



ECOLOGICAL SURVEYS LTD

141 Havant Rd, Hayling Island, Hampshire. PO11 OLE.

Grid reference: SU 71841 02441



General view of the site.

ECOLOGICAL APPRAISAL

(Extended Phase One Survey)

May 2014

Ecological Appraisal

Site Location: - 141 Havant Rd, Hayling Island, Hants PO11 0LE

Grid reference: - SU 71841 02441



Old potting shed on site. Too light and airy for bats to take up residence.

Client: - Joe Shimbart (property owner).

Report Reference: - 14/06/001/PD

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Revision no: - 01

Issue date: - 02nd June 2014

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SUMMARY

- This report presents the results of an ecological appraisal of a proposed demolition and development on the site of 141 Havant Rd, Hayling Island, Hampshire. PO11 OLE. Grid reference: SU 71841 02441
- The area surveyed was the site of a previous property which was recently demolished.
- Planning permission currently exists on this site.
- There are NO conservation priority habitats present.
- There are NO key Habitat features present.
- NO rare/protected plants were observed during the survey.
- NO evidence of badgers utilising the site in any way, were observed.
- NO evidence of dormice occupying the site was observed during the survey.
- There were NO features on the site that might offer roosting opportunities for bats.
- NO bird nests were observed during the survey, although nesting and roosting potential exists within the trees on the boundary of the site.
- This site has some standing water and is therefore potentially suitable for Amphibians. Mitigation has been addressed in the relevant section.
- This site has been managed and consequently does not provide suitable habitat for reptiles.
- NO further ecological surveys are recommended.
- Mitigation requirements are discussed within the appropriate chapter.
- Recommendations have been made to retain features of value and enhance the site post – construction.

1 INTRODUCTION

This report presents the results of an Ecological Appraisal of 141 Havant Rd, Hayling Island, Hampshire. PO11 OLE. Grid reference: SU 71841 02441. The survey was commissioned by Joe Shimbart. The proposal is to build a new property on the site of an old demolished property. Planning permission currently exists to build a property on site albeit to a different design.

The aim of the survey was to assess the ecological value of the site by identifying any habitats, features or species of conservation importance that would constitute a potential constraint to proposed development. Recommendations to mitigate any adverse impacts and enhance the site post-development have been made.

Staff of Ecological Surveys Ltd, are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) and bound by its Professional Code of Conduct.

1.1 Site Description

The site is located on Hayling Island, Hampshire. Hayling Island is situated approximately 13 miles east of Portsmouth and 16 miles west of Chichester and 6 miles south of Havant on the south coast.

The site is approximately 750²M It consists of an area of short managed grass and some piles of rubble. The rubble is from a previously demolished property on this site.

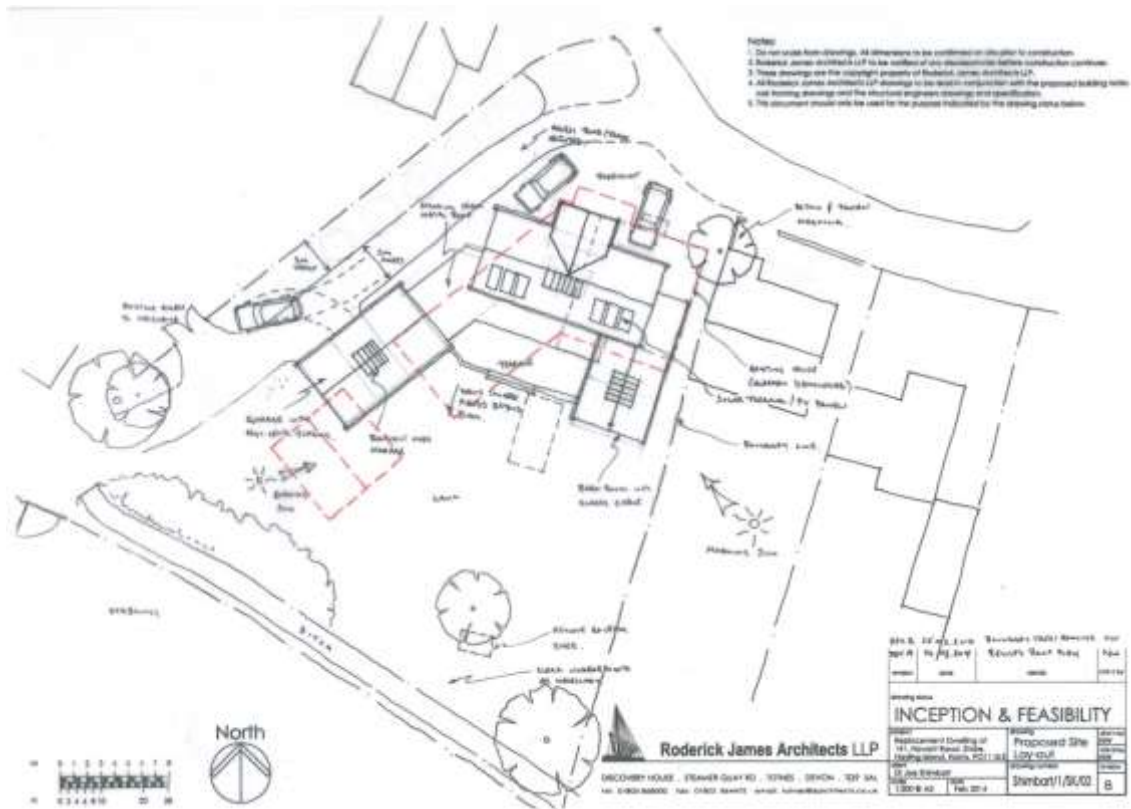
The site is bounded by residential development to the east, north and partially west boundaries. To the rear (south) of the site is a stable block and whilst not visible, the smell suggested goats are kept in this area. Beyond the west and south boundaries are open grazed fields.

The southern boundary is defined by a row of semi-mature trees and a short section of ditch. The other boundaries are constrained by residential fencing.

There is a track that runs through the site to permit access to the stable block and fields beyond.

1.2 Proposed Development

The site has existing planning permission to construct a detached property, however as the site owner wishes to amend the design of the property this ecological appraisal has been requested.



The Ecological appraisal was commissioned to determine whether any ecological considerations might impact upon the sites potential for development.

It should be noted that this Ecological Appraisal report relates specifically to the specified brief and proposal description. If any changes to the brief or the proposal are made then Ecological Surveys Ltd should be consulted. A re-appraisal or appraisal amendment may be required.

2 Survey Methodology

2.1 Desk Study

A desk study was completed to identify any designated sites such as Sites of Special Scientific Interest (SSSI), notable or protected habitats or species that could potentially occur on, or be affected by development of the site. This involved looking at aerial imagery and searching for information from conservation organisation websites holding biodiversity information, for example, MAGIC and National Biodiversity Network sites.

Survey

The site survey followed the Phase 1 Habitat Survey methodology (JNCC 1993) and was completed on the 23rd May 2014 by Paul Diamond Cert (hort), BSc (Hons), MSc, Grad CIEEM. All habitats on site were identified and recorded on the Phase 1 Habitat Survey Map (section 5) and a plant species list was compiled (Appendix 1). A search was also made to identify the presence or potential presence of notable and protected species such as bats and reptiles following guidelines from Natural England and relevant conservation organisations. Hedges present would have been assessed for their 'importance' under the 1997 Hedgerows Regulations.

2.2 Survey Limitations

The data search was restricted to websites holding designated sites and habitats, rather than species data. This limited study is considered adequate due to the nature of the site and the sites low ecological value.

3 SUMMARY OF RELEVANT LEGISLATION AND POLICIES

Local Planning Authorities are charged with the responsibility for protection of endangered species, under the European Union Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC. This Directive is implemented in the UK by the Conservation (Natural Habitats & Conservation) Regulations 1994 (Statutory Instrument No 2716) amended in 1997. The presence of a protected species is a material consideration, when a local authority is considering a planning application that could affect any protected species.

"However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present **and** affected by the development" Defra circular 01.2005 *Biodiversity and Geological Conservation – Statutory Obligations and their Impact Within the Planning System* 2005.

The National Planning Policy Framework (NPPF) sets out the national planning policy which is committed to minimising impacts on biodiversity and providing net gains in biodiversity where possible. Under NPPF, local planning authorities have an obligation to promote the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species as identified under the Natural Environment and Rural Communities Act (2006). Local Planning Authorities will seek to produce a net gain in biodiversity, by requiring developers to design wildlife into their plans and to ensure that any unavoidable impacts are appropriately mitigated for.

The Wildlife and Countryside Act 1981 makes it an offence (subject to exceptions) to pick, uproot, trade in, or possess (for the purposes of trade) any wild plant listed in Schedule 8 and prohibits the unauthorised intentional uprooting of such plants. Certain plant species are also afforded protection under the EC Habitats and Species Directive (92/43/EC).

Badgers are protected by the Protection of Badgers Act (1992) and the Wildlife and Countryside Act (1981), Schedule 6. Under the Wildlife and Countryside Act it is illegal to intentionally kill, capture, injure or ill-treat any badger. Under the Protection of Badgers Act it is an offence to obstruct, destroy or damage a badger sett or

disturb badgers within a sett. Disturbance is defined, for development purposes, as any activity that could damage a sett or be greater than what badgers commonly tolerate. Badgers are seen to be tolerant of low-moderate disturbance levels.

All species of bat, their habitat and roosts are protected by the UK Wildlife and Countryside Act (1981) and the EC Habitats and Species Directive (92/43/EC), enacted in the UK by the Conservation of Habitats and Species Regulations (2010). Otters and dormice are afforded similar protection under this legislation.

All British birds, their nests and eggs are protected in law. It is an offence to deliberately take, kill or injure any wild bird or to take, damage, or destroy any nest or egg of any wild bird under Part 1 of the Wildlife and Countryside Act 1981 (as amended). However, Schedule 1 provides an additional tier of protection so that rare species are specially protected by increased penalties and cannot be intentionally or recklessly disturbed when nesting.

All species of reptile and some amphibians are protected by the UK Wildlife and Countryside Act (1981), under Schedule 5. Reptiles such as adder, common lizard, slow worm and grass snake are protected against intentional killing, injuring or selling. Species such as the smooth snake, sand lizard and great crested newt are also protected by European legislation as above.

A number of invertebrates, including the white-clawed crayfish, are protected by the UK Wildlife and Countryside Act 1981 (as amended), under Schedule 5.

Any hedgerows classified as 'important' under the 1997 Hedgerows Regulations cannot be removed without a Hedgerow Removal Notice issued by the relevant Local Authority unless previously approved as part of a planning permission. The UK Biodiversity Action Plan now classifies any native hedge over 20m in length as a priority habitat feature.

4 RESULTS

4.1 Desk Study

Significant Natural areas.

There are a number of very significant natural areas either on, or surrounding Hayland Island. Whilst it is extremely unlikely that any lawful activity on the proposed site could impact upon these sites in any way, for completeness they are listed and explained below.

Biodiversity Action Plan (BAP) Priority Habitats

BAP Priority Habitats.

There are two BAP priority habitats present with 2km of the site:- Coastal and Floodplain Grazing Marsh BAP Priority Habitat (England) and BAP Priority Woodland

Area of Outstanding Natural Beauty (AONB).

Chichester Harbour AONB

One of the few remaining undeveloped coastal areas in Southern England. Its bright wide flat expanses and intricate creeks are a major wildlife haven and some of Britain's most popular boating waters.

Backed by the Sussex Downs, the harbour is a series of tidal inlets and creeks which punctuate areas of fertile farmland. Fringed by a narrow margin of wind-sculptured oaks and hawthorn, the fields in turn give way to salt-marsh, intertidal mudflats, grazing land, poplar shelter belts, orchards and historic harbour side settlements. The harbour lowlands contain high quality arable farmland with some beef and dairy farming.

The huge stretch of tidal flats and saltings are of outstanding ecological significance. The rich, complex estuarine habitats of the harbour are a RAMSAR designated wetland. Large populations of wildfowl and waders use the mudflats feeding on the rich plant life and the huge populations of intertidal invertebrates. More than 9,000 Brent geese spend winter on the intertidal mud-land and adjacent farmland.

There are several **Sites of Special Scientific Interest (SSSI)** within 2kms of the site.

Chichester Harbour SSSI

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.

The intertidal area is fragmented in the upper reaches of the harbour by intruding tongues of land giving a very long and varied coastline. The harbour exhibits a wide range of intertidal and associated terrestrial habitats and with the neighbouring Langstone and Portsmouth Harbours is unusual in providing a large volume of sheltered saline water fed by a few streams of only low volume. The extensive intertidal mudflats are the feeding grounds, at the relevant times of year for internationally important numbers of ringed plover, grey plover, redshank, black-tailed godwit, dunlin, sanderling, curlew and greenshank (the latter two in autumn particularly). Bar-tailed godwit numbers are of European importance. Amongst the wildfowl, shelduck, teal and dark-bellied brent goose numbers are of international importance with 5% of the world population of the latter.

The unimproved permanent pasture behind the sea wall provides alternative feeding sites for the geese and major high tide wader roosts. Some of this pasture is floristically rich being a red fescue *Festuca rubra* sward with scarce species such as green-winged orchid *Orchis morio* and adder's tongue fern *Ophioglossum vulgatum*. The lower saltmarsh habitat fringing the mud flats is dominated by cord grass *Spartina anglica* and in most places the upper saltmarsh is rather restricted by the sea wall but there are some pure stands of sea purslane *Halimione portulacoides* while in some areas there is also sea lavender *Limonium vulgare*, sea aster *Aster tripolium* and other saltmarsh species.

Shingle occurs as spits and islands and most are rather unstable permitting little vegetation to become established. This habitat forms the main breeding grounds in the harbour for ringed plover, blackheaded gull and three species of terns. The extensive sand dunes at East Head are dominated by marram grass *Ammophila*

arenaria although the degree of ground cover varies from 90% to 10% on the more recently established dunes.

At the head of Fishbourne Channel saltmarsh grades through a reed *Phragmites australis* bed into fresh marsh influenced by a chalk spring. Most of the other fresh marshes behind the sea wall are small but at Thorney Deep's reclaimed saltmarsh has given way to extensive fresh water marsh vegetation influenced by salt water intrusion; here the reed is fringed by extensive areas of rushes *Juncus* species and invasive willow *Salix* scrub. A number of small ponds occur one of which contains the rare annual beard grass *Polypogon monspeliensis*. Significant blocks of scrub, mainly hawthorn *Crataegus monogyna* and blackthorn *Prunus spinosa* occur which are important for breeding and roosting birds. Hedgerows of oak *Quercus robur* are common and in some places the oak roots are strongly influenced by salt water. Semi-natural broadleaved woodland associated with the Harbour is important for breeding birds and supports two heronries. Oak is the major tree species usually with hazel *Corylus avellana* coppice, as at Old Park Wood, although Tournembury Wood has well spaced oaks with the occasional beech *Fagus sylvatica*, holly *Ilex aquifolium* and yew *Taxus baccata* with a fairly dense ground flora of bramble *Rubus fruticosus* and bracken *Pteridium aquilinum*.

Notable invertebrates include the long-winged conehead *Conocephalus discolor* and the moths, starwort shark *Cucullia asteris*, the sand dart *Agrotis ripae*, shore wainscot *Mythimna litoralis* and lunar hornet *Sphecia bemeciformis*.

Langstone Harbour SSSI

Langstone Harbour is a tidal basin which at high water resembles an almost landlocked lake. At low water extensive mud flats are exposed, drained by three main channels which unite to make a common and narrow exit to the sea. The harbour includes one of the largest areas of mixed saltmarsh on the south coast, and extensive cord-grass *Spartina anglica* marsh in an advanced state of degeneration.

The Site of Special Scientific Interest including Farlington Marshes, a peninsula of grassland and marsh on reclaimed tidal silt protected by a sea wall; and a similar but much smaller area at Southmoor in the north-east of the harbour. The harbour is of international importance as a rich intertidal system supporting high densities of

intertidal invertebrates and large populations of migrant and overwintering waders and wildfowl, dependent upon them and upon the extensive beds of eelgrass *Zostera* species. The *Zostera angustifolia* and *Z. noltii* beds are among the largest in Britain. The harbour is among the twenty most important intertidal areas in Britain as a summer and autumn assembly ground for waders during the moult (when they require abundant high protein food) and as a post-moult wintering ground. Dunlin *Calidris alpina* often exceed 30,000 individuals, or 6% of the British winter population, or 3% of the European and North African wintering population. Grey plover *Pluvialis squatarola* and black-tailed godwit *Limosa limosa* achieve numbers which represent 1–2% of the European and North African migration flyway population; and redshank *Tringa totanus* and ringed plover *Charadrius hiaticula* do so periodically. At times as many as 20% of the black-tailed godwit, 8% of the ringed plover and 8-10% of the grey plover wintering in Britain are present in the harbour. The total numbers of waders present sometimes exceeds 40,000.

Langstone Harbour and the adjoining and connected Portsmouth and Chichester Harbours form a single, coherent ecosystem which is among the ten most important intertidal areas for waders in Britain. In the 1970s and 1980s Langstone Harbour alone has consistently supported in excess of 5,000 wintering dark-bellied geese *Branta bernicla*, or 5-10% of the world population depending on fluctuating population levels. It has supported up to 2.5% of the European winter population of shelduck *Tadorna tadorna* and regularly supports substantial numbers of other ducks in autumn and winter.

Farlington Marshes intrudes into the north-west sector of the harbour. Its vegetation is strongly influenced by drainage water from the chalk and by brackish water infiltration. The marshes embrace a variety of habitats – brackish marsh, fresh marsh, a large lagoon with associated reed *Phragmites* beds, *Agrostis stolonifera* grassland and scrub. It is a vital high water wader roost for the Harbour and a major feeding ground for Brent geese after the *Zostera* beds in the Harbour have been consumed. Few comparable sites have survived agricultural improvement on the south and east coasts of England, where the habitat was formerly common: the grassland flora is especially rich for reclaimed silt, and includes over 50 species of grasses. Southmoor shares these characteristics but is much smaller.

Langstone Harbour has been the forum for important ecological research on estuarine eutrophication and the relationship with algal blanketing of the muds, changes in invertebrate communities and changes in the composition of vertebrate predator communities.

Chichester and Langstone Harbours Special Protection Area (SPA)

In 1995, much of the Solent's Coastline was identified as a possible Special Area of Conservation (SAC) under the EU Habitats Directive.

The Solent was proposed for its cordgrass swards (*Spartinion maritimae*), Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) and estuaries. For cordgrass swards, the Solent is one of two significant locations in the UK for this habitat and is unique in having all four species of *Spartina*. It is also considered to be one of the best locations in the UK for Atlantic salt meadows and estuaries.

The estuaries for which the Solent supports Annex I habitat types, which are sustainable in terms of structure and function, include: Yar Estuary, Newtown Harbour, Beaulieu Estuary, Hamble Estuary, Chichester Harbour, Langstone Harbour, Medina Estuary and Kings Quay Shore.

The features for which the harbour was designated:

- sandbanks which are slightly covered by sea water at all times
- estuaries
- mudflats and sandflats not covered by seawater at low tide
- coastal lagoons

Solent Maritime Special Area of Conservation (SAC)

This site was designated in order to avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.

Qualifying Features:

H1110. Sandbanks which are slightly covered by sea water all the time

H1130. Estuaries

H1140. Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats

H1150. Coastal lagoons

H1210. Annual vegetation of drift lines

H1220. Perennial vegetation of stony banks; Coastal shingle vegetation outside the reach of waves

H1310. Salicornia and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand

H1320. Spartina swards (*Spartinion maritimae*); Cord-grass swards

H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

H2120. Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram

S1016. *Vertigo moulinsiana*; Desmoulin's whorl snail

Chichester and Langstone Harbours RAMSAR

Ramsar sites are wetlands of international importance, designated under the Ramsar Convention.

Wetlands are defined as areas of marsh, fen, peat-land 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.

Ramsar sites may also incorporate riparian (banks of a stream, river, pond or watercourse) and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands.

Red Listed Bird Species

In addition to the species highlighted above, Hayling Island is home to a number of red listed birds including: Corn Bunting, Lapwing, Redshank, Turtle Dove, Grey Partridge and Yellow Wagtail. There is no reason to believe that any of these species reside on the proposed site or will be impacted by the proposed development.

4.2 Habitats

Habitats are mapped on the Phase 1 Habitat Survey Map.

4.2.1 Grassland

The site is not a grassland habitat any more than a garden lawn could be considered as such. The area appears to have been regularly strimmed short. The mixture of common meadow grasses includes creeping and common bent, fescues, cocksfoot and annual meadow grass, together with hogweed, cow parsley, stinging nettle, meadow buttercup, ragwort, ivy and broad leaved dock. Additional plants are included within the appendices. The ecological value of this area is low.

There are also a small number of ornamental shrubs and trees growing close to the eastern boundary and are presumably the remnants of the previous garden. These include; bay, crab apple, willow and in the extreme southeast corner a walnut tree.

4.2.2 Scrub

No scrub exists on site

4.2.3 Hedges and Trees

An important 'hedgerow' as defined under the '1997 Hedgerows Regulations' exists on the site along the southern boundary.

The hedgerow includes the walnut as noted above and includes; elm, elder, damson, apple, hawthorn and bramble. Together with hemlock water dropwort, stinging nettles, hogweed, cow parsley, goose grass, garlic mustard, meadow thistle and cocks foot. It is understood that this hedge which includes some semi-mature trees is to be protected and preserved.

4.2.4 Water

Beyond the hedgerow and extending approximately halfway across the site is a ditch. The water appears stagnant and is covered in duck weed. It contains no plant life below the duck weed. The stable block to the rear of the site abuts the ditch and it maybe that run off has perhaps caused eutrophication. The ditch is in deep shade. No evidence of any invertebrates could be found. No evidence of occupation by water voles could be seen and the area is too small to support a viable population.

4.3 Fauna

4.3.1 Mammals

Badgers

No setts or other evidence of badger activity was observed on site. It is possible that badgers may on occasion traverse the site. There are however, no badger tracks, paths, latrines or any other indication that badgers regularly use this site. Consequently, the proposed development is unlikely to have any significant impact on badgers.

Bats

Bat roost sites normally consist of caves, buildings of various types, trees with holes / cracks / peeling bark or coverings of ivy. On this site there are no potential roost sites. To avoid any potential negative consequences it is recommended that bat boxes are erected. Please refer to the mitigation section for fuller details.

Bats might use the site for foraging purposes however, to put this into perspective, bats are known to use numerous kinds of sites to forage for food. Some species in particular have learned to utilise street lighting as feeding stations, whilst others prefer total darkness and shun lighting. In general low light levels are to be preferred. Please see the mitigation section for ideas on how to limit light interference.

The site is considered to have low to moderate potential to support foraging bats, with low to moderate potential to host roost sites.

Dormice

There is little suitable habitat for dormice on this site and according to the National Biodiversity Network (NBN) no dormice have been recorded on Hayling Island. For these reasons the site currently has low potential to support dormice.

Water Voles

The habitat on site is far too small to sustain a viable population of water voles. Additionally, the NBN archives have no records of Water voles within the last 15 years.

4.3.2 Birds

Although no nests were detected during the survey, there are trees and scrub on site with the potential to support nesting birds. Please refer to the mitigation section.

4.3.3 Reptiles and Amphibians

The 'grassland' area does not currently offer suitable habitat for reptiles. However, the site will need to be maintained in its current condition to avoid the potential for reptiles migrating onto the site.

The site is extremely unlikely to support amphibians. There is standing water on site but it appears polluted and therefore unsuitable for amphibians.

Record searches of the NBN archives indicate no records of Great Crested newts on Hayling Island within the last 15 years.

Overall the site has low potential to support reptiles and amphibians.

4.3.4 Invertebrates

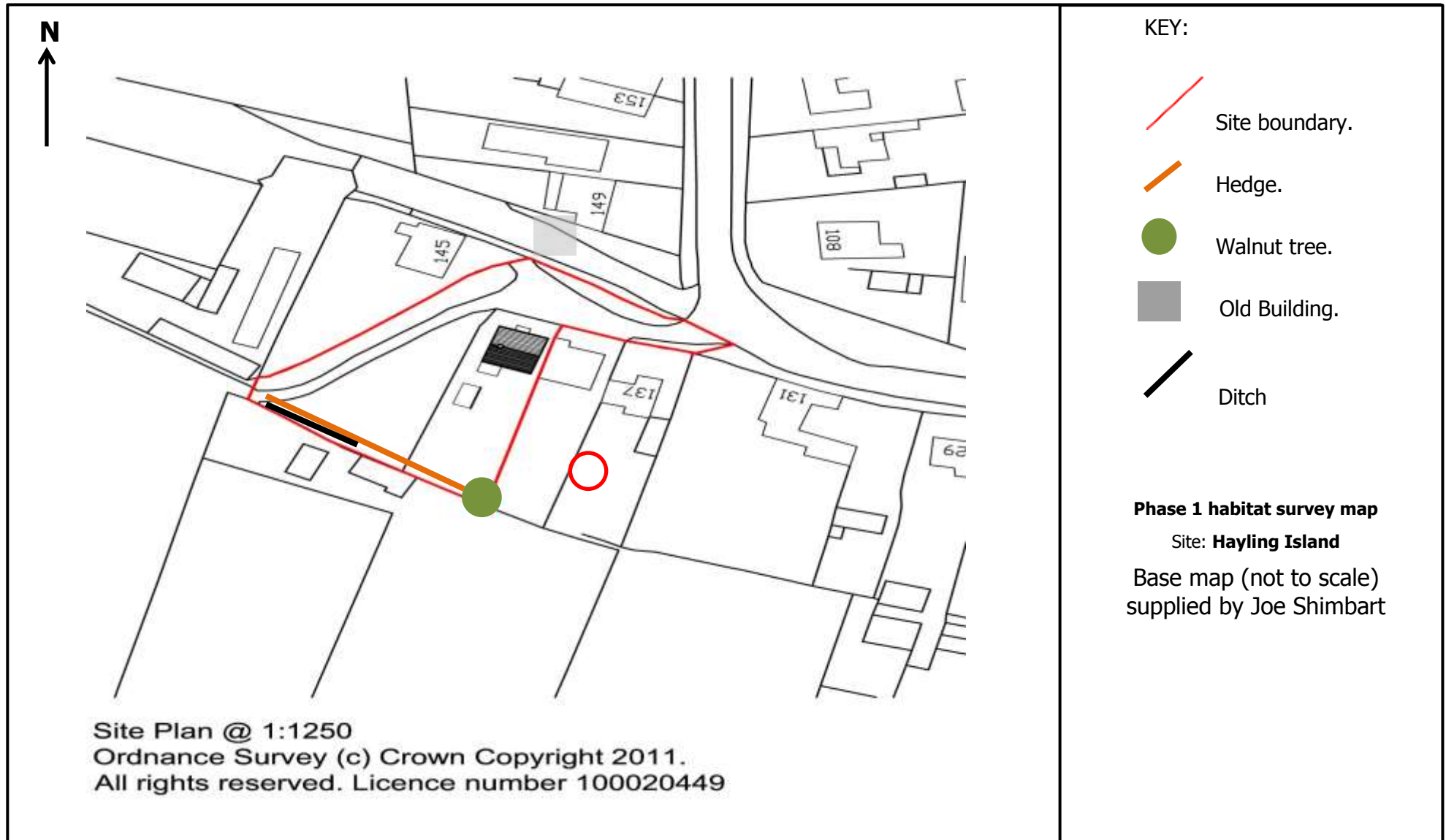
The habitats on site are common and unlikely to support notable species of invertebrates or species of conservation importance.



The ditch on the southern boundary of the property behind the hedge.

5 Habitat Mapping and Target Notes

5.1 Phase 1 Habitat Survey Map



6 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions relate specifically to the brief and development proposal descriptions supplied at the time of writing. If the proposals should change, a re-appraisal or appraisal amendment may be required.

6.1 Site Evaluation

6.2 The habitats to be lost to the development are of low ecological value in general.

The grassed area within the garden is species poor and is of little ecological value.

The hedgerow and overgrown area on the southern garden boundary would appear to offer potential bird nesting habitat and invertebrate habitat and should be protected during development and preserved.

Overall any negative impacts on biodiversity as a result of development taking place on this site are likely to be low. Indeed although the main site is currently of little ecological value it is possible that with a small amount of sympathetic planting the sites ecological value will improve.

The only protected species that might potentially be impacted by the loss of an area of foraging ground are bats. Please refer to the Mitigation and Compensation section for more details.

6.3 Mitigation and Compensation Recommendations

6.3.1 Plants

Natural areas to be retained must be protected by fencing during construction work as this will prevent compaction of the soil.

6.3.2 Bats

To avoid any impact upon foraging or commuting bats, the boundary edges should be kept as unlit corridors. This can be achieved by fitting accessories such as hoods, cowls, shields or louvers to lights. The maximum lux within 5 metres of a hedgerow should not exceed 0.5. Considerate planning to make use of man-made structures or the planting of trees can all help reduce light levels. The use of timers on lighting can be used to reduce the amount time lights are kept lit. Further advice is given in the

Bat Conservation Trust guidance document, 'Bats and Lighting in the UK' (Bat Conservation Trust 2009). A link is provided in the reference section.

6.3.3 Birds

Any proposed work that adjoins or impacts upon any hedgerow or potential bird nesting site including buildings must not proceed unless and until, a suitably experienced person has checked the area for nesting birds. This caveat can be avoided if the proposed works commences outside of the nesting season. The nesting season is generally recognised as March – September inclusive. It is however, always worth checking for nesting birds as Collard Doves, have been known to raise young in every month of the year.

6.4 Enhancement Recommendations

Modern buildings no longer offer nesting opportunities for birds in the manner that older properties do. So to compensate for the loss of the nesting opportunities that were lost as a result of demolishing the previous building, a minimum of four nest boxes for birds should be installed at various locations around the site. Nesting boxes should be a mixture of both 'open fronted' and 'hole type' boxes in order that they appeal to the widest possible number of species. These boxes should be erected not less than 3m high unless tucked tightly under an eave of the new property.

The 'common' and humble house sparrow has declined significantly and is now a red-listed bird. Part of the reason for its decline is believed to be a lack of suitable nest sites within modern houses. New developments offer an opportunity to help. I would therefore recommend a house sparrow nesting boxes or sparrow 'terraces' to be erected upon the new property. To avoid conflict with residents, erection of the boxes should not be above doors or windows. There is a link within the appendices giving details of suitable nest boxes.

Two bat boxes erected on the gable end of properties would offer potential bat roosts and augment the natural roosting opportunities within the area and help replace the potential roost sites within the original building. These boxes should be erected not less than 3m high.

Planting of nectar rich flowers and shrubs, combined with shrubs or trees which produce either fruit or nuts, will be of benefit, either directly or indirectly, to a multitude of organisms. Species lists are provided in appendices 2.

No evidence of hedgehogs was observed, however hedgehog boxes, placed in the base of any shrubs being planted would offer a home to these once common, now rare UK BAP species.

7 Further Survey Work

ODPM Circular 06/2005 'Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System' advises that the presence of a protected species is a **material consideration** that must be taken into account by the local planning authority when determining the outcome of planning applications. Where there is potential for a protected species to be present on site full survey data is necessary to properly address the impacts of the proposed development upon these species. If the survey work is not carried out before planning application is determined there is a risk that not all material considerations will have been addressed. This may cause delays in determining the outcome of the planning application while full survey data is collected and analysed.

"However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present **and** affected by the development" Defra circular 01.2005 *Biodiversity and Geological Conservation – Statutory Obligations and their Impact Within the Planning System* 2005.

No further survey work is recommended.

8 Impact Avoidance During the Construction Phase

Trenches or large excavations should be covered overnight to prevent wildlife such as badgers or hedgehogs falling in and failing to escape. If this is not possible then a strategically placed plank may provide a means of escape. Any large bore pipes should be capped at the end of the day to reduce the potential for badgers and other wildlife entering and becoming trapped.

Areas that are being retained should be protected from damage during construction by erecting Heras (or similar) fencing around these features. The fencing should be

erected outside the line of the canopy as this helps protect the roots from compaction of the soil.

Any areas proposed for planting post-development should be fenced off where possible to prevent compaction of the soil through vehicle movements.

Contractors must ensure that no harm can come to wildlife by maintaining the site efficiently, clearing away any material such as wire in which animals can become entangled and preventing access to toxic substances.

If there is a substantial delay before development commences, the site should be maintained in a way that would prevent wildlife colonising it and causing constraints in the future. Such management should include mowing grassland at least twice a year and preventing scrub encroachment.

Piles of brush wood and or log piles should be carefully inspected for signs of wildlife prior to their removal. This is especially crucial during the period March – September (inclusive) as some species of bird choose such sites to construct their nests. Ideally removal of such features should be done outside of the nesting season. If this is not possible, it is recommended that these features are covered in such a way as to exclude / prevent birds and / or reptiles taking up residence. Should nesting birds or reptiles be discovered, work must cease immediately and ecological advice sought.

9 LEGISLATIVE AND PLANNING CONTEXT OF FINDINGS

9.1 Protected Habitats and Species

Any hedgerows classified as 'important' under the 1997 Hedgerows Regulations cannot be removed without a Hedgerow Removal Notice issued by the relevant Local Authority unless previously approved as part of a planning permission. The UK Biodiversity Action Plan (BAP) now classifies any native hedge over 20m in length as a priority habitat feature. Priority hedgerows should be those comprising 80% or more cover of any native tree/shrub species. There is a qualifying hedgerow on site.

No protected species have been observed on site.

9.2 Notable Habitats and Species¹

No notable habitats or species have been observed on site.

Whilst the site is within a close proximity of several sites of ecological and conservation importance, it is difficult to envisage any legal activity on this site having impacts on other sites.

1. – notable species are those considered to be of conservation importance due to their inclusion / listing in the Biodiversity Action Plan (UK BAP), IUCN Red Data Book species, RSPB Birds of Conservation Concern etc. Some species may be included in more than one list and be legally protected.

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Data search websites: -

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- Natural England - Nature on the Map: <http://www.natureonthemap.org.uk/>
- National biodiversity network: <http://www.nbn.org.uk/Home.aspx>
- UK Biodiversity Action Plan:- <http://www.ukbap.org.uk/NewPriorityList.aspx>

11 LIST OF APPENDICIES

Appendix 1 – Species lists

Appendix 2 - Recommended planting

APPENDIX 1 – SPECIES LISTS

Table 2 - Scientific names of species mentioned in the text.

Scientific name	Common name
<i>Meles meles</i>	Badger
<i>Pieris brassicae</i>	Large white
<i>Muscardinus avellanarius</i>	Dormouse
<i>Erinaceus europaeus</i>	Hedgehog
<i>Plecotus auritus</i>	Brown long-eared bat
<i>Plecotus austriacus</i>	Grey long-eared bat
<i>Pipistrellus pipistrelles</i>	Common pipistrelle bat
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle bat
<i>Pipistrellus nathusii</i>	Nathusius' pipistrelle bat
<i>Myotis nattererii</i>	Natterers' bat
<i>Myotis mystacinus</i>	Whiskered bat
<i>Myotis brandtii</i>	Brandt's bat
<i>Myotis daubentonii</i>	Daubenton's bat
<i>Myotis bechsteinii</i>	Bechsteins' bat
<i>Nactylus noctula</i>	Noctule bat
<i>Nactylus leislerii</i>	Leislars bat
<i>Eptesicus serotinus</i>	Serotine bat
<i>Barbastella barbastellus</i>	Barbastelle bat
<i>Rhinolophus ferrumequinum</i>	Greater horseshoe bat
<i>Rhinolophus hipposiderous</i>	Lesser horseshoe bat
<i>Lacerta vivipara</i>	Common lizard
<i>Vipera berus</i>	Adder
<i>Anguis fragilis</i>	Slow worm
<i>Natrix natrix</i>	Grass snake
<i>Rana temporaria</i>	Common Frog
<i>Bufo Bufo</i>	Common Toad
<i>Coronella austriaca</i>	Smooth snake
<i>Lacerta agilis</i>	Sand lizard
<i>Triturus cristatus</i>	Great crested newt
<i>Parus major</i>	Great tit
<i>Passer domesticus</i>	House sparrow

Scientific names of fauna species mention in the text.

DAFOR scale: - Frequency of species on the site

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

<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Agrostis stolonifera</i>	Creeping Bent	D
<i>Agrostis capillaris</i>	Common Bent	D
<i>Aquilegia vulgaris</i>	Columbine	R
<i>Alliaria petiolata</i>	Garlic Mustard	A
<i>Bellis perennis</i>	Daisy	F
<i>Cirsium dissectum</i>	Meadow Thistle	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Festuca rubra agg.</i>	Red Fescue	A
<i>Fraxinus excelsior</i>	Ash	R
<i>Galium aparine</i>	Cleavers	F
<i>Geranium dissectum</i>	Cut-leaved Cranesbill	F
<i>Geranium robertianum</i>	Herb-Robert	O
<i>Glechoma hederacea</i>	Ground ivy	F
<i>Hedera helix</i>	Ivy	F
<i>Heracleum sphondylium</i>	Hogweed	F
<i>Holcus lanatus</i>	Yorkshire-fog	F
<i>Juglans Ssp</i>	Walnut tree	R
<i>Lemnaceae Ssp</i>	Duckweed	F
<i>Malus sylvestris</i>	Crab Apple	R
<i>Matricaria discoidea</i>	Pineappleweed	F
<i>Medicago arabica</i>	Spotted Medick	F
<i>Oenanthe crocata</i>	Hemlock Water-dropwort	F
<i>Plantago lanceolata</i>	Ribwort Plantain	F
<i>Plantago major</i>	Greater Plantain	R
<i>Potentilla reptans</i>	Creeping Cinquefoil	F
<i>Prunus domestica subsp institia</i>	Damson	F
<i>Ranunculus acris</i>	Meadow Buttercup	O
<i>Rubus fruticosus agg.</i>	Bramble	F
<i>Rumex obtusifolius</i>	Broad leaved Dock	O
<i>Sambucus nigra</i>	Elder	R
<i>Senecio jacobaea</i>	Ragwort	O
<i>Trifolium repens</i>	White Clover	O
<i>Ulmus procera</i>	English Elm	F
<i>Urtica dioica</i>	Common Nettle	F

APPENDIX 2 – RECOMMENDED PLANTING

Native shrubs for hedges and landscaping small sites

Planting ideas can be discussed in due course if required.