

Ecological Impact Assessment

Renewable Energy Centre & Pelleting Plant at NN10 OSU

Introduction

The applicant has undertaken desktop, habitat and faunal study to ascertain any likely adverse effect on the ecology of the site at NN10 OSU. This development is not considered as a major development according to Town and Country Planning Act 1990. The study took into account investigation of the site, enquiry of the current occupants of the site and reference to two recent major development applications in the near vicinity*. It is considered that conditions at the site have not changed significantly in the intervening period and that background ecological data is still relevant when considering the current planning application.

Desktop Assessment Methodology

Information was obtained from the following organisations in order to ascertain the current background ecological status of the site:

- Natural England;
- Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough Wildlife Trust;
- Bedford Badger Group;
- Bedfordshire Bat Group;
- Bedfordshire and Luton Biodiversity Recording and Monitoring Centre;
- North Northamptonshire Badger Group;
- Northamptonshire Bat Group;
- Northamptonshire County Bird Recorder;
- Northamptonshire Herpetofauna Recorder;
- Northamptonshire Botanical Society for the British Isles; and
- National Biodiversity Network Database.

Further information for the surrounding areas was obtained via the Multi-Agency Geographic Information for the Countryside (MAGIC) database which contains authoritative geographic information about the natural environment from across government. The site is developed by the Department of Environment Food and Rural Affairs (DEFRA).

This desktop study was supported by recent surveyed evidence from two ecological impact assessments developed recently covering the same geographic area and it is therefore considered that the development area is well understood with regards its ecological status and presence of endangered species.

Site Description

The development seeks to reinstate a site previously used as an industrial waste processing site. The entire site is currently covered in a hard concrete slab. There

are mounds of inert shredded tyre waste on the northern perimeter, a large area prone to holding standing water (caused by blocked site drains) and a derelict building that was damaged beyond repair by fire several years ago.

The site is to be developed to take in 50,000 tonnes refuse derived fuel for drying and supply to the combustion sector as a high quality fuel. The drying is undertaken by a small waste incineration plant utilising 14,000 tonnes per annum of the refuse derived fuel feedstock.

Site Setting

The site is bounded on all sides by arable farmland with the exception of the north which contains the World Rubber site with a hedgerow and some adjacent woodland. There is a further wood 500m north of the site across some arable farmland. To the south the site is bounded by Upper Higham Lane with arable farmland after the road.

There are some further trees approximately 350m to the south east of the site. Figure 1 below shows the nearest features of interest to the site.

Figure 1 Map showing nearest features of habitat interest



Designated Ecological Sites

The site itself is not subject to any statutory or non-statutory nature conservation designations. There are a number of sites with ecological designations within 5km of the site. These are:

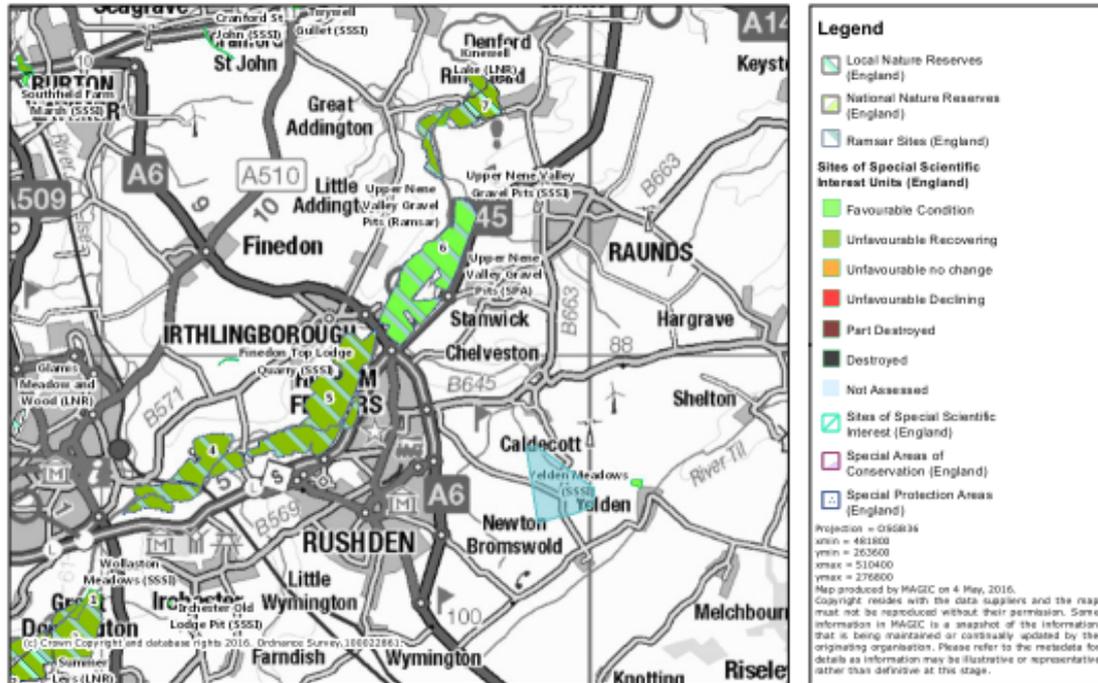
- Finedon Top Lodge Quarry Site of Special Scientific Interest (SSSI);
- Upper Nene Valley Gravel Pits SSSI, SPA and Ramsar; and
- Yelden Meadow SSSI.

Finedon Top Lodge Quarry SSSI is located approximately 5km west to northwest of the site with the reason for notification being that the locality is of considerable sedimentological and palaeontological interest, in addition to being of stratigraphical value. Therefore, the designation is not with regards to its ecological status

Upper Nene Valley Gravel Pits SSSI, SPA and Ramsar 5km northwest of the site and are a chain of both active and disused sand and gravel pits including open water, reed swamps, marshes, pastures and grasslands. The range of habitats and the varied topography of the lagoons regularly provide valuable resting and feeding conditions for more than 20,000 wintering waterbirds, especially ducks and waders. This site is at considerable distance from the site to be developed and is not in the prevailing wind direction so it is considered that the site is extremely unlikely to even have a minor effect on the designated site.

Yelden Meadow SSSI is approximately 1.5 km to the east of the site. The reason for notification of Yelden Meadows are because of their status as a fine example of species-rich unimproved neutral grassland occurring on clay in North Bedfordshire. The grassland community on the site is an example of *Alopecurus pratensis-Sanguisorba officinalis* flood meadow. This community type is noted for a species-rich, varied sward of grasses and herbs which has been maintained traditionally as a hay meadow with grazing during the winter. Decline in this type of habitat has primarily been due to agricultural improvement and such losses are still continuing. Figure 2 shows the designated ecological sites in relation to the proposed development.

Figure 2 Designated Ecological Sites



Habitat Survey

A site walkover was undertaken to ascertain the general ecological value of the land contained within the boundaries of the proposed development site and to identify the main habitats and associated plant species, with notes on faunal species using the site also recorded.

The site is currently comprised of hardstanding in a general poor state of repair which is partially flooded due to block drains in part of the site. The site has been and is currently used for the storage of waste tyres which contain contaminants such as heavy metals which would accumulate in the shallow water of the blocked drain and on the surface of the hardstanding which would mean that it has low ecological status for any species especially given that it is present on a semi-active industrial site.

The pile of tyres and hard-standing would not be an attractive area for species to habit due to disturbance through the removal and addition of waste tyres, vehicle movements and other commercial noises such as from agricultural activities in the farmland adjacent to the site.

Observations from the site walkover and from the current landowner with regards to specific species are detailed below:

1. Bats. For a tree to be classed as having some potential for roosting bats it would usually support one or more of the following characteristics:
 - obvious holes, e.g. rot holes and old woodpecker holes;

- dark staining on the tree below a hole;
- tiny scratch marks around a hole from bats' claws;
- cavities, splits and/or loose bark from broken or fallen branches, lightning strikes etc;
- very dense covering of mature ivy over trunk.

The copse area to the north of the site was considered as a potential site to support a bat roost, as was the derelict building on site. However, our visual investigation shows that there is no evidence of habitation in either place. The copse is mainly of immature coniferous trees with none of the features identified above as being suitable for bat habitation. The derelict building was built entirely of steel and cladding and is often lit with artificial light from the industrial activity that takes place all around. 80% of the old roof is destroyed and laying at ground level. Enquiry of the landowner confirms that no pre-existing evidence of roosts are advised. A visual survey undertaken at dusk for a period of one hour on three different occasions recorded no sightings of bats on the wing. There is no intention to disturb the copse but the derelict building will be cleared. As no evidence of any description was found or previously reported in the area, no further survey was deemed necessary.

2. Badgers. No badger sets were found on or near the development site; however, it is noted that an infrequent badger run is located adjacent to hedge/fence on the road side of the adjacent field boundary at 90m from the site boundary. There is no intention for the development to disturb either the fence or hedging.
3. Other Mammals. There is no evidence of any other wildlife habitat on the development site. There is evidence of a rabbit warren on the northern boundary of the adjacent field. The Planning Authority noted that the piles of waste tyre material to the north of the site were a potential habitat. Upon investigation it was clear that this material is an inert material made from tyre fibres. There is a high degree of metal shards within the fibres, which would be injurious to small mammals. No evidence was found of nests of any description. Further survey was deemed unnecessary.
4. Great Crested Newts. There is previous evidence of ponds existing in the field adjacent to the site. However this area is now a small sump 1 x 3.5m in area surrounded by a small copse. The sump is filled by the field drain that enters it and drained via sink hole. The water at the time of survey was fast moving and an unlikely habitat for GCN. Detailed investigation reveals no evidence of newts or newt activity. This sump would not be disturbed by the proposed development. The area to the north of the site intended for development is often flooded with standing water. There is potential that this area may also provide a habitat for newts. There are no recorded sightings of newts or newt activity here either. The area under water is regularly disturbed by wheeled vehicles and as such it should be considered as both temporary and inert for ecology purposes.
5. Birds. No occurrence of breeding/wintering birds was found on site. One abandoned pigeon nest and one broken swallow or similar nest was evident.

6. Common Reptiles. No evidence of reptiles was found within the boundary of the site, nor in the surrounding areas; all likely reptile refuges were checked (under tyres, sheets of corrugated metal, etc.). A previous study nearby using 500 refugia in suitable reptile habitats also had no results.
7. Invertebrates. There are no habitats within the site such as grassland, hedgerows, ponds and ditches which would be able to support invertebrate species.
8. There follows a collation of bird activity measured previously on the airfield site:

Occurrences of bird species on the adjacent Wind Farm site:

<u>Occurrence</u>	<u>Species</u>
0	Goldfinch
1	Buzzard, Carrion Crow, Chaffinch, Golden Plover, Jackdaw, Lapwing, Linnet, Little Owl, Magpie, Pied Wagtail, Redwing, Stock Dove, Starling, Snipe, Wood Pigeon, Yellow Hammer.
2	Black Headed Gull, Meadow Pipit, Red-Legged Partridge.
3	Field Fare, Rook, Skylark

Breeding Bird Survey Results on the Wind Farm site and surrounding area:

<u>Occurrence</u>	<u>Species</u>
0	Bullfinch, Corn Bunting, Dunnock, Great-Spotted Woodpecker, Grey Partridge, Pheasant, Wheatear.
1	Black Cap, Blue Tit, Buzzard, Carrion Crow, Goldfinch, Greenfinch, Great Tit, Jackdaw, Little Owl, Lesser Whitethroat, Mallard, Pied Wagtail, Red-Legged Partridge, Reed Bunting, Rook, Swallow, Song Thrush, Wren, Yellow Hammer.
2	Blackbird, Lapwing, Linnet, Moorhen, Stock Dove, Whitethroat, Willow Warbler, Yellow Wagtail.
3	Wood Pigeon
4	Chaffinch
6	Robin
9	Meadow Pipet
34	Skylark

A baseline ornithological survey for the nearby airfield development identified only 1 target species was recorded at the site during the wintering bird survey, namely Golden Plover, which is listed under Annex 1 of the Birds Directive. However, at the numbers recorded, the population at the site is considered to be of no more than low importance at the local level. The proposed development would have no effect on these recorded bird sightings or wintering activities.

9. Flora. Survey reveals no flora at the site given the developed nature of the site.

SUMMARY AND CONCLUSIONS

Dallol Energy performed a site walkover and desk top study of the local ecology given that the local area has been subject to several ecological surveys for nearby planning applications. The key findings are summarised below:

Designations. The site itself is not subject to any statutory or non-statutory nature conservation designation. The nearest statutory designation of relevance to ornithology is Upper Nene Valley Gravel Pits SSSI/pSPA, located approximately 5 km to the north-west. The nearest designated site is 1.5km to the east at Yelden Meadows SSSI with the designation being due to its grasslands.

Surveys. The site walkover was undertaken during winter/spring 2016 and includes observations from the resident landowner. General faunal activity, such as birds or mammals observed visually or by call during the walkover, was recorded and detailed above.

Habitats. The site is a previously developed waste management site which is currently used for the storage of waste tyres and offers no viable habitat to species given the high potential for disturbance at a working site along with the fact that the tyres are likely to have some degree of heavy metals which would render the small collection of water on site from inadequate drainage unsuitable for species requiring water.

Results & Evaluation. Only 1 target species was recorded in any numbers at an adjacent site during the wintering bird survey, namely Golden Plover, which is listed under Annex 1 of the Birds Directive. However, at the numbers recorded, the population at the site is considered to be of no more than low importance at the local level.

No protected species were identified at the proposed development site.

It is considered that the proposed development would have a negligible effect on flora and fauna in the locality for the following reasons:

- There is no discernable flora on the site to affect;
- The site is not suitable or conducive as a habitat for ground species nor roosting species due to the developed nature of the site and absence of suitable areas to nest;
- The site and nearby surroundings are subject to frequent disturbance from vehicle movements, waste treatment operations and agricultural operations such as ploughing, harvesting and land spreading;
- No protected species were observed at the site; and
- The site will have a stack optimized for its dispersion characteristics by a D1 stack height calculation and full dispersion modelling (attached to Planning Application) to ensure no localized environmental impacts from air quality.

*The applicant has been previously advised by the Environmental Health Officer for East Northamptonshire District Council that extensive impact studies carried out during the recent application for planning consent for a large wind turbine development near the site (10/00415/FUL) could be taken into consideration to assist this application as these are a matter of public record.

END OF REPORT 171009