



Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment Survey

The Green Cottage, 23 Langstone High Street, Hampshire PO9 1RY

Mr and Mrs Monk

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Guidelines

This assessment has been designed to meet:

- Chartered Institute of Ecology and Environmental Management 'Guidelines for Preliminary Ecological Appraisal' (2013); and
- British Standard 42020 (2013) 'Biodiversity – Code of Practice for Planning and Development'.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 193 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

In consequence of the scale and intensity of the proposed development, the low impact on ecological receptors identified through both the site survey and search of local biological records, and the passive interface with the mitigation hierarchy, this plan-led report is considered adequate and proportionate. It communicates all relevant information necessary to determine a planning application or support the recommendations for further surveys.

Executive summary

Arbtech Consulting Ltd. undertook a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at The Green Cottage, 23 Langstone High Street, Hampshire PO9 1RY on 06/02/19. The aim of the survey was to complete an extended Phase 1 Habitat Survey of the survey area (all land that will be impacted by the proposals) and analyse it against a desk study and complete a bat roost assessment of all structures to be impacted.

The development proposal is for 'Demolition of single storey rear extension and erection of two storey rear extension. Single storey extension with slate roof over and flat roofed link following partial demolition of single storey kitchen. Part demolition of two storey flat roofed bathroom, erection of two storey tiled cat slide roof extension and alterations to fenestration. Extend stone garden east facing wall.' The application has been submitted to Havant Borough Council.

Recommendations –

Ecological Factor	Survey assessment conclusions (with justification)	Foreseen impacts	Recommendations	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF and circular 06/2005: Biodiversity and Geological Conservation. Para.99
Designated sites	The site is adjacent to the Chichester and Langstone Harbour, Solent Maritime SAC/SPA/SSSI/Ramsar complex. The site is within the Chichester Harbour Area of Outstanding Natural Beauty (AONB).	The proposed development will have a temporary indirect impact on the adjacent designated areas as there will be an increase in noise disturbance and dust at certain times during the construction and excavation work. Full covered scaffolding around the building during the works will help minimize impacts. There will be no direct or	The adjacent designated sites will be protected using the following measures: Dust Typical fall-out zone for aurally mobilised construction dust is 50m. To limit the creation of dust the site will; · Avoid dust creating activities during hot, dry periods	None applicable

		long-term impacts on the adjacent sites or habitats.	· Activities creating dust will be damped down, especially during dry weather · Ensure there is a supply of water to the site to enable damping down, if not, arrange an alternative source of water or dust suppressant and have it on stand-by should it be required. · Locate stockpiles out of the wind, or provide wind breaks to minimise dust creation · Plant and equipment shall be fitted with dust suppression equipment or water suppressant systems where required. Noise Best practice as defined in the Control of Pollution Act 1974 will be used on site to avoid unacceptable levels of noise and vibrations. Further guidance can be found in British Standard 5228-1:2009. Noise pollution during construction work could disrupt overwintering wildfowl for which the adjacent sites are designated. Any work that will produce high levels of	
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			noise and vibration must be carried out between May and August. Activities with a lower impact such as work utilising hand tools can be carried out at any time of year. The site manager must consider: · Alternative working methods to utilise quiet or low noise equipment. Lighting Lighting will be controlled across the developed site. No lighting will be installed that illuminates the adjacent habitats to the east. Chemical and Fuel Storage There is to be no storage of fuel, oil and chemicals within 20m of the designated site boundary. Standard pollution prevention guidelines will be followed.	
Notable habitats and plants	There are no notable habitats on the development site. Adjacent to the east are coastal habitats associated with Chichester Harbour.	The proposed development will have a temporary indirect impact on the adjacent habitats as there will be an increase in noise disturbance and dust at certain	See measures above to avoid impact on notable habitats.	None applicable

		times during the construction and excavation work. There will be no direct impact on the adjacent habitats.		
Invasive / Non-native species	None visible above ground	No impact	No further surveys	None applicable
Bats	B1 is a confirmed roost due to bat droppings found within loft 2. There are also a high number of highly suitable roosting features externally on the building that could be utilised by crevice dwelling bats. B2-B5 are not suitable for bat use.	The roost within loft 2 will be disturbed and modified but retained long-term. Any bat roosts in the areas on the western elevation that are to be demolished and extended will be destroyed. Bat roosts in other parts of the building could be disturbed. Bats may be injured or killed.	Three bat emergence/re-entry surveys are required during the active bat season (May – September). To comply with national guidelines at least two of the surveys should be completed during the optimal survey period (mid-May to August), and one of the surveys must be a dawn re-entry survey. Four surveyors are required to provide full coverage of the building.	To be confirmed following further surveys.
Breeding Birds	Garden birds could nest in trees and shrubs on site.	There will be no vegetation removal as a result of the development therefore no impact on nesting birds.	No further work required.	The new extension should incorporate the following integrated or wall mounted boxes: 1 x Schwegler 1SP sparrow terraces 3 x integrated swift brick or 1 x external Schwegler 17 triple chamber external box.

				Boxes should be placed at eaves level in a sheltered location.
Overwintering birds	The area within which the site lies is renowned for its outstanding populations of overwintering birds.	The proposed development could have a temporary indirect impact on overwintering birds as there will be an increase in noise disturbance and dust at certain times during the construction and excavation work. There will be no loss of habitat.	The construction period will avoid the winter months so as not to disturb overwintering wildfowl.	None applicable.
Reptiles	The well-maintained gardens do not provide the necessary cover and refugia to support a reptile population.	No impact	No further work required	Areas of long grassland and scrub with log piles around the site boundaries would provide suitable habitat for reptiles on site.
Great crested newts (GCN)	The closely mown amenity grassland on site does not present suitable habitat for GCN. Although there are ponds within 500m there is far more high value habitat in close proximity to these ponds than on site.	Due to the small amount of unsuitable habitat that will be impacted by the development, there are no foreseen impacts on GCN.	No further surveys required.	None applicable
Other Terrestrial Mammals	Hedgehogs may be present in garden habitats.	No impact due to the small amount of garden that is to be impacted by the proposal.	No further surveys required	A hedgehog box should be added on site to provide shelter for this species.

Mr and Mrs Monk

The Green Cottage, 23 Langstone High Street, Hampshire PO9 1RY

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Ltd. was commissioned by Mr and Mrs Monk to undertake a Preliminary Ecological Appraisal (PEA) at The Green Cottage, 23 Langstone High Street, Hampshire PO9 1RY. An extended Phase 1 Habitat Survey of the survey area (all land that will be impacted by the proposals) has been carried out alongside a Preliminary Roost Assessment (PRA) on the buildings.

No previous surveys have been carried out by Arbtech.

1.2 Site Context

The survey area is located at National Grid Reference SU 7190 0482 and measures approx. 0.1ha. The site lies in Chichester Harbour Area of Outstanding Natural Beauty (AONB) immediately adjacent to Chichester Harbour Site of Special Scientific Interest (SSSI), Chichester and Langstone Harbours Ramsar Site and Special Protection Area (SPA) and Solent Maritime Special Area of Conservation (SAC).

1.3 Scope of the report

This report describes the baseline ecological conditions at the site; evaluates habitats within the survey area in the context of the wider environment; and describes the suitability of those habitats for notable or protected species. It identifies significant ecological impacts as a result of the development proposals; summarises the requirements for further surveys and mitigation measures, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with wildlife legislation.

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development; establishing the baseline conditions for future monitoring. To achieve this, the following steps were taken:

- The desk study area and field survey area (generally 50m from the site boundary/proposed footprint and including the 'zone of influence' of the scheme) have been identified
- A desk study has been carried out including a records search from Hampshire Bat Group.
- Baseline information on the site and surrounding area has been recorded through an 'Extended Phase 1 Habitat Survey', including a Phase 1 Habitat Survey (JNCC 2010) and recording further details in relation to notable or protected habitats and species
- The ecological features present within the survey area have been evaluated where possible (CIEEM, 2006)
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act [WCA]) have been identified
- Likely impacts on features of value, as a result of the development proposals, have been identified
- Recommendations for further survey and assessment have been made

- Recommendations for mitigation and opportunities for enhancement have been provided based on current information

A survey plan is presented in Appendix 1, the proposed Project Plan is included in Appendix 2, desk study results are provided in Appendix 3, and a summary of relevant legislation can be found in Appendix 4.

1.4 Project Description

The development proposal is for 'Demolition of single storey rear extension and erection of two storey rear extension. Single storey extension with slate roof over and flat roofed link following partial demolition of single storey kitchen. Part demolition of two storey flat roofed bathroom, erection of two storey tiled cat slide roof extension and alterations to fenestration. Extend stone garden east facing wall.' The application has been submitted to Havant Borough Council. The proposed site plan is included in Appendix 2 (where available).

2.0 Methodology

2.1 Desk Study methodology

Existing biological records data relating to the site and a surrounding 2km radius (the study area) are required to conform to national guidelines. The data search is confidential information that is not suitable for public release.

A review of the following information sources has also been undertaken to inform the assessment:

- Landscape structure using aerial images from Google Earth and OS maps
- Designated sites, habitat and granted EPSL records held on Magic.gov.uk.

2.2 Site Survey methodology

The survey was undertaken by Natalie Evans (Natural England Bat Licence Number: 2018-37888-CLS-CLS) on 06/02/19.

The methodology for the Phase 1 Habitat Survey is based on the best practice publication Phase 1 Habitat Survey Methodology (JNCC, 2010). All land parcels are described and mapped according to JNCC Phase 1 habitat classification (see site map in Appendix 1). Where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure and management.

During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species. The likelihood of the presence of protected species is ranked; the habitats on site are evaluated against their likelihood to provide suitable habitat for protected species.

The ecological value of the survey area has been assessed based on the Guidelines for Ecological Impact Assessment (CIEEM, 2006), and the Handbook of Biodiversity Methods: Survey, Evaluation and Monitoring (David Hill, 2005), using geographic frames of reference. The biodiversity value of any identified designated sites, habitat types and associated species assemblages has been considered. The distribution and extent of invasive species listed on Schedule 9 of the Wildlife and Countryside Act (1981) were also noted throughout the survey area.

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/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 an internal inspection of suitable roosting features using an endoscope, torch and ladders.

2.3 Suitability Assessment

The likelihood of occurrence of protected species is ranked according to the criteria listed in Table 1. The habitats on site were evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Table 1: showing criteria considered when assessing the likelihood of occurrence of protected species

Present	Species are confirmed as present from the current survey or historical confirmed records.
High	Habitat and features of high quality for species/species assemblage. Species known to be present in wider landscape (desk study records). Good quality surrounding habitat and good connectivity.
Medium	Habitat and features of moderate quality. The site in combination with surrounding land provides all habitat/ecological conditions required by the species/assemblage. Within known national distribution of species and local records in desk study area.

	Limiting factors to suitability, including small area of suitable habitat, some severance/poor connectivity with wider landscape, poor to moderate habitat suitability in local area.
Low	Habitats within the survey area poor quality. Few or no records from data search. Despite above, presence cannot be discounted as within national range, all required features/conditions present on site and in surrounding landscape. Limiting factors could include isolation, poor quality landscape, or disturbance.
Negligible	Very limited poor-quality habitats and features. No local records from desk study; site on edge of, or outside, national range. Surrounding habitats considered unlikely to support species/species assemblage.
Likelihood of bats being present	Feature of building and its context
Higher	Buildings/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.
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.

2.4 Limitations – evaluation of the methodology

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

The survey was undertaken at a sub-optimal time of year for identifying flora. This may lead to an under-recording of plant species. This is unlikely to impact the outcomes of the survey however as the habitat within the development footprint is predominantly associated with residential gardens therefore rare species are unlikely to be present.

Loft 1 could not be fully inspected due to restricted access and lack of safe boarding. This could lead to an under-recording of bat evidence which has been taken into account in the conclusions and recommendations of this report.

3.0 Results and Evaluation

3.1 Desk Study Results

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

3.2 Designated sites

There are five statutory designated site within the study area and no known non-statutory sites. Their location and extent are illustrated in Appendix 3. Table 2 (below) provides details of the designated sites including their reasons for notification.

Table 2: Designated sites within 1km radius of the site

Designated Site Name	Distance from Site (approx.)	Reasons for Notification from Natural England (unless otherwise stated)
Statutory Sites		
West Hayling and Hayling Billy Local Nature Reserve (LNR)	530m south west	West Hayling Local Nature Reserve, formerly known as the Hayling Oysterbeds, is home either permanently or on a migratory basis for tens of thousands of seabirds, which find that the thousands of hectares of intertidal mudflats contain a massive assemblage of marine invertebrate life. Afforded Local Nature Reserve status in 2010, this old route of the Hayling Billy train provides beautiful views of one of the most unspoilt sections of Langstone Harbour and is a great place to spot rare plants.
Warblington Meadow SSSI	985m north east	Warblington Meadow Site of Special Scientific Interest is an unimproved grazing marsh adjoining Chichester Harbour and is of special interest for its gradation from freshwater, baserich marsh to old reclaimed saltmarsh, and for its rich associated flora, with a total of 158 species of flowering plants having been recorded up to the time of notification.

Chichester and Langstone Harbours Ramsar and Special Protection Area (SPA), Chichester Harbour Site of Special Scientific Interest (SSSI), Solent Maritime Special Area of Conservation (SAC), Chichester Harbour Area of Outstanding Natural Beauty (AONB)	Adjacent to the 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. SPA - Over winter, the area regularly supports 93,142 individual waterfowl (5 year peak mean 1991/2 - 1995/6) including: Wigeon <i>Anas penelope</i>, Bar-tailed Godwit <i>Limosa lapponica</i>, Dark-bellied Brent Goose <i>Branta bernicla bernicla</i>, Ringed Plover <i>Charadrius hiaticula</i>, Grey Plover <i>Pluvialis squatarola</i>, Dunlin <i>Calidris alpina alpina</i>, Black-tailed Godwit <i>Limosa limosa islandica</i>, Redshank <i>Tringa totanus</i>, Little Grebe <i>Tachybaptus ruficollis</i>, Little Egret <i>Egretta garzetta</i>, Shelduck <i>Tadorna tadorna</i>, Curlew <i>Numenius arquata</i>, Teal <i>Anas crecca</i>, Pintail <i>Anas acuta</i>, Shoveler <i>Anas clypeata</i>, Red-breasted Merganser <i>Mergus serrator</i>, Oystercatcher <i>Haematopus ostralegus</i>, Lapwing <i>Vanellus vanellus</i>, Knot <i>Calidris canutus</i>, Sanderling <i>Calidris alba</i>, Cormorant <i>Phalacrocorax carbo</i>, Whimbrel <i>Numenius phaeopus</i>. SAC - Annex I habitats that are a primary reason for selection of this site 1130 Estuaries The Solent encompasses a major estuarine system on the south coast of England with four coastal plain estuaries (Yar, Medina, King's Quay Shore, Hamble) and four bar-built estuaries (Newtown Harbour, Beaulieu, Langstone Harbour, Chichester Harbour). The site is the only one in the series to contain more than one physiographic sub-type of estuary and is the only cluster site. The Solent and its inlets are unique in Britain and Europe for their hydrographic regime of four tides each day, and for the complexity of the marine and estuarine habitats present within the area. Sediment habitats within the estuaries include extensive estuarine flats, often with intertidal areas supporting eelgrass <i>Zostera</i> spp. and green algae, sand and shingle spits, and natural shoreline transitions. The mudflats range from low and variable salinity in the upper reaches of the estuaries to very sheltered almost fully marine muds in Chichester and Langstone Harbours. Unusual features include the presence of very rare sponges in the Yar estuary and a sandy 'reef' of the polychaete <i>Sabellaria spinulosa</i> on the steep eastern side of the entrance to Chichester Harbour. 1320 Spartina swards (Spartinion maritimae) Solent Maritime is the only site for smooth cord-grass <i>Spartina alterniflora</i> in the UK and is one of only two sites where significant amounts of small cord-grass <i>S. maritima</i> are found. It is also one of the few remaining sites for Townsend's cord-grass <i>S. x townsendii</i> and holds extensive areas of common cord-grass <i>Spartina anglica</i>, all four taxa thus occurring here in close
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Designated Site Name	Distance from Site (approx.)	Reasons for Notification from Natural England (unless otherwise stated)
		proximity. It has additional historical and scientific interest as the site where <i>S. alterniflora</i> was first recorded in the UK (1829) and where <i>S. x townsendii</i> and, later, <i>S. anglica</i> first occurred. 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) The Solent contains the second-largest aggregation of Atlantic salt meadows in south and south-west England. Solent Maritime is a composite site composed of a large number of separate areas of saltmarsh. In contrast to the Severn estuary, the salt meadows at this site are notable as being representative of the ungrazed type and support a different range of communities dominated by sea-purslane <i>Atriplex portulacoides</i>, common sea-lavender <i>Limonium vulgare</i> and thrift <i>Armeria maritima</i>. As a whole the site is less truncated by man-made features than other parts of the south coast and shows rare and unusual transitions to freshwater reedswamp and alluvial woodland as well as coastal grassland. Typical Atlantic salt meadow is still widespread in this site, despite a long history of colonisation by cord-grass <i>Spartina</i> spp.

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 offers high quality habitats for a range of protected species including deciduous woodland, aquatic and grassland habitats. Priority habitats within 1km of the site are listed in Table 3.

Table 3: Priority Habitat Inventory within 1km (Magic.gov.uk):

Habitat	Closest distance from site (approx.)
Deciduous Woodland	140m north east
Good quality semi improved grassland	890m south
Mudflats	Adjacent to the east
Intertidal substrate foreshore	Adjacent to the east
Coastal and floodplain grazing marsh	350m west

Coastal saltmarsh	170m north east
Reedbeds	300m north east



Figure 1: Aerial photo of site, showing landscape structure

3.4 Historical records

Due to the small scale of the development and habitats present it was not considered appropriate to obtain full biological records. As a result, only bat records have been obtained at this stage. Historical bat records from Hampshire Bat Group have been obtained and are summarised below:

Table 4: Historical records within 2km of the site

Common name	Scientific binomial	Number of records	Number of roost records	Maternity roost records
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	217	2	0
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	240	1	0
Nathusius's pipistrelle	<i>Pipistrellus nathusii</i>	19	0	0
Unidentified pipistrelle	<i>Pipistrellus sp.</i>	55	25	20
Brown long-eared bat	<i>Plecotus auritus</i>	2	1	0
Unidentified long-eared	<i>Plecotus sp.</i>	8	0	0
Unidentified myotis	<i>Myotis sp.</i>	51	0	0
Daubenton's	<i>Myotis daubentonii</i>	7	0	0
Whiskered/Brandt's/Alcothoe	<i>Myotis mystacinus/brandtii/alcothoe</i>	1	0	0
Natterer's	<i>Myotis nattereri</i>	3	0	0
Serotine	<i>Eptesicus serotinus</i>	56	0	0
Western barbastelle	<i>Barbastella barbastellus</i>	3	0	0
Leisler's	<i>Nyctalus leisleri</i>	2	0	0
Noctule	<i>Nyctalus noctula</i>	68	0	0

Bat records show there are at least 11 species of bat in the local area. There are maternity roost records of pipistrelle sp. <1km away.

A search of the Magic database for granted European Protected Species Mitigation Licences (EPSMLs) within a 1km radius found no licenced sites. Any bat roosts destroyed over 1km away are unlikely to result in bats relocating to the survey buildings as there will be more suitable places closer to the destroyed roost site. Table 5: Granted EPSMLs within 1km of the site

Case reference of granted application	Approx. distance from site	Species Effected	Licence Start Date:	Licence End Date:	Impacts allowed by licence
None					

3.5 Field Survey Results

The site of the proposed development area is illustrated in the map in Appendix 1. The environmental variables recorded at the time of the survey are shown in Table 6.

Table 6: Environmental variables during the survey

Date: 06/02/19	
Temperature	5°C
Humidity	86%
Cloud Cover	100%
Wind	8mph
Rain	None

3.6 Site Feature descriptions and photos

3.6.1 Buildings and Hard Standing

There are four buildings on site referenced as B1-B4 and illustrated in Appendix 1.

B1 exterior

B1 is a Grade II Listed property of brick and stone construction. The original building was extended to the south. The photograph to the right shows the eastern elevation of the original part of the building with part of the extension visible to the far left of the picture. The roof is gabled and clad in clay tiles and there is a single brick chimney stack. There are three hipped roof dormer windows on the eastern elevation. Fascia boards and windows are timber and tight fitting.



The photograph to the right shows the two-storey extension to the south of the original building. The roof is hipped and clad in clay tiles. The eaves are overhanging with roof lining visible. The eaves in this area provide a likely access point into the loft and could also provide crevice dwelling bat roost access onto the wall tops. Roof works will be undertaken in this area.



The roof tiles on the extension are raised providing suitable roosting habitat for crevice dwelling bats. The photograph to the right shows the southern elevation.



The roof tiles throughout the original building are raised and damaged providing suitable roosting habitat for crevice dwelling bats. The photograph opposite shows the eastern elevation. Minor roof works will be carried out to replace missing and damaged tiles.



The photograph opposite shows the western elevations of B1.



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On the western elevation there is a hipped sub-roof clad in clay tiles. This is the area where the two-storey extension will be added.



The roof tiles on the sub-roof are raised providing suitable roosting habitat for crevice dwelling bats.



The tiles on the main roof above this sub-roof are also raised providing further roosting habitat.



Attached to the southern elevation of B1 is a single storey, flat roofed extension which connects to a garage. The roof is tight fitting bitumen felt and the fascia boards are timber and tight fitting.



The interior of the garage area is plastered and unsuitable for bat roosting.



B1 interior

There are two loft voids within B1. Loft 1 is the original loft and could not be fully accessed due to the small size of the access point, obstructing rafters and lack of safe boarding. Much of the loft could be seen from the vantage point of the loft hatch. The roof is lined with bitumen felt which is loose in places and could potentially provide bat access into the loft. There are modern and traditional timber rafters and ridge beam on which bats could perch. There is an exposed brick gable end at the northern end of the building. The ridge height is approx. 1.2m. The loft measures approx. 10m long by 3m wide. There was no evidence of bat use visible from the area around the loft hatch.



Loft 2 is above the two-storey extension. The roof is lined with bitumen felt and there are modern timber rafters and ridge beam present on which bats can perch. The floor is boarded, and the loft is fully accessible. There is daylight visible around the eaves indicating the likely access point for the bat roost. The loft measures approx. 4m x 4m with a 2.5m ridge.



Clustered below each apex where the rafters meet were two small piles of bat droppings. The droppings were varying in colour and condition indicating long term, occasional use by a single bat. The size, shape and location are consistent with brown long-eared bats. Samples have been retained for DNA analysis. It is assessed that the most recent droppings are likely from the 2018 active season, with older droppings from previous years.



B2 Exterior and interior

B2 is a detached, brick built two storey annex with a hipped, clay tiled roof. The roof and soffit boxes are tight fitting with no visible suitable bat roosting features.

The loft was inspected and there were no signs of bat use.

This building will not be impacted by the current development.



B3 Exterior and interior

B3 is a detached garage adjacent to B2 as shown above. The bitumen felt roof and fascia boards are tight fitting and do not provide any suitable bat roosting features.

This will not be impacted by the development and does not have any suitable bat roosting features.



B4 Exterior

B4 is a small storage building in the garden of B1. It is brick built with a sloped, clay tiled roof. The roof tiles have gaps beneath them that could potentially be used by crevice dwelling bats. This building will be demolished.



B5 Exterior

B5 is a small, glass fronted outbuilding with a flat roof and brick walls. The building does not present any suitable bat habitat.



J1.2 Amenity Grassland/Gardens

There is a well-manicured garden associated with the property which lies to the west of B1. The garden has closely mown amenity grassland with introduced shrub and scattered trees.



To the east of the property there is a public footpath and a narrow strip of amenity grassland leading to the shoreline.



The driveway leading to the property is gravel with planted borders and scattered trees.



4.0 Conclusions, Impacts and Recommendations

4.1 Informative guidelines

Likelihood of the presence of protected species

The habitats on site were evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat. The likelihood of occupancy of protected species is ranked according to the criteria listed in Table 1.

Where this report supports a planning application, the ecological interest of the study area (including the survey area) and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity. It will be clearly stated where a preliminary value can be given and where further information is required.

Appropriate justification for this assessment is provided in Section 2.3 of this report.

4.2 Evaluation

Taking the desk study and site survey results into account, the following conclusions for ecological factors has been reached.

Table 7: Evaluation of site

Ecological Factor	Survey assessment conclusions (with justification)	Foreseen impacts	Recommendations	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF and circular 06/2005: Biodiversity and Geological Conservation. Para.99
Designated sites	The site is adjacent to the Chichester and Langstone Harbour, Solent Maritime SAC/SPA/SSSI/Ramsar complex. The site is within the Chichester Harbour Area of Outstanding Natural Beauty (AONB).	The proposed development will have a temporary indirect impact on the adjacent designated areas as there will be an increase in noise disturbance and dust at certain times during the construction and excavation work. Full covered scaffolding around the building during the works will help minimize impacts. There will be no direct or long-term impacts on the adjacent sites or habitats.	The adjacent designated sites will be protected using the following measures: Dust Typical fall-out zone for aurally mobilised construction dust is 50m. To limit the creation of dust the site will; · Avoid dust creating activities during hot, dry periods · Activities creating dust will be damped down, especially during dry weather · Ensure there is a supply of water to the site to enable damping down, if not, arrange an alternative source of water or	None applicable

			dust suppressant and have it on stand-by should it be required. · Locate stockpiles out of the wind, or provide wind breaks to minimise dust creation · Plant and equipment shall be fitted with dust suppression equipment or water suppressant systems where required. Noise Best practice as defined in the Control of Pollution Act 1974 will be used on site to avoid unacceptable levels of noise and vibrations. Further guidance can be found in British Standard 5228-1:2009. Noise pollution during construction work could disrupt overwintering wildfowl for which the adjacent sites are designated. Any work that will produce high levels of noise and vibration must be carried out between May and August. Activities with a lower impact such as work utilising hand tools can be carried out at any time of year. The site manager must consider:	
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			· Alternative working methods to utilise quiet or low noise equipment. Lighting Lighting will be controlled across the developed site. No lighting will be installed that illuminates the adjacent habitats to the east. Chemical and Fuel Storage There is to be no storage of fuel, oil and chemicals within 20m of the designated site boundary. Standard pollution prevention guidelines will be followed.	
Notable habitats and plants	There are no notable habitats on the development site. Adjacent to the east are coastal habitats associated with Chichester Harbour.	The proposed development will have a temporary indirect impact on the adjacent habitats as there will be an increase in noise disturbance and dust at certain times during the construction and excavation work. There will be no direct impact on the adjacent habitats.	See measures above to avoid impact on notable habitats.	None applicable

Invasive / Non-native species	None visible above ground	No impact	No further surveys	None applicable
Bats	B1 is a confirmed roost due to bat droppings found within loft 2. There are also a high number of highly suitable roosting features externally on the building that could be utilised by crevice dwelling bats. B2-B5 are not suitable for bat use.	The roost within loft 2 will be disturbed and modified but retained long-term. Any bat roosts in the areas on the western elevation that are to be demolished and extended will be destroyed. Bat roosts in other parts of the building could be disturbed. Bats may be injured or killed.	Three bat emergence/re-entry surveys are required during the active bat season (May – September). To comply with national guidelines at least two of the surveys should be completed during the optimal survey period (mid-May to August), and one of the surveys must be a dawn re-entry survey. Four surveyors are required to provide full coverage of the building.	To be confirmed following further surveys.
Breeding Birds	Garden birds could nest in trees and shrubs on site.	There will be no vegetation removal as a result of the development therefore no impact on nesting birds.	No further work required.	The new extension should incorporate the following integrated or wall mounted boxes: 1 x Schwegler 15P sparrow terraces 3 x integrated swift brick or 1 x external Schwegler 17 triple chamber external box. Boxes should be placed at eaves level in a sheltered location.
Overwintering birds	The area within which the site lies is renowned for its outstanding populations of overwintering birds.	The proposed development could have a temporary indirect impact on overwintering birds as there will	The construction period will avoid the winter months so as not to disturb overwintering wildfowl.	None applicable.

		be an increase in noise disturbance and dust at certain times during the construction and excavation work. There will be no loss of habitat.		
Reptiles	The well-maintained gardens do not provide the necessary cover and refugia to support a reptile population.	No impact	No further work required	Areas of long grassland and scrub with log piles around the site boundaries would provide suitable habitat for reptiles on site.
Great crested newts (GCN)	The closely mown amenity grassland on site does not present suitable habitat for GCN. Although there are ponds within 500m there is far more high value habitat in close proximity to these ponds than on site.	Due to the small amount of unsuitable habitat that will be impacted by the development, there are no foreseen impacts on GCN.	No further surveys required.	None applicable
Other Terrestrial Mammals	Hedgehogs may be present in garden habitats.	No impact due to the small amount of garden that is to be impacted by the proposal.	No further surveys required	A hedgehog box should be added on site to provide shelter for this species.

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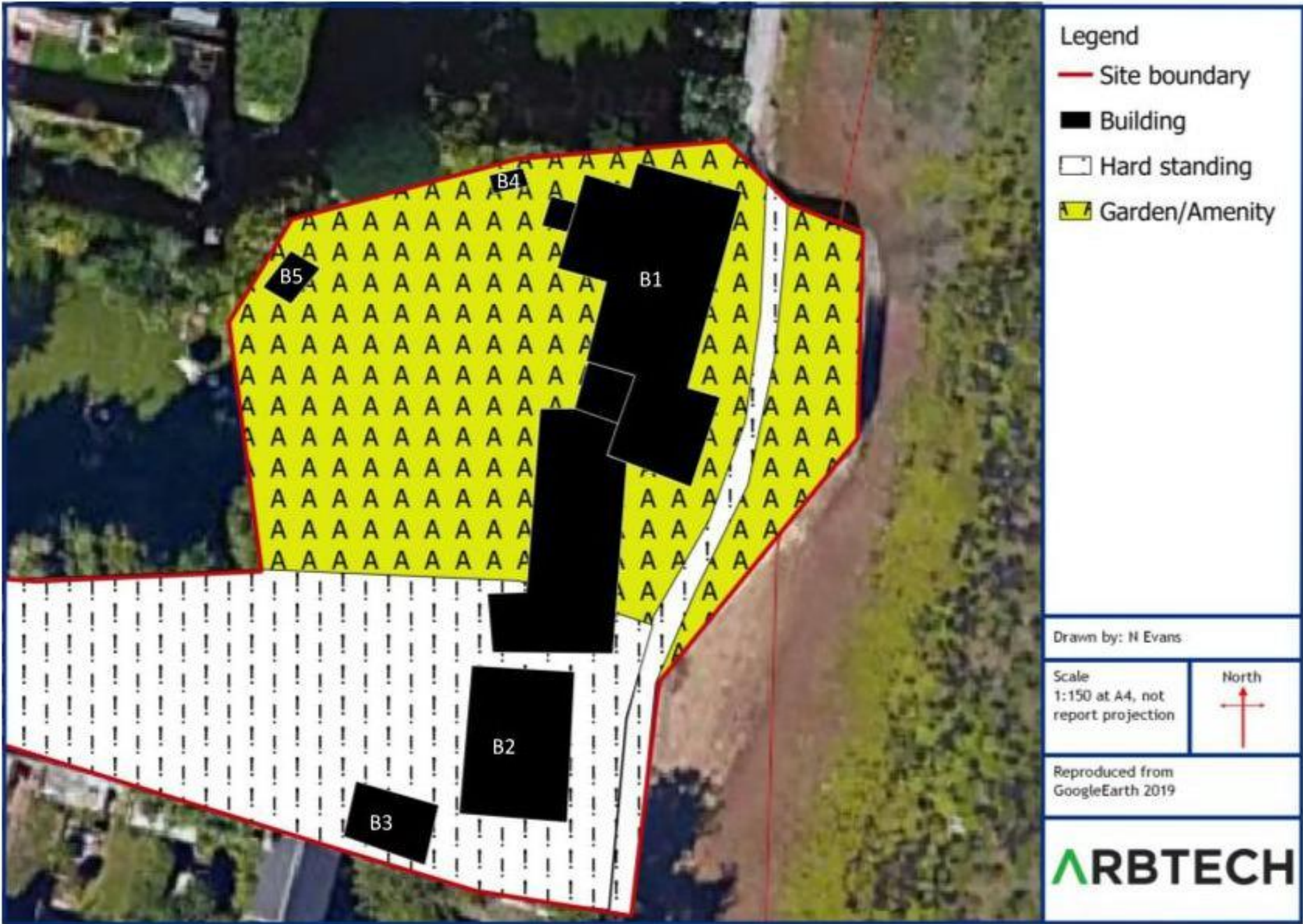
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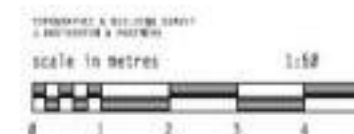
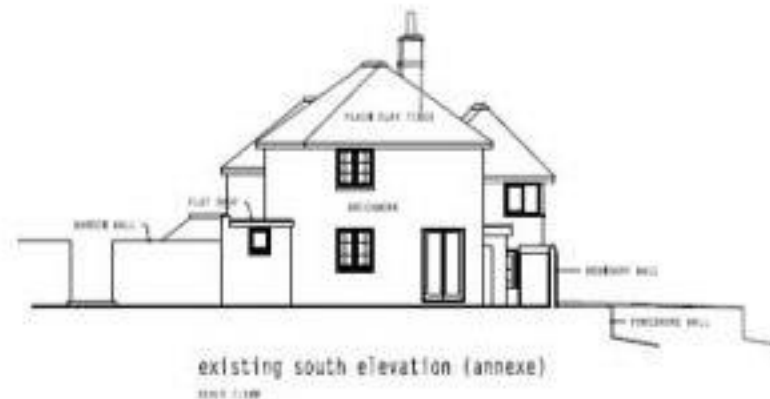
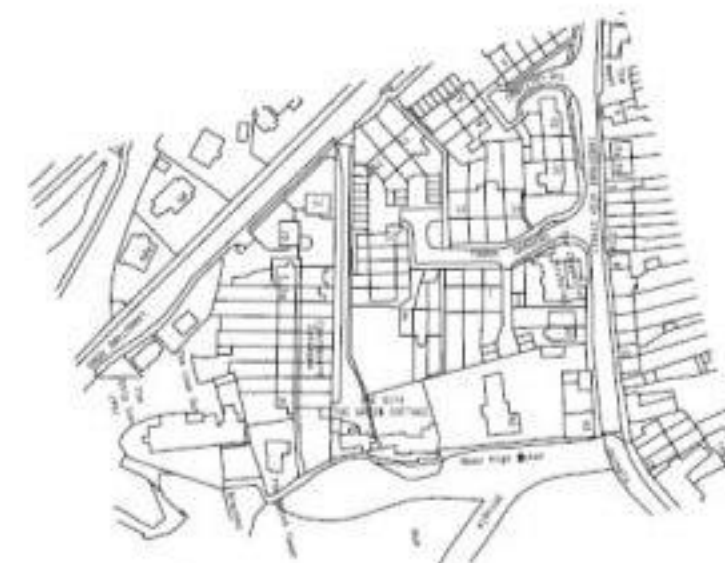
Appendix 1: PRA Map



Phase 1 Habitat Survey Map



Appendix 2: Proposed Site Plan



client: Mr & Mrs Monk

project: proposed alterations & additions, The Green Cottage, 23 Langstone High Street PO9 1RY

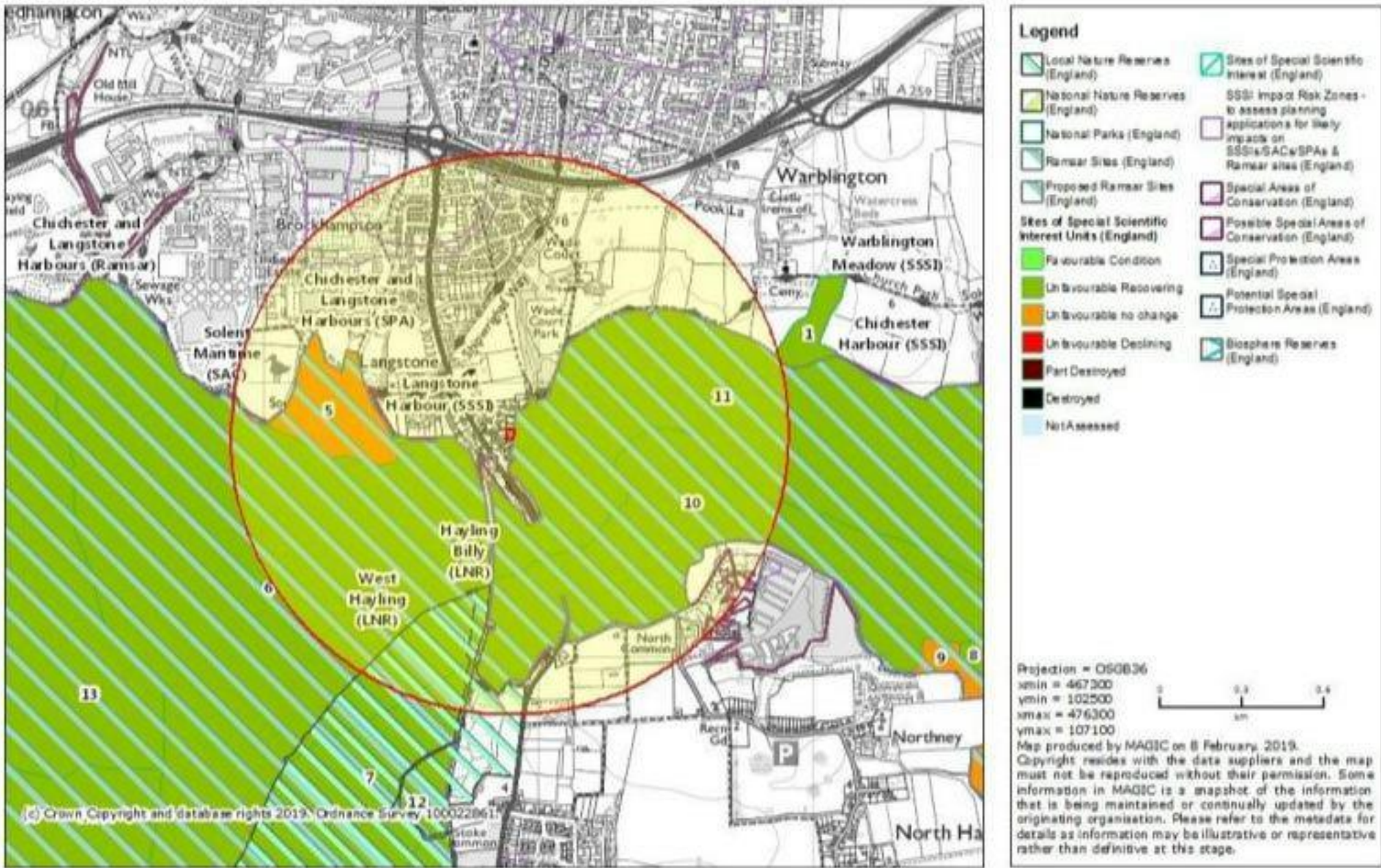
PH DESIGN
architectural consultants

Appendix 3: Desk Study Information

Full historical records can be provided on request.

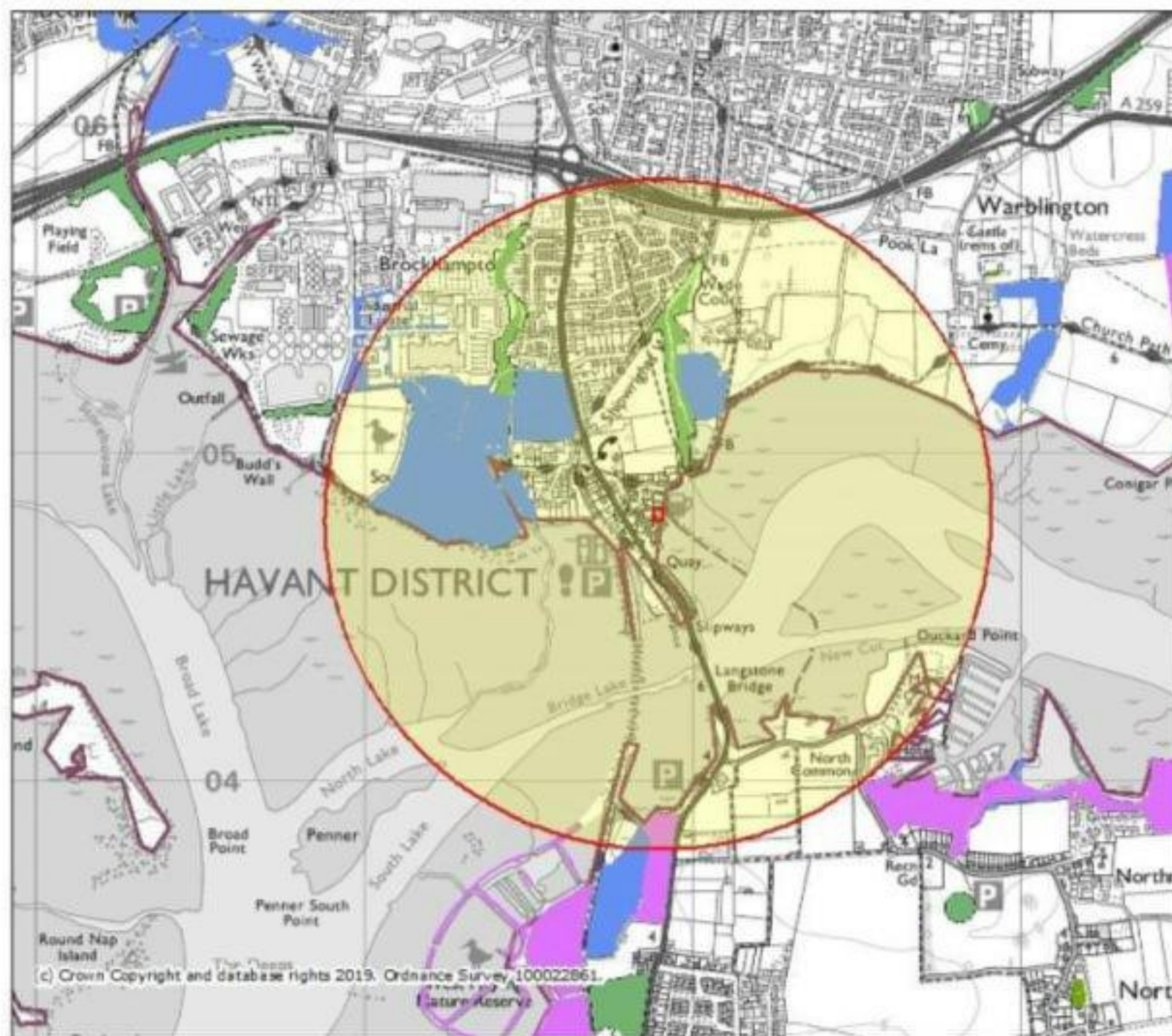
MAGiC

Designated Sites



MAGiC

Habitats - Woodland and Grassland



Legend

- | | |
|--|---|
| Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England) | Cloud / shadow |
| Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England) | Conifer |
| Priority Habitat Inventory - Lowland Calcareous Grassland (England) | Coppice |
| Priority Habitat Inventory - Lowland Meadows (England) | Coppice with standards |
| Priority Habitat Inventory - Purple Moor Grass and Rush Pasture (England) | Failed |
| Ancient Woodland (England) | Felled |
| Ancient and Semi-Natural Woodland | Ground prep |
| Ancient Replanted Woodland | Low density |
| Priority Habitat Inventory - Deciduous Woodland (England) | Mixed mainly broadleaved |
| Forestry Commission Legal Boundary (England) | Mixed mainly conifer |
| National Forest Inventory (GB) | Shrub |
| Assumed woodland | Uncertain |
| Broadleaved | Windthrow |
| | Young trees |
| | Priority Habitat Inventory - Traditional Orchards (England) |
| | Woodpasture and Parkland BAP Priority Habitat (England) |

Projection = OSGB36

xmin = 467200

ymin = 102600

xmax = 476300

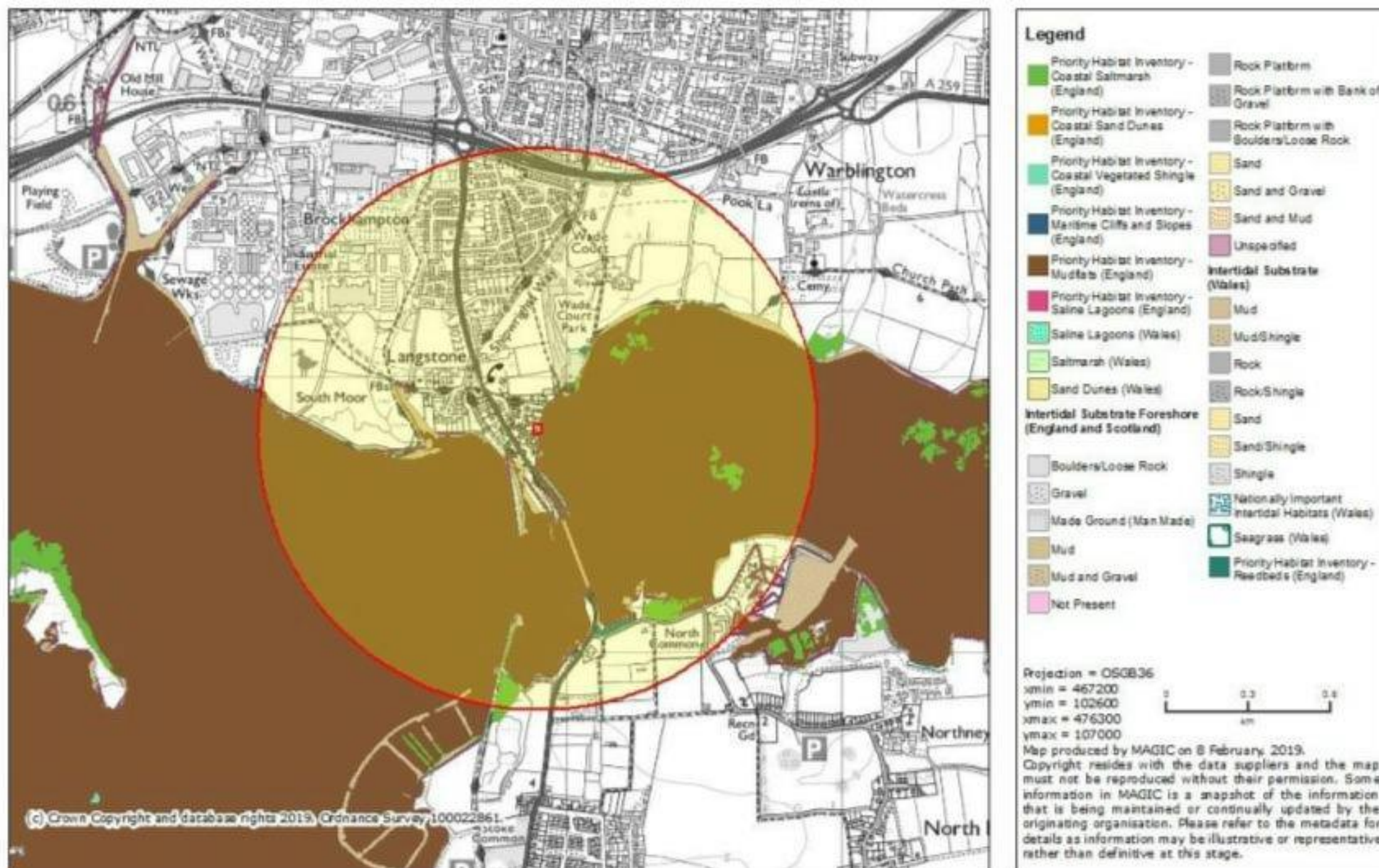
ymax = 107000

Map produced by MAGIC on 8 February 2019.

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MAGiC

Habitats - Coastal



Appendix 4: Legislation and Planning Policy

LEGAL PROTECTION

National and European Legislation Afforded to Habitats

International Statutory Designations

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive the, Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe in order to conserve the 189 habitats and 788 species (non- bird) identified in Annexes I and II of the Directive (as amended).

SPAs are classified under Article 2 of the EC Birds Directive both for rare bird species (as listed on Annex I) and for important migratory species.

SACs and SPAs up to 12 nautical miles (nm) from the coast are afforded protection in the UK under the Conservation of Habitats and Species Regulations 2010 which consolidate all amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994. In Scotland, the requirements of Habitats Directive are implemented through a combination of the 1994 and the 2010 (reserved matters) Regulations. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a means for designating and protecting SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as “areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres” however they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within

the European Natura 2000 network and globally. Further provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

National and European Legislation Afforded to Species

The Habitats Directive

The EC Habitats Directive aims to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those species of European importance. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (the Conservation Regulations) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). The following notes are relevant for all species protected under the EC Habitats Directive:

In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

The Habitats Regulations do not define the act of 'migration' and, therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.

In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests':

the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment;

- There is no satisfactory alternative; and
- The action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CROW) Act (2000) and Nature Conservation (Scotland) Act 2004.

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Badgers

Badgers *Meles meles* are protected under The Protection of Badgers Act which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

Effects on development works:

A development licence will be required from the relevant countryside agency for any development works liable to affect an active badger sett, or to disturb badgers whilst they occupy a sett.

Guidance has been issued by the countryside agency's to define what would constitute a licensable activity. It is not possible to obtain a licence to translocate badgers.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- Intentionally or recklessly obstruct or prevent any wild bird from using its nest (Scotland only)

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC) and are commonly referred to as "Schedule 1" birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking
- In Scotland only, intentional or reckless harassment

Effects on development works:

Works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Herpetofauna (Amphibians and reptiles)

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate

- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and 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.

Other native species of herpetofauna are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

Effects on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable 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 licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

Water voles

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

Effects on development works:

If development works are liable to affect habitats known to support water voles, the relevant countryside agency must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency (e.g. Natural England) for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the

population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

Otters

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA 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

Effects on development works:

An EPSM Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect otter breeding or resting places (often referred to as holts, couches or dens) 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, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)
- Deliberate disturbance of bat species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

Works which are liable to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Dormice

Dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA 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

Effects on development works:

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White clawed crayfish

The white clawed crayfish *Austropotamobius pallipes* receives partial protection under Schedule 5 of the WCA in respect of Sections 9(1) and 9(5). This makes it an offence to:

- Intentionally take (capture) white-clawed crayfish.

Effects on development works:

The relevant countryside agency will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof
- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
 - Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
 - Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

Effects on development works:

An EPSM licence will be required from the relevant countryside agency for works which are liable to affect species of plants listed on Schedule 5 of the Conservation of Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England and Wales to plant or cause to grow in the wild due to their impact on native wildlife. Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

Effects on development works:

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site however it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

Injurious weeds

Under the Weeds Act 1959 any land owner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

- Spear thistle *Cirsium vulgare*
- Creeping thistle *Cirsium arvense*
- Curled dock *Rumex crispus*
- Broad-leaved dock *Rumex obtusifolius*
- Common ragwort *Senecio jacobaea*

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

NATIONAL PLANNING POLICY (ENGLAND)**National Planning Policy Framework**

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 (Section 42 in Wales) 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.