



Preliminary Roost Assessment Survey

28 Northney Road, Hayling Island, Hampshire PO11 0ND

R&G Design

Status	Issue	Name	Date
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Executive summary

Arbtech Consulting Limited was commissioned by R&G Design to undertake a preliminary bat roost assessment (PRA) at 28 Northney Road, Hayling Island, Hampshire PO11 0ND. The survey was completed on 26/11/20. The aim of the assessment was to search for bats and field signs of bats and to consider the value and suitability of the structures for roosting bats. The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls. The development proposals are for a two storey rear extension. The planning application is being prepared for submission to Havant Borough Council.

Recommendations -

Ref	Survey assessment conclusions (with justification)	Foreseen impacts	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF (July 2018)
Bats	B1 has negligible habitat value for bats due to the lack of evidence and no suitable roosting sites.	There are no impacts foreseen as a result of the development.	An integrated bat brick should be added to the new extension high up at eaves level. The box should not be above or next to a window to reduce artificial light spill, and should not be near any security lights or sensors.

See section 4.2 for full details.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was commissioned by R&G Design to undertake a preliminary bat roost assessment (PRA) at 28 Northney Road, Hayling Island, Hampshire PO11 0ND. The survey was completed on 26/11/20. The assessment is informed by the Bat Conservation Trust publication, *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2016). No previous surveys have been carried out by Arbtech for this property.

1.2 Site Context

The development area is located at National Grid Reference SU 7293 0374 and has an area of approximately 0.04ha.

1.3 Scope of the report

This report provides a description of all features suitable for roosting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on constraints to the proposals as a result of roosting bats, and summarises the requirements for any further surveys, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with wildlife legislation.

The aim of the assessment was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how they could use the site. To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an external survey and internal inspection where possible.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals.
- Recommendations for further survey and assessment have been made, along with advice on the requirements of a European Protected Species Mitigation Licence (EPSML) application if appropriate.

A survey plan is presented in Appendix 1, proposed plans in Appendix 2, desk study results in Appendix 3 and a summary of relevant legislation is presented in Appendix 4.

1.4 Project Description

The development proposals are for a two storey rear extension. The planning application is being prepared for submission to Havant Borough Council.

2.0 Methodology

2.1 Desk Study methodology

The desk study included a 1km radius review of statutory and non-statutory designated sites, Biodiversity Action Plan (BAP) Priority Habitats and granted EPSML records for bats held on Magic database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

Existing bat records relating to the site and a surrounding 2km radius are required to conform to national guidelines. The data search is confidential information that is not suitable for public release and has been analysed and summarised for presentation in this report.

2.2 Site Survey methodology

The survey was undertaken by Natalie Evans, (Natural England bat licence number: 2018-37888-CLS-CLS)

All features that will be impacted by the project proposals were assessed for their bat roosting and or commuting habitat. The surveyor systematically surveyed all features suitable for bats and signs of bat activity.

For any surveyed buildings:

A non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the building(s) for potential access and egress points, and for signs of bat use. An internal inspection of the building was also made, including the living areas of derelict or abandoned buildings and the accessible roof spaces of all buildings, using an endoscope, torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

For any surveyed trees:

A visual inspection from ground level using binoculars and where accessible and safe to do so, an internal inspection of potential roosting features using an endoscope, torch and ladders.

2.3 Breeding birds and other incidental observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

2.4 Suitability Assessment

All affected survey features on site were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (ed) 2016). The features that dictate the likelihood of roosting bats are summarised in Tables 1 and 2 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Likelihood of bats being present	Feature of building and its context
Higher	Buildings and other structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).
Lower	A small number of possible roost sites/features used sporadically by more widespread species. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.

Table 2: Features of a tree that are correlated with use by bats

Likelihood of bats being present	Feature of tree and its context
Higher	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Lower	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential.

2.5 Limitations

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study.

There were no specific limitations to the survey.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results is provided below, full details are presented in Appendix 3.

3.2 Designated sites

Details of any statutory and non-statutory designated sites within a 1km radius of the survey site, including their reasons for notification, are provided in Table 3 below.

Table 3: Designated sites within 1km radius of the site

Designated Site Name	Distance from Site (approx.)	Reasons for Notification from Natural England and/or BRD or LPA policy maps
Statutory Sites		
Chichester and Langstone Harbours Ramsar and SPA, Chichester Harbour SSSI, Solent Maritime SAC	350m north east	Chichester Harbour is a large estuarine basin in which at low water extensive mud and sandflats are exposed, drained by channels which unite to make a common exit to the sea. The site is of particular significance for wintering wildfowl and waders and also breeding birds both within the Harbour and in the surrounding permanent pasture fields and woodlands. There is a wide range of habitats which have important plant communities.
Non-statutory Sites		
None known		

3.3 Landscape

A review of the designated sites, aerial photographs (Figure 1), the Magic database and OS maps has been undertaken. Collated together, the site's local habitat is described below:

The local landscape contains excellent foraging and commuting habitat for bats, with woodland and pasture and a strong hedgerow network.

Priority habitats within 1km of the site are listed in Table 5.

Table 5: Priority Habitat Inventory within 1km (Magic.gov.uk):

Habitat	Closest distance from site
Deciduous Woodland	110m south west
Mudflats	180m north west
Good quality semi improved grassland	90m west
Coastal and floodplain grazing marsh	140m north
Coastal saltmarsh	175m north west
Reedbeds	365m north east



Figure 1: Aerial photo of site, showing landscape structure

3.4 Historical records

Bat records have not been obtained at this stage due to the low impact of the development and negligible risk to bats.

Table 5: Historical records of bats within 2km of the site

Common name	Scientific binomial	Number of records	Number of roost records	Maternity roost records

A search of the Magic database for granted European protected species mitigation licences (EPSMLs) for bats within a 1km radius of the site has been completed. Displaced bats from licenced sites >1km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licenced site.

Table 6: Granted EPSMLs (bats) within 1km of the site

Case reference of granted application	Approx. distance from site	Species Effectuated	Licence Start Date:	Licence End Date:	Impacts allowed by licence
EPSM2010-2147	140m south east	C-PIP;S-PIP;BLE;NATT	03/09/2010	01/08/2012	Destruction of a resting place

The EPSL records show that one bat roost has been destroyed (up until 2017) involving common pipistrelle, soprano pipistrelle, Natterer's and brown long-eared bats.

3.5 Field Survey Results

One building was surveyed designated as B1 and illustrated in the map in Appendix 1. The weather conditions recorded at the time of the survey are shown in Table 7.

Table 7: Weather conditions during the survey

Date: 26/11/20	
Temperature	10°C
Relative Humidity	80%
Cloud Cover	100%
Wind	9mph
Rain	Very light

3.6 Site Feature descriptions and photos

B1 southern and eastern elevations

B1 is a semi-detached, two storey dwelling of brick construction with a hipped, slate tiled roof. The roof is tight fitting with no visible damage or raised tiles that could provide suitable bat access. The mortar is all intact. There are brick chimney stacks to the southern and northern elevations which are tight fitting to the roof. Window frames are timber and tight fitting.



B1 northern elevation

There is a single storey extension to the northern elevation which does not provide any suitable bat habitat.

**B1 eastern elevation**

The only feature on the building that provides some limited bat roosting habitat are small gaps under the soffit box on the eastern elevation. These gaps go directly into the loft void so do not provide a tight enclosed crevice that would be preferred by crevice dwelling bats such as pipistrelles.



B1 interior

The loft is unlined and the slates are tight to each other and the roof timbers. The chimney stacks are tight to the roof. Small slits of daylight are visible around the eaves where the gaps were noted on the eastern elevation. The soffit boxes are open into the loft. The floor is partially boarded with wool insulation between rafters. No evidence of bat use was found indicating a likely absence of void dwelling bats.



4.0 Conclusions, Impacts and Recommendations

4.1 Informative guidelines

Bats are protected under the Wildlife and Countryside Act (1981) and Conservation Regulations (see Appendix 4 for a summary of legislation protecting bats in the UK). Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2016) recommends additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform a European protected species mitigation licence (EPSML) application with Natural England. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey (Collins, J. 2016).

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2016) recommends additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence/likely absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey (Collins, J. 2016). If two or one further survey is recommended these surveys must be completed during the optimal survey period (mid-May to August). For low and moderate roost likelihood evaluation the survey effort recommended at this stage is iterative and if bats roosts are confirmed in the building, a further survey will be required to provide sufficient information to inform an EPSML application to Natural England.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately, and a suitably qualified ecologist should be contacted for further advice.

4.2 Evaluation

Taking the desk-based assessment and site survey results into account, the following value for roosting bats has been placed on each site survey feature.

Table 8: Evaluation of building on site

Ref	Survey assessment conclusions (with justification)	Foreseen impacts	Recommendations	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF (July 2018)
Bats	B1 has negligible habitat value for bats due to the lack of evidence and no suitable roosting sites. Although two small gaps are present along the eastern soffit box, the boxes lead directly into the loft and do not provide an enclosed crevice. This would provide a potential access point for bats into the loft, but no evidence of this was found and likely absence can be assessed with a high degree of confidence.	There are no impacts foreseen as a result of the development.	If at any point bats are found during the development, work must stop and Arbtech will be contacted for further advice.	An integrated bat brick should be added to the new extension high up at eaves level. The box should not be above or next to a window to reduce artificial light spill, and should not be near any security lights or sensors.
Birds	No nests were observed.	None.	None.	Bird boxes could be added to trees on site or to the dwelling to provide additional nesting habitat. Boxes such as swift bricks and sparrow terraces are ideal for dwellings and will provide additional nesting habitat for these priority species.

5.0 Bibliography

- British Trust for Ornithology (2016) www.bto.org/about-birds/nnbw/putting-up-a-nest-box
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth (2020) accessed 27/11/20
- Magic database (2020) <http://www.magic.gov.uk/MagicMap.aspx> accessed on 27/11/20
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Appendix 1: Survey Plan



Appendix 2: Proposed Site Plan

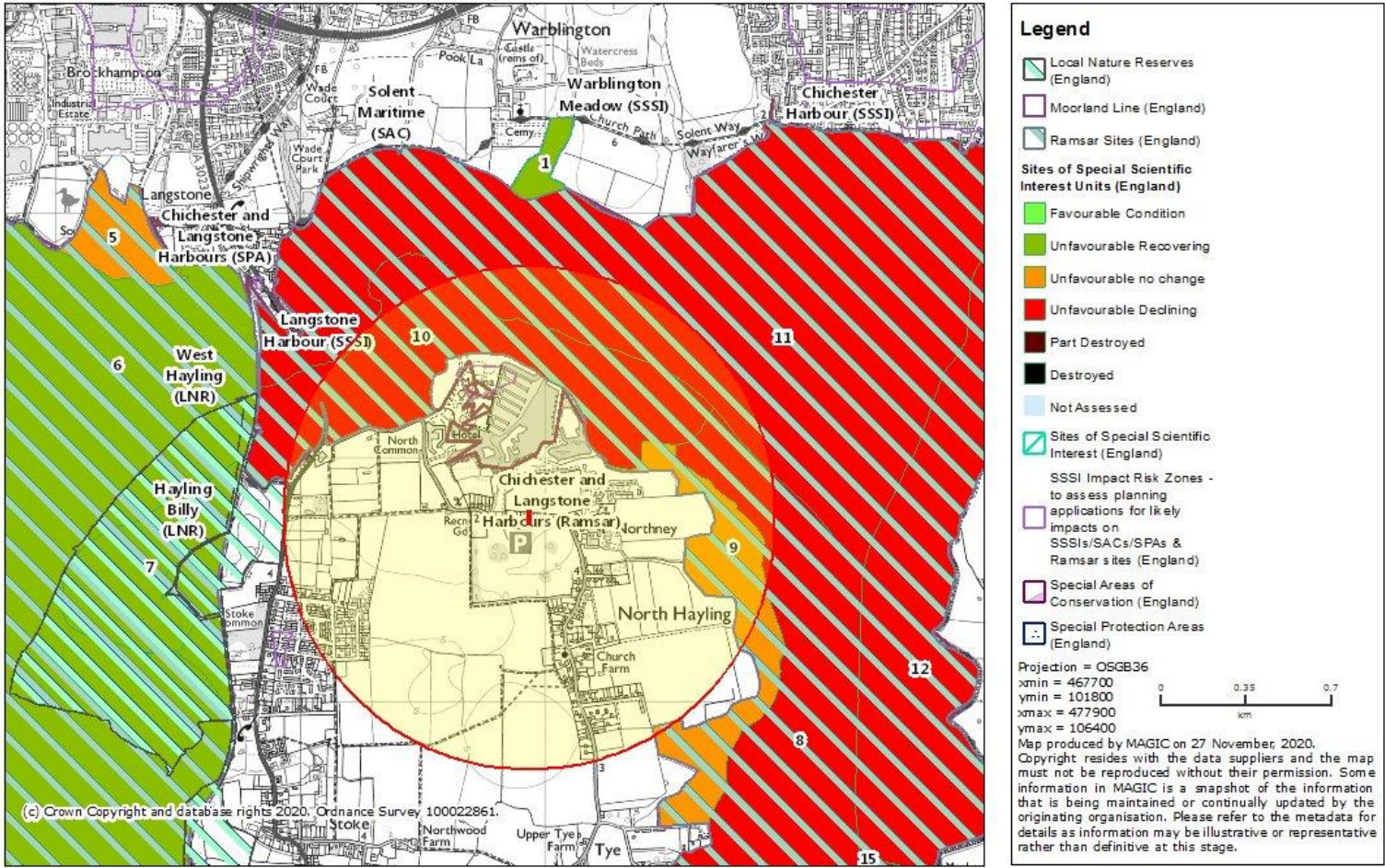
None provided

Appendix 3: Desk Study Information

Full historical records can be provided on request.

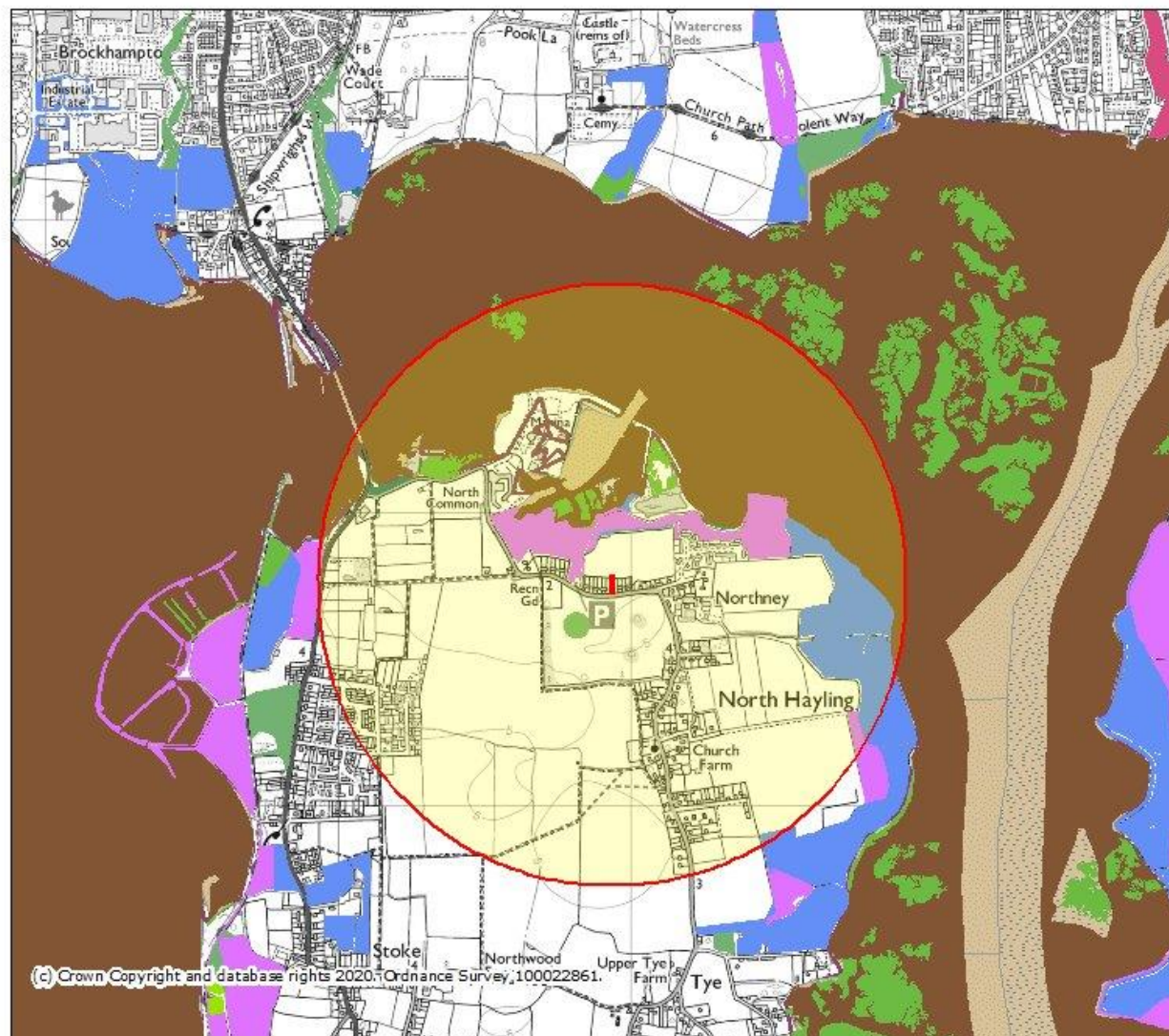
MAGIC

Designated Sites



MAGiC

Habitats



Legend

- | | |
|---|--|
| PriorityHabitat Inventory - Coastal Saltmarsh (England) | Made Ground (Man Made) |
| PriorityHabitat Inventory - Mudflats (England) | Mud |
| PriorityHabitat Inventory - Saline Lagoons (England) | Mud and Gravel |
| PriorityHabitat Inventory - Coastal and Floodplain Grazing Marsh (England) | Not Present |
| PriorityHabitat Inventory - Good quality semi-improved grassland (Non Priority) (England) | Rock Platform |
| PriorityHabitat Inventory - Lowland Dry Acid Grassland (England) | Rock Platform with Bank of Gravel |
| PriorityHabitat Inventory - Lowland Meadows (England) | Rock Platform with Boulders/Loose Rock |
| PriorityHabitat Inventory - Purple Moor Grass and Rush Pasture (England) | Sand |
| | Sand and Gravel |
| | Sand and Mud |
| | Unspecified |
| | PriorityHabitat Inventory - Reedbeds (England) |
| | PriorityHabitat Inventory - Deciduous Woodland (England) |

Intertidal Substrate Foreshore (England and Scotland)

- | |
|---------------------|
| Boulders/Loose Rock |
| Gravel |

Projection = OSGB36

xmin = 467800

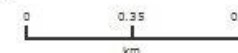
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xmax = 478000

ymax = 106300

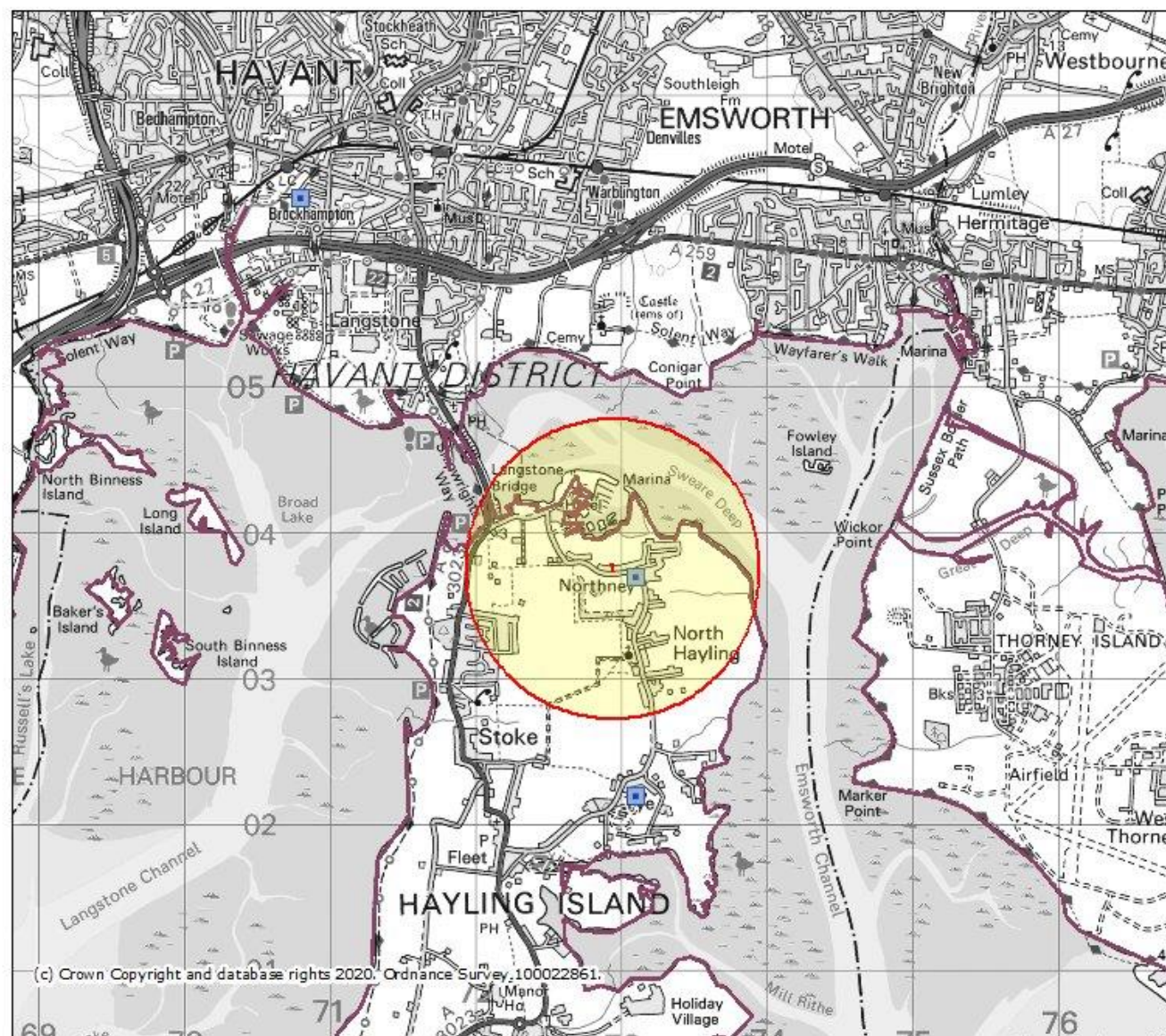
Map produced by MAGIC on 27 November, 2020.

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MAGiC

EPSLs



Legend

Granted European Protected Species Applications (England)

- Amphibian
- Bat
- Cetacean
- Invertebrate
- Other Mammal
- Plant
- Reptile

Projection = OSGB36

xmin = 462700

ymin = 99370

xmax = 483000

ymax = 108700

Map produced by MAGIC on 27 November, 2020.

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Appendix 4: Legislation and Planning Policy related to bats

LEGAL PROTECTION

All species of bat are fully protected under *The Conservation of Habitats and Species Regulations 2017* through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the *Wildlife and Countryside Act 1981 (as amended)* through their inclusion on **Schedule 5**. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework 2017

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

Effect on development works:

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. ***include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;***
2. scientific and educational purposes,
3. ringing or marking
4. conserving wild animals

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.