Land off Long Hill, Buxton

Ecological Survey Report



May 2011

Issue 1

The author of this Ecological Survey Report is Miranda Cowan. Miranda is a practising professional Ecological Consultant with 10 years experience and has worked on a broad range of development and conservation projects. Miranda has provided consultancy services for well established and highly regarded companies, including Penny Anderson Associates Ltd and URS / Scott Wilson Ltd.

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This Ecological Survey Report has been conducted and prepared in accordance with the IEEM Code of Professional Conduct and under working policies of Jonathan V. Davies, Chartered Surveyors.

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1 INTRODUCTION

Background

This Ecological Survey Report has been prepared on behalf of Mr. Garlick, in respect of his intention to submit a planning application to develop six Eco Lodges on land adjacent to Long Hill, Buxton Derbyshire.

The proposed development area and wider survey area are illustrated on Figure 1. The site is triangular in shape and gently slopes from north to south, with a predominantly south facing aspect. The land is predominantly characterised by rough semi-improved grassland.

It is understood that the six Eco Lodges will be set into the ground and include green roofs that reflect the surrounding landscape character. Access to the dwellings is likely to be via a track running parallel to Long Hill road, with parking facilities to be integrated into the underground design.

Objectives

This Ecological Survey Report serves to fulfil the following objectives:

- establish an ecological baseline for the site;
- assess the potential or confirm actual presence for protected species and / or habitats to occur within or adjacent to the site; and,
- identify ecological constraints and opportunities; and make recommendations for further appraisal and ecological survey where required.

The approach for fulfilling the above objectives has comprised of undertaking a desk study and an Extended Phase 1 Habitat survey, which are detailed in the Methodology section of this report.

2 METHODOLOGY

The methods for undertaking the ecological surveys at land off Long Hill are summarised below.

Desk Study

A desk study was undertaken between April-May 2011 to provide background information on the ecological interest of the site. This is an important element of an ecological study as it complements data collected in the field, by providing additional ecological context for the site and the wider landscape. The desk study extended to 1km radius from survey boundary (see **Figure 1**) and comprised of two elements including a web-based search and consultation with relevant conservation organisations. Web-resources used and organisations consulted included:

- Multi-Agency Geographic Information for the Countryside (MAGIC) website to search for European and National Statutory designated sites, including Special Protected Ares (SPA's), Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNRs);
- Natural England Nature on a Map website http://www.natureonthemap.naturalengland.org.uk/map.aspx?m=nreserves; for citation details associated with any European and Nationally designated sites identified as part of the MAGIC search;
- National Biodiversity Network (NBN) Gateway to search for protected species records;
- The Flora of Derbyshire, checklist, maps and sample accounts: http://www.derby.gov.uk/dccwebdev/museum/flora/flora.aspx?SpeciesID=1245
- Google EarthTM aerial satellite images to identify habitat types and potential wildlife corridors;
- Ordnance Survey (OS) maps (1:25,000 scale) were reviewed to identify water bodies within 500m of the site;
- A review of the UK and LBAP for the High Peak: A Living Landscape - Biodiversity Action Plan for the Peak District; and,
- Consultation with Derbyshire Wildlife Trust (DWT), as recommended by the Derbyshire Biological Records Centre.

Extended Phase 1 Habitat Survey

The Extended Phase 1 Habitat survey broadly followed the standard methodology as detailed in the JNCC publication Handbook for Phase 1 Habitat Survey. A technique for Environmental Audit (2007) and further developed in Guidance for Baseline Ecological Assessment (Institute of Environmental Assessment, 1995).

The site was walked and each habitat type mapped and described. A general plant species list was also compiled, with each species assigned a rank using the 'DAFOR' scale to reflect the (d = dominant; a = abundant; f = frequent; o = occasional; r = rare), relative abundance of a plant species present within each habitat. Target notes (TN) were also used to illustrate areas of ecological interest that were otherwise considered too small to map, or to highlight the location of an invasive plant species.

In this report, the common and scientific name of each botanical species is provided when first mentioned in the text, but only the common name is stated thereafter. Plant names follow Stace (2010). Plates were also taken to illustrate the broad habitats types and/or other features of interest.

Scoping for Protected Species

An Extended Phase 1 Habitat survey enhances the standard methodology by looking for signs of any protected species that may be using the site, or identifying habitats within the site which may be capable of supporting particular protected species. As such the following species were considered as part of the survey:

- Bats: accessing structures for their potential to accommodate bat roosts and suitable habitat for bat foraging;
- Water vole and otter: including searching water courses and marshy areas for riparian activity, including burrows, droppings and feeding remains;
- Badgers: including a search for badgers setts and associated field activity such as pathways, foraging and latrines;
- Reptiles: assessing habitat value for basking and winter hibernation;

- Birds: recording all species heard and seen and assessing habitat value for nesting birds, including species with specific habitat preferences such as ground nesting species; and,

- UK and Local Biodiversity Action Plan (BAP) species.

Wildlife Legislation

Wildlife legislation considered pertinent to the Long Hill site is summarised in **Appendix I**.

3 Survey Findings

Desk Study

Derbyshire Wildlife Trust (DWT) has provided records for both designated sites and protected / notable species. These records are placed in **Appendix II** and are further summarised below.

Due to the potential risk of illegally persecuting badgers (*Meles meles*), the location of Badger setts are not included in this report.

Designated sites

Table 1 summaries both statutory and non-statutory designated sites within the search area. This information has been obtained from data received from DWT, combined with a search of MAGIC and Natural England's, Nature on a Map interactive web based facility.

In Derbyshire there are four tiers of non-statutory sites. These include Local Wildlife Sites (LWS), Potential LWS, other recorded sites of interest and DWT nature reserve.

Table 1: Summary of Statutory and Non-Statutory Designated Sites

Site name and DWT reference code	Designation	Features of Interest	Potential relationship with site
Goyt Valley SSSI and Peak District Moors (South Pennine Moors Phase 1) SPA South Pennine Moors SAC	South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA both contain components of Goyt Valley SSSI.	Designated for supporting important habitats and important populations of upland breeding birds.	The survey site may support populations of upland breeding birds otherwise associated with Goyt Valley SSSI.
Lightwood reservoirs (HP021)	Local Wildlife Site	Standing open water	There are no hydrological connections with Lightwood reservoirs.
Combs Moss (HP023)	Local Wildlife Site	Unenclosed heather moorland and unimproved acid grassland dissected by a number of small streams.	Combs Moss lies in close proximity to the survey area and may function as a complementary habitat for notable species such as ground nesting birds.
Light Wood (HP024)	Local Wildlife Site	Secondary broadleaved plantation	The woodland is located approximately 0.5km and is a typical example of the wider landscape character.
Beet Wood and the Beet (HP170)	Local Wildlife Site	Secondary broadleaved woodland	The woodland is located approximately 0.5km and is a typical example of the wider landscape character.
Brookfield Reservoir HP030/3	Other Recorded Sites of Interest	Steep-sided acidic reservoir, only potential for amphibians is palmate newt (*Titrus helveticus*)	Lies adjacent to the survey area to the west, although with no hydrological connections to the proposed development area.
Corbor Woods (HP019/3)	Other Recorded Sites of Interest	Ancient Woodland Site from the Ancient Woodland Inventory	The woodland is located approximately 0.5km and is a typical example of the wider landscape character.
Otter Hole Farm (no unique code specified)	RIGS	Important geological features.	No habitat connection to the survey area.

In addition to designated site the High Peak Local Plan classifies the proposed development area as Countryside, which is covered by a number of different policies relating to protection of the natural environment and maintaining natural character (http://www.highpeak.gov.uk/planning/localplan.asp)

Protected and Notable Species

Protected and/or notable species identified as part of the desk study and of which could have been historically or currently associated with the proposed development site are summarised in Table 2.

Table 2: Summary of desk study findings for protected and notable species

Species name	No of Records	Location	Date	Status	Comments
Common lizard (*Zootoca vivipara*)	3	SK0575 Lightwood SK053752 Edge of Lightwood towards Cuckoo Tors and moorland SK047734 Buxton, Riversvale Lodge	1976 1989 2001	Partial protection under the Wildlife and Countryside Act 1981 (as amended)	Two key records relate to the sightings at Lightwood, which is located approximately 0.5km east of the site. Old Road bordering the site to the north would not act as a barrier for common lizard to move between surrounding field parcels and so there is potential for this species to occur within the proposed development site.
Pipistrelle (*Pipistrellus pipistrellus*)	1	SK048736, 6 The Paddock, Buxton	1999	Schedule 5 Wildlife and Countryside Act 1981 (as amended) Schedule 2 Conservation of Habitats and Species Regulations (2010) UK & LBAP	The record is approximately 1km from the site, within a dwelling on the edge of Buxton.
Brown Long-eared bat (*Plecotus uritus*)	1	SK041751, Brookfield Cottage, Buxton	2007		This record is located within a dwelling bordering the site to the west. The proposed development site therefore may function as a commuting route and foraging resource for bats.
Water vole (*Arvicola terrestris*)	1	SK046735, Stream that runs through Burbage Golf Course, Buxton.	1997	Schedule 5 Wildlife and Countryside Act 1981 (as amended) UK & LBAP	The record occurs approximately 1km to the south. Whilst there are small watercourses close to the site boundary, the site itself does not contain water features that could accommodate water vole.
Birds species (see Appendix I)	12	Light Wood and Light Wood reservoir	1980 - 2005	Wildlife and Countryside Act 1981 (as amended) UK BAP *Red/Amber RSPB list	The site may support notable ground nesting bird species which are of key conservation concern and listed on the LBAP
Marsh lousewort (*Pedicularis palustris*)	1	SK054751, Lightwood Reservoir	1995	Locally Rare Derbyshire Red Data Book plant species	A rare native species associated with wet meadows and marsh habitats. There are no wet habitats within or immediately surrounding the site and so this species is not considered to act as a ecological constraint.

**Birds of Conservation Concern 3 (Red high conservation concern, Amber: Medium conservation concern; Green: favourable conservation status)*

http://www.rspb.org.uk/wildlife/birdguide/status_explained.aspx

In addition to species listed in Table 2, records DWT have been provided for Badger (*Meles meles*) setts. Due to the risk of illegal persecution of badgers, the location of badger setts have not been presented in this report. It can be confirmed, however, there are no known badger sett records on or close to the study site.

Similarly, there are no ponds occurring on or within 500m of the site and no records to indicate the presence of great crested newts (gcn) (*Tritusus cristatus*), or other amphibians of conservation interest.

Phase 1 Habitat Survey

The Extended Phase 1 Habitat survey findings are illustrated on **Figure 2**, with a corresponding plant species and photographic plates presented as **Appendix III**.

The survey area is largely characterised by grazed semi-improved neutral grassland, with a narrow band of broad leaved plantation occurring along the sites north-east and south-west perimeter. A defunct stone wall runs parallel with the plantation and is likely to form the sites original defining boundary and there is also a small defunct wall within the proposed development area. There are a number of scattered trees in the south-east corner of the site, as well an area of gorse (*Ulex Europaeus*). There is also a shallow low lying linear ditch in the centre of the site, which supports marshy grassland.

It is important to note that the invasive plant species Japanese knotweed (*Fallonipca japonica*) occurs on site. This is marked as TN1 on **Figure 1** and is approximately 8 x 4m in size, although the underground rhizomes are likely to extend out at least 8m further from the outer perimeter of the Japanese knotweed stand.

Semi-improved neutral grassland (Plate 1)

Semi-improved grassland constitutes the most extensive habitat, which is species poor and maintained as rough grazing pasture (and / or possibly periodically cut). Grass species dominate over herbaceous plants and include crested dog's-tail (*Cynosurus cristatus*), cock's-foot (*Dactylis glomerata*), perennial rye-grass (*lolium perenne*), Yorkshire-fog (*Holcus lanatus*) and tufted hair-grass

(*Deschampsia cespitosa*). The grass structure is tussocky and uneven in localised areas, particularly in relation to where the ground is more sloping and uneven. Across the more flatter areas of the site, the grassland has a more even structure.

Herbaceous plant species occur sporadically throughout and include common sorrel (*Rumex acetosa*), common mouse-ear (*Cerastium fontanum*) and creeping buttercup (*Ranunculus repens*). Pignut (*Conopodium majus*) is also present, although is very rare.

Marshy grassland (Plate 2)

This habitat is likely to fall outside the proposed development area and is separated out from semi-improved grassland due to the frequent presence of soft rush (*Juncus effuses*) and Yorkshire fog, indicating damper ground conditions, as would be expected in a lower lying area. Broadleaved dock (*Rumex obtusifolius*) is also a frequent species within the marshy grassland.

Tall Ruderal (Plate 3)

This habitat occurs on the sites north-western boundary and outside the proposed development area. Species that define this area include common nettle (*Urtica dioica*), great willowherb (*Epilobium hirsutum*), rosebay willowherb (*Chamerion angustifolium*), and creeping thistle (*Cirsium arvense*).

Broad-leaved plantation (Plate 4)

The plantation is young, possibly 10-15yrs old with regularly spaced tree and shrub specimens. Tree species include ash (*Fraxinus excelsior*), beech (*Fagus sylvatica*) and maple (*Acer campestre*) and sweet chestnut (*Castanea sativa*). The scrub species include hawthorn (*Crateagus monogyna*) and blackthorn (*Prunus spinosa*).

Scattered trees (Plate 5)

The scattered trees fall within the proposed development area (south-east corner), occurring also along the site boundary, where the defunct stone wall is located. All specimens area semi-mature and include sycamore (*Acer pseudoplatanus*), beech and elm (*Ulmus* sp.).

Continuous scrub (Plate 6)

The area of continuous scrub partly falls within the proposed development area and is dominated by gorse.

Wet flush

A small wet flush is present in the south-west corner of the survey area (not within the proposed development area), close to the area of Japanese knotweed (TN1, Figure 2). Running north to south the flush enters the site via a small pipe and then extends for approximately 3m before passing into a small culvert that extends under Long Hill road.

Protected / Notable Species

No field evidence associated with protected species was observed during the survey.

The notable bird species curlew (*Numenius arquata*) was observed in the grassland, adjacent to the area of tall ruderal. Curlews breed in open habitats throughout the Peak District, feeding on a range of invertebrates, in both tall and short vegetation.

In addition, common and widespread bird species were observed, including robin (*Erithacus rubecula*), black bird (*Turdus merula*) and magpie (*Pica pica*).

4 Evaluation

Habitats

The habitats on site are species poor and do not support notable plant species. The broadleaved plantation is currently young, with a poor structure, although will develop structural diversity overtime.

With enhancement the rough semi-improved grassland could fulfil criteria of the LBAP habitat for rough grazing (open grassland on the moorland edge). Whilst this LBAP is primarily associated with unimproved grassland, semi-improved grassland is also considered important for supporting populations of birds and small mammals.

The scattered trees on site are semi-mature and do not retain features of interest (i.e. decaying branches with fungi, woodpecker holes or split trunks).

The stone wall surrounding the site is defunct and depending upon the extent of the development, the presence of Japanese knotweed could form a constraint (see **Appendix I**).

Protected / Notable Species

The Evaluation for protected / notable specie is summarised in Table 3.

Table 3: Evaluation of Protected / Notable Species

Species	Comments
Bats	The semi-mature trees have no suitable features to accommodate roosting bats. The desk study has highlighted the presence of brown long-beard bat cottage and so it is possible the habitats collectively provided bat foraging opportunities.
Riparian mammals (i.e. water vole)	The wet flush is small and does not support riparian habitat favoured by riparian mammals. The hydrological connections are also considered poor, particularly as the culverts are small <30cm diameter.
Badgers	No badger setts of field activity associated with badgers was observed, although the site does hold potential to accommodate this species.
Reptiles	The south facing aspect, combined with the variable structure of the grassland provides opportunities for reptiles, namely common lizard. Common lizard was also identified as part of the desk study and so there is potential for this species to be present on site.
Amphibians	There are no water bodies present on site. There are water bodies within 500m to the south, although they have no hydrological connections to the site itself. Long Hill road is also likely to act as a barrier to amphibian dispersal.
Birds	The varied structure of the grassland has potential for ground nesting birds, particularly in the western half of the site, which is more open. The core area for development is more enclosed and of less value for ground nesting birds. The sites potential is enhanced by its proximity to moorland and areas such as Peak District Moors (South Pennine Moors Phase 1) SPA, which are designated for their bird interest. Curlew is a LBAP species and is considered as being a species of interest within the South Pennines Moors SPA. The plantation, semi-mature trees and scrub habitat on site could also accommodate more common and widespread nesting bird species.

5 Conclusions and Recommendation

Habitats

The survey and evaluation for the proposed development has identified the site to support species poor habitats, with no notable plant species recorded. The site as a whole however, has some value in terms of its position within the landscape, particularly in the context of moorland fringe habitat. With this in mind, it is considered important to ensure that the proposed development seeks to ensure the natural landscape character is retained, and where possible, seek to enhance existing habitats in accordance with the LBAP conservation targets.

A key consideration for the proposed development relates to the presence of Japanese knotweed, which is listed as an invasive species on Schedule 9 of the Wildlife and Countryside Act (1981, as amended). The constraint in respect of Japanese knotweed is likely to occur with regards to construction of the proposed access track, involving excavating soil and consequently causing further spread of this species.

Options for dealing with Japanese knotweed include a) avoidance or b) eradication. Avoidance would involve establishing a restricted access zone of 8 metre radius from the outside edge of the stand, thus taking into account the potential extent of under ground rhizomes. This may require adapting the development plans accordingly.

Eradication would need to be accompanied with a Japanese Knotweed treatment strategy and would be subject to strict legal provision relating to on site or off site treatment (see **Appendix I**).

Wider enhancement considerations relate to re-building the defunct stone wall and creating species rich green roofs, which reflect and enhance the natural surrounding landscape. It is recommended that the broadleaved plantation is retained, although future management of trees (i.e. pollarding) could be considered to ensure a longer term vision for landscape enhancement.

Protected / Notable Species

Reptiles

In order to ensure a robust baseline for the forthcoming application and to minimize the potential for future objections it is recommended that a reptile survey is undertaken over the summer/autumn period 2011.

The reptile survey would initially comprise of five survey visits to determine presence/absence. If absence is confirmed, then no further survey effort would be required. However, if presence is confirmed, an additional ten visits will be required (15 in total) to determine the reptile population size. This level of survey effort is required as basis for guiding future mitigation, such as relocating reptile species to an alternative location during the site clearance on construction phase of the development.

The survey involves placing out artifical refugia as a means for enticing reptiles to bask (e.g. 0.5m x 0.5m squares of black roofing felt and corrugated metal). The refugia will be placed within and surrounding the proposed development area, within favourable locations such as the interface between short and tall dense grass. Reptiles are attracted to such refuges and either hide beneath them, or bask on their upper surface.

The survey would need to be undertaken during suitable weather conditions, comprised of days with patchy cloud and intermittent sunshine (no persistent rain, with a temperature of between 9ºC and 18ºC). Reptiles will bask for longer periods during these conditions, thus are more visible.

Birds

The wider survey area that encompasses open grassland habitat has greater value for ground nesting birds than the area for where the development is proposed. It is important to consider however, that the development recognises to the wider landscape value for ground nesting birds, particularly in respect of the sites proximity to designated moorland habitat.

The development site encompasses continuous scrub and scattered trees. These habitats have potential to accommodate birds during the breeding bird season, which is taken to fall between March – September, depending on local climatic conditions. In this respect, any site clearance work is recommended to take place outside the breeding bird season, which would also need to be balanced against other ecological factors, such as the potential presence of reptiles.

6 References

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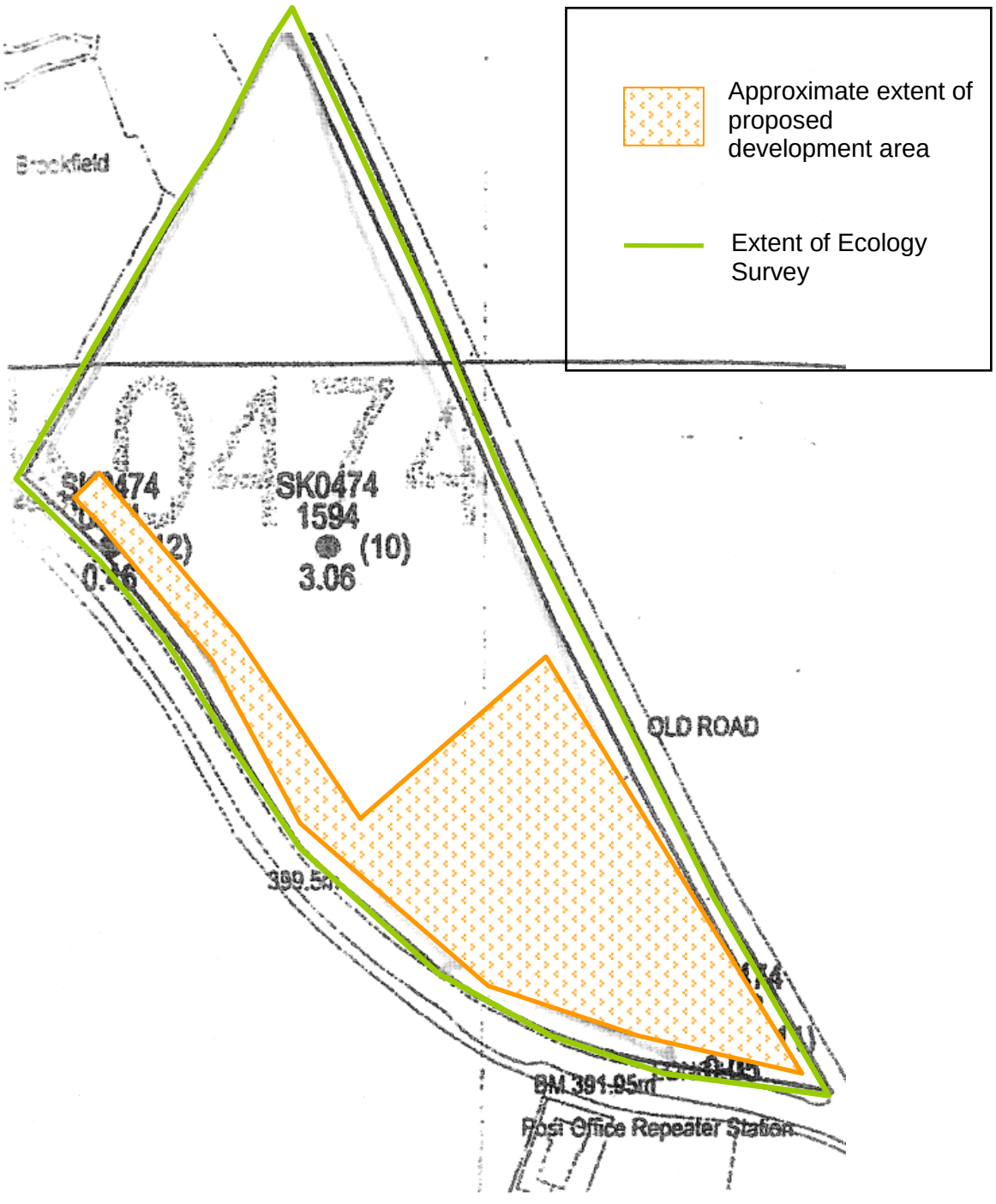
The Flora of Derbyshire, Checklist, Maps and Sample Accounts http://www.derby.gov.uk/dccwebdev/museum/flora/flora.aspx?ShowMap10k=1245

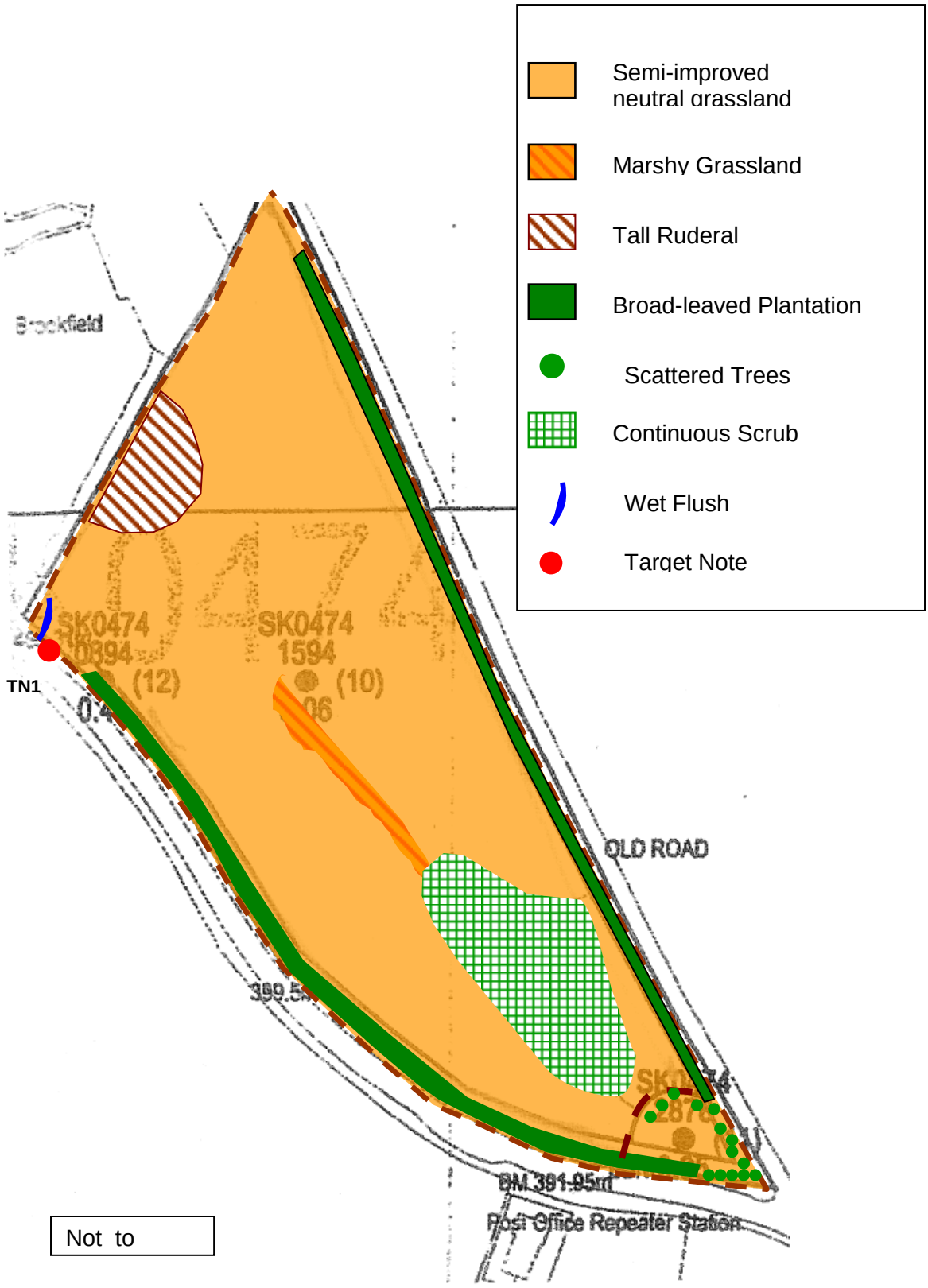
LBAP: A Living Landscape - Biodiversity Action Plan for the Peak District. Accessed 1st May 2011. http://www.derbyshirebiodiversity.org.uk/lbaps/peak-district.php

Figure 1: Site Location



Not to

Figure 2: Phase 1 Habitat Plan



Appendix I: Wildlife Legislation

A range of international and national legislation is established to protect important nature conservation sites and important species.

At the international level the European Union has implemented wildlife legislation in the form of Directives, which require member states to implement their provisions nationally for the benefit of Europe as a whole. Two Directives aim to implement the EU's obligations under the Bern Convention (The Convention on the Conservation of European Wildlife and Natural Habitats, 1979):

- EU Directive 79/409/EEC, the EC Directive on the Conservation of Wild Birds (the 'Birds Directive') requires Member States to maintain favourable conservation status of all wild birds across their territories. It also requires the most important ornithological sites (usually wetlands) to be protected through designation as Special Protection Areas (SPAs).

- EU Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (the 'Habitats Directive') requires Member States to maintain or restore natural habitats and wild species at a favourable conservation status introducing robust protection for those habitats and species of European importance. It requires selected/qualifying sites to be designated as Special Areas of Conservation (SACs) and identifies a suite of European Protected Species, which must be conserved across their natural ranges.

The EC Birds and Habitats Directives have been transposed into UK law by The Conservation of Habitats and Species Regulations 2010.

At the national level, the Wildlife & Countryside Act 1981 (as amended) and as further amended in the Countryside & Rights of Way Act 2000 protects important habitats and sites as Sites of Special Scientific Interest (SSSI).

In addition, Planning Policy Statement 9 (PPS9) Biodiversity and Geological Conservation is a national Planning Policy Statement requires protected habitats, species and sites; and species and habitats of principal importance (Natural Environment and Rural Communities Act (NERC) Act 2006) in England, to be taken into account fully when determining whether planning permission should be granted. Biodiversity is therefore a critical material consideration to be

considered during the planning determination period, as is the requirement for the LPA to actively seek to provide ecological enhancement within any given development proposal.

Specific species legislation is summarised below.

Bats

All bat species and their roosts are protected in the UK under Schedules 5 & 6 of the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CRoW) Act 2000; and the Conservation of Habitats and Species Regulations 2010. The relevant sections of this legislation make it an offence to:

- deliberately (intentionally) damage or destroy any breeding site or resting place (i.e. bat roost);
- deliberately or recklessly obstruct access to any bat roost;
- deliberately, intentionally or recklessly disturb a bat (1) whilst it is occupying a structure or place which it uses for that purpose or (2) in such a way as to be likely to significantly affect the ability of any significant group of animals of that species to survive, breed, or rear or nurture their young or (3) in such a way as to affect the local distribution or abundance of that species; and
- deliberately (or intentionally) kill, injure or capture (or take) a bat.

Breeding birds

The Wildlife and Countryside Act (1981) (as amended), together with the CRoW Act 2000 makes it an offence (with exception to species listed in Schedule 2) to;

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- intentionally take or destroy the egg of any wild bird;
- have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954;
- have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954;
- use traps or similar items to kill, injure or take wild birds;
- have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations; and,
- intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Special penalties are available for offences related to birds listed on Schedule 1.

Reptiles

All native reptiles receive some legal protection in Great Britain, arising from the following legislation:

- Wildlife and Countryside Act 1981 (as amended) and the Nature Conservation (Scotland) Act 2004.
- Conservation of Habitats and Species Regulations 2010.

In England and Wales all reptile species are listed on schedule 5 of the 1981 Act. The more threatened species are also listed on schedule 2 of the 2010 Regulations, which designate them 'European protected species'.

The legislation effectively creates two levels of protection. The European protected species, the sand lizard and smooth snake, receive strict protection. It is an offence to capture, possess, disturb, kill, injure, or trade in individuals of these species. In addition, it is an offence to damage or destroy the places they use for breeding or resting.

The remaining species (viviparous lizard, slowworm, grass snake and adder) are protected against killing, injuring and unlicensed trade only. The legislation applies to all life stages of wild animals.

Japanese Knotweed

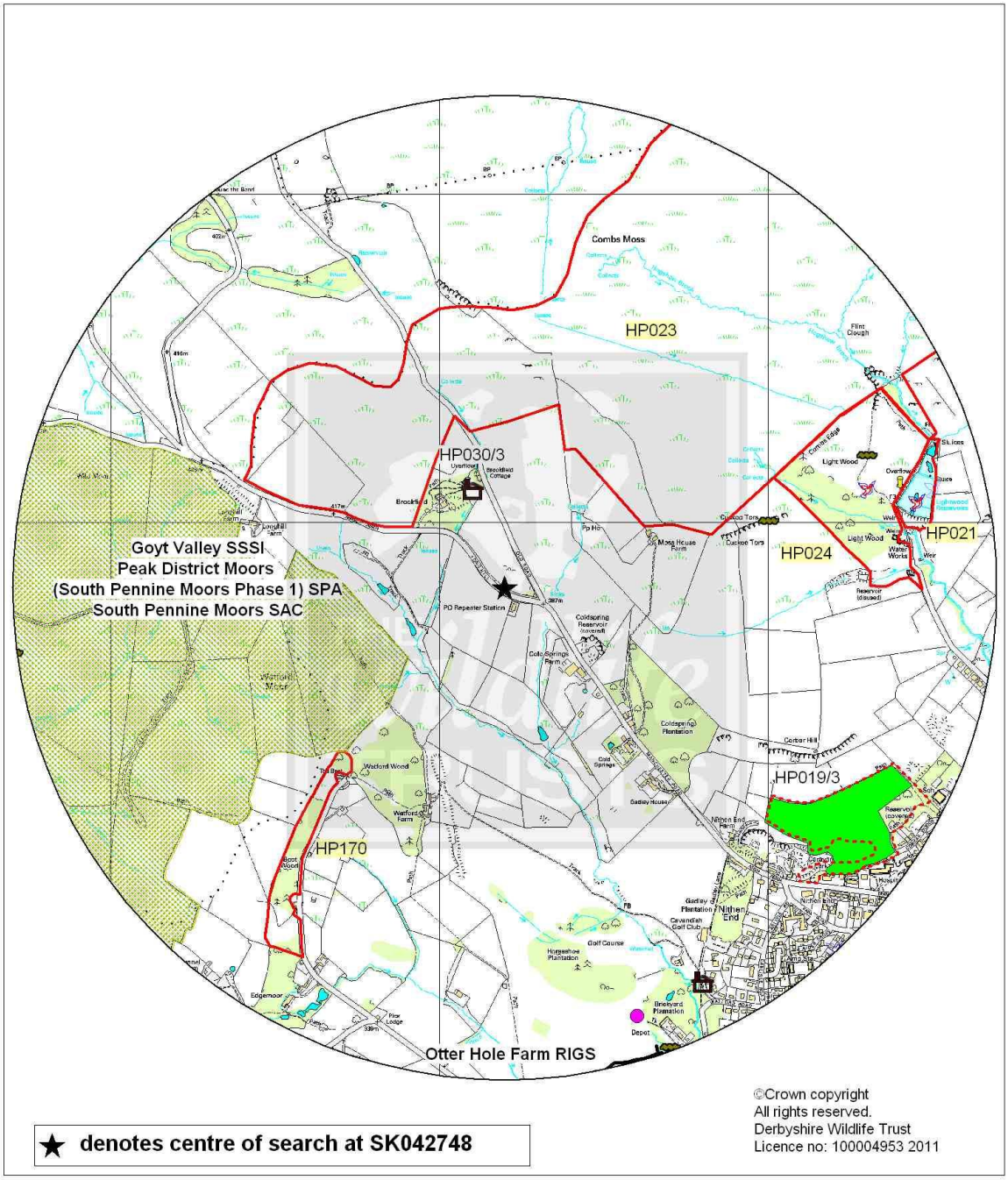
Japanese knotweed is listed under Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended), which makes it an offence to '…plant or otherwise cause Japanese knotweed to grow in the wild'. This includes spreading or transferring knotweed contaminated soil from one area to another. Estate Managers and landowners have a duty to pro-actively treat knotweed outbreaks.

The Environmental Protection Act 1990 (EPA 1990) also imposes a duty of care on persons concerned with controlled waste, which includes any materials incorporating Japanese knotweed including soil, grass cuttings, general wastes and ash arising from the burning of knotweed. The duty applies to any person who produces, imports, carries, keeps, treats or disposes of controlled waste. Failure to appropriately dispose of any material containing Japanese knotweed may lead to prosecution under Section 33 and 34 of the EPA 1990 and Section 14 (2) of the Wildlife & Countryside Act 1981 (as amended).

Waste must be handled responsibly and in accordance with the law at all stages between its production and final recovery or disposal. Waste must be transferred to an authorised person, who is either a registered waste carrier or exempted from registration by the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991.

If knotweed stands are to be treated with herbicides, The Control of Pesticides Regulations (1986) apply. These regulations require any person who uses a pesticide to take all reasonable precautions to protect the health of human beings, creatures and plants, safeguard the environment and in particular avoid the pollution of water. If pesticides are to be used in or near to a watercourse, the Environment Agency should be contacted and approval must be sought (application to use herbicides in or near water).

Appendix II: Desk Study Data

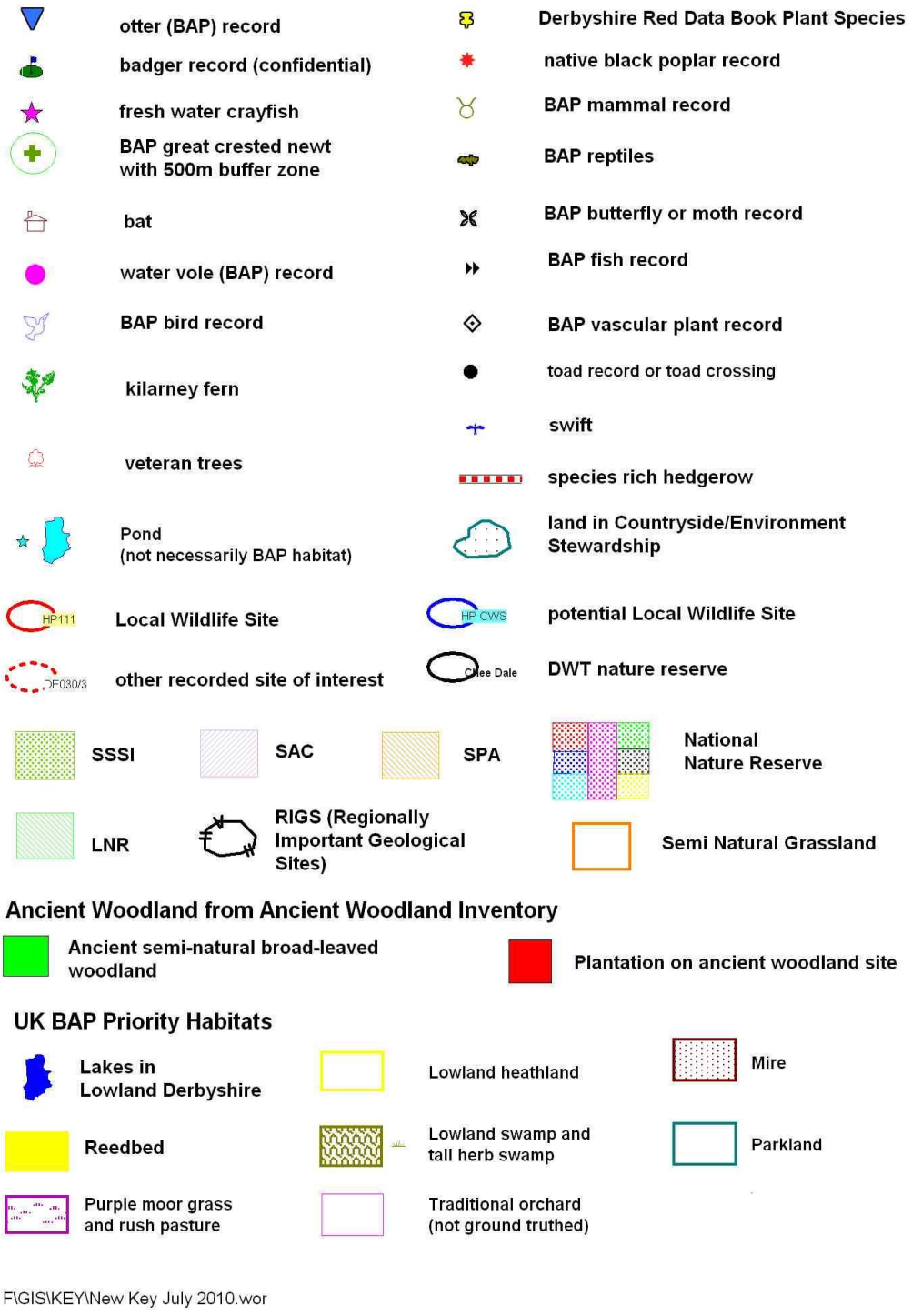


Produced for Jonathon V Davies
Chartered Surveyors
by Derbyshire Wildlife Trust
5 April 2011

Derbyshire

GENERAL KEY TO GIS MAPS

NB Not all these symbols may appear on the map supplied



F\GIS\KEY\New Key July 2010.wor

Water vole records

OS Grid Ref	Location	Watercourse	Date
SK046735	Stream that runs through Burbage Golf Course, Buxton.	Un named stream	1997

Bat roost records

Species	OS Grid Ref	Location	Date
Pipistrelle	SK048736	6 The Paddock, Buxton	1999
Brown Long-eared bat	SK041751	Brookfield Cottage, Buxton	2007

UK BAP Bird species

Species	Location	Grid Ref	Date
Spotted Flycatcher	Lightwood Reservoirs	SK05457506	1986
Cuckoo	Lightwood Reservoirs	SK05457506	1986
Tree Pipit	Lightwood Reservoirs	SK05457506	1986
Curlew	Lightwood Reservoirs	SK05457506	1986
Skylark	Lightwood Reservoirs	SK05457506	1986
Reed Bunting	Lightwood Reservoirs	SK05457506	1986
Curlew	Lightwood Reservoirs	SK055751	1991
Yellowhammer	Light Wood	SK053751	1980
Tree Pipit	Light Wood	SK053751	1980
Redpoll	Light Wood	SK053751	1980
Spotted Flycatcher	Light Wood	SK053751	1980
Song Thrush		SK052737	2005

UK BAP species

Common lizard	OS Grid Ref	Location	Date
Common Lizard	SK0575	Lightwood, Buxton	1976
Common Lizard	SK053752	Edge of Lightwood towards Cuckoo Tors and moorland	11-May-89
Common Lizard	SK047734	Buxton, Riversvale Lodge	Jul-01

Locally Rare (DRDB) plant species

Latin	Common	Location	OS Grid Ref	Date
Pedicularis palustris	Marsh Lousewort	Lightwood Reservoir	SK054751	1995

Ponds (not necessarily UK BAP habitat)

SSSI

Goyt Valley

SPA
Peak District Moors (South Pennine Moors Phase 1) SPA

SAC
South Pennine Moors SAC

RIGS (Regionally Important Geological Sites)

Name	Interest
Otter Hole Farm	Rare, complex and little understood Hydrology. Powerful Stream Resurgence. Dye tested connections with Stanley Moor Swallets, Shay Lodge Sinks? etc

Local Wildlife Sites

Ref No	Name	Area (ha)	Ecological feature
HP021	Lightwood Reservoirs	2.07	Standing open water
HP023	Combs Moss	245.91	Heather moorland
HP024	Light Wood	14.68	Secondary broad-leaved plantation
HP170	Beet Wood and The Beet	4.18	Secondary broad-leaved woodland

Other recorded sites of interest

Name	Ref No	Area (ha)
Brookfield Reservoir	HP030/3	0.09ha
Corbar Woods	HP019/3	8.09ha

Ancient Woodland Site from the Ancient Woodland Inventory

Ancient & Semi-Natural Woodland

Derbyshire Local Wildlife Sites Register

Site Ref: HP023 **Site Name:** Combs Moss

Site Description: **O S Grid Ref:** SK 0513 7588 **Area:** 245.9 ha

Combs Moss supports a large area of unenclosed moorland and unimproved acid grassland dissected by a number of small streams. The moorland is characterised by heather, common cotton-grass, crowberry, cranberry and the grasses mat grass, wavy hair grass and purple moor-grass. Tormentil, heath bedstraw and common marsh bedstraw are also present. Casual records for birds suggest the site is significant for a number of upland breeding birds.

Selection Codes:	Selected Ecological Features:
HM1	Heather moorland
HM4	Upland mire
Gr3	Unimproved acid grassland
Bi5?	Bird assemblage

Brief Comments on Ecological Features:

The ecological interest supported by the site is focused on the moorland and mire communities present. Further survey work is required to assess the distribution of different communities across the site. Older records indicate that the site may once have supported breeding curlew, snipe, whinchat, ring ouzel, lapwing, golden plover and possibly black grouse. Up to date information on the breeding birds present at the site is required for a more accurate appraisal of the ornithological interest.

Derbyshire Local BAP Area:
Peak District BAP

Natural Area:
South West Peak

Habitat:
Heather moorland
Upland mire
Unimproved acid grassland
Tall-herb - bracken (S)

Geology:
Gritstone

NVC Communities:

Derbyshire Red Data Book Species: ☐ **UK BAP Species:** ☐
Protected Species: ☐ **Greenprint Species:** ☐
LBAP Species ☐
Species list and/or report available: ☑

Current Management:
No details known

Date of Registration
1984

The Local Wildlife Sites System and Register is maintained by DWT on behalf of the Local Authorities.
Further details can be obtained from DWT, East Mill, Bridge Foot, Belper, Derbyshire DE56 1XH.

THE wildlife TRUSTS
Derbyshire

Date printed: 06/05/2011

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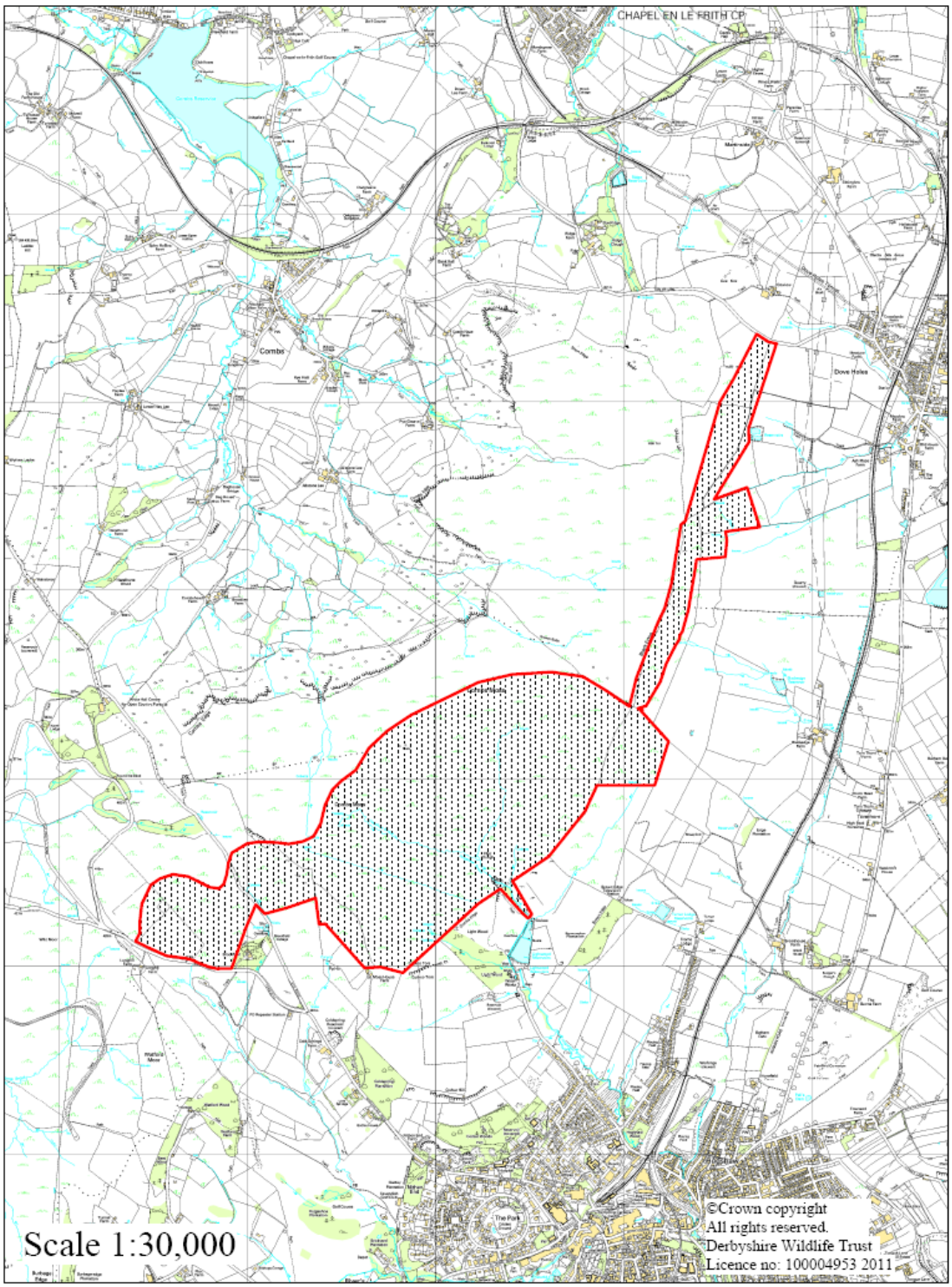

HP023 Combs Moss

Derbyshire

Appendix III: Plant Species List and Photographic Plates

Habitat		Semi-improved neutral grassland	Marshy grassland	Tall Ruderal	Broad leaved plantation	Scattered Trees	Continuous scrub	Wet flush
Woody Species								
Ash	*Fraxinus excelsior*				o			
Beech	*Fagus sylvatica*				f	o		
Blackthorn	*Prunus spinosa*				o			
Bramble	*Rubus fruticosus* agg.						o	
Gorse	*Ulex europaeus*						d	
Hawthorn	*Crataegus monogyna*				o			
Sycamore	*Acer pseudoplatanus*					f		
Sweet chestnut	*Castanea sativa*				f			
Elm species	*Ulmus* sp.							
Herbaceous species								
Broad-leaved dock	*Rumex obtusifolius*	lo	f	o				
Brooklime	*Veronica beccabunga*							f
Cleavers	*Galium aparine*			o				
Colt's-foot	*Tussilago farfara*	lr						
Common mouse-ear	*Cerastium fontanum*	o						
Common nettle	*Urtica dioica*			o				
Common sorrel	*Rumex acetosa*	o						
Cow parsley	*Anthriscus sylvestris*	r		r				
Creeping buttercup	*Ranunculus repens*	o						
Creeping cinquefoil	*Potentilla reptans*							
Creeping thistle	*Cirsium arvense*	o						
Cuckooflower	*Cardamine pratensis*	r						
Daisy	*Bellis perennis*	r						
Dandelion	*Taraxacum officinale* agg.	r-o						
Field wood-rush	*Luzula campestris*	o						
Great willowherb	*Epilobium hirsutum*			f				
Marsh thistle	*Cirsium palustre*	r						
Meadow buttercup	*Ranunculus acris*	r						
Pignut	*Conopodium majus*	r						
Ribwort plantain	*Plantago lanceolata*	r-o						
Rosebay willowherb	*Chamerion angustifolium*		r	r				o
Yarrow	*Achillea millefolium*	o						
Grasses, Sedges, Rushes								
Cock's-foot	*Dactylis glomerata*	f						
Common bent	*Agrostis capillaris*	r						
Creeping bent	*Agrostis stolonifera*	r-lo						
Crested dog's-tail	*Cynosurus cristatus*	f	o					
Perennial rye-grass	*Lolium perenne*	o						
Red fescue	*Festuca rubra*	r						
Rough meadow-grass	*Poa trivialis*							
Soft rush	*Juncus effusus*	lr	f					
Tufted hair-grass	*Deschampsia cespitosa*	lr						
Yorkshire-fog	*Holcus lanatus*	o-f	f					

Plate 1: Semi-improved neutral grassland	Plate 2: Marshy grassland
	
Plate 3: Tall ruderal	Plate 4: Broad-leaved plantation
	
Plate 5: Scattered trees	Plate 6: Continuous scrub
	
Plate 7: Stream	Plate 8: Japanese knotweed
	