

APPENDIX 11.8 NERC MAMMALS

1.1 Introduction

- 1.1.1 The NERC mammal assessment presented in this appendix reflects the survey information and habitat assessment available at the time of writing. The findings will be reviewed and updated, if necessary, following completion of the wider ecological survey programme and any subsequent design or mitigation updates.
- 1.1.2 This appendix provides an assessment of the suitability of habitats within the Site for Species of Principal Importance (Section 41, Natural Environment and Rural Communities (NERC) Act 2006) mammals, together with an assessment of potential impacts arising from the proposed development.
- 1.1.3 The Section 41 mammal species assessed in this report are:
- hedgehog (*Erinaceus europaeus*)
 - brown hare (*Lepus europaeus*)
 - polecat (*Mustela putorius*)
 - harvest mouse (*Micromys minutus*).
- 1.1.4 Hazel dormouse, bats, otter, amphibians, reptiles and water vole which are European and/or nationally protected species are assessed separately within dedicated technical appendices.

1.2 Methodology

- 1.2.1 The survey included an assessment of the habitats on site for their potential to support NERC Section 41 species such as hedgehog (*Erinaceus europaeus*), polecat (*Mustela putorius*), harvest mouse (*Micromys minutus*) and brown hare (*Lepus europaeus*). This included a search for nests, runs, latrines, paw prints, and live specimens.

Data search

- 1.2.2 There were 136 records of Hedgehog (*Erinaceus europaeus*) returned in the data search, from 2016 to 2024. Most were clustered south-southeast in the 2km radius. The most recent record was from 2024, located 1.50km north-north east of the site boundary. The closest record was 0.49km southwest of the site boundary in 2016.
- 1.2.3 Three recorded of brown hare (*Lepus europaeus*) were recorded, from 1981, 2010 and 2015, in Round Wood, or Picket/Clanger Wood, located north of the site.

- 1.2.4 One record of harvest mouse (*Micromys minutus*) was recorded in 2024, located 1.3km east of the site.

1.3 Suitability of Habitats

- 1.3.1 The Site comprises a mosaic of habitats including woodland, hedgerows and wetland habitats, however the site is dominated by cropland, which together provide varying levels of suitability for Section 41 mammals.

High suitability habitats – woodland, hedgerows

- 1.3.2 Woodland habitats provide high suitability for Section 41 mammals. These habitats support a range of species, including dormouse, hedgehog, brown hare (at margins) and bats. Woodland edges and structurally diverse understories provide important nesting, foraging and shelter opportunities.
- 1.3.3 Species-rich hedgerows provide high suitability and function as key ecological corridors. They support commuting bats, provide essential habitat for dormouse where connectivity is maintained, and offer foraging and nesting opportunities for hedgehog and small mammals. Hedgerows linking woodland blocks are particularly important in maintaining ecological connectivity across the Site.
- 1.3.4 Wetland habitats provide moderate to high suitability for a range of mammals. Watercourses and associated habitats may support water vole where suitable bankside vegetation is present, and otter may utilise connected watercourses such as Bitham Brook and its tributaries. Riparian corridors are also important for foraging bats, and wet grassland mosaics support a range of small mammals. Suitability is strongly influenced by hydrological connectivity and disturbance levels.

Lower suitability – cropland, modified grassland

- 1.3.5 Cropland typically provides low to moderate suitability, depending on management practices. Brown hare may utilise arable fields for foraging and breeding, and harvest mouse may occur within field margins. Hedgehog may make occasional use of such areas, although suitability is limited by intensive management, lack of cover and disturbance. Field margins and uncultivated edges are generally of greater ecological value than the cropped areas themselves.
- 1.3.6 The cropland across the site generally provides low suitability due to low botanical diversity, intensive grazing or mowing, and limited structural complexity. However, it may still support section 41 mammals for dispersal.

1.4 Summary of Habitat Suitability

- 1.4.1 The site supports a range of habitats with varying suitability for Section 41 mammals. The woodland parcels, hedgerows and wetland habitats provide the highest ecological value, supporting key species such as dormouse, bats and potentially water vole and otter.
- 1.4.2 In contrast, cropland and improved pasture provide more limited habitat value, although they can support species such as brown hare and hedgehog, particularly where associated with field margins and boundary features.
- 1.4.3 The retention and enhancement of higher value habitats, together with improvements to lower value habitats, will be important in supporting and enhancing Section 41 mammal populations across the Site.

1.5 Assessment of Impacts and Mitigation Measures

Hedgehog

- 1.5.1 The Site provides habitat of moderate suitability for hedgehog, particularly within hedgerows, woodland edges, scrub and grassland habitats. These habitats support invertebrate prey and provide opportunities for nesting and shelter. Cropland is of lower intrinsic value but may be used opportunistically where connected to boundary features.
- 1.5.2 During construction, there is potential for habitat loss and degradation, as well as a risk of injury or mortality during vegetation clearance and groundworks. Temporary fragmentation of habitat may also occur. Habitat clearance will be undertaken in a controlled and phased manner to allow fauna to hedgehog to disperse naturally into retained habitat and overseen by a suitably qualified ecologist where required.
- 1.5.3 During operation, potential impacts include increased road mortality, disturbance from human activity, and the creation of barriers to movement
- 1.5.4 Mitigation will include the retention, buffering and enhancement of hedgerows and woodland, with the provision of a connected green infrastructure network, and the incorporation of hedgehog permeability measures in the development area such as gaps within fencing.

Brown hare

- 1.5.5 The Site provides habitat of moderate suitability for brown hare, particularly within open arable land and pasture.
- 1.5.6 Construction activities may result in habitat loss, disturbance and a risk of injury. Operational impacts include a reduction in open farmland habitat and increased human disturbance. Habitat clearance will be undertaken in a controlled and phased manner to allow fauna to disperse naturally into retained habitats. The clearance of large open fields will be phased where possible.
- 1.5.7 Mitigation will include the retention of open grassland areas within the Site, including within the SANG, and the creation of species-rich grassland and field margins. Appropriate management will maintain suitable habitat conditions.

Polecat

- 1.5.8 The Site provides habitat of low to moderate suitability for polecat, particularly along hedgerows, woodland edges and prey-rich habitats.
- 1.5.9 Potential impacts include disturbance, displacement and a low risk of mortality during construction, and increased road mortality and disturbance during operation. Clearance of dense vegetation will be subject to a precautionary two-stage cut.
- 1.5.10 Mitigation will include retention of habitat corridors, maintenance of prey-rich habitats and sensitive construction practices. The green infrastructure network will maintain connectivity for polecat.

Harvest Mouse

- 1.5.11 The Site provides habitat of low suitability for harvest mouse, as there is minimal rough grassland, field margins and tall vegetation.
- 1.5.12 Construction may result in habitat loss and a risk of mortality during vegetation clearance. Areas of tall grassland and field margins will be removed under a precautionary two-stage cut and ideally sensitively timed to avoid breeding season, May to October.
- 1.5.13 Operational impacts include potential habitat reduction and disturbance. Mitigation will include creation of tussocky grassland, enhancement of hedgerow bases and ditch vegetation, and phased vegetation clearance. Long-term management will maintain suitable habitat structure for harvest mouse.

1.6 Summary

- 1.6.1 The Site supports habitats of varying suitability for Section 41 mammal species, with higher value associated with hedgerows, woodland edges and wetland habitats, and lower value associated with intensively managed agricultural land.
- 1.6.2 Potential impacts are primarily related to habitat loss, disturbance and fragmentation. Through the retention of key habitats, provision of a connected green infrastructure network, and targeted habitat creation and management, the proposed development will avoid significant adverse effects on Section 41 mammals.
- 1.6.3 In several cases, the proposals provide opportunities to enhance habitat quality and connectivity, resulting in neutral or locally beneficial outcomes.