainly undertaken in the period from late August to early October. Thus some species and species groups are likely to have been under-represented by the survey work, e.g. early flowering plants, birds.

While the majority of the sites were relatively limited in area and all parts of these sites were readily accessible, it has not been possible to fully quarter the largest sites within reasonable timescales for the work and hence some species may have been missed. However, it is considered that sufficient information has been gained to classify and evaluate the habitats present upon each site.

For some areas of the Park, the satellite imagery available on the web is of insufficient quality to assist in accurately mapping habitat boundaries. For some of the more extensive sites where landforms on the ground, or details on the OS map base, provide insufficient cues for differentiating habitat types, mapping of some

Tender for Phase 1 Habitat Surveys for the CNPA

habitat boundaries e.g. the distribution of wet heath and dry heath, has been estimated by eye and may therefore lack accuracy.

Records for some protected species on the NBN Gateway site, e.g. badger, appear to be filtered in time to reduce the likelihood of disturbance to specific sites or resting places. Records for some species indicating presence in the 10km square appear to be derived from older data and in these cases, the time filter was applied to check for more recent records from 2000 and a judgement made as to whether to list the species as present or not based on habitat criteria of the site and known population trends. As noted above, plant records are for the whole 10 km square in which the site is located and further precision as to the location of the record is not available.

Report Structure

This report contains the site accounts for all the areas requested for survey. Each account for the numbered site comprises brief notes of the habitats and species noted during the survey, the NBN records for the site, a site evaluation and a Phase 1 habitat map. Maps are provided as jpeg files and as ESRI shape-files. Sites are named according to location, with the site number indicated on the map, generally in the bottom left-hand corner of the map, or adjacent to the appropriate site where more than one site is shown on the map (e.g. sites 58b, c & e, Rothiemurchus Estate, sites 38a, b & c, Dunachton Estate). Phase 1 habitat codes are shown on the Legend.

Site Accounts

Site accounts and Phase 1 habitat maps are provided for the sites indicated in the Table below.

Table 1. Sites Surveyed. Survey Period 24/08/2012 – 05/10/2010

Site Number:	Site Name and Section
001	Ruthven Estate (A)
004	Invercauld Estate – Culsh (B)
007	Dinnet – Ordie (B)
008	Craigmyle Estate, Auvhnerran Woods (B)
010	Kinakyle Aviemore (A)
011	Lynchat (A)
020	Ruthven Farm Kingussie (A)
024	Dinnet Estate – Dinnet (B)
026	Monaltrie – Ballater (B)
027	Ardverikie – Dalwhinnie (A)
036	Kinrara Estate - Loch Alvie (A)
012g	Reidhaven – Aviemore (A)
016a	Cluny – Balgowan (A)
016b	Cluny – Uvie (A)
035a	Invercauld – Crathie (B)
035b	Invercauld – Keiloch (B)
035c	Invercauld – Gairn (B)
038a	Dunachton Estate – Kinraig (A)
038b	Dunachton Estate – Kinraig (A)
058b	Rothiemurchus Estate – Coylumbridge (A)
058c	Rothiemurchus Estate - Borrow Pit (A)
058e	Rothiemurchus Estate - B970 Junction (A).

Sites are considered below not in number order by the two main localities of the National Park in which they are grouped i.e. in the Aviemore-Dalwhinnie area (Section A) and the Ballater area (Section B).

A. Aviemore - Dalwhinnie Locality

001 – Land at Ruthven Estate

A site with over half the area down to species-poor improved and semi improved neutral and neutral-acidic grassland. A small area of sedge fen and birch dominated woodlands with veteran trees in the centre of the site are of note (see Target Notes below) while in the south-west of the site, small areas of heath and acid-grassland/heathland mosaics are present.

Tender for Phase 1 Habitat Surveys for the CNPA

1. Mature woodland with open canopy of veteran *Betula pubescens* with occasional regeneration and some *Salix aurita*. Species-rich field layer with some *Centaurea nigra*, *Filipendula ulmaria*, *Angelica sylvestris*, *Achillea ptarmica*, *Succisa pratensis*, *Juncus acutiflorus*, *Deschampsia cespitosa* and abundant small sedges. Canopy cover approx 40%.
2. Species-rich rush and sedge-dominated fen with species similar to above.
3. Poor semi-improved grassland with patches of *Urtica dioica* and *Cirsium arvense*.
4. Abandoned orchard.
5. Grassy woodland dominated by mature and veteran *Betula pubescens* and *B. pendula*, with rare *Salix cinerea*. Canopy cover approx. 70%.
6. Grassy woodland dominated by mature and veteran *Betula pubescens* and *B. pendula*. Canopy cover approx 40%. Patchy, locally abundant regeneration.
7. Grassy woodland dominated by mature *Betula pubescens* and *B. pendula*. Canopy cover approx 50%. Patchy regeneration.
8. Grassy woodland dominated by mature *Betula pubescens* and *B. pendula*. Canopy cover approx 60%.

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

- Upland birch (UK BAP)

Relevant NBN Gateway Records: common frog, adder, common lizard, barn owl, bullfinch, kestrel, linnet, siskin, spotted flycatcher, house sparrow, red kite, robin, woodcock, skylark, song thrush, bat species, brown hare, badger, roe deer.

Notable plants recorded from the 10 km square:

Annual Knawel (*Scleranthus annuus*)
 Bluebell (*Hyacinthoides non-scripta*)
 Charlock (*Sinapis arvensis*)
 Corn Mint (*Mentha arvensis*)
 Dwarf Elder (*Sambucus ebulus*)
 Good-King-Henry (*Chenopodium bonus-henricus*)
 Greater Butterfly-orchid (*Platanthera chlorantha*)
 Harebell (*Campanula rotundifolia*)
 Heath Cudweed (*Gnaphalium sylvaticum*)
 Heather (*Calluna vulgaris*)
 Intermediate Wintergreen (*Pyrola media*)

Tender for Phase 1 Habitat Surveys for the CNPA

Lesser Butterfly-orchid (*Platanthera bifolia*)
Rampion Bellflower (*Campanula rapunculus*)
Shepherd's Cress (*Teesdalia nudicaulis*)
Sun Spurge (*Euphorbia helioscopia*)
Wild Pansy (*Viola tricolor*)

Site Evaluation:

Centrally placed association of birch woodland with veteran trees with its species-rich damp field layer and the adjacent sedge/rush fen, as indicated by Target Notes 1, 2 & 5 would be considered of value at the **Local** scale.

Other habitats of low ecological value or significant at the **Site** level (e.g. the small areas of heath)

010 – Land at Kinakyle

This site is characterized by 4 main habitats, wet alder woodland, enclosed improved grassland, poor semi-improved neutral grassland and marshy grassland. Bracken and a patch of creeping thistle make minor contributions whilst the slope forming a step up from the woodland to the enclosed fields has semi-improved acid grassland with scattered bracken and recently burnt scattered broom bushes. It has been colonized by rabbits.

The site is currently being developed and there are groundworks on the enclosed fields (Target Note on Phase 1 map).

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

- Wet Woodland (UK BAP)

Relevant NBN Gateway Records: common frog, adder, common lizard, barn owl, bullfinch, kestrel, linnet, siskin, spotted flycatcher, house sparrow, tree pipit, robin, woodcock, skylark, song thrush, bat species, brown hare, otter, badger, roe deer.

Notable plants recorded from the 10 km square:

Black-bindweed (*Fallopia convolvulus*)
Charlock (*Sinapis arvensis*)
Corn Mint (*Mentha arvensis*)
Field Pepperwort (*Lepidium campestre*)
Greater Butterfly-orchid (*Platanthera chlorantha*)
Harebell (*Campanula rotundifolia*)
Heath Cudweed (*Gnaphalium sylvaticum*)
Heather (*Calluna vulgaris*)
Intermediate Wintergreen (*Pyrola media*)
Shepherd's Cress (*Teesdalia nudicaulis*)

Tender for Phase 1 Habitat Surveys for the CNPA

Sun Spurge (*Euphorbia helioscopia*)

Wild Pansy (*Viola tricolor*)

Site Evaluation: The wet alder woodland should probably be regarded as of **Local** value.

011 – Land to east and south of Lynchat

Two small sites in the village comprising improved grassland of negligible ecological interest with, for the southerly site, a line of lime trees along the road and a small stand of larch by the railway line.

Relevant NBN Gateway Records: Site unlikely to host significant populations of species marked as present in the grid square

Site Evaluation: Negligible ecological interest.

012g – Reidhaven, Aviemore

This site on the edge of Dalfaber village has is a mix of three main habitats, birch woodland, acid grassland and semi-improved grassland.

The woodland has a semi-improved acid grassy field layer and these form clearings in the more open canopy to the north. Elsewhere the woodland has a closed canopy except at 90506 13733 where acid dry heath is locally dominant in patches but containing frequent birch regeneration. Within the woodland at 90604 13704 are 3 adjacent hollows. One is filled with soft rush, another is dominated by nettle following dumping of nitrogen rich waste and the middle is swamp covered with a floating mat of mixed vegetation including frequent *Carex nigra*, *Menyanthes trifoliata* and *Sphagnum fallax*.

The semi-improved grassland around the disused pit at 90640 13450 is a blurred mosaic of grassland and patches of creeping thistle and broom. It also grades locally to marshy grassland and two stands of birch woodland.

The acid grassland is quite forb-rich in places but heather appears to be regenerating and spreading, possibly following grazing cessation.

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

- Upland birch (UK BAP)

Relevant NBN Gateway Records: common frog, adder, common lizard, barn owl, bullfinch, kestrel, linnets, siskin, spotted flycatcher, house sparrow, tree pipit, robin, woodcock, skylark, song thrush, bat species, brown hare, badger, otter, roe deer.

Notable plants recorded from the 10 km square:

Annual Knawel (*Scleranthus annuus*)
Black-bindweed (*Fallopia convolvulus*)
Bluebell (*Hyacinthoides non-scripta*)
Charlock (*Sinapis arvensis*)
Corn Mint (*Mentha arvensis*)
Cornflower (*Centaurea cyanus*)
Field Woundwort (*Stachys arvensis*)
Good-King-Henry (*Chenopodium bonus-henricus*)
Harebell (*Campanula rotundifolia*)
Heath Cudweed (*Gnaphalium sylvaticum*)
Heather (*Calluna vulgaris*)
Intermediate Wintergreen (*Pyrola media*)
Lesser Butterfly-orchid (*Platanthera bifolia*)
Scarlet Pimpernel (*Anagallis arvensis*)
Sun Spurge (*Euphorbia helioscopia*)
Twinflower (*Linnaea borealis*)
Wild Pansy (*Viola tricolor*)

Site Evaluation: In its context on the village edge, the site should probably be considered as of **Local** value.

016 - Cluny Estate

Cluny: Balgowan

A site dominated by fields of improved grassland. Features of local interest are target noted below.

1. Line of mature mixed broadleaved trees along south side of road: *Ulmus glabra*, *Fraxinus excelsior*, *Acer pseudoplatanus*, *Quercus* spp. & *Fagus sylvatica*.
2. Planted woodland dominated by mature *Pinus sylvestris* with occasional *Fagus sylvatica* and *Pseudotsuga menziesii*.
3. Planted woodland dominated by mature *Quercus* spp. and *Fagus sylvatica* with occasional *Pseudotsuga menziesii*, *Ulmus glabra*, *Picea* spp. and *Tilia* spp.
4. Small stand of *Pinus sylvestris* with rare *Larix decidua* and *Picea* spp.

Tender for Phase 1 Habitat Surveys for the CNPA

5. Planted woodland dominated by mature *Fagus sylvatica* with rare *Larix decidua*; *Rhododendron ponticum* covers much of the ground. There is a line of *Tilia* spp., *Acer pseudoplatanus* & *Aesculus hippocastanum* along the road side.

6. Planted woodland with a mix of *Corylus avellana*, *Aesculus hippocastanum*, *Tilia* spp., *Quercus* spp., *Picea* spp. & *Acer pseudoplatanus* with *Larix* & *Acer* regeneration.

Cluny: Uvie.

A small site of mainly improved grassland to the south of the road, with acid grassland to the north and small stands of birch woodland.

1. Woodland dominated by *Betula pubescens* with rare *Populus tremula*.
2. Woodland dominated by *Betula pubescens* with occasional *Sorbus aucuparia* and *Populus tremula*; some *B. pubescens* is veteran.
3. Disused quarry with *Betula pubescens* and *Alnus incana*.

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

- Planted conifer (CLBAP)
- Wych elm (NELBAP)

Relevant NBN Gateway Records: common frog, adder, common lizard, barn owl, bullfinch, kestrel, linnet, house sparrow, siskin, song thrush, red kite, robin, skylark, bat species, brown hare, badger, otter, red squirrel, roe deer.

Notable plants recorded from the 10 km square:

Greater Butterfly-orchid (*Platanthera chlorantha*)

Harebell (*Campanula rotundifolia*)

Heath Cudweed (*Gnaphalium sylvaticum*)

Heather (*Calluna vulgaris*)

Intermediate Wintergreen (*Pyrola media*)

Site Evaluation: Habitats considered of significant value at the **Site** level only.

020 - Ruthven

Two extensive fields of improved grassland with small stands of mixed woodland plantation in the west and north-east corners of the site and a shelter belt of tall birch along the north-east boundary of the site with planted rowan, alder, Scot's pine and oak. The site lies directly adjacent to Site No. 001 (Land at Ruthven Estate, see above for NBN data).

Site Evaluation: Habitats considered of significance at the **Site** level only.

027 – Dalwhinnie

A site situated between the A889 and the railway on the southern edge of Dalwhinnie comprising an extensive area of species poor improved grassland and a relict but much impoverished area of wet grassland (see Target Note 3 below) with some remaining areas of open water on the river floodplain.

1. War memorial with amenity grassland and occasional *Pinus sylvestris*, *Sorbus aucuparia* and *Betula* spp.
2. Playground
3. An active drain runs south to north through this polygon. The vegetation is a heavily degraded valley mire dominated by mosaics of *Juncus* spp. and *Deschampsia cespitosa*. This habitat is now separated from the corridor of the river Truim by the A889 and drained and improved pastures (Target Note 6 below).
4. Six mature *Pinus sylvestris*.
5. One large mature Cupressus spp.; field layer dominated by weedy ruderals: *Aegopodium podagraria*, *Urtica dioica* and *Cirsium arvense*.
6. Poor semi-improved grassland grazed by horses; locally frequent *Senecio jacobaea*.

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

- Scots pine, roe deer (SBL).

Relevant NBN Gateway Records: common frog, common toad, adder, barn owl, kestrel, linnet, house sparrow, robin, reed bunting, skylark, song thrush, yellowhammer, bat species, brown hare, badger, roe deer.

Notable plants recorded from the 10 km square:

Charlock (*Sinapis arvensis*)
Downy Willow (*Salix lapponum*)
Harebell (*Campanula rotundifolia*)
Heath Cudweed (*Gnaphalium sylvaticum*)
Heather (*Calluna vulgaris*)
Intermediate Wintergreen (*Pyrola media*)

Tender for Phase 1 Habitat Surveys for the CNPA

Mountain Bog-sedge (*Carex rariflora*)
Shepherd's Cress (*Teesdalia nudicaulis*).

The majority of the above species are unlikely to be present on the site.

Site Evaluation: Habitats of significance at the **Site** level only though degraded valley mire has potential for restoration.

036- Loch Alvie

Mosaic of habitats on the eastern shore of Loch Alvie comprising some arable fields, but most mainly under improved and semi-improved grassland, some extensive blocks of birch-dominated woodland, some with a significant component of veteran birch and aspen and an area in the centre of the site with species-rich grasslands associated (see Target Note 11 below), small stands of coniferous, bracken, open water and inundation vegetation of common reed (*Phragmites australis*) in a bay along the southern shore of the Loch. Mature woods of sessile oak are present in the north of the site with small areas of wet alder woodland by the shores of the loch, better developed along the north shore.

See Phase 1 habitat map for the following target-noted areas:

1. Artificial pond for duck shooting; marginal vegetation dominated by *Juncus effusus*.
2. Mature *Betula pubescens* with one mature *Populus tremula*. Approx 50% canopy. Some rabbit burrows.
3. Veteran *Betula pubescens*, dbh 80cm.
4. Woodland dominated by *Betula pubescens* and *B. pendula* (the oldest are the latter) with frequent *Populus tremula*, with trees of all age classes except regeneration. Field layer enriched by cattle dunging and agricultural weeds.
5. One mature *Salix caprea* – the only one found in this survey.
6. Narrow fenced stand along roadside dominated by *Betula* spp. with rare *Sorbus aucuparia* and *Larix* spp., with a little *Betula* regeneration and patchy *S. aucuparia* regeneration.
7. Woodland dominated by *Betula pubescens* with frequent *Salix aurita*, rare *Prunus avium*, *Sorbus aucuparia* and *Rosa canina*.

8. Woodland dominated by large mature *Larix decidua* with frequent mature *Betula* spp., occasional *Sorbus aucuparia* and a few small *Alnus glutinosa* along the water's edge.
9. A few very large non-native conifers, dbh approx 1m.
10. Four large *Pinus sylvestris*.
11. Species-rich grassy field layer under approx 50% canopy, includes *Gentianella campestris*, *Succisa pratensis*, *Achillea millefolium*, *Veronica chamaedrys*, *Plantago lanceolata*, *Genista anglica* and unidentified orchids.
12. Stand of mature *Pinus sylvestris* between house and road.
13. Mature *Quercus petraea* and *Betula* spp. with almost 100% *Pteridium aquilinum* beneath.

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

- Upland birch (UK BAP)
- Upland oak woods (CLBAP)
- Wet woodland (UK BAP)
- Reedbeds (UK BAP)
- Unimproved neutral grasslands (CLBAP)
- Scots pine, roe deer (SBL).

Relevant NBN Gateway Records: common frog, adder, common lizard, barn owl, black throated diver, bullfinch, kestrel, linnet, siskin, spotted flycatcher, house sparrow, tree pipit, robin, woodcock, skylark, song thrush, bat species, brown hare, otter, badger, roe deer.

Notable plants recorded from the 10 km square:

Annual Knawel (*Scleranthus annuus*)
Black-bindweed (*Fallopia convolvulus*)
Charlock (*Sinapis arvensis*)
Corn Mint (*Mentha arvensis*)
Good-King-Henry (*Chenopodium bonus-henricus*)
Field Pepperwort (*Lepidium campestre*)
Greater Butterfly-orchid (*Platanthera chlorantha*)
Harebell (*Campanula rotundifolia*)
Heath Cudweed (*Gnaphalium sylvaticum*)
Heather (*Calluna vulgaris*)
Intermediate Wintergreen (*Pyrola media*)
Large-flowered Hemp-nettle (*Galeopsis speciosa*)
Scandinavian Small-reed (*Calamagrostis purpurea*)

Tender for Phase 1 Habitat Surveys for the CNPA

Shepherd's Cress (*Teesdalia nudicaulis*)
 Sun Spurge (*Euphorbia helioscopia*)
 Twinflower (*Linnaea borealis*)
 Wild Pansy (*Viola tricolor*)

Site Evaluation: Considered of **significant Local** value for the range of, and quality of habitats present including elements probably of higher value:

- Sessile oak woods (**Local** importance)
- Small areas of wet, alder woodland (**Local** importance)
- mature birch wood and mixed woodlands with good quality acid-neutral grasslands associated (**Local to District** importance)
- Reedbeds (**Local to District** importance).

038- Dunachton Estate, Kincaig

A site on the northern edge of Kincaig dominated by species-poor grassland, some with ruderal vegetation, and small areas of sparse birch woodland, one area (Target Note 1) with a more herb-rich field layer.

1. Small fenced (ungrazed) stand of *Betula* spp. with three mature *Alnus glutinosa* at east end. Field layer with *Galium verum*, *Succisa pratensis* & *Achillea ptarmica*, with *A. glutinosa* regeneration by burn.
2. Small stand of eight *Betula* spp. and one *Larix* spp.
3. Scattered *Betula pendula*, approx 10% canopy.
4. War memorial.
5. Playing field.

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

Unimproved grasslands and wet/riparian woodlands (CLBAP)

Relevant NBN Gateway Records: common frog, adder, common lizard, barn owl, bullfinch, brambling, kestrel, linnet, siskin, house sparrow, tree pipit, robin, skylark, song thrush, bat species, brown hare, badger, otter, roe deer.

Notable plants recorded from the 10 km square:

Annual Knawel (*Scleranthus annuus*)
 Black-bindweed (*Fallopia convolvulus*)
 Charlock (*Sinapis arvensis*)
 Corn Mint (*Mentha arvensis*)
 Good-King-Henry (*Chenopodium bonus-henricus*)
 Greater Butterfly-orchid (*Platanthera chlorantha*)

Harebell (*Campanula rotundifolia*)
Heath Cudweed (*Gnaphalium sylvaticum*)
Heather (*Calluna vulgaris*)
Intermediate Wintergreen (*Pyrola media*)
Large-flowered Hemp-nettle (*Galeopsis speciosa*)
Scandinavian Small-reed (*Calamagrostis purpurea*)
Shepherd's Cress (*Teesdalia nudicaulis*)
Sun Spurge (*Euphorbia helioscopia*)
Twinflower (*Linnaea borealis*)
Wild Pansy (*Viola tricolor*)

Site Evaluation: Grasslands and woodlands of **Local** value in the context of a village-edge site.

058b – Rothiemurchus Estate, Coylumbridge

Small plot of regenerating pinewood. Occasional mature Scots pine and Birch trees with clearly defined second tier of dense young pine (and birch) in places. Frequent Juniper bushes throughout. Mixed dwarf-shrub field layer with *Calluna vulgaris* dominant but with increasing shade *Vaccinium myrtillus* and *V. vitis-idea* will become more extensive overtime. Stock fence along southern boundary

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

- Juniper (UK BAP)
- Upland birch and Native pinewoods (UK BAP)
- Scots pine, roe deer (SBL).

Relevant NBN Gateway Records: adder, common lizard, kestrel, linnet, siskin, song thrush, robin, Scottish crossbill, tree pipit, bat species, badger, roe deer.

Notable plants recorded from the 10 km square:

Annual Knawel (*Scleranthus annuus*)
Black-bindweed (*Fallopia convolvulus*)
Bluebell (*Hyacinthoides non-scripta*)
Charlock (*Sinapis arvensis*)
Corn Mint (*Mentha arvensis*)
Cornflower (*Centaurea cyanus*)
Field Woundwort (*Stachys arvensis*)
Good-King-Henry (*Chenopodium bonus-henricus*)
Harebell (*Campanula rotundifolia*)
Heath Cudweed (*Gnaphalium sylvaticum*)
Heather (*Calluna vulgaris*)
Intermediate Wintergreen (*Pyrola media*)

Tender for Phase 1 Habitat Surveys for the CNPA

Lesser Butterfly-orchid (*Platanthera bifolia*)
 Scarlet Pimpernel (*Anagallis arvensis*)
 Sun Spurge (*Euphorbia helioscopia*)
 Twinflower (*Linnaea borealis*)
 Wild Pansy (*Viola tricolor*)

Site Evaluation: **Local** value for birch/juniper/dry heath formations but probably part of a larger site continuum.

058c - Rothiemurchus Estate, Borrow Pit, Inverdrue

Dense, immature pinewood on borrow-pit surround with a mixed dwarf-shrub field layer (*Vaccinium myrtillus*, *V. vitis-idaea* & *Calluna vulgaris*) and a rich and extensive moss carpet.

Borrow pit has patchy pioneer pine and birch colonization and a mosaic of tall ruderal, dense broom scrub and acid grassland habitats on the SW floor and sides. Creeping thistle and nettle are co-dominant on the waste ground. Patches of thinly vegetated acid grassland include clumps of heather and if left undisturbed rapid succession to heath then woodland is anticipated.

Raspberry bushes are patchily abundant along the SW access road margin, whilst dense pine regeneration either side of the road inhibits vegetation on the ground.

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

- Upland birch and Native pinewoods (UK BAP)
- Scots pine, roe deer (SBL).

Relevant NBN Gateway Records: adder, common lizard, kestrel, linnet, siskin, spotted flycatcher, song thrush, tree pipit, robin, bat species, badger, roe deer.

Notable plant list as for 058b – Rothiemurchus Estate, Coylumbridge, above.

Site Evaluation: Considered of significance at the **Site** level only.

058c - Rothiemurchus Estate, B970 Junction

Business access road and car park in mature plantation pinewood surround. Near neutral grassy field layer beneath the canopy (semi-improved acid locally around trunk bases) with clear zonation to small patch of semi-improved neutral grassland. On the north side of the car park there is a patch of dense broom scrub and a new footpath links the car park with the B970.

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

15

- Scots pine, roe deer (SBL).

Relevant NBN Gateway Records: adder, common lizard, kestrel, linnet, house sparrow, siskin, spotted flycatcher, tree pipit, robin, song thrush, spotted flycatcher, bat species, badger, roe deer.

Notable plant list as for Site 058b – Rothiemurchus Estate, Coylumbridge, above.

Site Evaluation: Low ecological value of significance at the **Site** level only.

B. Ballater Locality

004 – Culsh Farm, Ballater.

An extensive site of overall ecological interest for its range of habitat types including some habitats of high ecological value.

Woodlands: Open deciduous woodland of mature birch in the north of site on an east-facing slope west of Culsh Farm (Target Note 2, see Phase 1 habitat map). Acid *Agrostis/Festuca* grassland and bracken understory with *Danthonia decumbens*, *Anthoxanthum odoratum*, *Deschampsia flexuosa*, *Succisa pratensis*, *Oxalis acetosa*, *Vaccinium myrtillus*, *Galium saxatile*, *Veronica chamaedrys*, *Potentilla erecta* and *Viola* spp. Scattered mature juniper.

Mature mixed woodland in the south of the site, birch and large spreading Scots pine with abundant juniper on the western edge (Target Note 5) and locally within the wood. Understory of bracken with patches of acid grassland. Patches of pine regeneration to the north of the wood.

An oak wood is present with mature *Quercus robur*, *Betula pendula* & *B. pubescens* mainly outside the boundary to the south of Culsh Farm (Target Note 6) but with a section lying within the site. Though now fenced off from the adjacent pasture, the wood appears to have been undergrazed in the past with a grassy understory and patches of nettle.

Grasslands: On lower slope west of Culsh farmhouse, acid-neutral *Agrostis/Festuca* grasslands (Target Note 7), possibly slightly semi-improved, but relatively species-rich including species as for adjacent birch woodlands described above (Target Note 2) plus *Achillea millefolium*, *Plantago lanceolata*, *Galium verum*, *Campanula*

Tender for Phase 1 Habitat Surveys for the CNPA

rotundifolia and *Rumex acetosa*. Remaining grasslands south of Culsh farm semi-improved and not so diverse.

Dry heath: *Calluna* with *Vaccinium vitis-idea* and *Erica cinerea* on high ground in the south-west of the site (Target Note 4) with a small (around 0.5 ha?) mire (Target Note 3) and some bracken stands in the south-west of this compartment.

Mire/Flush: *Eriophorum angustifolium/Erica tetralix* flush (Target Note 3) with *Sphagnum* spp., *Narthecium ossifragum*, and small patches of *Molinia caerulea* with *Juncus effusus* and *Achillea ptarmica*. Flushed area drains onto, and down a track leading eastwards off the hillside towards Culsh Farm.

Boundary features: Includes stone walls along the southern boundary of the site and a tree-lined track (Target Note 1) from the main road to the farmhouse (birch, wild cherry, hazel, wych elm, sycamore and blackthorn. Similar tree species are present in the wood on the slope to the west of the track.

Biodiversity Action Plan/Scottish Biodiversity List habitats & species present:

- Juniper (UK BAP)
- Upland heath and Upland flushes (UK BAP)
- Upland birch and Native pinewoods (UK BAP)
- Upland oak woods (CLBAP)
- Unimproved neutral grasslands (CLBAP)
- Wych elm (NELBAP)
- Scots pine, harebell, roe deer (SBL).

Relevant NBN Gateway Records: The habitats present and the extent of the site are such that it is likely that a number of animal species of ecological interest or conservation concern may be present e.g. the following species are listed on the NBN gateway for this site:

pearl-bordered fritillary, small pearl-bordered fritillary, northern brown argus and small-heath butterflies, adder, common lizard, slow-worm, black grouse, hen harrier, house sparrow, merlin, Scottish crossbill, siskin, spotted flycatcher, song thrush, tree pipit, robin, bat species including Natterer's bat, red squirrel, mountain hare and wildcat. Pine marten is also recorded and its presence on the site might be expected.

Notable plants recorded from the 10 km square are:

Annual Knawel (*Scleranthus annuus*)
 Black-bindweed (*Fallopia convolvulus*)
 Charlock (*Sinapis arvensis*)
 Corn Mint (*Mentha arvensis*)
 Field Pepperwort (*Lepidium campestre*)

Good-King-Henry (*Chenopodium bonus-henricus*)
Harebell (*Campanula rotundifolia*)
Heath Cudweed (*Gnaphalium sylvaticum*)
Heather (*Calluna vulgaris*)
Intermediate Wintergreen (*Pyrola media*)
Large-flowered Hemp-nettle (*Galeopsis speciosa*)
Mossy Saxifrage (*Saxifraga hypnoides*)
Small Cow-wheat (*Melampyrum sylvaticum*)
Twinflower (*Linnaea borealis*)
Wild Pansy (*Viola tricolor*)

Site Evaluation: Considered of significant ecological value for the range of, and quality of habitats present including elements probably of high value:

- juniper formations (**District to Regional** importance),
- mature birch wood and mixed woodlands with good quality acid grasslands associated (**District importance**)
- dry heath (**Local importance**)
- mire/flush (**Local importance**).

007 – Ordie, Dinnet

A field of largely unimproved, or slightly semi-improved neutral grassland, apparently mown for hay. Appears to be a remnant of a linear crofting field pattern.

Grasses include *Festuca rubra*, *Agrostis capillaries*, *Anthoxanthum odoratum*, *Holcus lanatus*, *Poa pratensis*, *Phleum bertolonii*, *Dactylis glomerata*, *Arrhenatherum elatius*. Herb species varied but with a moderate to low cover include *Rumex acetosa*, *Lathyrus pratensis*, *Lotus corniculatus*, *Medicago lupulina*, *Vicia sativa*, *Hypochaeris radicata*, *Leontodon autumnalis*, *Achillea millefolium*, *Plantago lanceolata*, *Cerastium fontanum*, *Ranunculus repens*, *Trifolium repens*, *Viola tricolour* and *Campanula rotundifolia*.

Small group of mature and regenerating aspen in the north of the field and mature and semi-mature scattered broom, rowan and downy birch along the walled eastern boundary.

BAP/Biodiversity List habitats & species:

- Unimproved neutral grassland (CLBAP)
- Aspen (CLBAP); very small stand however.
- Wild pansy and Harebell (SBL)

Tender for Phase 1 Habitat Surveys for the CNPA

Relevant NBN Gateway Records: Barn owl, bullfinch, kestrel, corn bunting, corncrake (record from grid square NJ4401, summer 2008), linnet, grey partridge, song thrush, skylark, bats, roe-deer, brown hare.

Notable plants recorded from the 10 km square are:

Annual Knawel (*Scleranthus annuus*)
 Charlock (*Sinapis arvensis*)
 Harebell (*Campanula rotundifolia*)
 Heath Cudweed (*Gnaphalium sylvaticum*)
 Heather (*Calluna vulgaris*)
 Large-flowered Hemp-nettle (*Galeopsis speciosa*)
 Wild Pansy (*Viola tricolor*)

Site Evaluation: Probably of ecological value at the **Local** scale. Of interest for the local record for corncrake.

008 – Auvhnerran Woods.

An extensive woodland site of commercial, predominantly mature, Scots pine forest with occasional other coniferous species (larch, silver fir, Sitka spruce) and locally stands of Norway spruce, in particular to the north of Blelack and Mill in the eastern section of the site (Target Note 7). Birch is locally frequent, and forms a sparse stand of deciduous woodland in the north-east of the site over a grassland ground flora dominated by *Deschampsia flexuosa* and *Agrostis* spp. (Target Note 9).

Ground flora under mature Scots pine is for the most part dominated by *Calluna vulgaris*, *Vaccinium myrtillus* and *V. vitis-idea* (Target Note 2). Locally the woodland is well structured with trees of varying canopy size and shape (Target Note 6). In some parts of the north-east of the site (e.g. around Sandy Hillock, Target Note 8) ericaceous vegetation gives way to a bracken and grassy understory locally with *Oxalis acetosa*, *Rumex acetosella*, *Rubus fruticosus*, *Digitalis purpurea*, *Dryopteris dilatata* and *Pyrola* spp (vegetative material only). In many areas throughout the woods, a typical moss flora (*Rhytidiadelphus*, *Pseudoscleropodium*, *Polytrichum* spp.) provides significant cover.

In some areas, the woodland cover is sparser, comprising scattered mature standard pines with scattered pine seedlings over open *Calluna* heath (Target Notes 3, and Target Note 5 where birch is also regenerating. Conversely, denser younger pines occur over sparse *Calluna* in the area of Target Note 4.

Other habitats:-

Valley and basin mires: Extensive mire in the west and south-west of the site with *Eriophorum angustifolium*, *Sphagnum* spp., *Carex rostrata*, *Narthecium ossifragum*,

Tender for Phase 1 Habitat Surveys for the CNPA

Erica tetralix, *Scirpus cespitosus*, *Potentilla palustris* with *Molinia caerulea*, *Juncus effusus* and *C. vulgaris* where conditions are not so wet.

Smaller but similar mire communities in shallow basins in the north-west of the site in the area around the curling pond and nearby to the south of the area of hard standing used for timber handling and storage (Target Note 1). Area of hard standing appears to have intruded into the mire to the south, reducing its area.

Flood-plain mire around the small stream in the north-west of the site dominated by *Juncus acutiflorus* & *J. effusus* with *Deschamsia cespitosa*, *Filipendula ulmaria*, *Achillea ptarmica*, *Equisetum palustre*, *Carex rostrata* and leafy liverworts.

Streams: The extensive mire in the west of the site drains via a small stream eastwards to meet the Logie Burn. Similar small streams drain the north-east of the site. Logie Burn around 3-4 metres broad, moderate to fast flow over coarse sands and gravels. Shading generally precludes the development of an aquatic flora though rushes and ferns (male fern, lady fern, broad buckler fern) locally common on the banks.

Open Water: The Curling Pond has *Molinia caerulea*, *Erica tetralix* and *Scirpus cespitosus* along its banks and stands of *Carex rostrata* in the open water.

BAP/Biodiversity List habitats & species:

- Native Pinewoods & Planted Conifer (CLBAP)
- Rivers and Streams (CLBAP)
- *Pyrola media* (SBL)

Relevant NBN Gateway Records: Common frog, common toad, adder, common lizard, capercaillie, black grouse, Scottish crossbill, siskin, tree pipit, red squirrel, otter, bats, wildcat, roe-deer, *Pyrola media*.

Notable plants recorded as for Site 007 – Ordie, Dinnet, above.

Site Evaluation:

Woodland of **Local** value,
extensive western mire likely to be of **District to County** value.

024 - Dinnet

A group of small sites in Dinnet characterised by Scot's pine plantation and secondary birch woodland.

24B (T1) Mature, even-aged Scots pine woods over typical ground flora of mosses, *Calluna vulgaris*, *Erica tetralix* and *Deschampsia flexuosa*. Other herbs include

Tender for Phase 1 Habitat Surveys for the CNPA

Teucrium scorodonia, *Oxalis acetosa* and *Galium saxatile*. Woods slope down with increasing cover of birch in the north of the site (Target Note 2) to abut the adjacent Muir of Dinnet SSSI (including wetlands of the River Dee SAC).

Neutral grassland prevail around the sawmill and associated buildings (Target Note 1) with *Holcus lanatus*, *Agrostis capillaris*, *Agrostis vinealis*, *Trifolium repens*, *Ranunculus repens* and *Campanula rotundifolia*. Various stored and dumped building materials here.

Well defined animal tracks throughout the site, probably attributable to deer.

24C (HS1). Plot of acidic woodlands on the western edge of the village comprising dense young Scots pine by the road leading to more open mixed woods of young to semi-mature pine and birch over a mainly grassy (*Deschampsia flexuosa*) ground flora with bracken, occasional *Calluna* and locally abundant mosses. Along the northern edge of the site, the land lowers to a damp woodland of downy birch with *Polytrichum* and *Sphagnum* mosses.

Two large silver firs in the north-west corner of the site.

24D (HS2a). Scattered birch woodland and scattered broom over damp acid-neutral grassland, grazed by cattle. Dominated by *Holcus lanatus* with *Anthoxanthum odoratum*, *Agrostis* spp, *Dactylis glomerata*, *Poa pratensis*, *Festuca rubra* with *Ranunculus repens*, *Trifolium repens*, *Veronica chamaedrys* and *Succisa pratensis*.

24E (HS2B). Mainly dense, young to semi-mature mixed birch/Scots pine woodland along the south of the road with occasional clearings dominated either by heathers or shrubby (broom) grasslands of *Deschampsia flexuosa* and *Festuca rubra*, grading to *Arrhenatherum* grasslands by the roadside.

24F (HS3). Larger site of mature scattered birch over neutral grassland of *Holcus lanatus*, *Agrostis* spp, *Dactylis glomerata*, *Festuca rubra* and *Anthoxanthum odoratum*. Herb species limited, some *Oxalis acetosa* and *Teucrium scorodonia*, and patches of ruderal tall herb (nettles and creeping thistle).

Small square roadside plots by the B9158 characterised by mature and sapling conifers over a heather and moss flora. Western plot also with holly, sapling oak and birch.

BAP/Biodiversity List habitats & species:

- Native Pinewoods & Planted Conifer (CLBAP)

Relevant NBN Gateway Records: Common frog, common toad, adder, common lizard, slow-worm, bullfinch, kestrel, linnet, hobby, Scottish crossbill, siskin, robin, tree pipit, woodcock, wood warbler, red squirrel, bats, roe-deer, *Pyrola media*.

Notable plants recorded from the 10 km square:

Annual Knawel (*Scleranthus annuus*)
Harebell (*Campanula rotundifolia*)
Heath Cudweed (*Gnaphalium sylvaticum*)
Heather (*Calluna vulgaris*)
Intermediate Wintergreen (*Pyrola media*)
Twinflower (*Linnaea borealis*)
Wild Pansy (*Viola tricolor*)

Site Evaluation: All sites of relatively low ecological value of significance at the **Site** level only.

026 - Land by Monaltrie Park, Ballater

Site dominated by arable farmland with the former track of the Deeside railway, now a footway and cycle path running through the centre of the site.

The former railway provides a wildlife corridor with scattered trees and remnant strips of unimproved neutral grassland. Tree and shrubs include native pine, birch, wild cherry, sycamore and broom, together with a number of non-natives such as cotoneaster, snowberry, Swedish whitebeam, grey alder, lilac and larch.

Grassland verges along the path have a range of coarse grass species and herbs such as *Galium verum*, *Achillia millefolium*, *Veronica chamaedrys*, *Centaurea nigra*, *Stellaria graminea*, *Lathyrus pratensis*, *Vicia spp.*, *Campanula rotundifolia* and patches of tall herb, nettle and raspberry. Similar unimproved coarse grasslands are present on a broad verge along the northern boundary of the arable fields with bramble, broom, rowan and birch.

The northernmost section of the site lies on an upper river terrace and comprises fairly species-rich unimproved neutral *Festuca/Agrostis* grasslands on the terrace with acid grasslands and heathers on the leached soils of the south-facing slope. Species include *Achillea millefolium*, *Lotus corniculatus*, *Lathyrus pratensis*, *Lathyrus linifolius*, *Galium verum*, *Ranunculus acris*, *Succisa pratensis*, *Hypochaeris radicata* and *Alchemilla vulgaris*.

BAP/Biodiversity List habitats & species:

- Unimproved neutral grasslands (CLBAP)
- Harebell (SBL)

Tender for Phase 1 Habitat Surveys for the CNPA

Relevant NBN Gateway Records: Adder, common lizard, slow-worm, barn owl, bullfinch, kestrel, skylark, linnet, robin, house sparrow, yellowhammer, bats, roe-deer.

Notable plants recorded from the 10 km square are:

Annual Knawel (*Scleranthus annuus*)
 Black-bindweed (*Fallopia convolvulus*)
 Charlock (*Sinapis arvensis*)
 Corn Mint (*Mentha arvensis*)
 Field Pepperwort (*Lepidium campestre*)
 Good-King-Henry (*Chenopodium bonus-henricus*)
 Harebell (*Campanula rotundifolia*)
 Heath Cudweed (*Gnaphalium sylvaticum*)
 Heather (*Calluna vulgaris*)
 Intermediate Wintergreen (*Pyrola media*)
 Large-flowered Hemp-nettle (*Galeopsis speciosa*)
 Mossy Saxifrage (*Saxifraga hypnoides*)
 Small Cow-wheat (*Melampyrum sylvaticum*)
 Twinflower (*Linnaea borealis*)
 Wild Pansy (*Viola tricolor*)

Site Evaluation:

Former railway corridor of value at the **Local** scale

Unimproved river terrace grasslands and acid grassland slope may be of value at the **Local to District** level.

Arable fields of low ecological interest but may have value for farmland birds and could provide habitat for some notable plant species of arable margins/disturbed ground such as Large flowered hemp nettle, Charlock and Good King Henry.

035a - Quarry at Crathie

Small quarry extending into a hillside of birch over acid grassland and dry heath with scattered juniper with an area of this habitat remaining intact within the site on the western edge of the quarry and narrow strips along the site boundary elsewhere. Typical species predominating are *Betula pendula/pubescens*, *Juniperis communis*, *Calluna*, *Erica cinerea*, *Deschampsia flexuosa*, *Teucrium scorodonia*, *Potentilla erecta* and a typical moss flora.

Quarry floor and slopes provide disturbed habitats showing varying degrees of re-colonisation from the surrounding vegetation on the slopes and with the quarry floor dominated by dense colonizing birch and broom, rabbit-grazed *Agrostis/Festuca* grasslands, ruderal vegetation and bare-ground/ephemeral mosaics. Species include *Urtica dioica*, *Rubus fruticosus*, *Rubus ideaus*, *Heracleum sphondylium*, *Luzula sylvatica*, *Lepidium heterophyllum*, *Cirsium arvense*, *Vicia sepium*, *Sedum*

Tender for Phase 1 Habitat Surveys for the CNPA

telephium, with *Prunella vulgaris*, *Ranunculus repens*, *Potentilla erecta*, *Fragaria vesca* and *Vernonica chamaedrys* in the open grasslands. *Juncus effusus* and *Deschampsia cespitosa* occupy occasional damp hollows.

BAP/Biodiversity List habitats & species:

- Juniper (UKBAP)
- Upland birch woods (CLBAP)

Relevant NBN Gateway Records: Adder, common lizard, slow-worm, bullfinch, linnet, spotted flycatcher, tree pipit, song thrush, robin, bats.

Notable Plants:

Black-bindweed (*Fallopia convolvulus*)
Bluebell (*Hyacinthoides non-scripta*)
Charlock (*Sinapis arvensis*)
Corn Mint (*Mentha arvensis*)
Harebell (*Campanula rotundifolia*)
Heather (*Calluna vulgaris*)
Intermediate Wintergreen (*Pyrola media*)
Large-flowered Hemp-nettle (*Galeopsis speciosa*)
White Mustard (*Sinapis alba*)

Site Evaluation:

Remnant birch woods with juniper within the western section of the site represent an example of the adjacent SSSI woodlands of Crathie Wood, and should be valued at a **District to Regional** level.

Ruderal habitats of the quarry floor significant at a **Site** level only.

035b - Land at Keiloch

Land within the curtilage of the sawmill which much bare ground around the sawmill buildings and damp grasslands elsewhere with some colonising saplings of downy birch. Predominant species are *Holcus lanatus*, *Juncus effusus*, *Cirsium arvense*, *Urtica dioica*, *Senecio jacobea*, *Anthoxanthum odoratum* and *Agrostis* spp. A small patch of *Luzula sylvatica* and *Deschampsia cespitosa* is present in a damp depression in the south-east of the site and two mature larches and one Norway spruce are present along the roadside boundary.

Relevant NBN Gateway Records: Song thrush, linnet, siskin, robin, house sparrow, slow worm, adder, common lizard, common toad.

Notable Plants from the NBN Gateway records:

Alpine Milk-vetch (*Astragalus alpinus*)

Tender for Phase 1 Habitat Surveys for the CNPA

Bluebell (*Hyacinthoides non-scripta*)
 Charlock (*Sinapis arvensis*)
 Good-King-Henry (*Chenopodium bonus-henricus*)
 Harebell (*Campanula rotundifolia*)
 Heath Cudweed (*Gnaphalium sylvaticum*)
 Heather (*Calluna vulgaris*)
 Intermediate Wintergreen (*Pyrola media*)
 Large-flowered Hemp-nettle (*Galeopsis speciosa*)
 Mossy Saxifrage (*Saxifraga hypnoides*)
 Twinflower (*Linnaea borealis*)
 Wild Pansy (*Viola tricolor*).

Given the nature of the site it is unlikely that many or any of the above species are present with the possible exception of charlock and Good King Henry.

Site Evaluation: Of negligible ecological interest.

035c – Bridge of Gairn.

Three fields of improved grassland on an upper terrace of the river Dee. Grasslands of low species diversity, grazed by cattle, with low stone wall/wire fence boundaries and occasional old elder and rowan along the southern boundary. Sward dominated by *Lolium perenne*, *Holcus lanatus*, *Dactylis glomerata*, *Alopecurus pratensis* and *Agrostis* spp.

Animal path through the fence into the south-west corner of the site may indicate use by foraging badgers and foxes.

Relevant NBN Gateway Records: Barn owl, kestrel, skylark, linnets, yellowhammer, roe-deer.

Notable plants recorded from the 10 km square are:

Annual Knawel (*Scleranthus annuus*)
 Black-bindweed (*Fallopia convolvulus*)
 Charlock (*Sinapis arvensis*)
 Corn Mint (*Mentha arvensis*)
 Field Pepperwort (*Lepidium campestre*)
 Good-King-Henry (*Chenopodium bonus-henricus*)
 Harebell (*Campanula rotundifolia*)
 Heath Cudweed (*Gnaphalium sylvaticum*)
 Heather (*Calluna vulgaris*)
 Intermediate Wintergreen (*Pyrola media*)
 Large-flowered Hemp-nettle (*Galeopsis speciosa*)
 Mossy Saxifrage (*Saxifraga hypnoides*)

Tender for Phase 1 Habitat Surveys for the CNPA

Small Cow-wheat (*Melampyrum sylvaticum*)

Twinflower (*Linnaea borealis*)

Wild Pansy (*Viola tricolor*).

Given the nature of the habitat, it is unlikely that many, or any of the above species are present on the site.

Site Evaluation: Of negligible ecological interest. Unlikely to be of significant value to foraging badgers given the extensive resource of good habitat along the floodplain and valley of the river Dee.

3.0. References





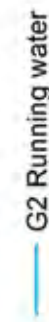



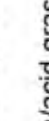













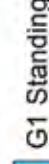

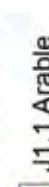


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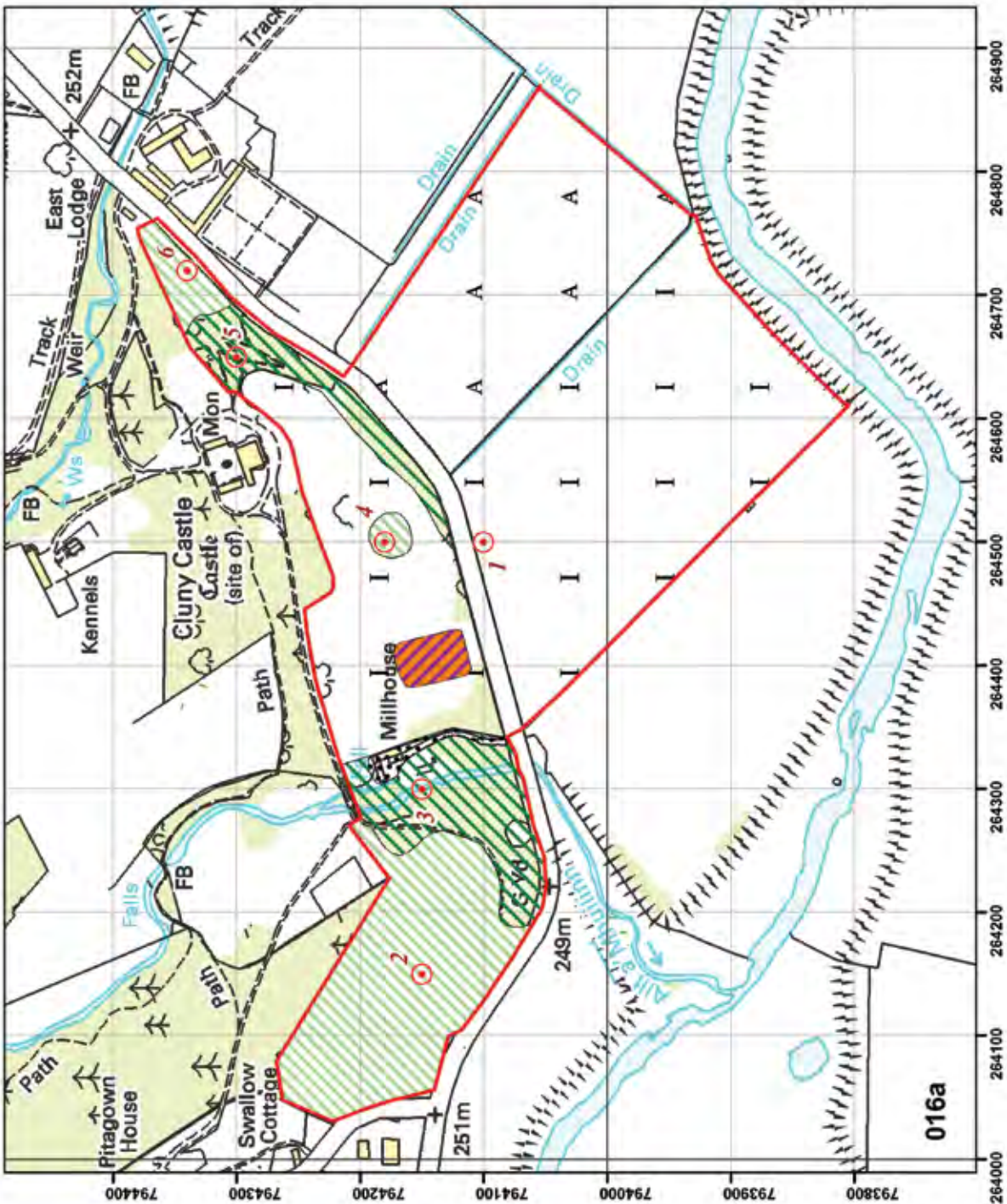
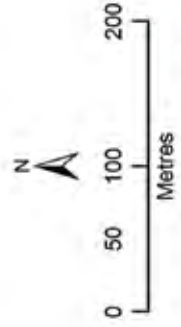
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Legend

	A1.1.1 Semi-natural broadleaved woodland		C1.2 Scattered bracken		A2.2 Scattered scrub
	A1.1.2 Broadleaved plantation		C3.1 Tall ruderal		A3.1 Scattered broadleaved trees
	A1.2.1 Semi-natural coniferous woodland		D1.1 Acid dry dwarf shrub heath		G2 Running water
	A1.2.2 Coniferous plantation		D5 Dry heath/acid grassland mosaic		E1.7 Wet modified bog
	A1.3.1 Mixed semi-natural woodland		D6 Wet heath/acid grassland mosaic		E1.8 Dry modified bog
	A1.3.2 Mixed plantation		E1.7 Wet modified bog		E2.1 Acid/neutral flush/spring
	A2.1 Dense/continuous scrub		E1.8 Dry modified bog		E3 Fen
	A2.2 Scattered scrub		E2.1 Acid/neutral flush/spring		E3.2 Basin mire
	A3.1 Broadleaved parkland/scattered trees		E3 Fen		E3.3 Flood plain mire
	A3.3 Mixed parkland/scattered trees		E3.2 Basin mire		F2.2 Inundation vegetation
	B1.1 Unimproved acid grassland		E3.3 Flood plain mire		G1 Standing water
	B1.2 Semi-improved acid grassland		F2.2 Inundation vegetation		J1.1 Arable
	B2.1 Unimproved neutral grassland		G1 Standing water		J1.2 Amenity grassland
	B2.2 Semi-improved neutral grassland		J1.1 Arable		J1.3 Ephemeral/short perennial
	B4 Improved grassland		J1.2 Amenity grassland		J3.6 Buildings
	B5 Marsh/marshy grassland		J1.3 Ephemeral/short perennial		J4 Bare ground
	B6 Poor semi-improved grassland		J3.6 Buildings		
	C1.1 Continuous bracken		J4 Bare ground		

Cluny - Balgowan

- Legend**
- Site boundary
 - Phase 1 habitat**
 - A1.1.2
 - A1.2.2
 - I B4
 - B5
 - A J1.1
 - J3.6, J4
 - ⊙ Target note and number

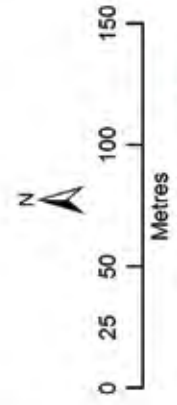
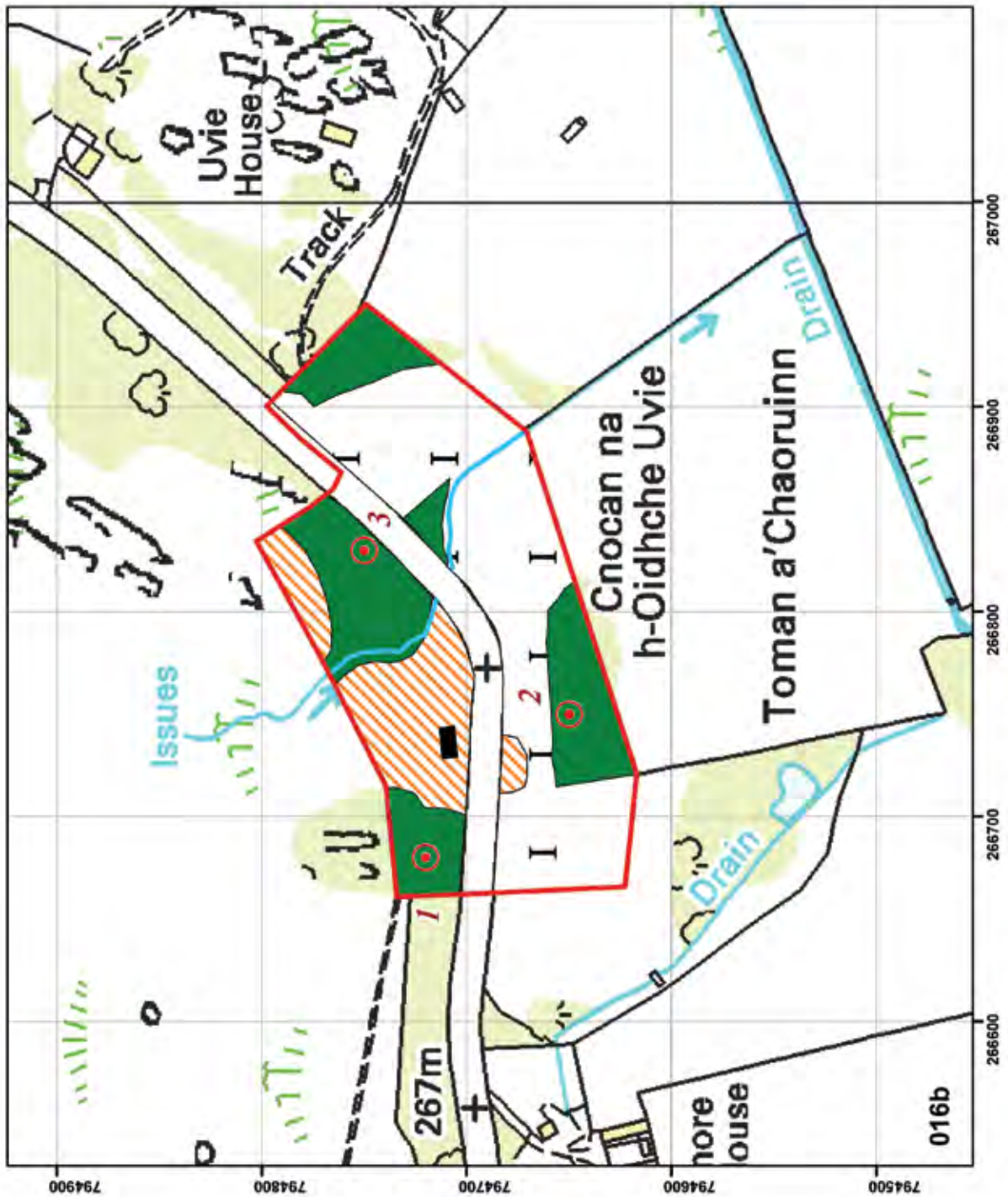


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016a

Cluny - Uvie

- Legend**
- Site boundary
 - Phase 1 habitat**
 - A1.1.1
 - B1.1
 - B4
 - J3.6
 - Target note and number



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Craigmyle Estate

Legend

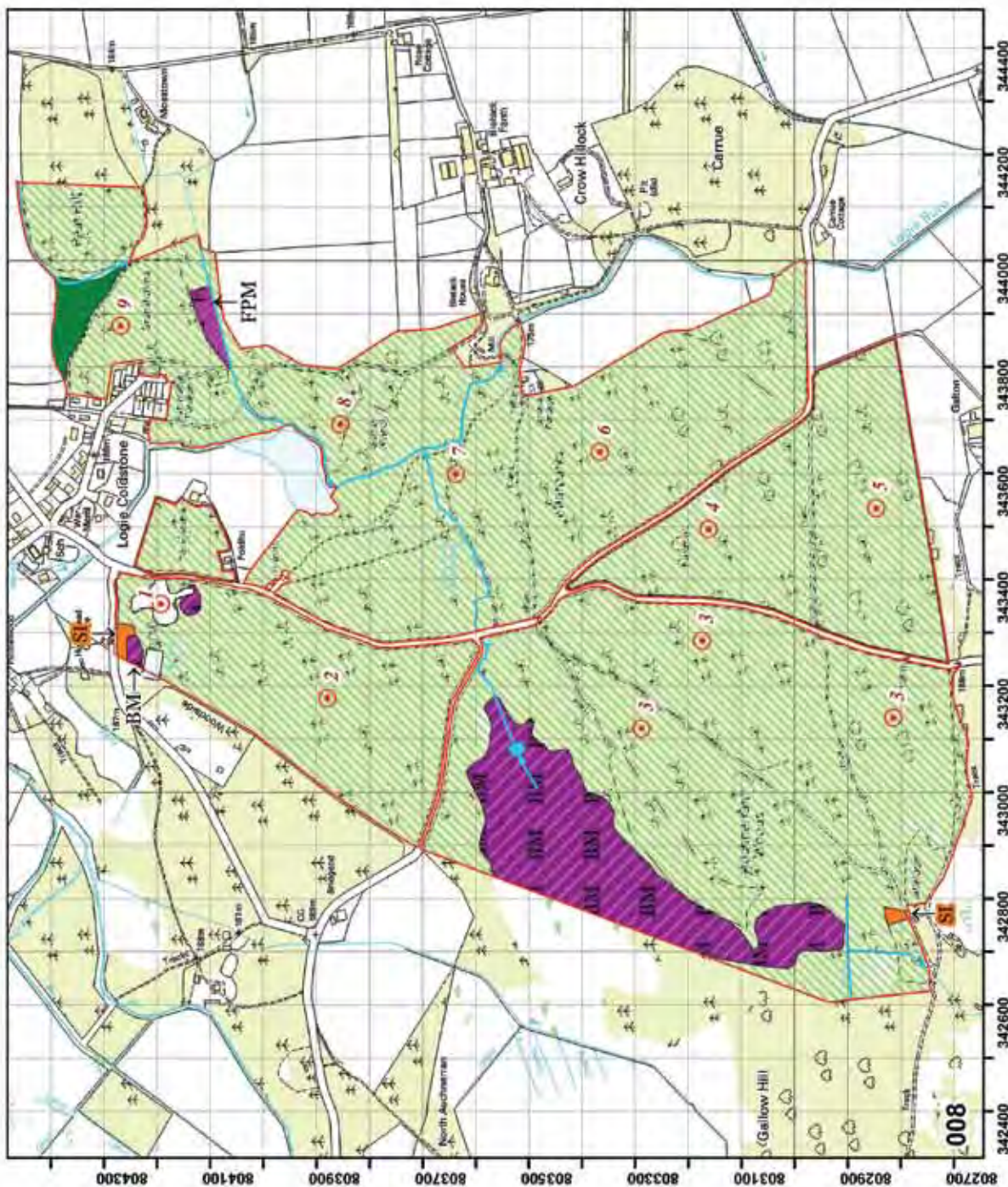
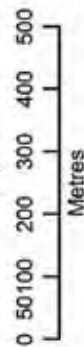
- Site boundary

Phase 1 habitat

- A1.1
- A1.2.2
- B2.2
- E3.2
- E3.3
- G1

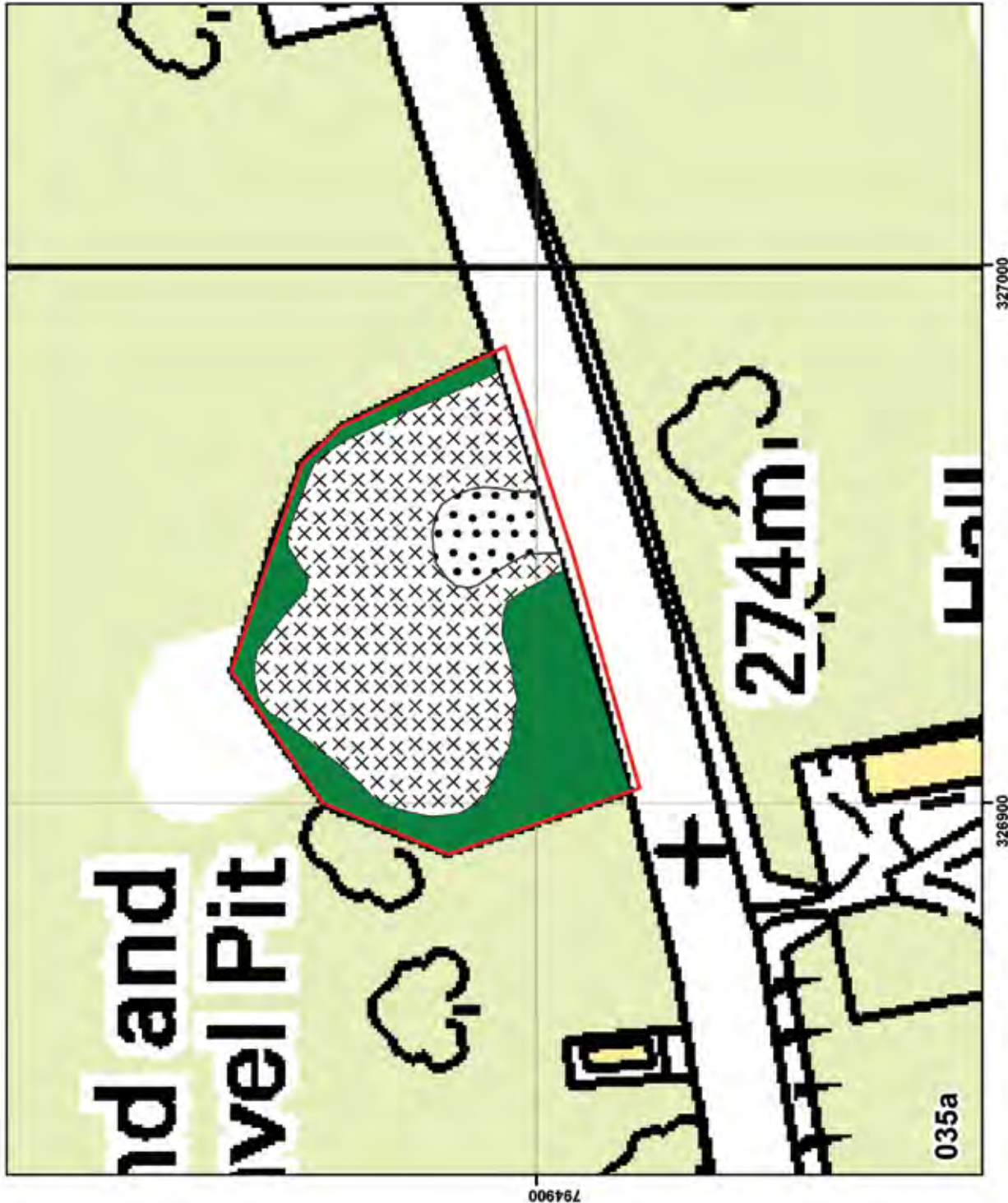
Drain

- G2

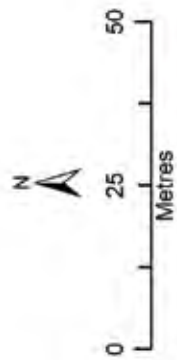


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Invercauld - Crathie

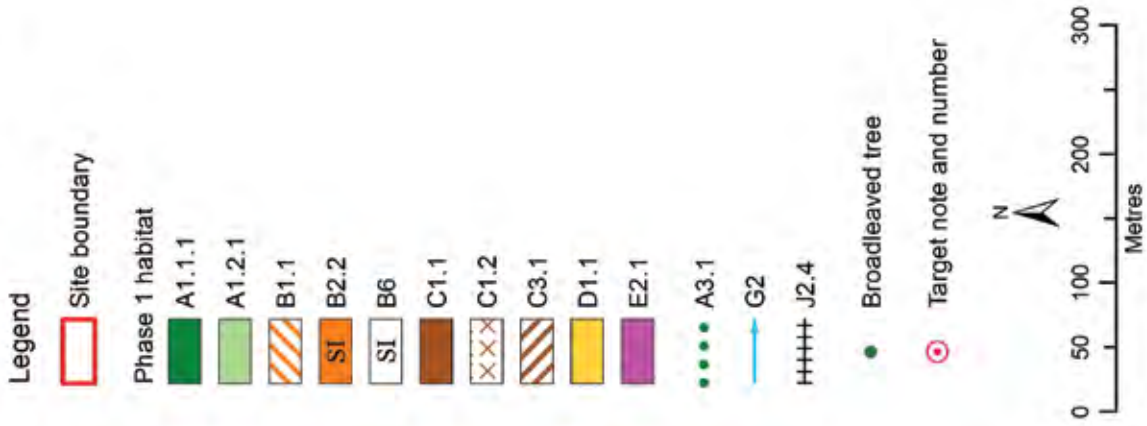


- Legend**
- Site boundary
 - Phase 1 Habitat**
 - A1.1.1
 - J1.3
 - J4



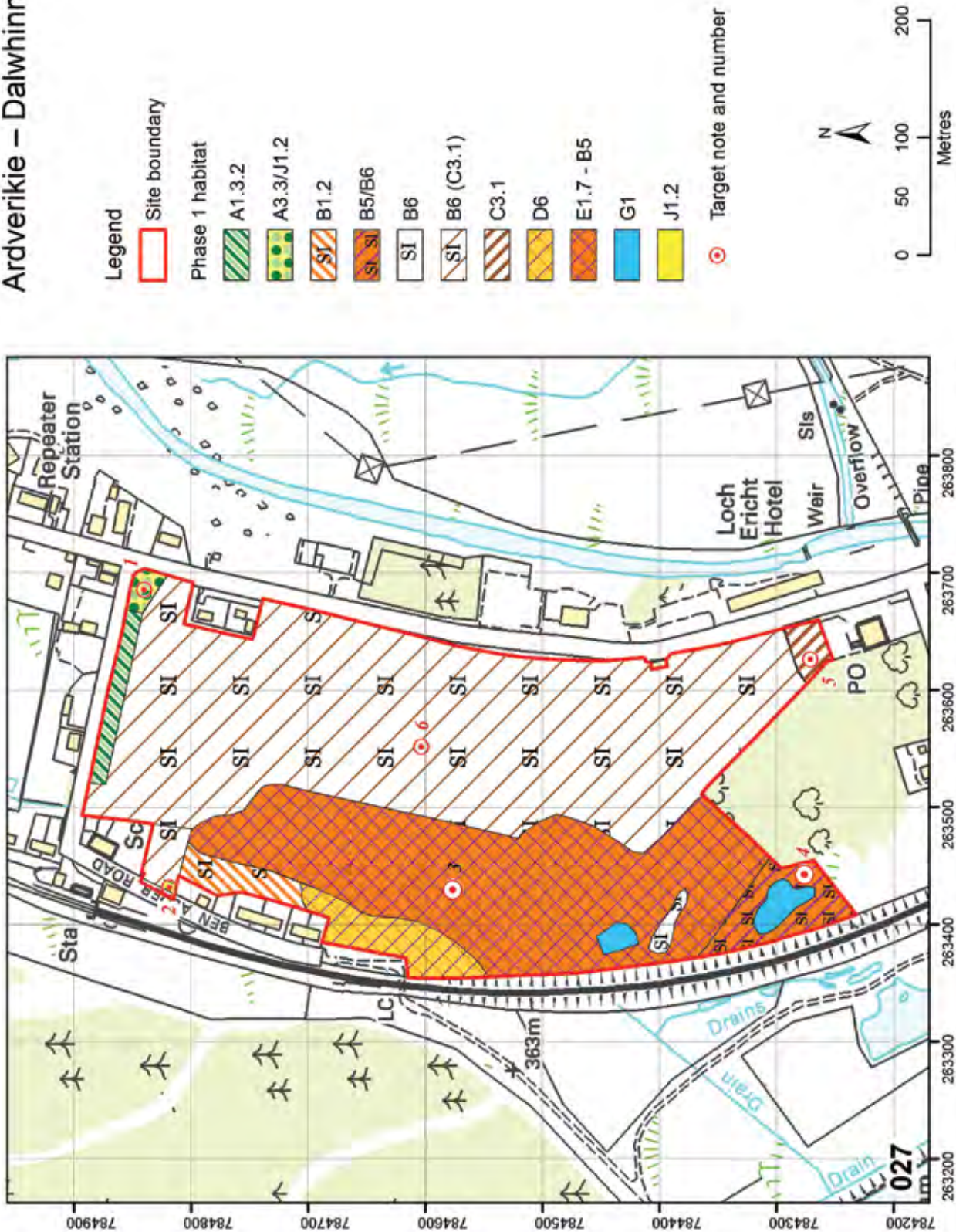
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Inver Estate - Culsh



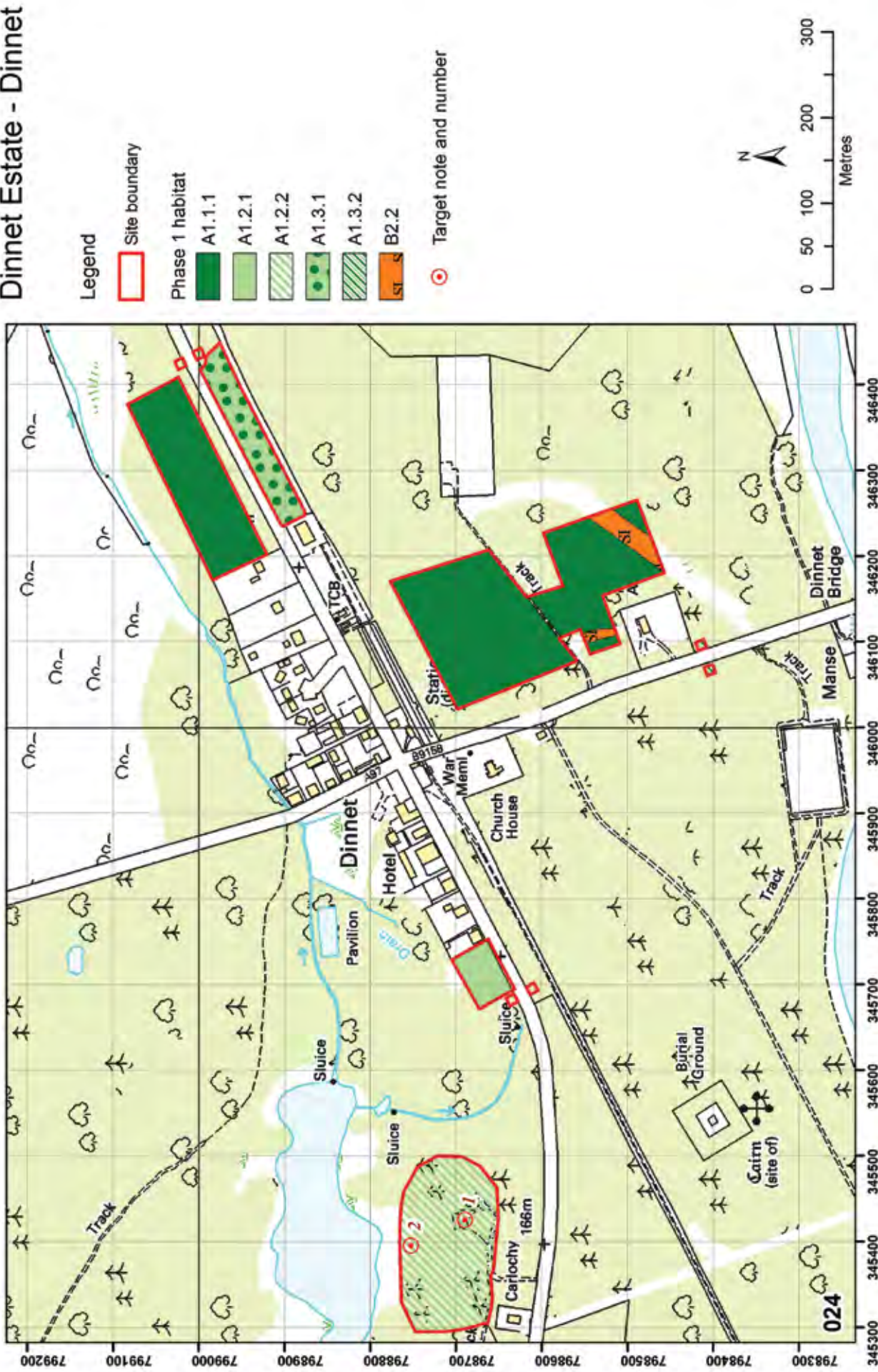
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Ardverkie – Dalwhinnie



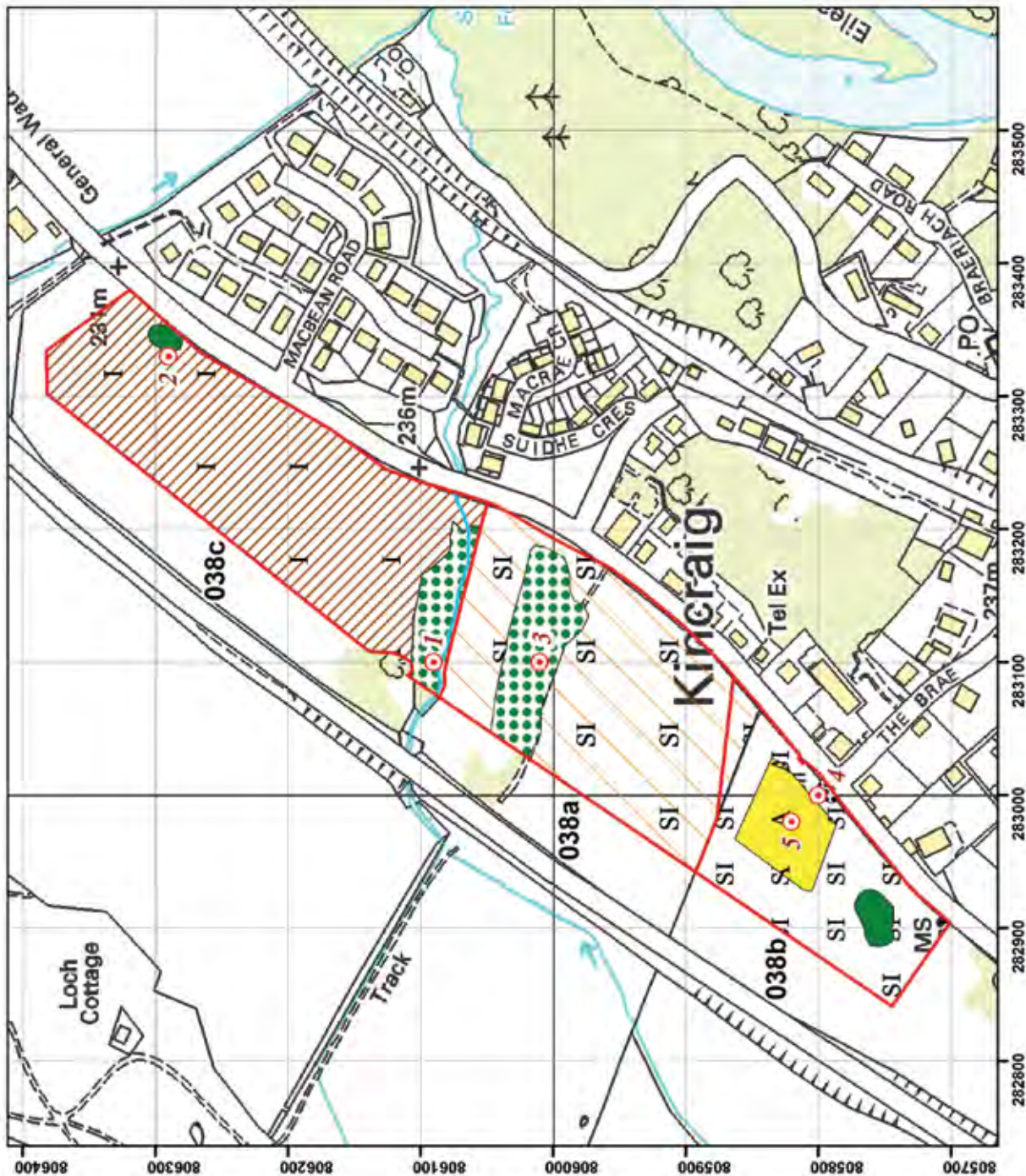
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Dinnet Estate - Dinnet



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Dunachton Estate

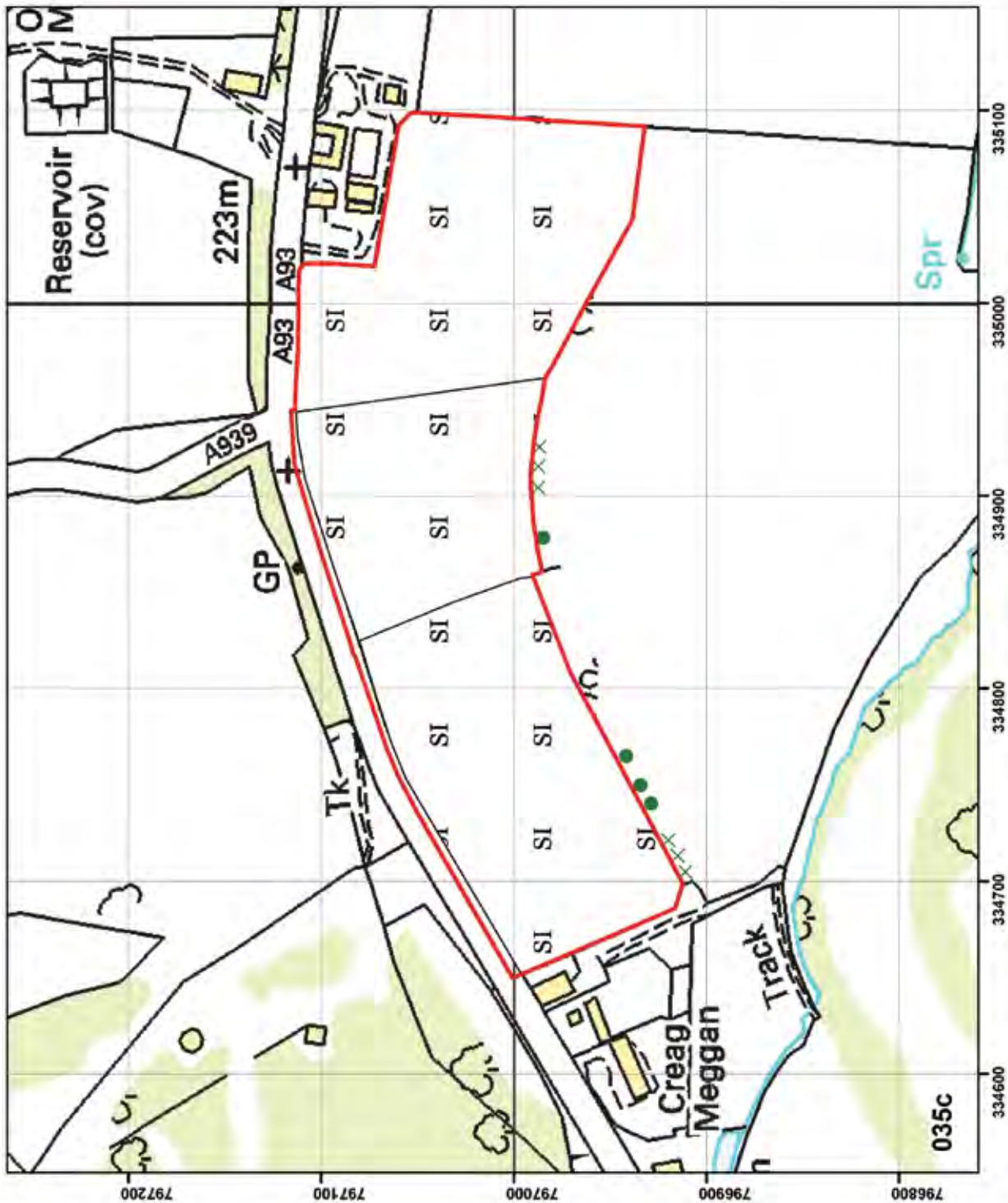


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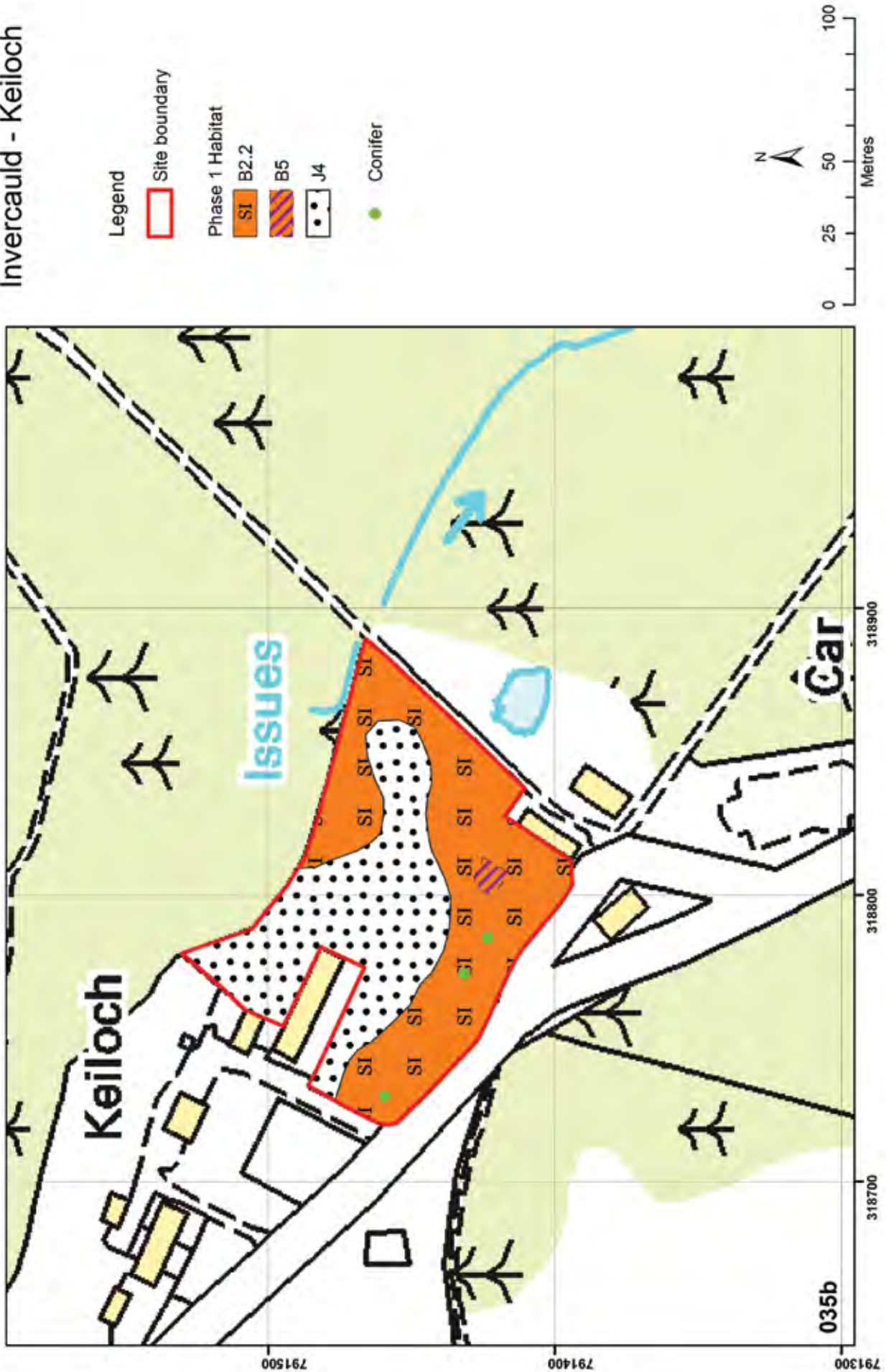
Invercauld - Gairn

- Legend
- Site boundary
 - SI B6
 - Broadleaved tree
 - × Scrub



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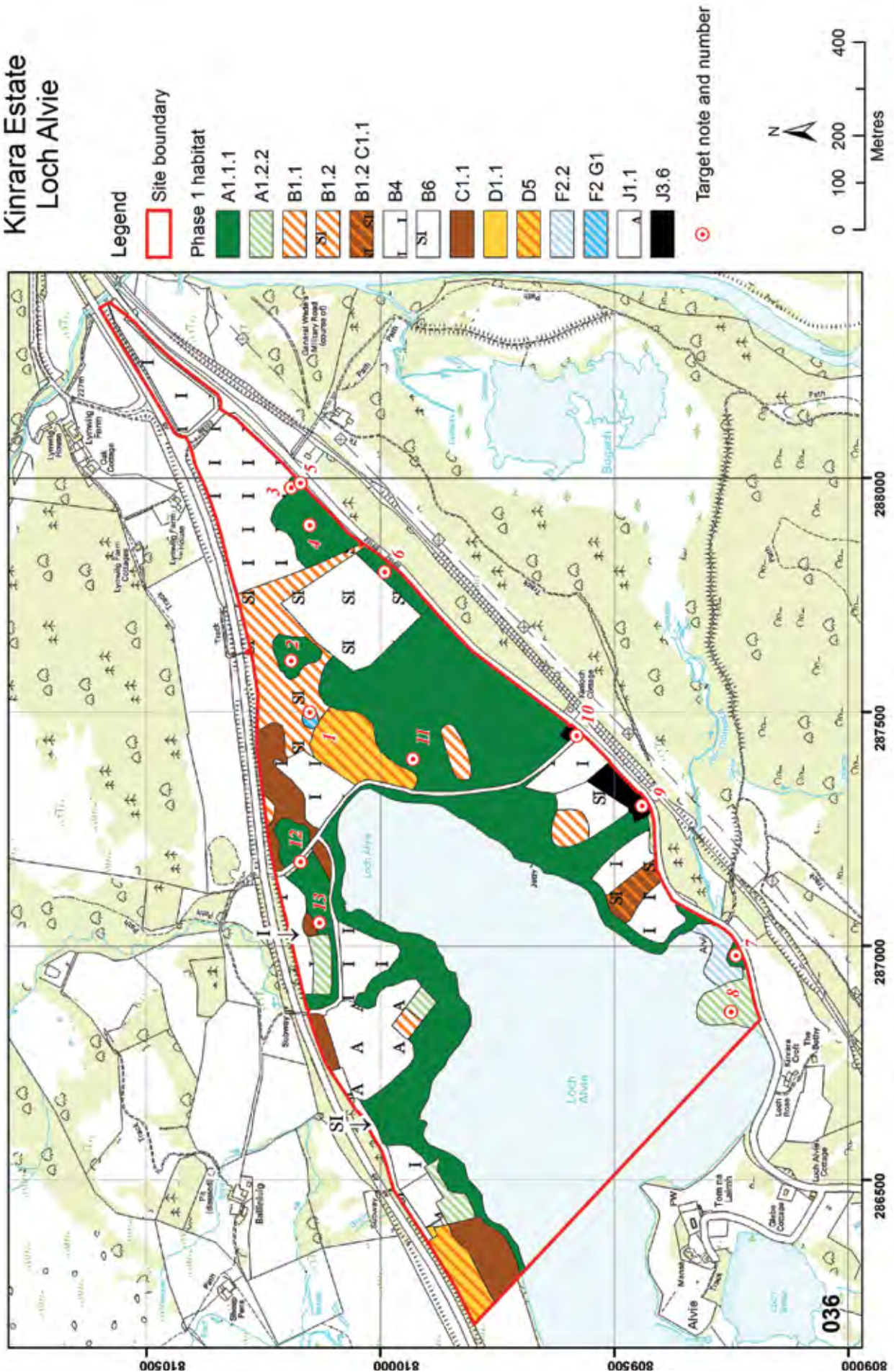
Invercauld - Keilloch



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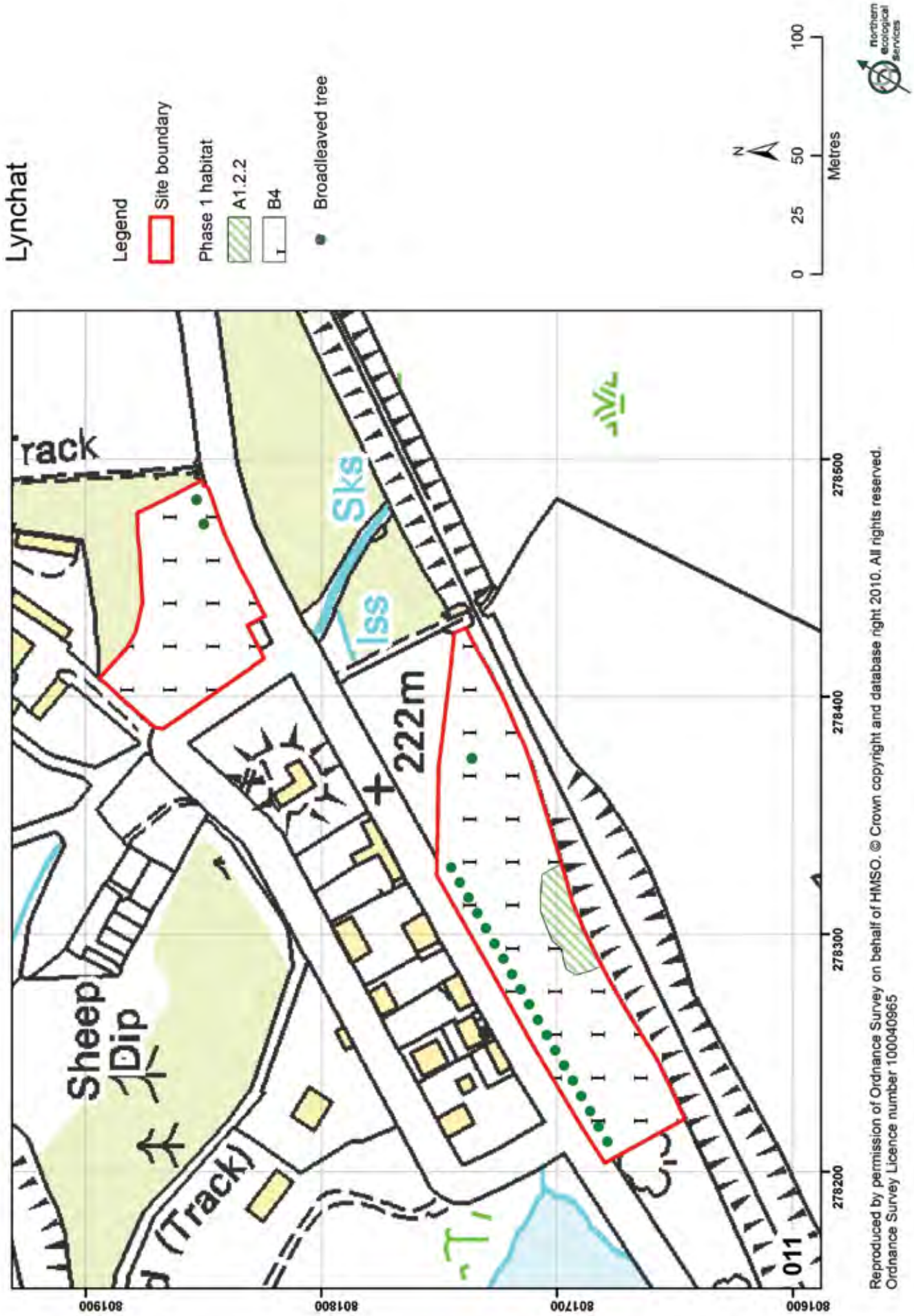


Kinrara Estate Loch Alvie

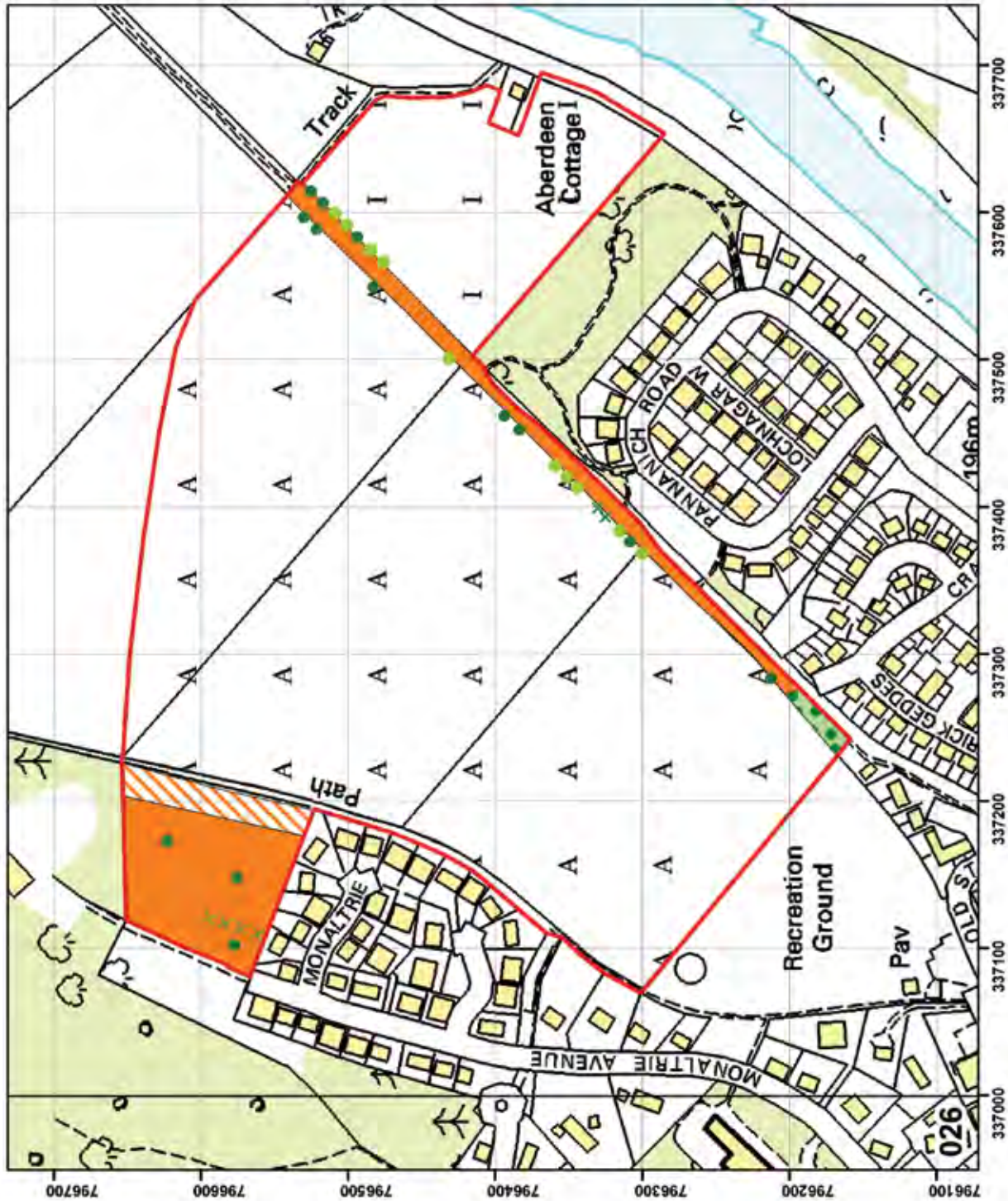


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Monaltrie - Ballater

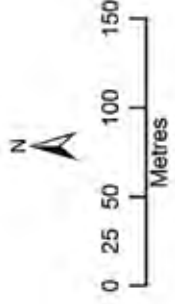


Legend
 Site boundary

Phase 1 Habitat

- A1.3
- B1.1
- B2.1
- I
- B4
- A
- J1.1

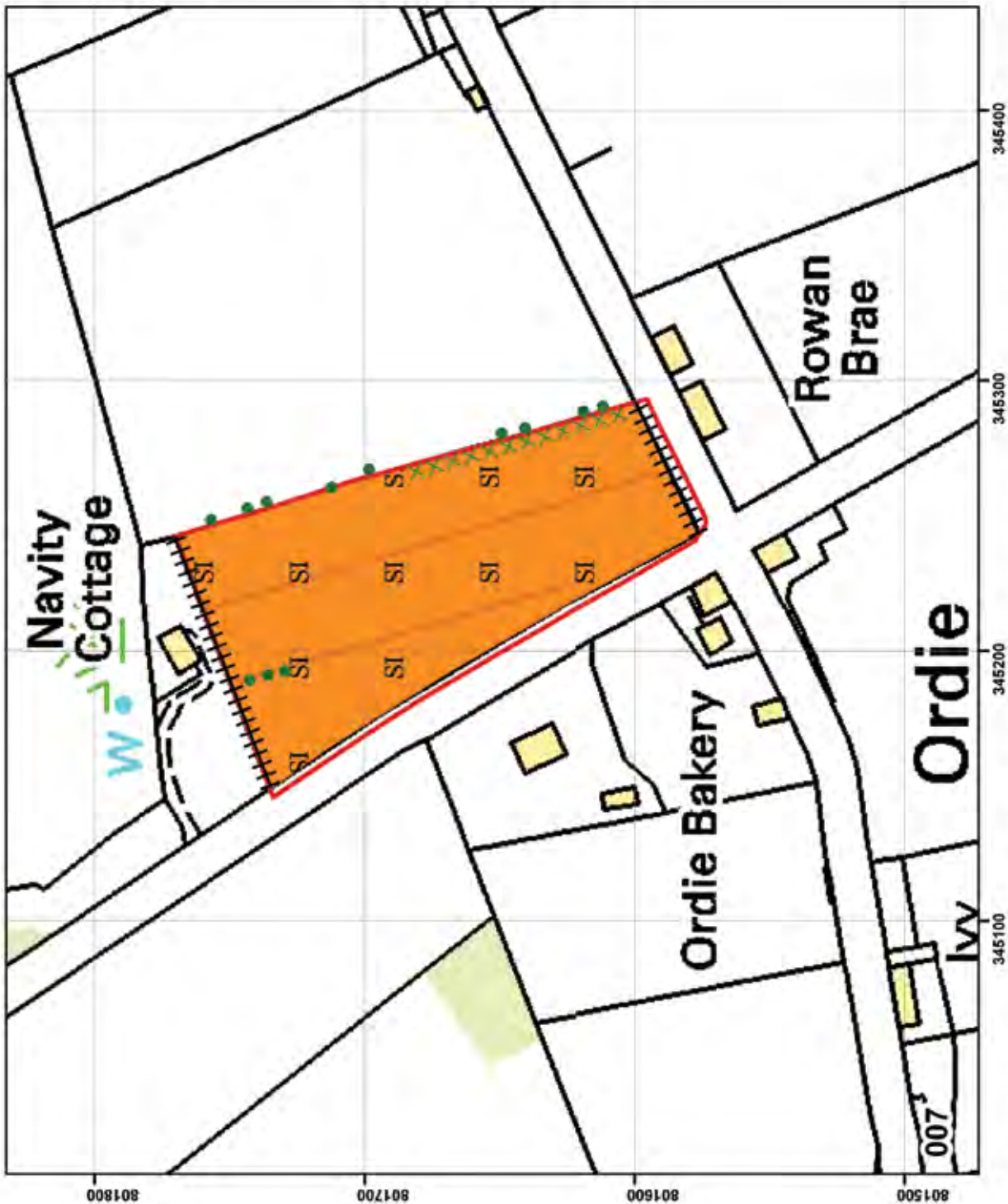
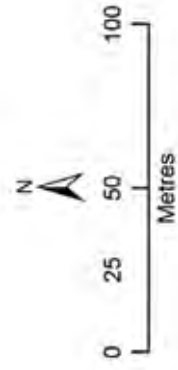
- Broadleaved tree
- Conifer
- Scrub



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Dinnit - Ordie

- Legend**
- Site boundary
 - Phase 1 habitat
 - SI B2.2
 - XXX A2.2
 - HHH J2.4
 - Broadleaved tree



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Reidhaven - Aviemore

Legend
 Study area boundary
 Site boundary

Phase 1 habitat

A1.1.1

A1.3.2

A2.1

B1.1

B1.2

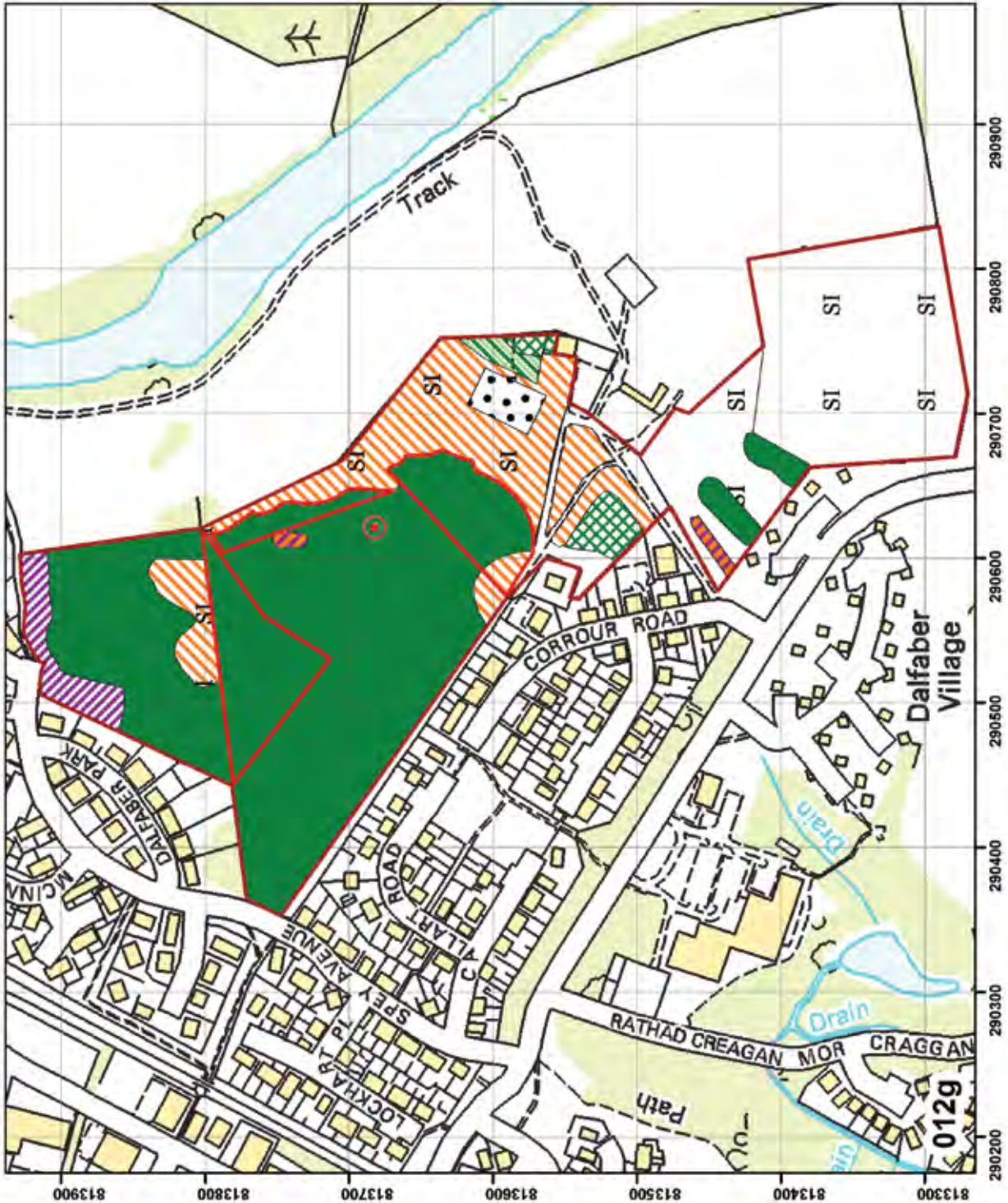
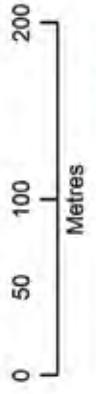
B5

B6

E1.8

J4

Target note



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Rothie Estate sites

Legend

Site boundary

Phase 1 habitat

A1.2.1

A1.2.2

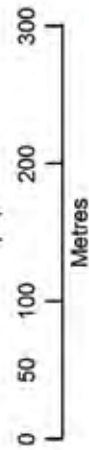
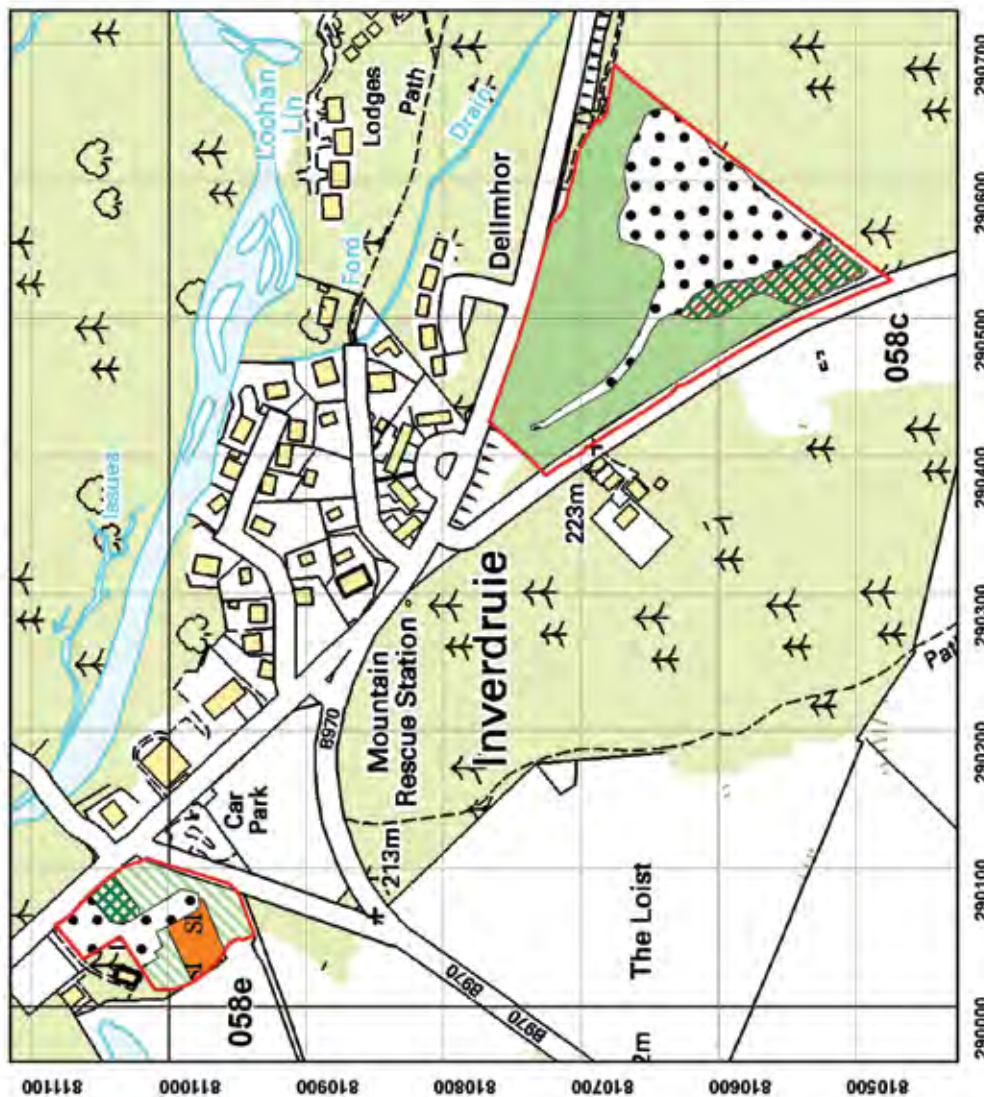
A2.1, A1.2.2

A2.1 C3.1

SI

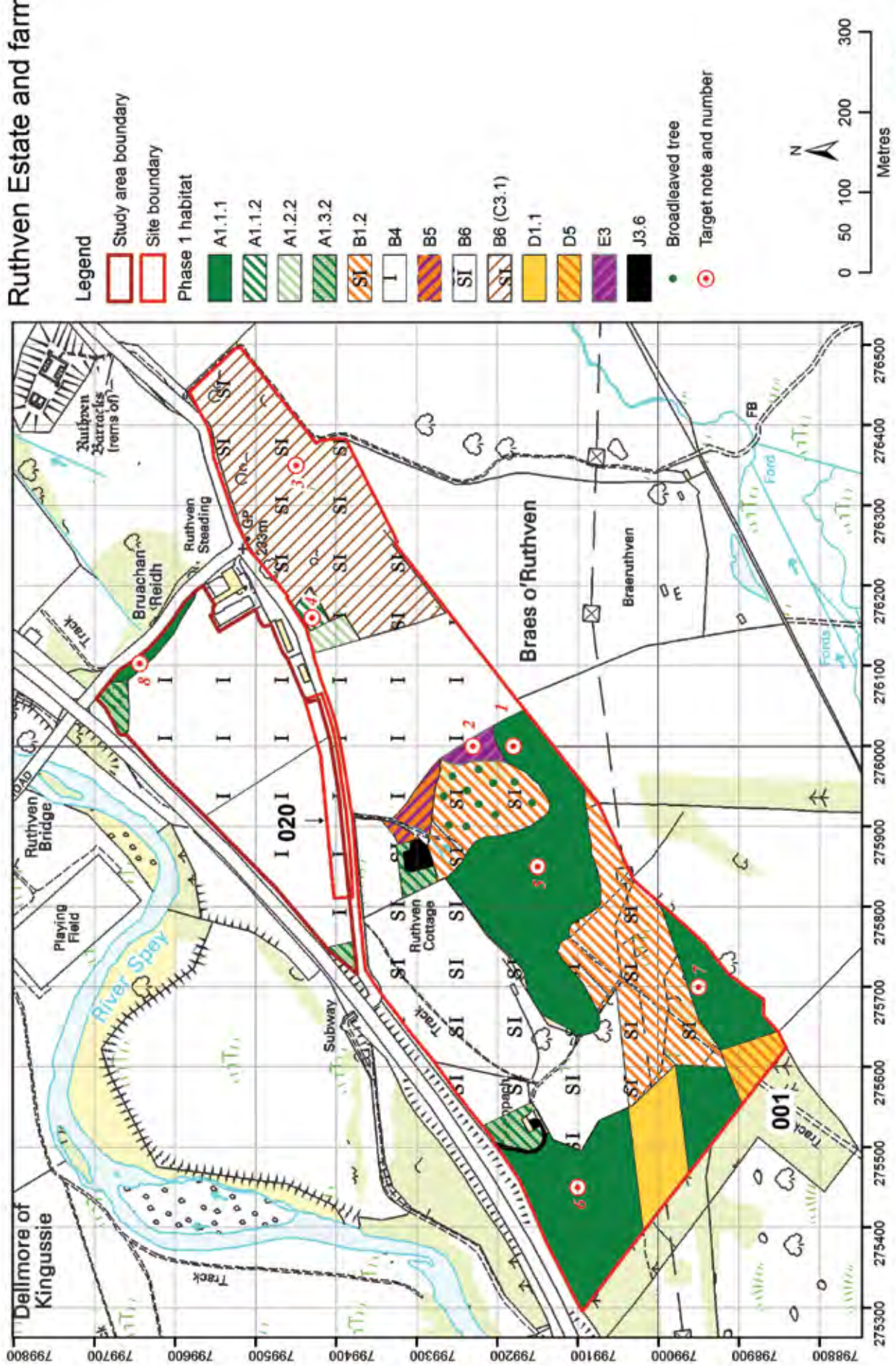
B2.2

J4



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Ruthven Estate and farm



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Appendix 1. Scientific and Common Names of Plant Species cited in the text.

Scientific Name	Common Name	Scientific Name	Common Name
<i>Acer pseudoplatanus</i>	Sycamore	<i>Lepidium villarsii</i>	Smith's pepperwort
<i>Achillea millefolium</i>	Yarrow	<i>Lolium perenne</i>	Perennial rye-grass
<i>Achillea ptarmica</i>	Sneezewort	<i>Lotus corniculatus</i>	Bird's foot trefoil
<i>Aegopodium podagraria</i>	Ground elder	<i>Luzula sylvatica</i>	Great woodrush
<i>Agrostis capillaries</i>	Common bent	<i>Medicago lupulina</i>	Black medick
<i>Alchemilla vulgaris</i> agg.	Lady's mantle	<i>Menyanthes trifoliata</i>	Bogbean
<i>Alnus glutinosa</i>	Alder	<i>Molinia caerulea</i>	Purple moor-grass
<i>Angelica sylvestris</i>	Angelica	<i>Narthecium ossifragum</i>	Bog asphodel
<i>Anthoxanthum odoratum</i>	Sweet vernal-grass	<i>Oxalis acetosella</i>	Wood sorrel
<i>Arrhenatherum elatius</i>	False oat	<i>Phleum bertolonii</i>	Smaller cat's tail
<i>Athyrium filix-femina</i>	Lady fern	<i>Phleum pratense</i>	Timothy-grass
<i>Betula pubescens</i>	Downy birch	<i>Phragmites communis</i>	Common reed
<i>Betula pendulosa</i>	Silver birch	<i>Picea abies</i>	Norway spruce
<i>Calluna vulgaris</i>	Heather	<i>Picea sitchensis</i>	Sitka spruce
<i>Campanula rotundifolia</i>	Harebell	<i>Pinus sylvestris</i>	Scot's pine
<i>Carex nigra</i>	Common sedge	<i>Plantago lanceolata</i>	Ribwort plantain
<i>Carex rostrata</i>	Bottle sedge	<i>Poa pratensis</i>	Meadow-grass
<i>Centaurea nigra</i>	Knapweed	<i>Populus tremula</i>	Aspen
<i>Cerastium holosteoides</i>	Common mouse-ear	<i>Potentilla erecta</i>	Tormentil
<i>Cirsium arvense</i>	Creeping thistle	<i>Prunella vulgaris</i>	Self-heal
<i>Cirsium vulgare</i>	Spear thistle	<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Dactylis glomerata</i>	Cocksfoot	<i>Pyrola media</i>	Intermediate wintergreen
<i>Deschampsia cespitosa</i>	Tufted hair-grass	<i>Ranunculus acris</i>	Meadow buttercup
<i>Deschampsia flexuosa</i>	Wavy hair-grass	<i>Ranunculus repens</i>	Creeping buttercup
<i>Digitalis purpurea</i>	Foxglove	<i>Rubus fruticosus</i> agg.	Bramble
<i>Dryopteris dilatata</i>	Buckler fern	<i>Rubus idaeus</i>	Wild raspberry
<i>Dryopteris filix-mas</i>	Male fern	<i>Rumex acetosa</i>	Common sorrel
<i>Erica cinerea</i>	Bell heather	<i>Rumex acetosella</i>	Sheeps' sorrel
<i>Erica tetralix</i>	Cross-leaved heath	<i>Salix aurita</i>	Eared willow
<i>Eriophorum angustifolium</i>	Common cotton grass	<i>Salix caprea</i>	Goat willow
<i>Fagus sylvatica</i>	Beech	<i>Salix cinerea</i>	Grey willow
<i>Festuca rubra</i>	Red fescue	<i>Sambucus nigra</i>	Elder
<i>Filipendula ulmaria</i>	Meadow sweet	<i>Sedum telephium</i>	Orpine
<i>Fragaria vesca</i>	Wild strawberry	<i>Senecio jacobaea</i>	Ragwort
<i>Fraxinus excelsior</i>	Ash	<i>Danthonia decumbens</i>	Heath-grass
<i>Galium saxatile</i>	Heath bedstraw	<i>Sorbus aucuparia</i>	Rowan
<i>Galium verum</i>	Lady's bedstraw	<i>Stellaria graminea</i>	Lesser stichwort
<i>Gentianella campestris</i>	Field gentian	<i>Succisa pratensis</i>	Devil's bit scabious
<i>Heracleum sphondylium</i>	Hogweed	<i>Teucrium scorodonia</i>	Wood sage
<i>Holcus lanatus</i>	Yorkshire fog	<i>Trichophorum cespitosum</i>	Deer grass
<i>Hypochoeris radicata</i>	Common cat's ear	<i>Trifolium repens</i>	White clover
<i>Juncus acutiflorus</i>	Sharp-flowered rush	<i>Ulmus glabra</i>	Wych elm
<i>Juncus effusus</i>	Soft rush	<i>Urtica dioica</i>	Nettle
<i>Juniperus communis</i>	Juniper	<i>Vaccinium myrtillus</i>	Bilberry
<i>Larix decidua</i>	Larch	<i>Vaccinium vitis-idaea</i>	Cowberry
<i>Lathyrus linifolius</i>	Bitter vetch	<i>Vicia cracca</i>	Tufted vetch
<i>Lathyrus pratensis</i>	Meadow vetchling	<i>Vicia sativa</i>	Common vetch
		<i>Vicia sepium</i>	Bush vetch
		<i>Viola tricolor</i>	Wild pansy

Habitat information - Walk Over Surveys (CNPA Ecologist)**Site 003b**

Improved grassland grazed by horses. Mature riparian trees. River Nethy SAC bounds the site to the west. Housing bounds the site to the north east. River has potential otter habitat.

Site 6a

This site comprises an area of semi-improved grassland, the boundary to the south is mature Scot's pine and bracken. With a large quantity of squirrel feeding remains. The west of the site is dense bracken and gorse providing suitable habitat for badgers. The north and north east is surrounded by a scot's pine woodland, listed as SPA and recorded on AWI. The Alt Mor River (listed as SAC) runs to the south of this site.

Site 6b

Improved grassland, that has been cropped. Mature trees bounding site and houses surrounding the site to the east, north and west.

Site 013

North boundary of site is a line of mature conifers with scattered mature broadleaved trees throughout the rest of the site which is currently grazed by sheep. The eastern edge of the site has mature beech, sycamore and conifer trees. Site is graded as green, although the mature native trees should be retained.

Site 014

North section of site is currently used as a playing field, with short improved grassland and is of low ecological value. The southern section of the site is mature birch woodland with scattered Rowan. Understory is generally tall ruderal vegetation including rosebay willow herb. Site is graded as amber as it has potential to be sensitively developed if mature woodland is retained.

Site 015b

Majority of site is tall ruderal vegetation of common species including rosebay willow herb and nettles. Several mature trees are present. Piles of felled wood were recorded within the patch of ruderal vegetation. The farm steading building is constructed of stone and slate with an addition of a breeze block and corrugated sheeting shed. The original stone built steading provides suitable habitat for bats and barn owls and should be surveyed for these species before any construction/demolition works is undertaken.

Site 015c

Majority of site is grazing/arable land. Tall ruderal vegetation between the field perimeter fence and road with common species including rosebay willow herb and nettles. Several semi-mature rowan and sycamore present.

Site 015d

Site is located within a mature Scot's pine woodland, with good understorey developing. Potential for red squirrels and other mammal species.



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Photography by David Gowans

