

# Century Works, Manchester Road, Millhouse Green

## Preliminary Ecological Appraisal

18<sup>th</sup> May 2021



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<b>Site Name</b> Century Works	<b>Location</b> Manchester Road, Millhouse Green, Barnsley S36 9LQ
<b>Local Authority</b> Barnsley Metropolitan Borough Council	<b>Grid Reference</b> SE 2125 0261
<b>Surveyor</b> Peter Middleton MCIEEM	<b>Date of Survey</b> 05/03/2021
<b>National Character Area</b> The Yorkshire Southern Pennine Fringe (NCA 37)	<b>Designation of Site</b> None

<b>UK Primary Habitats</b> g4 Modified grassland, g3c Other neutral grassland, w1g6 Line of trees, u1b5 Buildings, u1b6 Other developed land, u1c Artificial unvegetated surface.
<b>Secondary (habitat) Codes</b> 10 Scattered scrub, 17 Ruderal/ephemeral, 53 Felled, 66 Frequently mown, 69 Fence, 109 Residential, 164 Wet moss lawns, 1160 Introduced shrub.
<b>Protected/Notable Species, Constraints on Site</b> Located adjacent to Trans Pennine Trail
<b>HPIs and SPIs under NERC Act 2006</b> None
<b>Barnsley BAP</b> None

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## 1. Summary

- 1.1.1 The Preliminary Ecological Appraisal of land at the Century Works was commissioned by planning consultant James Roberts on behalf of the client Edward Dillingham on 16<sup>th</sup> February 2021. The UK Habitat Classification survey was undertaken on 5<sup>th</sup> March 2021. A single further nocturnal bat survey was undertaken on 16<sup>th</sup> May 2021.
- 1.1.2 The survey was commissioned to inform a planning application for a proposed small residential development, comprising two dwellings.
- 1.1.3 Site habitats are considered to be of importance to nature conservation at the site level only. The site is not considered to be of importance to any species or species group at greater than the site level.
- 1.1.4 Light sensitive bat species may be impacted by a long-term increase in artificial lighting, particularly if this impacts trees on the northern boundary of the site (Trans Pennine Trail) near one of the proposed new dwellings. In order to reduce this impact an ecologically sensitive lighting plan should be developed for the site.
- 1.1.5 An ecologically friendly planting plan should be developed for the scheme. This plan should include the planting of new native trees and shrubs.
- 1.1.6 The following additional ecological constraints and associated recommendations to avoid/mitigate/compensate for potential impacts have been identified.
- Potential damage to the roots of trees outwith the site boundary. Root protection measures detailed in British Standard 5837 (2012): Trees in relation to design, demolition and construction, should be followed.
  - Site clearance to be undertaken when it will not affect nesting birds (March to August) or be preceded by a nesting bird check undertaken by an ecologist.
- 1.1.7 In addition to the mitigation and compensation detailed above, enhancement recommendations include:
- Two wall integrated cavity bat boxes or tubes to be located in new buildings, to be situated high on south or west facing gables.
  - Three Schwegler bird boxes should be fitted to site trees at least 3m from the ground.
- 1.1.8 The findings of this survey are considered to be valid for up to 24 months of the survey date. After this time re-survey of the site may be necessary.

## 2. Introduction

- 2.1.1 The Preliminary Ecological Appraisal of land at the Century Works was commissioned by planning consultant James Roberts on behalf of the client Edward Dillingham on 16<sup>th</sup> February 2021. The UK Habitat Classification survey was undertaken on 5<sup>th</sup> March 2021. A single further nocturnal bat survey was undertaken on 16<sup>th</sup> May 2021.
- 2.1.2 The survey was commissioned to inform a planning application for a proposed small residential development, comprising two dwellings.
- 2.1.3 The site consists of an existing dwelling and associated large garden together with an access road. The site is in rural location, adjacent to a large industrial building off Manchester Road, 750m southwest of Milhouse Green and 2.8km southwest of Penistone.
- 2.1.4 The purpose of this report is to present the findings of a UK Habitat Classification survey together with determining the potential for, or presence of, protected and notable species. An appended map of the site shows the habitats present. Where impacts can be confidently determined, recommendations in relation to avoiding, mitigating and compensating for these impacts are included in this report, together with biodiversity enhancement recommendations.
- 2.1.5 Key legislation relating to designated sites and protected species and habitats is presented in Appendix 3. The implications of legislation are detailed in the body of the report where necessary.

## 3. Site Description

- 3.1.1 The site consists of 0.59ha of land associated with a dwelling to the west of the Century Works at Milhouse Green. Semi natural habitats on site are largely restricted to amenity grass within the curtilage of the dwelling, together with a line of mixed trees and a little scattered scrub.
- 3.1.2 Land surrounding the site consists of the tree-lined Trans Pennine Trail to the north with grassland to the west and south, interspersed with small woodlands. A large industrial building and hard surface occupies land immediately east of the application site with the A628 Manchester Road beyond (see Figure 1).
- 3.1.3 The site falls within National Character Area 37: The Yorkshire Southern Pennine Fringe National Character Area (NCA) is a transitional landscape from the upland areas of the Southern Pennines NCA in the west through to the low-lying land of the Nottinghamshire, Derbyshire and Yorkshire Coalfield NCA to the east. The most striking aspect of the landscape is the mingling of predominantly 'gritstone' industrial towns and villages with the strong valley forms and pastoral agriculture of the Pennine foothills.
- 3.1.4 The soils in the area comprise slowly permeable seasonally wet acid loamy and clayey soils.

Figure 1. The site location, as indicated by red line boundary.



## 4. Methodology

### 4.1 Data Consultation

4.1.1 Barnsley Biological Records Centre (BBRC) were contacted to request the following information for locations within a 2km radius of the site:

- Protected and notable species records
- The boundaries of non-statutory designated sites of nature conservation interest

4.1.2 A search of the Multi-Agency Geographical Information for the Countryside (MAGIC) website was undertaken to determine the following:

- The boundaries of statutory designated sites of nature conservation interest.
- The locations of historic European Protected Species (EPS) licences granted by Natural England.

### 4.2 Field Survey

#### UK Habitat Classification Survey

4.2.1 The site was surveyed on 5<sup>th</sup> March 2021 using the UK Habitat Classification survey methodology (Butcher *et al.*, 2020) by Peter Middleton. The surveyor is a competent botanist who was a major contributor to the South Yorkshire Plant Atlas (Wilmore *et al.*, 2011). He has more than 20 years' experience of undertaking botanical surveys including appraisals of Local Wildlife Sites (LWSs) in Barnsley, Doncaster and East Yorkshire, as well as National Vegetation Classification (NVC) survey in the Yorkshire Dales National Park.

- 4.2.2 Notable, rare or scarce plant species were highlighted if present. Evidence of protected species or species of nature conservation importance was recorded where present at the time of survey. Species recorded are included within the report as appropriate. Information is presented on the UK Habitat Classification plan, using Target Notes (TN) to identify particular features of interest, where appropriate. Additionally, and where possible, habitats were classified using the National Vegetation Classification (NVC), as described in the JNCC National Vegetation Classification – Users Handbook (Rodwell, 2006).
- 4.2.3 Aerial photographs (Google Earth) were studied to place the site in its wider context and to look for ecological features that would not be evident on the ground during the walkover survey. This is particularly useful for identifying wildlife corridors and ponds but because the latter are often not apparent on aerial photographs, OS 1:25 000 scale maps are also used.
- 4.2.4 Habitats of Principal Importance (HPIs) and Species of Principal Importance (SPIs) are included on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 were noted together with priority species and habitats as included on the Local Biodiversity Action Plan (LBAP).

#### Nocturnal Bat Survey

- 4.2.5 The following personnel conducted the nocturnal survey:
- Peter Middleton and Carl Dixon
- 4.2.6 The following activities were carried out in compliance with relevant Bat Survey Guidelines (Collins 2016):
- Dusk emergence survey on 16<sup>th</sup> May 2021
- 4.2.7 The dusk emergence survey continued from 15 minutes prior to sunset until 1.5 hours after this time.
- 4.2.8 The following equipment was used during the surveys:
- Wildlife Acoustics EM Touch bat detectors and iPad/iPod recorders
  - Canon XA10 video camera and infra-red light

### **4.3 Methods of assessment**

- 4.3.1 The value and sensitivity of ecological features present on site were determined based on the guidance provided within 'Guidelines on Ecological Impact Assessment in the UK and Ireland' (CIEEM, 2018). Individual ecological receptors (habitats and species that could be affected by the development) for the scheme were assigned levels of importance for nature conservation. The highest level is international, then decreasing in order of importance through national, regional, county, local and lastly site.

### **4.4 Survey Limitations**

- 4.4.1 The survey was undertaken outside of the survey season for botanical surveys, however, considering the habitats that are present on site, this is not a significant constraint as habitat types could be confidently determined.

## 5. Ecological Baseline

### 5.1 Data Consultation

- 5.1.1 Designated sites present within 1.5km of the application area are detailed in Table 1. (also see Appendix 4). There are no ancient semi natural woodlands within a 2km radius of the site.

**Table 1. Designated sites**

Designation	Name	Description/interest	Distance from site
Local Wildlife Site (LWS)	Hartcliffe Hill	Acid grassland and dwarf shrub heath	730m south-east
	Small Shaw & High Bank	Western gorse, acid grassland and dwarf shrub heath	1.3km north-east

- 5.1.2 Records of protected and notable species obtained are discussed in the species sections of the results.

### 5.2 Field Survey

#### UK Habitat Classification Survey

- 5.2.1 The arrangement of site habitats is shown on the UK Habitat Classification plan in Appendix 1, whilst a field survey botanical species list is provided in Appendix 2.
- 5.2.2 The site is considered to be of no more than site level importance to nature conservation for the habitats supported. The site is not considered to be of importance to any other species or species groups at greater than the site level.
- 5.2.3 A detailed description of the site habitats and the site's potential to support protected and notable species is provided below.

#### *Habitats*

#### G4 Modified grassland

- 5.2.4 Most of this regularly mown lawn/amenity grass that surrounds the dwelling is dominated by springy turf-moss *Rhytidiadelphus squarrosus*. Where moss does not dominate, there is frequently occurring cocksfoot *Dactylis glomerata*, meadow grasses *Poa* spp. and creeping buttercup *Ranunculus repens*. Occasional species include perennial ryegrass *Lolium perenne*, creeping bent *Agrostis stolonifera* and ribwort plantain *Plantago lanceolata* together with docks *Rumex* spp. near the boundaries. The grassland by default is considered to be in poor condition (Plate 1). Along the south and western boundaries near the dwelling are several specimens of scattered scrub and introduced shrub including birch *Betula pendula.*, beech *Fagus sylvatica*, elder *Sambucus nigra* and cherry laurel *Prunus laurocerasus*. Also, there is evidence of previous tree felling in this location.

**Plate 1. View east from the western boundary**



u1b5 Buildings

- 5.2.5 The onsite buildings comprise a detached single storey dwelling and associated garage and greenhouse (Plate 2). The potential of these buildings to support roosting bats is detailed in the species section of the report.

u1b6 Other developed land

- 5.2.6 A concrete driveway is present on site, extending from near the off-site large industrial building to the dwelling, with a wider parking area for vehicles adjacent to the dwelling (see Plate 2 & Appendix 1). In addition, there is a small concrete pad/foundation near the northern boundary (Plate 5).

**Plate 2. Concrete driveway to dwelling and parking space**



u1c Artificial unvegetated surface

- 5.2.7 Between the line of trees and the large industrial building is a driveway with an artificial unsealed surface (Plate 3). In addition, there is an area that has been cleared of vegetation, adjacent to a concrete pad/foundation near the northern boundary (Plate 5).

**Plate 3. Leyland cypress and unsealed surface**



W1g6 Line of trees

- 5.2.8 Along almost the entire southern boundary, is a line of trees mostly dominated by Leyland cypress *Cuprocyparis leylandii* together with occasional silver birch, sycamore *Acer pseudoplatanus* and Corsican pine *Pinus nigra* (see Plates 3 & 4). A short line of Leyland cypress is also present along the western boundary.

**Plate 4. Concrete and line of trees**



g3c Other neutral grassland

- 5.2.9 For want of a better classification, a previously cleared area of land between the northern boundary and a concrete pad (Plate 5) has been assigned to this habitat. This habitat has been colonised by pioneer vegetation including creeping bent, Yorkshire fog *Holcus lanatus*, weld *Reseda luteola* and bristly oxtongue *Picris echioides* (see full species list in Appendix 2). Bordering the eastern boundary of the amenity grass is an earth and rubble bund which is a complicated mosaic of habitats too small to map, comprising: bare ground, pioneer grass, scattered scrub and ruderal/ephemeral. Species present, include bramble *Rubus fruticosus* agg, grey willow *Salix cinerea*, western gorse *Ulex gallii*, silver birch, teasel *Dipsacus fullonum*, foxglove *Digitalis purpurea*, creeping bent and Yorkshire fog (see Plate 5 and Appendix 2).

**Plate 5. Concrete pad and unsealed surface with gc3 on left (bund) and in foreground**



*Species and species groups*

Amphibians

- 5.2.10 No Great Crested Newt (GCN) *Triturus cristatus* records were provided by BBRC for locations within a 1.5km radius of the site. Two common toad *Bufo bufo* records were provided by BBRC, the nearest recorded in 2016 from a location 700m west of the site.
- 5.2.11 No GCN EPS mitigation licences has been issued for a location within a 2km radius of the site. No GCN have been confirmed as present in the GCN pond surveys between 2017 and 2019 from any locations in this area.
- 5.2.12 Four ponds were identified during the pond search for locations within 500m of the application site (Figure 2). The nearest ponds (Ponds 1 & 2) are 300m west south west of the site boundary and comprise a lagoon and adjacent pond (Plate 6); these water bodies are heavily polluted with mine water. Ponds 3 & 4 are separated from the site by the A628 which is considered a major barrier to GCN movement. Furthermore, high quality terrestrial GCN habitat is present between all the ponds and the site (see Figure 2).
- 5.2.13 The bund and several log piles provide foraging and resting opportunities for amphibians, however, given the lack of records and local knowledge of the area, GCN are not considered a receptor to the proposed scheme.



## Bats

### *Historical records*

- 5.2.15 Seven bat records of two species were supplied for two locations by BBRC. Species included in the records comprised common pipistrelle *Pipistrellus pipistrellus* and Daubenton's bat *Myotis daubentonii*, with other records ascribed to an unidentified bat species. The closest record to site comprised an unidentified foraging bat, recorded in 2013, from a location 350m northeast of the site.
- 5.2.16 One historic bat EPS mitigation licence has been obtained for a location within 2km of the application site. The licence was issued in 2012 to permit the destruction of a common pipistrelle resting place for a location 2km northeast of the application site.
- 5.2.17 Three buildings are present on site. No signs of bat presence were recorded from the buildings. The buildings and their potential to accommodate bats are detailed below.

### *Description of buildings*

- 5.2.18 The main building on site comprises a fairly modern rectangular single-storey dwelling built of stone, with a pitched concrete-tile roof. The dwelling has uPVC double-glazed windows, doors and a conservatory (Plate 7). Other buildings comprise a stone-built detached garage beneath a pitched concrete-tile roof and a greenhouse with stone walls to 0.5m (Plate 8).

#### **Plate 7. West elevation of dwelling**



### *External inspection of buildings*

- 5.2.19 The masonry on the dwelling is largely intact with the exception of a bulging wall between a window and the soffit on the west elevation (Plate 9) plus a hole in masonry under the soffit on the north facing gable. There is also a gap behind a fascia on a boiler house extension on the west elevation and several gaps between soffit boards (see Plate 10).
- 5.2.20 The garage building has a gap behind the fascia on both sides. The wall top is 20mm at most above the bottom of the fascia, which creates a large void unlikely to be used by crevice dwelling bats. The greenhouse lacks features with potential to accommodate roosting bats.

**Plate 8. Garage with greenhouse behind**



**Plates 9 & 10. Two of the potential bat roost features on dwelling**



*Internal inspection of building*

5.2.21 The dwelling roof is supported by prefabricated roof trusses. It has a height to the ridge of 1.1m, Type 1F felt is present beneath the tiles with 100mm of glass fibre insulation on the ceiling. The space was not particularly 'cobwebby' but nevertheless, no signs of bats were found.

**Plate 11. Roof-space of dwelling**



*Summary of building inspection*

5.2.22 No bats were found roosting in the buildings during the preliminary daytime assessment and there were no signs of bat occupation. The surveyed dwelling displays a low number and diversity of roost features and is considered to offer low bat roost potential, whilst the garage and greenhouse offers negligible potential for use by roosting bats.

*Trees*

5.2.23 No site trees display features with potential to accommodate roosting bats.

*Bat foraging and commuting habitat*

5.2.24 The northern boundary of the site is located adjacent to the Trans Pennine Trail which is considered to provide good foraging opportunities and is likely to comprise a well-used commuting route by bats.

*Nocturnal survey*

5.2.25 *16th May 2021 – Dusk emergence survey.* Sunset was at 21:02. The temperature at the start of the survey was 10°C with a light Force 1 north-easterly breeze and 100% cloud. The temperature decreased slightly to 9°C by the end of monitoring and the other conditions remained the same. It was dry throughout.

5.2.26 The first bat recorded was a distant common pipistrelle at 21:29 (27 minutes after sunset), four more passes were recorded together with a pass by a bat of a *Myotis* species at 22:10. No bats emerged from the surveyed building.

*Summary and Evaluation of Findings*

5.2.27 There were no visible signs of bat presence on either the inside or outside of the surveyed buildings. However, one building displays a low number and diversity of roost features and was therefore assessed as offering a low level of bat roost potential. Other site buildings offer negligible potential for use by roosting bats.

5.2.28 No bat roosting activity was recorded during the nocturnal survey and it appears that roosting bats are absent from the surveyed buildings.

Birds

5.2.29 No Red List of the Birds of Conservation Concern (Eaton *et al.*, 2015) or any other species were recorded on the site itself. The lines of trees have potential to support common garden birds, which may use these habitats for both foraging and nesting.

Hedgehog

5.2.30 Six hedgehog *Erinaceus europaeus* records were provided by BBRC for locations within a 1.5km radius of the site. The nearest and most recent record involved a roadkill on the A628, recorded in 2018 for a location 570m south of the site. The site would offer some appeal to this species but perhaps less than is offered by surrounding habitats, such as the Trans Pennine Trail.

Invasive species

5.2.31 No invasive species on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended) were recorded on site.

Invertebrates

5.2.32 The ubiquitous habitats present on site are likely to support a low assemblage of common invertebrates. Consequently, rarely occurring invertebrate species are unlikely to be present.

Plants

5.2.33 The ubiquitous habitats on site are unlikely to support notable or rarely occurring species of vascular plants. No notable plant species were recorded during the survey.

Reptiles

5.2.34 No reptile records were provided by BBRC for locations within 1.5km of the site centroid. Considering the site itself lacks waterbodies, displays little suitability for use by reptiles and that there is little connectivity with suitable habitats elsewhere, reptiles are not considered likely to be a receptor to the proposed scheme.

## **6. Assessment**

### **6.1 Proposals**

6.1.1 The assessment of impacts is based upon the document entitled 'Project: 2No New Houses, Century Works, Millhouse Green, Manchester Road, Sheffield. Plot 1-2 Site Plan as Proposed. Ref. 102027, Dwg No 05, Feb 2021, NYP Architectural Services Ltd'.

### **6.2 Assessment of Impacts**

Designated sites

6.2.1 No impacts are anticipated upon designated sites due to the nature of the development and the distance of designated sites from the application area.

Habitats

6.2.2 Impacts upon semi natural habitats will be restricted to the loss of small areas of amenity grass. Impacts upon this habitat are considered to be of importance to nature conservation at no more than at the site level.

6.2.3 The development risks damage to root systems or stems of trees outwith the red line boundary, as a result of demolition and construction works.

### Species

#### *Bats*

- 6.2.4 Foraging bats may be impacted by a long-term increase in artificial lighting, particularly if this impacts trees on the northern boundary of the site (Trans Pennine Trail). Whilst this impact is considered unlikely it may potentially result local level were it to negatively impact the appeal of the TPT as a foraging and commuting habitat to light sensitive bat species.

#### *Birds*

- 6.2.5 Existing site trees will be retained therefore there will be no more than a negligible impact upon foraging and nesting birds.

## **6.3 Further Survey and Mitigation**

### Habitats

- 6.3.1 British Standard 5837 (2012): Trees in relation to design, demolition and construction, should be followed. Root Protection Zones (RPZ's) should be calculated and implemented to prevent harm to trees. This should also apply to any trees out-with the site, up to 5 m from the boundary.
- 6.3.2 An ecologically friendly planting plan should also be developed for the scheme. This plan should include the planting of new native trees and shrubs. It is recommended that the specifics of the ecologically friendly planting plan are detailed within an Ecological Design Strategy (EDS), the need for which may be secured by a planning condition.

### Species

#### *Bats*

- 6.3.3 This assessment has highlighted the potential for the development to negatively impact bats using the TPT through new artificial light spill. In order to avoid this impact an ecologically sensitive lighting plan should be developed for the site. This plan should aim to minimise new lighting and avoid any light spill onto site trees. Consideration should be given to light timing restrictions, use of passive infra-red sensors and use of hoods, cowls, louvres and shields to direct the light to the intended area only.

#### *Birds*

- 6.3.4 Given the habitats likely impacted by the development, there are no restrictions on the timing of site clearance unless, proposals are altered in a way that would impact vegetation on the eastern boundary bund. The normal protocol should then apply; either clearance of vegetation should be avoided between March and August, or it should be preceded by a nesting bird check undertaken by an ecologist.

## **6.4 Enhancements**

- 6.4.1 In accordance with the aims of planning policy NPPF: 15, it is suggested that the developer follows the recommendations detailed below. Please note that the enhancements have been informed by the results and findings of the field survey.

- The new dwellings should include two wall integrated cavity bat boxes or tubes, situated high on south or west facing gables and away from artificial light spill. Boxes should not be located directly above windows or doors.
- Three Schwegler bird boxes should be fitted to site trees at least 3m from the ground.

## **6.5 Conclusion and Residual Effects**

- 6.5.1 In order to further reduce scheme impacts and to ensure the scheme maximises potential benefits to nature conservation, it is recommended that all mitigation and enhancement measures detailed in Sections 6.3 and 6.4 are adopted.

## 7. References

Butcher B, Carey P, Edmonds R, Norton L & J Treweek (2020) The UK Habitat Classification User Manuals Version 1.1 at <http://www.ukhab.org/>

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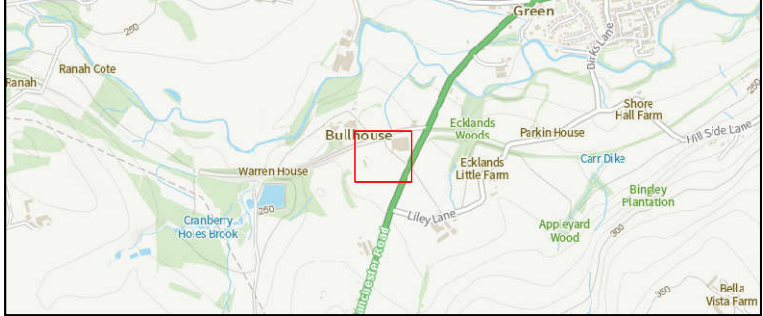
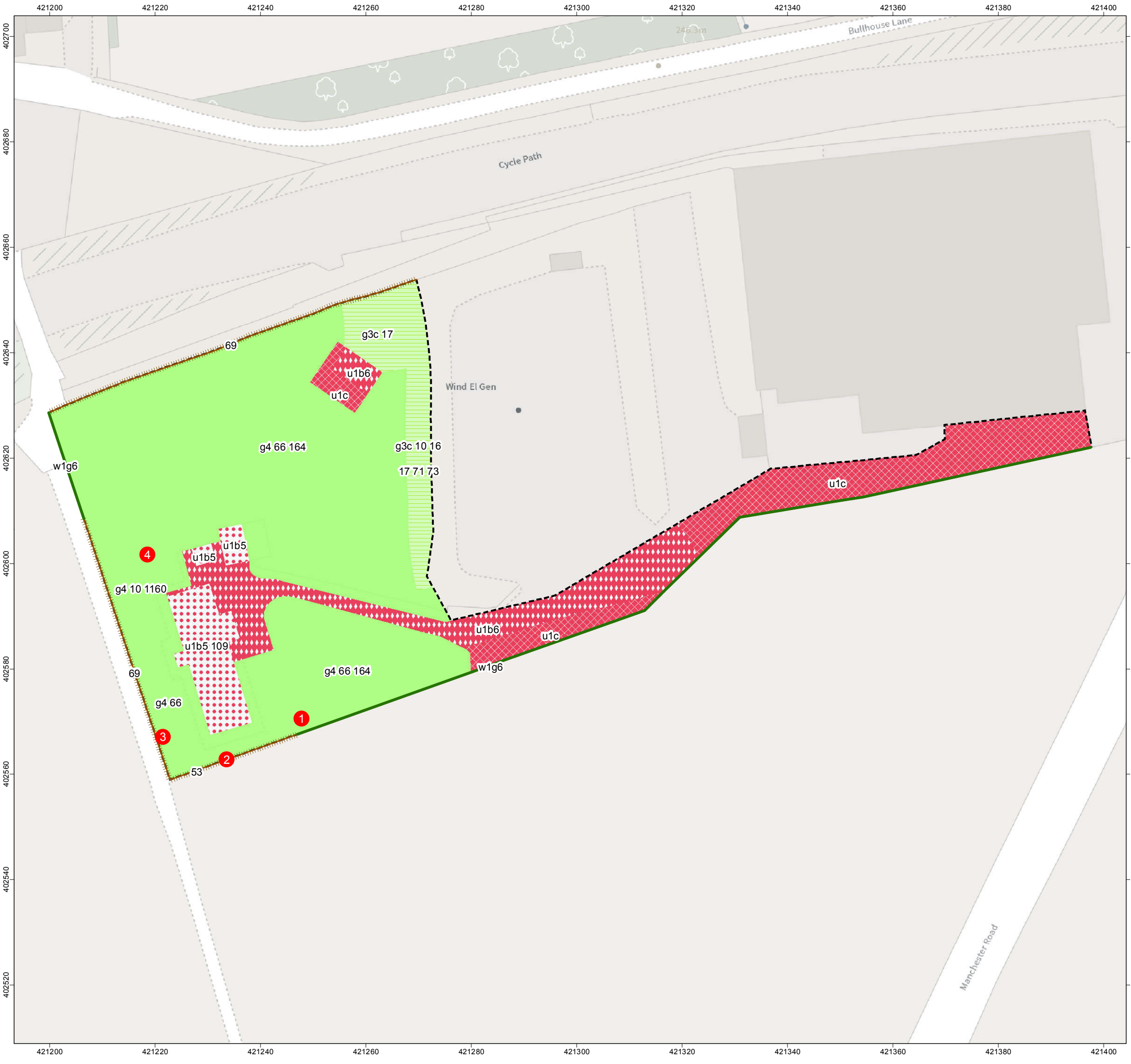
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Rodwell, J.S, (2006), NVC Users' Handbook. JNCC

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## **Appendix 1. UK Habitat Classification Plan**



Survey Information	
	Site boundary (5,898.1m <sup>2</sup> )
UK Habitat Survey (Primary Habitats)	
	g3c - Other neutral grassland (397.5m <sup>2</sup> )
	g4 - Modified grassland (3,794.2m <sup>2</sup> )
	u1b5 - Buildings (292.6m <sup>2</sup> )
	u1b6 - Other developed land (631.7m <sup>2</sup> )
	u1c - Artificial unvegetated, unsealed surface (782.0m <sup>2</sup> )
	w1g6 - Line of trees (184.2m)
	69 - Fence (152.1m)
	Target note

- Secondary codes:**
- 10 - Scattered scrub
  - 16 - Tall herb
  - 17 - Ruderal/ ephemeral
  - 53 - Felled
  - 66 - Frequently mown
  - 69 - Fence
  - 71 - Earth bank
  - 73 - Bare ground
  - 109 - Residential
  - 164 - Wet moss lawns
  - 1160 - Introduced shrub

- Target notes:**
- 1 - Log piles
  - 2 - Log piles
  - 3 - Log piles
  - 4 - Log piles

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PROJECT TITLE  
***CENTURY WORKS, MILLHOUSE GREEN***

DRAWING TITLE  
**Figure 1. UK Habitat Survey Plan**

VER	DATE	REMARKS	Drawn	Checked
1.2	11/03/21	UKHab	MP	PM

DRAWING NUMBER:  
**MIDDLETONBELLECOLOGY/CenturyWorks/UKHab**

SCALE	PLOT SIZE	DATUM	PROJECTION
1:700	A3	OSGB	BNG

## Appendix 2. Plant Species Recorded on Site

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Name	Common name	DAFOR Rating	Habitat
<i>Ulex europaeus</i>	Gorse	R	Scattered scrub
<i>Dipsacus fullonum</i>	Wild Teasel	O	Scattered scrub
<i>Digitalis purpurea</i>	Foxglove	O	Scattered scrub
<i>Salix cinerea subsp. cinerea</i>	Grey Willow	O	Scattered scrub
<i>Rubus fruticosus agg.</i>	Bramble	O	Scattered scrub
<i>Veronica persica</i>	Common Field-speedwell	R	Grassland margins
<i>Cardamine hirsuta</i>	Hairy Bittercress	R	Grassland margins
<i>Myosotis arvensis</i>	Field Forget-me-not	R	Grassland margins
<i>Cirsium arvense</i>	Creeping Thistle	R	Grassland margins
<i>Cirsium vulgare</i>	Spear Thistle	R	Ruderal/ephemeral
<i>Acer pseudoplatanus</i>	Sycamore	O	Line of trees
<i>Betula pendula</i>	Silver Birch	O	Line of trees
<i>Cuprocyparis leylandii</i>	Leyland Cypress	A	Line of trees
<i>Pinus nigra</i>	Austrian Pine	O	Line of trees
<i>Quercus robur</i>	Pedunculate Oak	R	Scattered scrub
<i>Sambucus nigra</i>	Elder	R	Scattered scrub
<i>Fagus sylvatica</i>	Beech	R	Scattered scrub
<i>Prunus laurocerasus</i>	Cherry Laurel	O	Introduced shrub
<i>Rumex acetosa</i>	Common Sorrel	R	Grassland margins
<i>Holcus lanatus</i>	Yorkshire-fog	O	Scattered scrub
<i>Epilobium hirsutum</i>	Great Willowherb	O	Ruderal/ephemeral
<i>Jacobaea vulgaris</i>	Common Ragwort	O	Ruderal/ephemeral
<i>Rumex crispus</i>	Curled Dock	O	Ruderal/ephemeral
<i>Reseda luteola</i>	Weld	R	Ruderal/ephemeral
<i>Picris echioides</i>	Bristly Oxtongue	R	Ruderal/ephemeral
<i>Juncus effusus</i>	Soft rush	R	Ruderal/ephemeral
<i>Rhytidiadelphus squarrosus</i>	Springy Turf-moss	N/A	Modified grassland
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O	Ruderal/ephemeral
<i>Agrostis stolonifera</i>	Creeping Bent	O	Ruderal/ephemeral
<i>Plantago lanceolata</i>	Ribwort Plantain	O	Modified grassland
<i>Dactylis glomerata</i>	Cock's-foot	F	Modified grassland
<i>Poa trivialis</i>	Rough Meadow-grass	F	Modified grassland
<i>Poa pratensis</i>	Smooth Meadow-grass	O	Modified grassland
<i>Lolium perenne</i>	Perennial ryegrass	O	Modified grassland
<i>Ranunculus repens</i>	Creeping Buttercup	F	Modified grassland

### Appendix 3. Relevant Legislation and Policy

Wildlife legislation relating to statutory designated sites and species is summarised in Table A1 and A2 below. This legal information is intended for summary only, and the original legal documents should be consulted if a detailed understanding is required.

**Table A1.** Legislation relating to designated sites and habitats.

Designated Site	Legal Status
Local Wildlife Site (LWS)	While they have no direct legal status, Local Wildlife Sites are considered important enough to receive recognition within the planning system. National planning policy requires local authorities to identify Local Wildlife Sites and provide for their protection through local policy.

**Table A2.** Legislation relating to species.

Species	Legal Status
European protection	
European Protected Species (EPS) (including bats, Great Crested Newt (GCN), otter and hazel dormouse)	<p>These animal species and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) Regulations 2012, which makes it illegal to:</p> <ul style="list-style-type: none"> <li>• Intentionally or deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs.</li> <li>• Deliberately disturb such an animal.</li> <li>• Damage or destroy a breeding site or resting place of such an animal.</li> </ul> <p>European Protected Species (EPS) licences can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed:</p> <ul style="list-style-type: none"> <li>• The development is for reasons of overriding public interest.</li> <li>• There is no satisfactory alternative; and</li> <li>• The favourable conservation status of the species concerned will be maintained and/or enhanced.</li> </ul> <p>Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed.</p> <p>Natural England also allow sites to be registered on the Bat Low Impact Class Licence to permit activities that would otherwise be unlawful under the Conservation Regulations where the 3 tests can be passed and the bat roosts to be impacted are of low conservation status.</p>

Species	Legal Status
National protection	
European Protected Species and other species including water vole and white clawed crayfish	These animals receive full protection under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: <ul style="list-style-type: none"> <li>• Intentionally kill, injure or take any such animal.</li> <li>• Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and</li> <li>• Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.</li> </ul>
Common amphibians and reptile species	These animals receive limited protection under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal to intentionally kill or injure any such animal.
Badger	The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger or attempt to do so and also make it illegal to intentionally or recklessly interfere with a Badger sett. This includes damaging or destroying a sett, obstructing access to a sett and disturbing a Badger while it is occupying a sett. Licences can be granted by Natural England to permit sett closure and/or disturbance between July and November inclusive.
Schedule 1 birds	Special penalties relate to offences concerning birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In addition to the offences detailed above relating to all wild birds, it is illegal to intentionally or recklessly disturb any Schedule 1 bird or their dependent young while nesting.
All bird species	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: <ul style="list-style-type: none"> <li>• Intentionally kill, injure or take any wild bird.</li> <li>• Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.</li> </ul>
Invasive species	The Wildlife and Countryside Act 1981 (as amended) contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 of the Act. In relation to Schedule 9 plants, it is an offence to plant or otherwise cause these plant species to grow in the wild.

### Species and Habitats of Principal Importance

Planning authorities have a duty under Section 40 of the NERC Act 2006 to have regard to priority species and habitats in exercising their functions including development control and planning. In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the list of Habitats and Species of Principal Importance (HPI/SPI). The HPI/SPI list is used to guide planning authorities in implementing their duty under the NERC Act.

### National Planning Policy Framework

The National Planning Policy Framework for England was revised in 2019. The NPPF's policy on biodiversity has been summarised by the Government as: "The Framework underlines that the planning system should seek not just to protect, but, where possible to enhance biodiversity – making sure we don't just have isolated pockets of wildlife, but rich and

connected green spaces for all kinds of species to thrive. Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland.”

### **Local Biodiversity Action Plans**

The HPI/SPI list included on Section 41 of the NERC Act 2006 is supported by a series of Local Biodiversity Action Plans (LBAPs), usually set up on a local authority local authority administrative boundary basis. Each LBAP identifies those habitats and species considered to be most important in that area (usually referred to as priority habitats and species). Commonly, an LBAP will identify a number of habitats and species for which “action plans” have been prepared.

# Appendix 4. Designated Sites Map

