Report of ecology & protected species survey of site off Hallsteads, Dove Holes, Derbyshire



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1 Introduction

Jalo Enterprises Co. Ltd, through Freeth Cartwright LLP, has commissioned Tim Smith, a freelance ecologist, to undertake an ecology and protected species survey of a site off Hallsteads at Dove Holes in Derbyshire, as part of an application to High Peak Borough Council for outline planning consent for residential development. This text, with photographs, comprises the ecology and protected species report.

Tim Smith has BSc (Hons) Ecology from Lancaster University and he has 30 years' experience of working in the ecology and nature conservation fields, with Local Authorities, Statutory Nature Conservation Bodies, Voluntary Nature Conservation Bodies and various Ecological Consultancies. He is currently a freelance ecologist, based in Horncastle in Lincolnshire.

2 Survey methods

A standard walk-over ecology and protected species survey was undertaken. This comprised the recording and mapping of habitats; the recording of plants species (including searching for notable native species and invasive alien plants, such as Japanese knotweed); and the searching of the site for signs of use, or the potential for use, by protected species. Photographs were taken. The survey was undertaken on 1 February 2013.

A search for existing ecology and protected species records for the site and immediate environs was undertaken by reference to the Nature on the Map, MAGIC and National Biodiversity Network (NBN) websites. Also, a consultation was undertaken with Derbyshire Wildlife Trust (DWT) for any records they held for the site and immediate environs, with a 1km search radius from the site centre.

3 Site description

3.1 Location, adjacent land and boundaries

The site is located on the east side of Hallsteads (the A6) at Dove Holes near Buxton in Derbyshire. The grid reference of the site is SK 078 786.

The site extends to c4.05ha.

To the west there are houses and gardens, and an area of improved grassland crossed by a public footpath. To the north there is a road (the A6) and an old railway cutting. To the south there are relatively newly built houses and gardens. To the east there are old long abandoned limestone quarries beyond which there are farms and agricultural land.

The Nature on the Map and MAGIC web sites show that the site has no statutory nature conservation designation and no such site is adjacent or within at least 1km.

Information from DWT shows that the site has no non-statutory nature conservation designation. The old quarried land immediately to the east however is a Local Wildlife Site (LWS) termed Ridgeclose Rocks and Grassland. It is lightly horse-grazed grassland with some scrub and rock outcrops left over from the quarrying. The LWS Sites Register describes this area as comprising species-rich limestone grassland with a wide range of typical limestone plants and with some taller damp grassland in the seasonally wet floor of the old railway cutting. The LWS abuts all of the site's eastern side.



Adjacent Ridgeclose Rocks and Grassland LWS

Two other LWS occur within c1km of the site. These are Longridge Lane Fields, the nearest part of which is c750m south of the site, and Dove Holes Spoil Heaps, which is located c750m south-east from the site. Each of these sites supports limestone grassland. The site does not lie within the Peak District National Park, although the National Park boundary is close to the site to the north and north-west.

The western site boundary is mostly a remnant post and wire fence; there are gaps and parts of the fence have collapsed, and the route of the public footpath is marked by a wooden stile.



General view north along the fenced western boundary

In the north against the adjacent houses and gardens, the western site boundary variously comprises a short length of stone wall, a post and wire fence with some conifers behind, and a combined post and wire and wooden fence. The northern site boundary against the A6 is an unmortared stone wall with post and wire fence. Some sparse bramble occurs along the base of the wall. The southern site boundary is partly a stone wall with metal gate, partly a wooden fence with conifers behind and partly it is the side of an adjacent new stone building and a new stone wall.



Stone wall section of western boundary



Post and wire and wooden fence on western boundary

The eastern site boundary in the north against the old cutting is a remnant post and wire fence along the top of the cutting. A few small hawthorn bushes occur here. Moving south, the site boundary runs undefined along the top of a steep slope down to the old quarried land. Once the steep slope has leveled out, the eastern site boundary is a remnant stone wall with post and wire fence. A few tall hawthorn bushes occur over the remnant wall in one place near the stile.



Stone wall northern boundary against the A6



General view along fenced part of eastern boundary



General view along remnant stone wall eastern boundary



Undefined eastern boundary along top of old quarry slope



Southern site boundary

3.2 Habitats & Plants

The majority of the site is rough to short grassland, which may be lightly horse-grazed, with the animals seen on the adjacent LWS to the east able to gain access to the site over the remnant stone wall. One small triangle of land near the northern end has been taken into an adjacent garden and a square area in the south-eastern corner has been defined by a new post and wire fence, with small conifers and other shrubs, to form an area of lawn with goal posts.



Triangle of land taken into adjacent garden on western side



Land taken into lawn in south-eastern corner of site

The short improved grassland habitat occurs in the centre of the site. This has a grass-dominated sward of perennial rye-grass and Yorkshire fog, with creeping buttercup, common sorrel, broad-leaved dock, red fescue, false oat-grass, ribwort plantain, common ragwort, dandelion, common mouse-ear, white clover, meadow buttercup, crested dog's-tail and the moss *Calliergon cuspidatum*.



Short improved grassland in centre of the site

To the north as far as the A6 boundary, to the south as far as the site boundary and around the fenced-off lawn, and along the eastern side, the grassland is rough and becoming tussocky. In this grassland there are tufted hair-grass, Yorkshire fog, crested dog's-tail, broad-leaved dock, creeping and spear thistles, cocksfoot, creeping and common bents, creeping and meadow buttercups, ground ivy, common ragwort, common couch, cat's-tail, hogweed, ribwort plantain, common knapweed, wild teasel, lesser celandine, red fescue, cow parsley, a small amount of

glaucous sedge and the mosses *Calliergon cuspidatum* and *Rhytidiadelphus squarrosus*. There are occasional plants of soft and hard rush.



Rough grassland habitat near the northern end of the site



Rough grassland habitat near the southern end of the site

Near the gate in the southern boundary there are stored materials, including fencing panels, slabs and kerb stones.

No invasive alien plants were seen.

DWT had no habitat or notable plant records for the site. There is however a record from 2004 for a locally notable orchid sub-species from a locality at Dove Holes which is c300m south of the southern end of the site. The grid reference of this locality places the orchid at what is now the village's football ground and hence it is closely mown amenity grassland and not an appropriate habitat for this plant. The orchid could

however have been recorded from an area of old quarry workings just south-east of the football ground and there may be some damp flushed ground here which would be a suitable habitat.

3.3 Protected species

Badger

No badger setts or signs of use of the site by badgers were seen. No setts or signs were seen in immediately adjacent land.

NBN had unlocated records of badgers for the OS 10km square in which the site stands (SK 07) and some records from localities at least 2km south. DWT had no badger records for the site or immediately adjacent land.

Water vole

The site has no open water habitats on or adjacent which could be used by water voles.

NBN had no records of water voles for the site and none any nearer than at least 2km. DWT had no records of water voles within the 1km radius search area.

Otter

The site has no open water habitats on or adjacent which could be used by otters.

NBN had no records of otters for the site and none any nearer than at least 2km. DWT had no records of otters within the 1km radius search area.

Reptiles

No reptiles were seen but this would be expected given the time of year when they would be hibernating. The site's rough grassland and stone wall are suitable habitats for common reptiles to use for basking, sheltering and foraging, especially given the extensive adjacent old quarried land of the LWS with its varied topography and rock exposures.

The nearest records of slow worm, adder and common lizard on NBN were from localities at least 2km from the site. NBN had a record from 2005 of grass snake from the OS 1km square to the south of that in which the site stands. DWT had no records of reptiles within the 1km radius search area.

Great crested newt

The site has no pond or other waterbody which could be used by great crested newts for breeding. The site's rough grass and remnant wall are suitable habitat for newts to use for sheltering, with the rough and short grass also suitable for foraging newts. Newts could potentially be using off-site ponds for breeding and then dispersing from these to use the site's terrestrial habitats. Newts can disperse up to c500m from breeding ponds given suitable habitats around and away from the ponds (although most only disperse up to c250m), so it is necessary to consider whether any ponds in the vicinity of the site could be suitable for newts and then assess the likelihood of newts reaching the site.

Maps and aerial photographs were examined, and field observations made, to address the potential issue of newts. Two ponds are shown on maps to occur close together c370m north of the northern tip of the site, with one of the ponds in a small wood and the other at the wood's edge. Not able to be seen from a nearby road, and with no public access, it is not possible to determine whether these ponds are suitable for newts to use for breeding. However, ground inspection and aerial photographs show that the two ponds are surrounded by good newt terrestrial habitat such that even if newts occur here it would be unlikely that they would disperse as far as the site; also there are barriers to newt movements between the ponds and site, comprising an active railway, the busy A6 main road and part mortared stone walls. Other ponds shown on maps are >500m from the site to the west and south-west and so are discounted because of the distance. Therefore it is considered that great crested newts are absent from this site.

The nearest records of great crested newts on NBN are from 1996 from localities to the south over 1km distant. DWT had no records of newts within the 1km radius search area.

Bats

The site has no buildings which could be used by bats for roosting and

there are no trees which could be used as roosts. The potential of the site to be used by foraging bats coming from off-site roosts is considered to be low, since the site is wide open and exposed.

NBN had no records of bats for the site and immediate area. DWT had no records of bats within the 1km radius search area.

Birds

No old birds' nests were seen and the scope of the site to support nesting birds is very limited. There are the few larger hawthorn bushes on the eastern boundary at its southern end and the rough grass may support ground-nesting birds, although the site has some disturbance from the public. The rough grass could support small mammals which would attract hunting barn owls and kestrels. The only bird noted on site by the survey was a blackbird.

NBN had only a generalised record of barn owl from SK 07. DWT had no records of birds for the site.

4 Assessment of nature conservation importance

4.1 Habitats & Plants

The site habitats of rough grassland, short improved grassland and amenity grassland are not of significant nature conservation importance. The habitats are common and widespread in the local area and further afield and they are not Derbyshire or UK Biodiversity Priority Habitats.

The botanical diversity of the site's grassland is not great enough for it to be considered as a Derbyshire LWS.

None of the plants recorded are of nature conservation significance since they are all common and widespread species of grasslands, scrub and disturbed ground in the lowlands. No notable or Derbyshire or UK Biodiversity Priority Plants were recorded, and there are no invasive alien plants.

4.2 Protected Species

The site is not of significance for water vole, otter, breeding or sheltering great crested newts, roosting or foraging bats, and breeding birds. The

site is not likely to acquire significance for these species if the site's habitats are maintained as they are now.

The site is currently not of significance for badgers, although this may change in the future if badgers from the local population excavate a sett on or near to the site and/or start to use it extensively for foraging. Badgers are a mobile species and can excavate new setts overnight.

The site is currently of unknown significance for common reptiles since it is not known if any occur. That said, compared to the adjacent extensive and diverse LWS the site is only likely to support very few reptiles (or any reptiles on the LWS would be making temporary use of the site) since the site is relatively uniform in habitat terms, a significant part of it is short open grassland which offers no shelter to reptiles and it is regularly disturbed by people. Thus the significance of the site for reptiles is likely to be low.

5 Potential ecology constraints

5.1 Habitats & Plants

There is no constraint to the development of this site from habitats or from plant species, including invasive aliens.

There is no constraint to the development of this site from statutory nature conservation sites.

The adjacent LWS is a minor constraint to the development of the site since it would be necessary to ensure that development of the level site above the LWS does not indirectly affect the habitats of the LWS. This may happen, for example, through materials being deliberately or inadvertently being tipped down the old quarry slopes, or silt-laden water from the construction site running down the slopes.

5.2 Protected Species

There is no constraint to the development of the site from water vole, otter, breeding or sheltering great crested newts, and roosting or foraging bats.

There is currently no constraint to the development of the site from badgers. Since the situation may change regarding this species it would

be appropriate to employ mitigation measures (see below).

It is not currently known if the development of the site is constrained by common reptiles, since it is not known if any occur. However, given that the significance of the site for reptiles is likely to be low, it is considered that this should not preclude the granting of outline consent since appropriate mitigation can be dealt with at a later stage when reserved matters are applied for. The common British reptiles are protected from deliberate and reckless killing or injury under the 1981 Wildlife & Countryside Act (as amended).

Although nesting habitats are very limited, breeding birds are a potential constraint since the proposed development would require the clearance of the existing grassland which may be used by ground-nesting birds. This constraint however only applies during the bird breeding season, which is roughly March to August inclusive. Nesting birds are not a constraint outside the breeding season ie September to February inclusive.

Circular 06/2005 advises that "bearing in mind the delay and cost that may be involved developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of species being present". It is not considered there is a reasonable likelihood of reptiles and other protected species being present on the site and no additional surveys are therefore required at this stage of the planning process. Consequently, it is advised that precautionary steps are taken as set out in section 6.2 below.

6 Mitigation

6.1 Habitats & Plants

There is no constraint to the development of this site from habitats or from plant species, including invasive aliens.

Mitigation of indirect effects on the adjacent LWS arising from construction could be dealt with through standard industry practices of avoiding effects to land adjacent to construction sites.

6.2 Protected Species

No mitigation is required for water vole, otter, breeding or sheltering great crested newts, and roosting or foraging bats.

For badgers, it would be appropriate to undertake surveys to ascertain the latest situation when the time of starting development draws near. If no badger activity is found, no further work would be needed. If any badger activity on or near the site is found, appropriate mitigation measures should be devised and employed to negate or reduce potential impact, in consultation with Natural England. This could become a condition at the reserved matters stage.

It would be appropriate standard mitigation for any reptiles which are using the site to have the grassland progressively mown short to reduce and remove cover for reptiles thereby ensuring that they are displaced off the site onto the adjacent LWS. Further, when construction starts, it would be appropriate to gradually and slowly remove the turf in a west to east direction, towards the LWS, so that if any reptiles remained they would be displaced onto the LWS. This could become a condition at the reserved matters stage.

Regarding mitigation for nesting birds, ideally the site should be cleared before the start of the nesting season before any active nests are established. If this is not possible, and clearance is proposed for during the bird breeding season, a search for active nests should be carried out beforehand. If none are found, the clearance can proceed; if any are found work would have to be suspended or take place elsewhere on site until the young birds have fledged and left the nest.

7 Enhancements

Depending on the nature of the development, it may be appropriate to provide biodiversity enhancements in the form of native tree and shrub plantings, and provision of nesting opportunities for birds and roosting opportunities for bats.

8 Conclusions

At this site, a standard ecology and protected species survey (supported by searches for existing records) was undertaken on 1 February 2013 in order to determine if there were any significant constraints to the granting of outline planning consent for residential development.

The survey has shown that the site has no significant habitat, plant species or protected species interest which would constrain the proposed

development. Thus there is no significant ecology or nature conservation constraint to the granting of outline consent.

Minor mitigation matters for badgers, reptiles and nesting birds are discussed and recommended to be made conditions at the reserved matters stage.

Tim Smith
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