



LAND OFF PARK ROAD, OVERSEAL - UPDATE ECOLOGICAL APPRAISAL

MAY 2022

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INTRODUCTION

Arc Ecology was commissioned in to undertake an updated Ecological Appraisal of an area of land off Park Road, Overseal, Derbyshire after a previous report for the site became outdated (report reference ARC/PRO0818/AMA).

The purpose of the current investigation was to assess any significant changes to the habitat types and dominant vegetation present within the survey area, and to re-appraise the habitats present for their suitability to support populations of protected or notable fauna species prior to a new planning application being submitted for the site.

SITE DESCRIPTION

The site is situated off Park Road, Overseal at OSGR SK 29169 16768 and consists primarily of a large outgrown semi-improved grassland field, with areas of scrub along the northern boundary (see Plate 1).

Plate 1 - Aerial view of site with boundary in red



DEVELOPMENT PROPOSALS

The proposed development of the site is construction of a fishing lake with a number of residential lodges for customer use and its associated hard-standing and planting.

It is understood that the current proposals differ from the original in that the lake is expected to be smaller and the number of lodges proposed is less than previous, resulting in the loss of less of the grassland habitat.

METHODOLOGY

The update walkover survey of the site was carried out on the 13th May 2022.

Given the knowledge already gained about the site from previous surveys, the current investigation re-assessed the site for [REDACTED] nesting birds and herpetofauna.

Full surveys for these species were beyond the scope of this preliminary assessment.

[REDACTED]

The appraisal for herpetofauna was undertaken following guidelines given in Gent and Gibson. (2003).

Appraisal of habitats suitable for nesting birds followed guidance given by Bibby et al. (2000).

SURVEY RESULTS

VEGETATION AND HABITATS

There have been no significant changes to the habitats within the site and it remains predominantly a large semi-improved grassland field, dominated by common grass species including common bent (*Agrostis capillaris*), red fescue (*Festuca rubra*), cock's foot (*Dactylis glomerata*), rough meadow grass (*Poa trivialis*) and sweet vernal grass (*Anthoxanthum odoratum*).

Vegetation is relatively limited within the grassland, with dandelion (*Taraxacum officinale. agg*); creeping thistle (*Cirsium arvense*); creeping buttercup (*Ranunculus repens*); broad-leaved dock (*Rumex obtusifolius*); ragwort (*Senecio jacobaea*); plantain (*Plantago lanceolata*) and hogweed (*Heracleum sphondylium*) being scattered throughout.

There is also some early encroachment by scrub species including hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*); dog rose (*Rosa canina*) and bramble being present and areas of scrub present on the northern boundary containing species including bramble, hawthorn, hogweed,

nettle (*Urtica dioica*), gorse (*Ulex galii*), fern (*Pteridium aquifolium*), bindweed (*Convolvulus arvensis*), blackthorn (*Prunus spinosa*) and elder (*Sambucus niger*).

There remains a single hedgerow within the survey boundary, but this is outside the site and runs alongside Park Road. This hedgerow consists primarily of hawthorn, with privet (*Ligustrum vulgare*) also being present at its western end.

There is only a single tree within the site boundary which is an oak (*Quercus robur*) on the southern boundary of the site but there are a number of mature ash (*Fraxinus excelsior*) tree within the hedgerow immediately adjacent to the site on its northern boundary

PROTECTED AND NOTABLE SPECIES

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Herpetofauna

The previous survey identified that the habitats within the site were suitable for herpetofauna species and Derbyshire Wildlife Trust previously provided records from within 1km for both common lizard and grass snake.

As such, a series of reptile surveys were undertaken during 2018 (report reference ARC/PRR1018/AMA) during which small numbers of common lizard and a single young grass snake were found.

Although no animals were located during the most recent site visit, the habitats are still suitable for such species and it is considered highly likely that they remain present.

Nesting Birds

The scrub, hedgerow and trees within and adjacent to the site still have potential to support nesting bird species, although no evidence of the presence of nesting birds was noted during the most recent survey.

Other Protected and Notable Species

There was no evidence of the current or historic presence of any other protected or notable flora and fauna species found during the survey.

CONSTRAINTS AND RECOMMENDATIONS

HERPETOFAUNA

All British reptiles are protected under the Wildlife and Countryside Act 1981 (as amended by the CRow Act 2000). Grass snake, slow worm, common lizard and adder are protected against intentional killing or injury and against sale. In addition, all British reptiles are UKBAP priority species and are listed as Species of Principal Importance under the provisions of the NERC Act 2006

Sand lizard and smooth snake are protected under the Wildlife and Countryside Act 1981 (as amended by the Crow Act 2000) and under the Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007. Taken together, these make it an offence to:

- a. Deliberately capture or intentionally take sand lizard or smooth snake
- b. Deliberately or intentionally kill or injure sand lizard or smooth snake
- c. To be in possession or control of any live or dead sand lizard or smooth snake or any part of, or anything derived from either species
- d. Damage or destroy a breeding site or resting place of a sand lizard or smooth snake or intentionally or recklessly obstruct access to any place that either species uses for shelter or protection
- e. Intentionally or recklessly disturb a sand lizard or smooth snake while it is occupying a structure or place that it uses for shelter or protection
- f. Deliberately disturb a sand lizard or smooth snake in such a way as to be likely significantly to affect;
 - (i) the ability of any significant group of animals of that species to survive, breed or rear or nurture their young; or
 - (ii) the local distribution or abundance of that species.

All six native reptiles are listed as a Species of Principal Importance under the provisions of the NERC Act 2006. The National Planning Policy Network document 'ODPM Circular 06/2005' gives guidance on the treatment of such species and states that local authorities should ensure that they are protected from the adverse effects of development, where appropriate, by using planning conditions or obligations.

As the habitats within the site have changed so little since the initial surveys, it is considered that the reptile populations would remain broadly the same and that the recommendations put forward for mitigation and compensation in the reptile report are still applicable and are replicated below:

Vegetation removal within the site should be preferably be undertaken outside the active season for reptiles (i.e. October to February). An initial cut of vegetation to six inches in height should be undertaken and then left for 24hrs to allow any remaining fauna species present within the site to vacate the area, followed by removal to ground level to minimise the suitability of the site for reptiles and other fauna species. The site should then be checked again by a suitably experienced ecologist to ensure there are no further areas where reptiles could potentially shelter within the site.

Following the above clearance works, providing that the site has been deemed unsuitable for reptiles, temporary reptile fencing should be placed around the site and maintained throughout the construction period, after which it can be removed to re-allow reptiles access to the site.

While potential for site enhancement for herpetofauna species is relatively limited within the site due to the proposed development, such species are not to be permanently excluded from the site and there are expected to be areas suitable to provide foraging post-development.

There are large amounts of suitable habitat for reptile species surrounding the site, notably to the south and east where there are no roads acting as a barrier to dispersal and, given the low number of animals found during the survey, it is considered that the loss of habitat for the construction of the lake and cabins would be unlikely to have a major negative effect on the local populations of common lizard and grass snake.

With regard to compensation for loss of habitat, discussion with the site owner has concluded that it is possible to create a large refugia/hibernaculum for reptiles along the southern boundary of the site (approximately 170m in length).

The construction of this should include excavation of a trench between 0.5 and 1m in depth and 1m wide during the construction of the lake, which would then be backfilled with substrates such as wood, tree roots, rubble, compost and mulch. The refugia should be created in such a way as to have a number of places where material will come through any cover to allow access for reptiles.

The refugia should then be covered either with the topsoil removed during construction which could be allowed to naturally regenerate or with turf of suitable vegetation, ideally a natural grass and scrub mix of local provenance to provide external cover for reptiles.

Additionally, the site owner has agreed to section off an area of the proposed lake at the eastern end to be managed for wildlife. This is likely to attract amphibians into the site from the wider area and contain small fish which would provide additional foraging for grass snake.

NESTING BIRDS

All nesting birds are protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to disturb them while they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

A number of bird species are also listed as Species of Principal Importance under the provisions of the NERC Act 2006. The National Planning Policy Network document 'ODPM Circular 06/2005' gives guidance on the treatment of Species of Principal Importance and states that local authorities should ensure that they are protected from the adverse effects of development, where appropriate, by using planning conditions or obligations.

While there was no evidence of the presence of nesting birds found during the survey, habitats present provide suitable habitat for nesting birds and could be used at any time during the current and subsequent nesting seasons.

Due to this, if possible, any works likely to cause disturbance to these areas should ideally avoid the nesting season for birds (February to September inclusive).

If this is not possible, then an appropriately experienced ecologist should conduct an investigation of the areas to be affected to determine whether they are in use by nesting birds immediately prior to work commencing. If nesting birds are found to be present at this time, all work likely to cause disturbance should cease until the young have fledged and the nest is no longer in use.

POTENTIAL FOR SITE ENHANCEMENT

As mentioned previously, there is potential for the site to be enhanced for a number of wildlife species during and post-development.

The lake itself will introduce a habitat into the site which was not previously there and would encourage a wider diversity of species, notably aquatic invertebrates and potentially amphibians. The landowner has confirmed that he would be willing to keep an area of the lake fenced off and not available to fishermen to mature into a wildlife area.

Additionally, there are plans for relatively extensive planting within the site post-development. This could enhance the site for a range of species including bats, nesting birds and terrestrial

invertebrates if plant species known to have an ecological value are used in the planting and any additional landscaping that may be undertaken.

A list of such species is given in Appendix A.

SUMMARY

- Arc Ecology undertook an update Ecological Appraisal of land off Park Road, Overseal, Derbyshire to attempt to identify any significant changes with regard to habitats and protected and notable flora and fauna species within the site to a previous report from 2018, and provide recommendations for any further investigations if required.
- [REDACTED]
[REDACTED]
[REDACTED].
- A small number of common lizard and a single young grass snake were found during reptile surveys carried out in 2018, and given the lack of change to the habitats present in the interim period, it is highly likely that reptiles still use the site in small numbers and that the mitigation and compensation for reptiles originally proposed remains appropriate as below.
- Removal of vegetation should ideally be undertaken over the winter months when reptiles are less likely to be present and once the site has been declared unsuitable for reptiles by a suitably experienced ecologist, temporary reptile fencing should be erected around the site and maintained for the duration of the construction works to avoid animals re-entering the site.
- The fencing can be removed post-construction to re-allow access to the site for herpetofauna species and there will still be grassland habitat present suitable for use by such species for foraging after works are complete.
- There is potential to mitigate for habitat loss through the construction of a large reptile refugia/hibernaculum on the southern boundary of the site, and the creation of a wildlife area at the eastern end of the proposed lake would also potentially provide an additional foraging area for grass snake.
- There is suitable habitat within the site for nesting birds. As such, site work should avoid disturbing nesting birds where possible, and any vegetation clearance should take place outside the breeding season for birds.
- Where this is not possible, an experienced ecologist should survey the areas to be removed prior to work, and if nesting birds are found to be present, work should cease until the young have fledged and the nest is no longer in use.
- There are not considered to be any potential impacts from the proposed works on any other protected or notable species and habitats.

REFERENCES

- Bibby, C.J., Burgess, N.D., Hill, D.A. & Mustoe, S.H. (2000).
Bird Census Techniques (2nd Edition). Academic Press, London.
- Gent, T. & Gibson S. (2003)
Herpetofauna Workers Manual. JNCC, Peterborough.
- Harris, S., Creswell, P. & Jefferies, D. (1989)
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Mammal Society, London.

APPENDIX A - WILDLIFE ATTRACTING PLANT SPECIES

WILD PLANT SPECIES FOR WILDLIFE GARDENING

Note: Where 'attracts insects' is mentioned you can assume that birds will also be consequently be attracted, and where 'seeds' are mentioned these will attract birds generally, although some seed types are specific to certain species. The odd plant here, like Columbine, can overtake your garden if not suitably controlled.

FLOWERS AND PLANTS

Amaranth - attracts insects

Bird's-foot Trefoil - foodplant for Wood White / Silver-Studded butterflies, &

Six-Spot Burnet moth

Bistort - attracts insects / seed source

Cat-Mint - attracts bees

Columbine - attracts insects

Common Evening Primrose - attracts insects / seed source

Common Thistle - seeds for Goldfinches

Common Toadflax - nectar for bees and bumble-bees

Corn Cockle - attracts butterflies

Cornflower - attracts insects / seed source

Cow Parsley - seed source

Cowslip - foodplant for Duke of Burgundy Fritillary

Devil's Bit Scabious - caterpillars of Marsh Fritillary

Dill - slugs attracted / seed source

Dog Rose - often aphids on leaves / hip fruits for birds

Dog Violet - caterpillars of various Fritillary butterflies

Eyebright - attracts bees and butterflies

Fennel - insects / hoverflies / seed source

Field Poppy - attracts insects and bees / seeds

Foxglove - attracts bumble-bees

Garlic Mustard - food source/egg laying habitat for Green-veined White &

Orange Tip butterflies

Golden Rod - attracts insect / seeds

Great Mullein - attracts butterflies

Greater Knapweed - attract bumble-bees and butterflies / seed source

Greater Plantain - seeds favoured by birds

Ground-Ivy - attracts bees

Hemp Agrimony - attracts butterflies

Honesty - attracts butterflies and bees

Honeysuckle - foodplant for caterpillars of White Admiral butterfly (rather specialised and of limited distribution) / nectar for hawkmoths and other night- flying moths

Ivy - foodplant for Holly Blue butterfly and Swallow-Tail moth caterpillars / berries for birds / attracts insects during flowering

Lady's Bedstraw - foodplant for caterpillars of Broad-Bordered Bee Hawk-moth

Lady's Smock/Cuckoo Flower – flowers for hoverflies and foodplant for Green Veined White & Orange Tip butterflies

Marjoram - nectar for butterflies and bees, and attractive to burnet moths

Marsh Marigold - beetles and other insects

Marsh and Nodding Thistles - flowers attract bumble-bees and other insects

Meadow Buttercup - attracts beetles and flies

Meadow Crane's-Bill - attracts bees

Meadow grasses - many grasses are useful habitats for certain butterfly caterpillars

Oxeye Daisy – attracts many insects

Primrose - attracts insects, bees, slugs! (though not popular with many gardeners!) / seeds for some birds / Duke of Burgundy Fritillary caterpillar (very unlikely in gardens)

Purple Loosestrife - insects plus seed source

Ragged-Robin - attracts butterflies and bees

Red & White Dead-nettle - nectar for bumble-bees

Red Campion - attracts flies and bees

Red Valerian - for butterflies

Red/White Clover - nectar for bumble-bees/bees/ foodplant of Clouded Yellow butterfly (very rarely breeds in Britain – mainly a migrant)

Rosebay Willow-herb - nectar source for bees / foodplant for Elephant Hawk-moth caterpillars

Rosemary - attracts various flying insects

Selfheal - attracts bees

St. John's Wort - attracts insects / seeds for some bird species

Stinging Nettle - food source Red Admiral, Peacock, Tortoiseshell and Comma butterfly caterpillars / seed source

Tall Melilot - bee nectar source

Teasel - good seed source – flowers attractive to various butterflies

Thyme - attracts bees

Tormentil - foodplant for caterpillars of Grizzled Skipper butterfly (unlikely in gardens)

Traveller's Joy - attracts bees and hoverflies

Tufted Sedge - insects and seed source

Water Mint - attracts various insects

White Campion - attracts moths

White Dead-Nettle - attracts bees

Wild Angelica - attracts slugs and snails!, flowers for pollinating insects, winged fruits

Wild Pansy - attracts bees

Yarrow - seeds / various insects and aphids / hoverflies and butterflies

SHRUBS AND TREES

Blackberry - fruit supply for birds, flowers attract many butterflies, especially Browns

Broom - attracts insects and bees / seed source

Buckthorn - foodplant for Green and Brown Hairstreak (rare) and Brimstone butterflies

Common Alder - seed source for birds and finches

Crab Apple - fruit for birds / flowers for insects

Gorse - attracts insects, especially bees and Silver-Studded Blue butterfly

Hawthorn / Elder - insects during summer / berries for autumn/winter

Holly - berries for birds / foodplant for Holly Blue butterflies

Pear - various insects

Silver Birch - seed source / aphids often present

Willow - attracts many insects and caterpillars