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Executive Summary

This report has been prepared by CC Ecology on behalf of Mr and Mrs Elsey in relation to a possible planning application for the construction of a replacement dwelling at 19a Salterns Lane, Hayling Island, Hampshire. Proposals for the site are not yet decided, although it is understood that the house needs to be either renovated or re-built.

A Phase 1 Habitat Survey, combined with a Daytime Inspection of the property for bats was undertaken by Claire Clarke and Matthew Clarke of CC Ecology on 11 June 2014. The survey found no evidence of roosting bats, however the house was considered to have moderate potential to support roosting bats. Bat emergence surveys were commissioned to assess the presence or likely absence of roosting bats within the property, which will be demolished as part of the proposed development. Three dusk emergence surveys were undertaken, at the end of June 2014, end of July 2014 and end of August 2014. During the second dusk survey, three bats (1x Soprano Pipistrelle, 2x Pipistrelle sp.) emerged from the house. Sustained foraging by small numbers of both Common and Soprano Pipistrelle bats was recorded within the gardens of the property.

Therefore, 19a Salterns Lane is confirmed as supporting a bat roost for two species of Pipistrelle bat.

In addition to the assessing the site for bats, other ecological features of interest and within the likely zone of influence of the proposals were noted during the Phase 1 Habitat Survey, and an assessment of the likely impacts on these ecological features as a result of the proposed extension was made.

The main house and double garage have the potential to support nesting birds and therefore works should be timed outside of the nesting bird season or undertaken following an early morning bird survey and under supervision of an ecologist.

There is potential for a low population of the more common and widespread species of reptile to be present within small patches of suitable habitat within the garden. It is likely that most of the suitable patches of habitats located around the edge of the garden will be retained, although some sub-optimal patches of habitat located close to the house may need to be removed. An outline Method Statement is proposed within this report outlining the methods for undertaking works on habitat suitable for reptiles to ensure that no animals are harmed as a result of the proposals, in compliance with relevant legislation.

The site lies on the banks of Chichester Harbour, which is designated as a Special Protected Area (SPA) and Site of Special Scientific Interest (SSSI), with additional Ramsar site status for its assemblages of both breeding and overwintering bird species. Within the area of the harbour that lies directly to the north of the site (known as My Lords Pond) overwintering flocks of Dunlin, Redshank and Oystercatcher have been recorded. Suitable mitigation measures (e.g. timing of works, screening of works, noise level controls) to avoid visual and audio disturbance of the birds during the sensitive overwintering period (November to March inclusive) form an integral part of the mitigation strategy, in addition a full Construction Method Statement (CMS) is recommended.

The rear garden of 19a Salterns Lane is within the Impact Risk Zone for the SSSI, and so in the absence of mitigation, there are likely to be impacts as a result of the development on the watercourse that could impact on the SSSI. In order to avoid impacts, measures in addition to those outlined above are recommended to be included within a CMS to protect the wider flora and fauna of the habitats within the SSSI.

Protected Species other than shorebirds associated with the harbour are unlikely to be directly impacted upon by the proposals due to the nature of the development. However, in order to avoid impacts such as increased lighting, a mitigation strategy has been designed. In addition a

biodiversity strategy has been created to provide enhancements to the site for biodiversity in line with local biodiversity objectives and planning policy.

1. Introduction

Background

- 1.1 CC Ecology was commissioned by Mr and Mrs Elsey in June 2014 to undertake a Phase 1 Habitat Survey combined with a daytime inspection for bats at 19a Salterns Lane, Hayling Island, Hampshire. A Phase 1 Survey and daytime inspection are essentially initial stage surveys that aim to map habitats and features within and adjacent to the site boundary and assess the sites potential to support protected species.
- 1.2 The initial daytime inspection of the house (and garage) found no evidence of roosting bats or any other protected species; however the building as a whole was considered to have moderate potential to support roosting bats and also nesting birds. The garden was identified as having areas of habitat with the potential to support small numbers of reptiles, such as slow worm, grass snake and common lizard.
- 1.3 Further bat emergence surveys were recommended to fully ascertain the presence or likely absence of bats within the property, and these were undertaken during the active bat season in suitable weather conditions (end of June, end of July 2014 and end of August 2014). Three bats of Pipistrelle species were recorded emerging from the building during the second dusk survey, in addition 1 Common Pipistrelle and 1 Soprano Pipistrelle were recorded emerging from the building during the August survey. Foraging and commuting activity by at least three bat species was also recorded in the site itself and surrounding gardens.
- 1.4 Original plans to demolish the property and build a replacement dwelling are currently on hold. Although it is understood that the house either needs to be renovated or rebuilt a decision about the proposals have not yet been made and therefore it is not possible to fully assess the impacts of the proposals on protected species and habitats, however this report includes the results from the surveys undertaken, an assessment of the ecological value of the site, as well as advice on mitigation, compensation and enhancements for biodiversity.
- 1.5 The surveys confirm that the house supports small roosts of both Common and Soprano Pipistrelle and therefore if any proposals for the house are likely to disturb bats, or damage or destroy a bat roost it will be necessary to gain a European Protected Species Licence.
- 1.6 In addition to assessing the potential for protected species within the site boundary, it is considered that adjacent habitats are within the zone of influence of the proposals. The creek adjacent to the site (known as My Lords Pond) forms part of the much larger Chichester Harbour SPA and SSSI. Recommended measures to avoid impacts on this sensitive habitat are included within this report, although these will need to be detailed within a full Construction Method Statement (CMS) prior to submitting and planning application or undertaking any extensive works on the house.
- 1.7 Measures to avoid impacts on Chichester Harbour will also take into account the potential for other protected species to be using the immediately adjacent habitats. As it is not currently known what the proposals for the site are a full assessment of the impacts on protected species and habitats has not be carried out, therefore this report will need to be updated with a full mitigation strategy and CMS before any planning application is submitted or any extensive works take place.

Development Proposals

- 1.8 The original proposals for the site were to demolish the existing property and rebuild a new dwelling within the same footprint. Due to various costly issues with the land and the structure of the building these proposals have the potential to change although a decision has not yet been made. It is understood that in order to ensure the house is suitable as a residential dwelling it either needs extensive renovation or rebuild.
- 1.9 Additions to this report will be required to support any planning application for the site. In addition if it is decided that the house will be renovated further advice and a mitigation strategy may be required in order to proceed in compliance with protected species legislation.

Site Context

- 1.10 19a Salterns Lane is a detached two storey residential dwelling located on Saltern's Lane, Hayling Island, Hampshire, at ordnance survey grid reference SZ 732 991. The site is surrounded by residential housing to the south, east and west. To the north and abutting the rear garden of the property, is the Chichester Harbour inlet known as 'My Lords Pond'.

Designated Nature Conservation Sites

Statutory Sites

- 1.11 The site directly abuts Chichester Harbour (My Lords Pond) and Langstone Harbour Special Protection Area (SPA) (JNCC, 2006). The harbours also have Ramsar designation, being internationally recognised wetland habitats for birds. The Ramsar designation is supported by the criterion of assemblages of the following bird species at levels of international importance in spring/summer: Ringed plover *Charadrius hiaticula*, Black-tailed godwit *Limosa limosa*, Common Redshank *Tringa totanus*, and in winter; Dark-bellied brent goose *Branta bernicla*, Common Shelduck *Tadorna tadorna*, Grey Plover *Pluvialis squatarola*, and Dunlin *Calidris alpina* (JNCC, 2008).
- 1.12 The two large estuarine basins are linked by the channel, which divides Hayling Island from the main Hampshire coastline. The SPA includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes.
- 1.13 Chichester Harbour also forms a Site of Special Scientific Interest (SSSI). These areas are of international importance, with particular significance for over-wintering wildfowl and waders and also a wide range of coastal and transitional habitats listed above, supporting important plant and animal communities (Natural England, 2014).
- 1.14 The rear garden of 19a Salterns Lane is identified as being within the SSSI Impact Risk Zone (IRZ). IRZs are used by Natural England to map zones around SSSIs, identifying particular sensitivities of the features for which it is notified, and specifies the type of development that have the potential to have an adverse impact at a given location (Natural England, 2014).

- 1.15 Sandy Point Nature Reserve protects one of the last pieces of undeveloped land on the south-eastern corner of Hayling Island, and is approximately 1.5km from the site. The Nature Reserve is a sensitive area of rare maritime heathland, sand dunes and grassland grazed in summer by cattle. Some plants found here occur nowhere else in Hampshire and much of the ground is covered in fragile lichens. The Reserve is a Site of Special Scientific Interest (SSSI).
- 1.16 There are several Sites of Importance to Nature Conservation (SINCs) within close proximity of the site. The closest is Hayling Secondary School Playing Field SINC, located approximately 700m to the north-west of the site.
- 1.17 Although not a designated conservation site, Tournbury Woods is an important deciduous woodland area on Hayling Island, and is situated within 120m directly across My Lords Pond, to the north of the site. Consisting of predominantly of oak and beech trees, the woods are known to support a substantial level of flora and fauna. An iron age fort is also present.

Relevant Legislation and Policy Implications

Relevant Legislation and Policy Implications

- 1.18 Relevant planning policy documents are described in **Appendix 1**. The key documents include the National Planning Policy Framework, and the Havant Borough Local Plan. The Havant Borough Core Strategy (Havant Borough Council, 2011) is the principle document in the Council's Local Plan, setting out the spatial planning strategy for the area set up to 2026. Regional Planning policies, including the South East Plan (SEP) (May 2009) and the related Regional Spatial Strategy (RSS) for the South East, were abolished by the secretary of state during 2013 in favour of the aforementioned local level plans.
- 1.19 The Havant Borough Council Core Strategy sets out a number of core strategy and development management policies that are relevant to ecology, of particular relevance are:

Policy CS11, "Protecting and Enhancing the Special Environment and Heritage of Havant Borough", which outlines examples of protection measures that will facilitate the granting of planning permission for developments.

Policy CS12 "Chichester Harbour Area of Outstanding Natural Beauty (AONB)", which covers a number of points referring to assessment and avoidance of impacts on the character and wellbeing of the Chichester Harbour AONB. Ecological considerations are implicated within the obligation under point 4 for proposals to meet the policy requirements of the Chichester Harbour Plan (2014-2019).

DM8 "Conservation, Protection and Enhancement of Existing Natural Features" Under policy DM8 "Development will only be permitted where it protects and enhances local habitats and landscape distinctiveness". Especially relevant to ecology, proposals must meet criteria whereby they "protect features of nature conservatio..importance...from...damage, destruction and deterioration".

DM9 "Development in the Coastal Zone"

Policy DM9 states that permission for developments will only be granted where there are "no harmful effects on nature conservation within the Chichester and Langstone Harbour SSSIs and SPA, Solent Maritime SAC and Ramsar site, or any SINC and Local Nature Reserves".

- 1.20 The key legislative provisions of relevance to this report with respect to the development proposals and their potential effects on ecological features are listed below, with further detail provided in **Appendix 1**.

- The Habitats and Species Regulations 2010 (as amended)
- The Wildlife and Countryside Act 1981
- The CROW Act 2000 (Countryside and Rights of Way)
- The Natural Environment and Rural Communities (NERC) Act 2006

Biodiversity Action Plans

- 1.21 The UK Biodiversity Action Plan 2007 (UK BAP) has been superseded by the UK Post-2010 Biodiversity Framework and individual national biodiversity strategies. The UK framework sets out the overarching vision, strategic goals and priority activities for the UK's work towards international biodiversity targets (known as the 'Aichi Targets'), as agreed by 192 parties at the UN Convention on Biological Diversity in 2010. The Framework's overall vision is that "by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people."
- 1.22 The site falls within the geographic area covered by the Local Biodiversity Action Plan (BAP) for Hampshire and Havant. The Hampshire Biodiversity Action Plan prepared by Hampshire Biodiversity Partnership identifies those habitats and species of importance in the county and includes Action Plans for their conservation and management. The Hampshire BAP contains 14 Habitat Action Plans and 28 Species Action Plans.
- 1.23 Many key species in Hampshire are covered by Species Action Plans at national or regional level, or are covered within the Habitat Action Plan associated with that species.
- 1.24 The Hampshire Species Action Plan for Shorebirds, relevant to Chichester Harbour, includes two lists of priority shorebirds; wintering and migrant birds including Ringed Plover, Grey Plover, Dunlin, Black-tailed godwit, Common Redshank, Knot *Calidris canutis*, Sanderling *Calidris alba*, Bar-tailed godwit *limosa lapponica*, and Turnstone *Arenaria interpres*. Scarce breeding birds include Mediterranean gull *Larus melanocephalus*, Roseate tern *Sterna dougallii* and Little tern *Sterna albifrons* (Hampshire Biodiversity Partnership, 2004).
- 1.25 The Hampshire Species Action Plans for 'Pipistrelle bat' covers both Common and Soprano Pipistrelle species, and states the importance of maintaining roosts, or re-instating after building work.

- 1.26 The Hampshire Species Action Plan for Serotine bats includes the importance of maintaining foraging and feeding habitats, and commuting routes from roosts are also of intrinsic value.
- 1.27 The actions listed in the Havant BAP include habitat management, advice, monitoring and education. These have been developed on the basis of advice from partners with relevant or site-specific expertise and actions listed in relevant Habitat and Species Action Plans published as part of the Hampshire BAP. District-level BAPs like these have the dual purpose of translating priorities and objectives identified in County-level BAPs.

2. Methodology

Introduction

- 2.1 The methodology for the bat surveys undertaken at 19a Salterns Lane has been based upon good practice guidelines published by the Bat Conservation Trust, 2012. Methodology for the evaluation of the site and assessment of the potential impacts has been based on the Guidelines for Ecological Impact Assessment (EclA) in the United Kingdom published by the Institute of Ecology and Environmental Management (IEEM, 2006) (now CIEEM), and the Bat Mitigation Guidelines published by English Nature, 2004 (now Natural England).

Defining the Zone of Influence

- 2.2 In order to define the spatial scope of the Phase 1 Habitat Survey and bat surveys it is necessary to predict the likely zone of influence of the potential development proposals for 19a Salterns Lane. The zone of influence of a proposed development is defined by IEEM's EclA guidelines as *'...the areas/(ecological) resources that may be affected by the biophysical changes caused by a development, both in the construction and operational phases'*.
- 2.3 The types of activities that might occur as a result of the development at 19a Salterns Lane and the likely biophysical changes (in the absence of mitigation) include:
- a. Potential demolition of the existing residential property;
 - b. Excavations to construct additional/new foundations for the new building, causing additional noise and vibration;
 - c. Removal of potential bat roosting areas;
 - d. Removal of potential bird nesting habitat;
 - e. Increase of noise, dust and lighting during the construction phase affecting both the site itself and the areas directly surrounding the site; and
 - f. Increase of lighting to the water-side of the property post construction.

Desktop Study

- 2.4 A desktop study was undertaken to obtain information regarding protected species on the site and within the zone of influence. This involved searching the National Biodiversity Network website, assessing the known distribution of bats in Britain (Richardson, 2001), as well as interrogating Natural England's "Nature on the Map" (MAGIC) to establish protected sites and habitats within the zone of influence of the proposals.
- 2.5 As the area is well documented in terms of its ecological diversity, it was considered unnecessary to commission a full records request from the Local Biodiversity Records Centre.
- 2.6 A request for bat records within 2km of the site was submitted to the Hampshire Bat Group.

Phase 1 Habitat Survey and Daytime Inspection for Bats

- 2.7 A Phase 1 Habitat Survey and daytime inspection of the building for bats was undertaken on 11 June 2014 by Claire Clarke a licensed bat ecologist (Class Survey Licence WML

CL18 [Bat Survey Level 2]) and Mathew Clarke, both of CC Ecology. The survey is essentially an ecological appraisal of the site. The habitats and features within the site boundary were mapped and classified, in addition any evidence of or potential for protected species to be on the site or within the zone of influence was noted.

- 2.8 In addition to the Ecological Appraisal a more targeted daytime inspection for bats was carried out at 19a Salterns Lane. The attached outbuilding and the main house were searched for evidence that bats may be using, or previously have used, the building for roosting. Such evidence may include:

- The presence of bats;
- Bat droppings within the building or on external surfaces on and/or immediately adjacent to the building; and
- Staining or scratch marks around suitable bat roost locations or suitable access points into the building.

- 2.9 All accessible loft voids were searched using a very bright torch. The external inspection of the building involved searching for evidence with the use of a torch and binoculars.

- 2.10 Bats may roost in locations that are inaccessible to a surveyor, such as in between the roof lining and tiles, gaps under hanging tiles, within soffits etc. Therefore, potential areas for bats to roost or potential access points were also noted during the survey in order to assess the buildings 'potential' to support roosting bats (in line with best practice guidelines). An initial assessment of the buildings' potential value to bats was also made at the initial inspection stage in order to determine the level of any further survey work required to fully assess the site for bats.

Phase 2 Bat Surveys – Dusk Emergence Surveys

- 2.11 As the property was considered to have moderate potential to support roosting bats further surveys were undertaken to fully assess the presence or likely absence of roosting bats within areas to be impacted upon by the proposals. Initially 2 dusk surveys were proposed to take place during the peak active bat season however, following bat emergences on the second dusk survey a further dusk emergence survey was planned. In total 3 dusk surveys were undertaken on the property.

- 2.12 Two surveyors in total were positioned on opposite sides of the property at 19a Salterns Lane, at locations identified as allowing good sight lines and ensuring that all potential bat access/egress points were visible between the surveyors. Refer to **Map 2** for surveyor locations. Each surveyor was equipped with either Petterson D240x or BatBox Duet and a minidisk recorder or H2N Zoom (as appropriate) to record unidentified calls for subsequent computer analysis.

- 2.13 Each surveyor was supplied with a plan of the site on which to mark bat activity. The following information was recorded for any bats seen or heard:

- Species;
- Time;
- Behaviour (whether it was feeding, commuting, social calling or swarming);
- If seen, direction of flight; and
- If it emerged or re-entered the building.

- 2.14 Behaviour was identified by flight patterns and call characteristics as heard on the bat detector. Weather conditions (temperature, wind speed/direction, cloud cover, rainfall in the last hour) were also recorded at the start and end of each survey.

Timing

- 2.15 Dusk emergence surveys were undertaken on three evenings; 29th June 2014, 29th July 2014 and 20th August 2014. Both of the dusk emergence surveys were carried out during the period of time considered to be the active bat season. Details of the timings of the emergence/re-entry surveys are given in **Table 2.1**.

Table 2.1: Timing of Surveys

Type	Date	Start	End	Sunset/Sunrise	Duration
Emergence	29 June 2014	21:00	23:05	21:21	2hr 5min
Emergence	29 July 2014	20:35	22:25	20:55	1hr 50min
Emergence	20 August 2014	20:00	21:45	20:15	1hr 45min

Survey Constraints

- 2.16 Bats will often roost in places that are inaccessible to the surveyor, such as under tiles and within soffits. During the inspection due regard was paid to the noting of features that have the potential to support crevice dwelling species. Ultimately, augmenting the internal and external inspection of the building with two dusk surveys should provide a sufficient level of information to allow a more accurate evaluation of whether bats are present or absent.
- 2.17 Bats are nomadic and invariably move between roost sites; therefore any bat survey will only provide a snapshot of how bats are using a particular site at that time.
- 2.18 Immediately prior to the start of the second dusk survey on the 29th July 2014, it was observed that three areas of potential bat access on the front aspect of the roof and at the eaves level had been sealed with bubble wrap and cardboard. After consultation with the client, it became apparent that the sealing of potential bat access/egress points had been undertaken after the first dusk survey at the end of June 2014. The ecologist was not consulted prior to this action being taken, and was not informed by the client once it had taken place. The ecologist advised that the material used to block the areas should be removed immediately. The action taken to block potential bat access points was carried out without any realisation by the client in respect to the potential impacts this might have to protected species. This action had the potential to affect the survey results, however during the second survey following the blocking of these holes 3 bats were recorded emerging from other access points on the building. The material was removed by the client immediately following the second survey and a further survey was carried out in August.

3. Survey results and evaluation

Designated Sites

- 3.1 A small creek (My Lords Pond) of Chichester Harbour is present at the bottom of the rear north facing garden. Chichester Harbour is an Area of Outstanding Natural Beauty (AONB), Special Protected Area (SPA), Ramsar International Wetland Protected Site, Special Area of Conservation under EU Habitats Directive, and contains 3,695 ha of Sites of Special Scientific Interest (SSSI) and 5 Local Nature Reserves and 6 Sites of Nature Conservation Importance (SINCs).
- 3.2 The north facing rear garden of 19a Salterns Lane is within the SSSI Impact Risk Zone (IRZ). IRZs are used by Natural England to identify particular sensitivities of the features for which it is notified, and specifies the type of development that have the potential to have an adverse impact.
- 3.3 My Lords Pond is recognised as an important area of Chichester Harbour for overwintering wading birds. Studies of the Harbour by a collaboration of conservation organisations identified specific areas within the harbour that are favoured by various species of estuarine waterbirds at low tide. This study recognised My Lords Pond as having a notable presence of Dunlin and also Redshank (Musgrave *et al.*, 2003). A more recent study also found My Lords Pond as a foraging area used by Dunlin and Oystercatcher *Haematopus ostralegus* during low tide (Stillman *et al.*, 2012).

Habitats and Features

- 3.4 Refer to **Map 1** for the results of the daytime inspection of 19a Salterns Lane, which also includes photos of the site.
- 3.5 The house is a detached, two storey residential dwelling, in a residential setting to the south, east and west (Chichester Harbour directly to the north). The garden of 19a Salterns Lane wraps around the eastern side of the house, with a front and back garden located on the south and northern aspects of the property. In the front garden a small brick driveway is present as well as a double garage; an old caravan is stored here with a small area of broken up hardstanding around it. The rest of the front garden is predominantly mown grassland consisting of typical lawn grass species and several types of herb including Birds Foot Trefoil, white clover, yarrow, creeping buttercup. A flower border is present adjacent to the house and along the eastern boundary along the side of the house.
- 3.6 The rear garden is again comprised mainly of mown lawn which leads down to an area of hardstanding next to the creek. A couple of ornamental shrubs are dotted around and a small narrow flower border is present adjacent to the house. Along the eastern boundary of the rear garden a border is present comprising of ornamental shrubs and bracken. Between the lawn and the waterside is a small bank which comprises of long tussocky grass and scattered ornamental shrubs. A single Oak tree is present within this area in addition to some non-native young trees.
- 3.7 19a Salterns Lane is a brick built, 1950 two-storey construction, with an interlocking clay tile roof, wooden soffits, and a single brick chimney with associated lead flashing is present on the west ridge. The windows are constructed of metal frames. Access to the loft space within the house was located on the second floor in the hallway. The loft space within the

main house is approximately 2.5m high at the ridge and is constructed with minimal trussing (a single tie beam) and a ridge beam is present. The floor of the loft contains wooden boards, with a small area of foil wrapped insulation present. Light ingress was identified at the south-east corner of the loft.

- 3.8 The external inspection of the building noted various features with the potential to provide roosting opportunities to bats and access/egress points (refer to **Map 1**). Gaps that were noted on the house included lifted lead flashing around the chimney, lifted tiles close to the ridge, rotted gaps in soffits and missing mortar at the end of some roof tiles, causing small gaps.

Bats

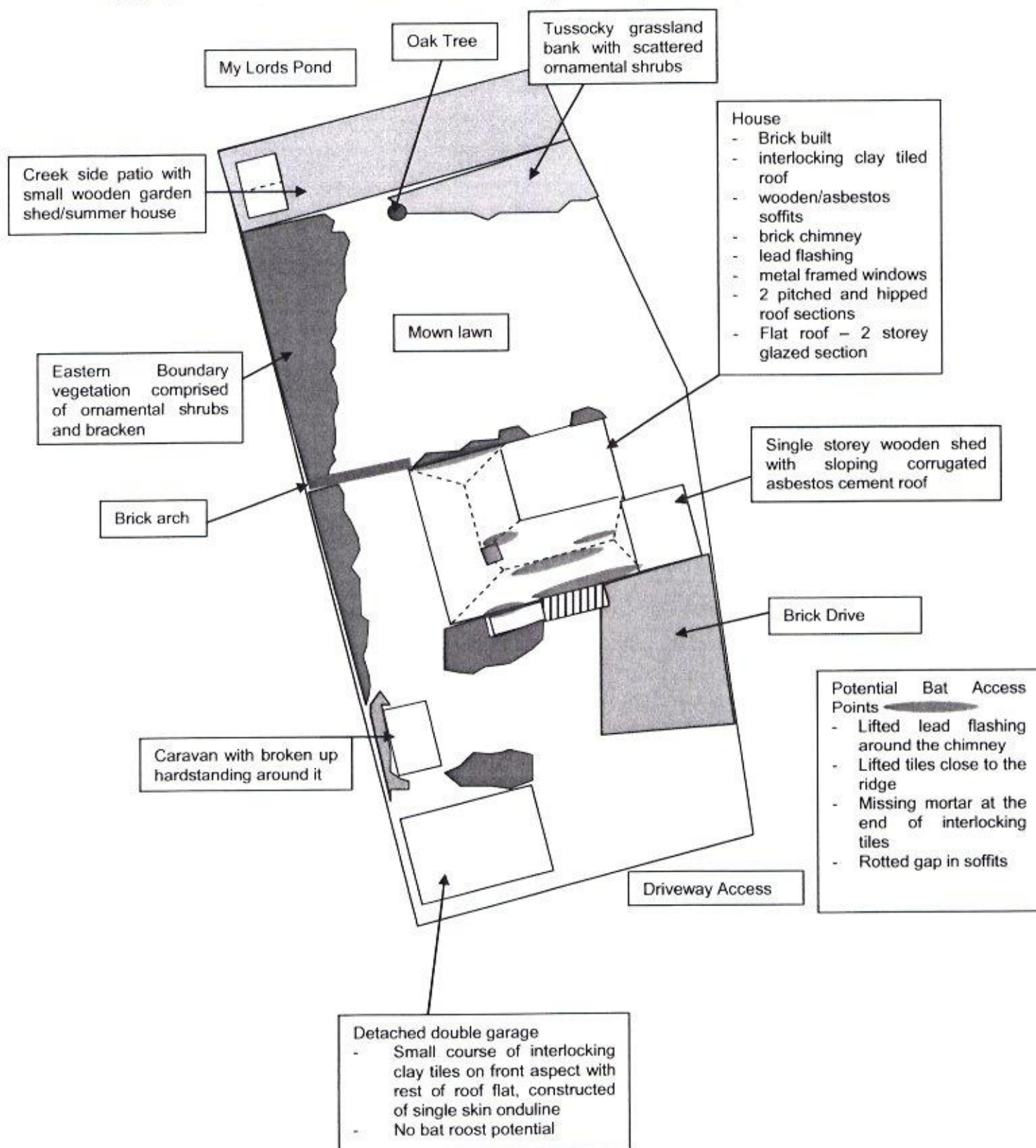
Existing Records

- 3.9 Due to the location of the site, two 10km grid squares were searched for bat records (SZ 79 and SU 70). The site is located in square SZ 79, which includes only the very southern edge of Hayling Island. Therefore a record search of the grid square directly to the north (SU 70) was considered to be necessary. From the two squares combined records of up to 6 species of bat were identified. The records do not detail the site name as access to the public is only permitted to 100m. Records of Long-eared sp. *Plecotus sp.*, Daubenton's *Myotis daubentonii*, Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Serotine *Eptesicus serotinus*, and Noctule *Nyctalus noctula* were all recorded.
- 3.10 Local bat records including those of Richardson (2000) occurring within a 100 km area show Greater Horseshoe bat *Rhinolophus ferrumequinum*, Lesser Horseshoe bat *R. hipposideros*, Whiskered bat *Myotis mystacinus*, Brandt's bat *Myotis brandtii*, Natterer's bat *M. nattereri*, Bechstein's bat *M. bechsteinii*, Daubenton's bat *M. daubentonii*, Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *P. pygmaeus*, Brown Long-eared bat *Plecotus auritus*, Grey long-eared bat *P. austriacus*, Serotine bat *Eptesicus serotinus*, Noctule bat *Nyctalus noctula*, Leisler's bat *N. leisleri* and Barbastelle bat *Barbastella barbastellus*. Of these species, only the two Pipistrelle species and Brown long-eared bats can be considered as being at all common. The other species range from local to rare.
- 3.11 77 bat records for South Hayling and within 2km of 19a Salterns Lane were returned from the Hampshire Bat Group. Most of these records are those of bats flying, recorded with a bat detector. Other records are those including roost visits and emergence counts and known roost. These include some larger Common Pipistrelle roosts of several hundred bats. The records from the HBG, mainly comprise of Soprano and Common Pipistrelle however Whiskered/Brandts, Daubentons, Serotine, Brown Long-eared and Long-eared sp. bats have also been recorded within 2km of the site.

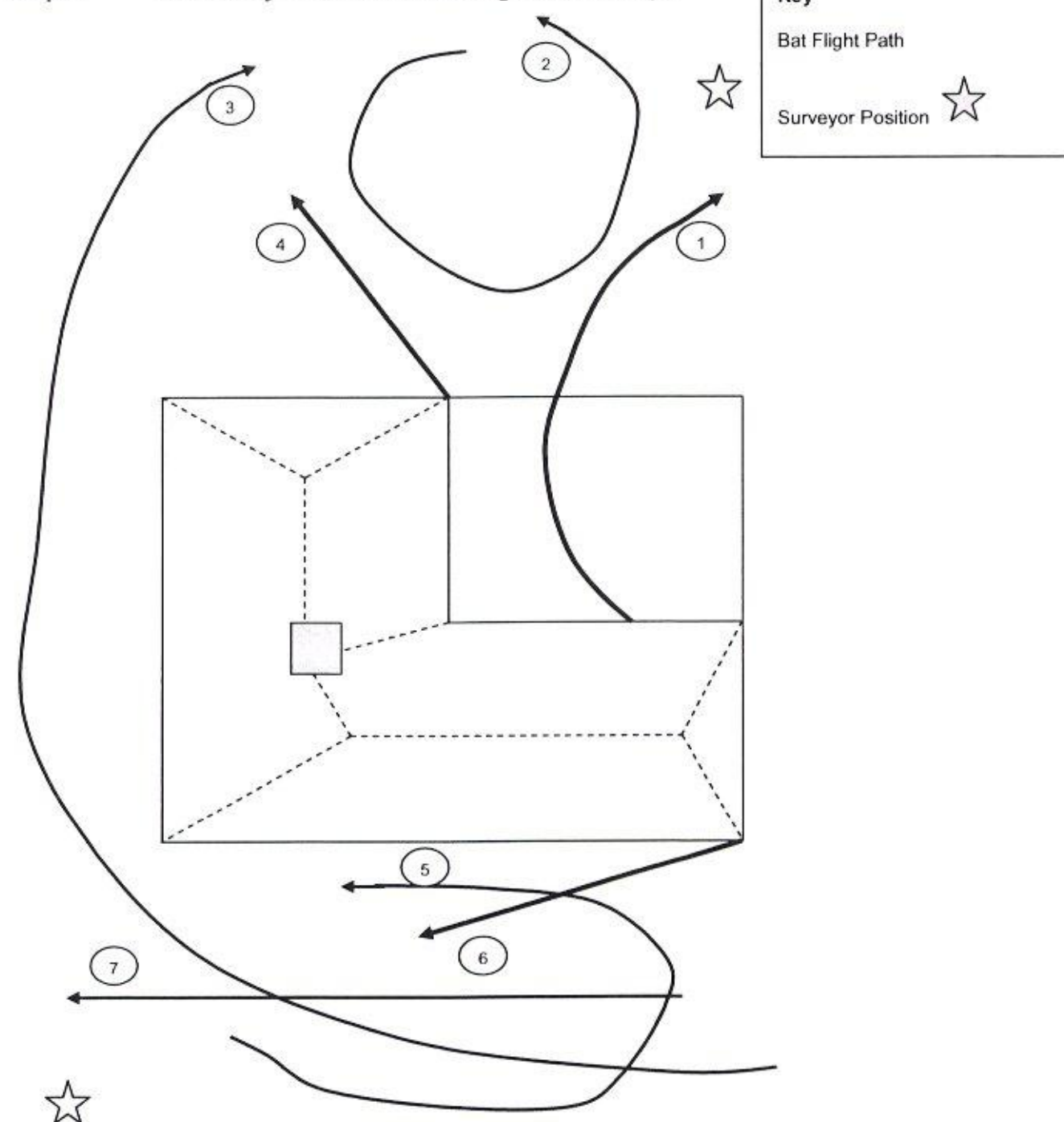
Daytime Inspection

- 3.12 The initial daytime inspection for bats was undertaken on 11 June 2014 by Claire Clarke (a Licensed bat ecologist), and Matthew Clarke of CC Ecology and included an internal and external inspection of the residential dwelling.
- 3.13 The internal inspection of the loft space of the main house found a scattering of rodent droppings (rat and mouse). No evidence of roosting bats was found.

MAP 1: Results of the Phase 1 Survey and Daytime Inspection for Bats



Map 2: Summary of the Dusk Emergence Surveys



Location Reference	Date/Time	Activity
1	20 th August 2014/ 20:40 and 20:47	Emergence from roof edge by 1x Common Pipistrelle and 1x Soprano Pipistrelle
2	All Surveys/Duration of Survey	Foraging by Common and Soprano Pipistrelles 2-3 bat at regular intervals
3	29 th July and 20 th August/Intermittently throughout surveys	Commuting and foraging activity from Common, Soprano Pipistrelles and Serotine
4	29 th July/ 21:24	Emergence from a single Pipistrelle Species
5	All Surveys/Duration of Survey	Intermittent foraging from Common and Soprano Pipistrelle
6	29 th July/ 21:33	Emergence from soffit by 1x Soprano Pipistrelle
7	All Surveys/First hour after sunset	Common and Soprano Pipistrelle bats commuting.

Appendix 1

Relevant Legislation

CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2010

The Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations) transpose Habitats Directive into UK legislation. The Habitats Regulations provide for the designation and protection of European Sites and European Protected Species. European Sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), which form part of the Natura 2000 network of protected areas across Europe.

European Protected Species (EPS) are those listed under Schedule 2 of the Habitats Regulations and include dormouse, great crested newt, otter and all species of bat. The regulations prohibit the deliberate capture, killing or disturbance of any EPS; it is also an offence to damage or destroy a breeding site or resting place of any of these species. In order to carry out a lawful operation (e.g. development work which has full planning permission) that may result in an offence under the Habitats Regulations, it is necessary to obtain a licence from Natural England. EPS Licences will only be granted after Natural England has been satisfied that there are no satisfactory alternative and that there will not be any adverse impacts on the favourable conservation status of the species.

WILDLIFE AND COUNTRYSIDE ACT 1981

The Wildlife and Countryside Act 1981 is the principle piece of legislative protection of wildlife in Great Britain. Various amendments have occurred since the original enactment. The Wildlife and Countryside Act contains both habitat and species protection. Certain bird, animal and plant species are afforded protection under Schedules 1, 5 and 8 of the Act. Measures for the protection of the countryside, National Parks, Sites of Special Scientific Interest (SSSIs) are also included within the Act.

COUNTRYSIDE AND RIGHTS OF WAY ACT 2000

The Countryside and Rights of Way (CROW) Act 2000 adds to the protection afforded in the WCA to SSSI's and other important sites for nature conservation. In addition, under the Act it became a criminal offence to "recklessly disturb" Schedule 1 nesting birds and species protected under Schedule 5 of the Wildlife and Countryside Act. It also enabled heavier penalties on the conviction of wildlife offences.

THE NATURAL ENVIRONMENT AND RURAL COMMUNITIES ACT 2006

The Natural Environment and Rural Communities (NERC) Act 2006 improved wildlife protection by amending the WCA. The main function of the NERC Act was to raise the profile of biodiversity amongst public authorities. Section 40 (S40) of the Act places a 'Biodiversity Duty' on all public bodies to have regard to the conservation of biodiversity when carrying out their normal functions.

- 3.14 The house is considered to have moderate potential to support roosting bats, within both the loft space and within crevices such as soffits and between tiles and roof lining.

Bat Dusk Emergence Surveys

- 3.15 **Map 2** summarises the results from the three dusk emergence surveys.
- 3.16 The first dusk emergence survey carried out on 29th June 2014 recorded a low level of Common Pipistrelle and Soprano Pipistrelle foraging activity in the garden of 19a Salterns Lane and those gardens to the west and east, with individual pipistrelle bats foraging sporadically in the gardens between 22:08-22:52. Commuting passes from west to east over the site by individual Common and Soprano Pipistrelle were recorded between 21:50-22:00. Three commuting passes by individual Serotine bats travelling from west to east across the property were recorded at 22:00, 22:06 and 22:14, and two additional Serotine passes were heard (not seen) at 22:24 and 22:25. No bats were recorded as emerging from the property.
- 3.17 During the second dusk emergence survey carried out on 29th July 2014, three bats emerged from the house at 21:24, 21:34 and 21:40. Two of the bats (Pipistrelle sp. x2) emerged from the same area of the building on the north aspect (where the smaller pitched roof joins the flat roof) at 21:24 and 21:40, and neither was echolocating. The third bat (Soprano Pipistrelle) emerged from the south-east corner of the roof at 21:34.
- 3.18 Foraging levels within the garden of 19a Salterns Lane on the 29th July 2014 were considered to be more sustained than the initial dusk survey in June 2014. Bats were again seen foraging between the garden of the property, and gardens to the east and west. Regular foraging passes by 1-2 Soprano Pipistrelle bats and individual Common Pipistrelle bats was recorded between 21:45 and 22:25. Both Common and Soprano Pipistrelle were repeatedly seen foraging around the mature trees at the rear of the garden and social calling was also heard. A single Noctule was recorded commuting high over the site at 21:54.
- 3.19 The final bat survey undertaken on the 20th August 2014 recorded a similar level of bat activity across the site with Common and Soprano Pipistrelles foraging in numbers of 2-3 bats at any one time and regular intervals within the back garden. A Common Pipistrelle and Soprano Pipistrelle were recorded emerging from the rear roof area at 20:40 and 20:47.

Interpretation/Evaluation of Results

- 3.16 The daytime inspection of 19a Salterns Lane assessed the property as having moderate potential to support roosting bats. No evidence of roosting bats were found, although the potential for bats to be roosting within crevices to be impacted upon by the proposed development warranted further surveys to ascertain the presence or likely absence of roosting bats.
- 3.17 The subsequent dusk emergence surveys recorded three bats emerging bats on the 29th July 2014 (1x Soprano Pipistrelle and 2x Pipistrelle sp.), and two bat emerging on the 20th August (1x Common Pipistrelle and 1 x Soprano Pipistrelle) and therefore the property is confirmed as supporting a bat roost for two species of bat.
- 3.18 Foraging behaviour seen by both Common and Soprano Pipistrelle bats indicate that the rear garden and the mature trees at the northern end of the garden are an important foraging area for a small number of Pipistrelle bats, possibly those roosting within the building. Commuting Serotine bats were also recorded flying across the rear garden on the first dusk survey.
- 3.19 Based on the results of the surveys it is considered that the site is of **less than local** nature conservation value for bats.

Reptiles

- 3.20 Small patches of suitable reptile habitat are present within the front and back garden, and although the mown lawn is unsuitable for reptiles it is likely that the more common and widespread species of reptile (notably Common Lizard, Grass Snake and Slow Worm) are present within the flower and shrub borders.
- 3.21 The ecologists local knowledge and records located on NBN gateway confirm that common and widespread species of reptile are located within the area and are likely to be present within back gardens adjoining for suitable areas of habitat.

Nesting Birds

- 3.22 The main house, the double garage and the mature shrub borders within the garden are likely to provide suitable bird nesting opportunities.

Other Protected and Notable Species

- 3.23 Although not within the site boundary itself, shorebirds roosting and/or feeding on My Lords Pond will potentially be affected by the proposed development. Species recorded include Dunlin, Common Redshank and Oystercatcher, although other species are likely to also be present.

4. Potential impacts in the absence of mitigation

Introduction

- 4.1 This section details the potential ecological impacts of the proposal in the absence of mitigation. The potential activities are identified with reference to the scheme, as identified in **Section 1**. Recommended mitigation and enhancements to ensure that the favourable conservation status of the species is maintained, in compliance with the relevant legislation and planning policy, is detailed in **Section 5**. As the full details of the proposals are not yet decided this impact assessment is not comprehensive and will need to be updated prior to submitting a planning application.

Impacts to Sites and Habitats

- 4.2 The main house that has been confirmed as a roost for two species of bat (Soprano Pipistrelle and Common Pipistrelle) may be demolished as part of the development proposals. This will mean the loss of the identified roost sites, and additional areas that may have the potential to be used by other bat species.
- 4.3 In the event that the house is renovated rather than rebuilt there may be impacts to bat roosting opportunities through the renovation process. These activities may result in the modification or loss of bat roosting opportunities.
- 4.4 19a Salterns Lane is located adjacent to Chichester Harbour SPA and SSSI, the rear garden to the north being within the Impact Risk Zone for the SSSI. Therefore there is potential for activities associated with both the demolition and construction phases of the development to have an impact on the SSSI. In the absence of mitigation increased light, noise and dust levels as a result of construction activities on the site may have an adverse impact on the adjacent sensitive habitat (refer to 4.7 below for potential impacts to shorebirds). In addition, pollution from dust and other construction related materials may run-off the site into My Lords Pond, which then risk spreading throughout the wider harbour.

Impacts to Fauna

- 4.5 The house and double garage may be demolished as part of the proposed plans for the site. Both buildings have the potential to support nesting birds and therefore construction works may disturb nesting birds and destroy bird nests.
- 4.6 Demolition or renovation works have the potential to destroy bat roosts and potentially harm bats, if not undertaken in a sensitive manner. Without mitigation, the long-term impacts of the proposals following the works would be the permanent removal of potential bat roost sites.
- 4.7 The body of water known as My Lords Pond directly to the north of the site has been identified as a foraging site for several species of overwintering waders (Dunlin, Oystercatcher and Redshank). Without mitigation measures, works at the site during both the demolition and construction phases have the potential to cause direct disturbance to feeding or roosting shorebirds in several ways:

- Visual disturbance (during both demolition and construction), which is known to cause a reduction in feeding efficiency in overwintering waders;
- Noise disturbance, particularly during the period of November to March. Noise levels above 75dB (The Planning Inspectorate, 2013) are considered to affect the foraging behaviour of shore birds;
- Increased artificial light levels often present on construction sites (particularly during the winter months) are also identified as causing disturbance; and
- Vibration caused by engineering works such as piling etc. (Hockin *et al.*, 1992).

5. Opportunities for mitigation and enhancement

Introduction

- 5.1 In order for the proposals to comply fully with applicable legislation and planning policy, it is necessary to mitigate or compensate for the ecological impacts as identified in **Section 4**. The NPPF also places an onus on developments to provide ecological enhancements and to meet local biodiversity objectives wherever possible. Within this section mitigation measures are recommended to ensure that sensitive habitats and protected species are considered during the construction and operation phases of the development, in compliance with applicable legislation and planning policy.

Mitigation

Habitats

- 5.2 The Extended Phase 1 Habitat survey at 19a Salterns Lane identified that there are few habitats of any real intrinsic nature conservation value within the site boundary and the footprint of the proposed extension. Some small patches of habitat have the potential
- 5.3 However, My Lords Pond adjacent to the site is of a sensitive nature, and therefore suitable mitigation is required. In order to avoid potential impacts on My Lords Pond, the protected species that it supports and the wider harbour designated nationally and internationally as nature conservation sites, a Construction Method Statement (CMS) should be implemented and include the following sections:
- 5.4 Avoidance of disturbance to overwintering waders and wildfowl within My Lords Pond creek. This will involve the following mitigation measures:
- No percussive piling or works with heavy machinery to occur on site within the wader/waterfowl overwintering period, 1 October to 31 March inclusive;
 - No construction activities that would result in noise levels in excess of 75dB as measures at the north end of the rear garden boundary shall take place between the months of November to March inclusive.
 - Use of a decibel meter may be required to ensure that noise levels do not exceed 75dB during November to March inclusive; and
 - Installing a screening fence (2m in height) at least 5m from the bottom of the garden, to avoid visual disturbance to waders and waterfowl feeding at low tide in My Lords Pond. By positioning the screen 5m from the bottom of the garden, a 'buffer zone' is created between the site works and the edge of the waterside. The screen will also form the northern 'site boundary' for demolition and construction works/storage of materials and plant etc.
- 5.5 Other mitigation measures that should be included within a CMS to avoid disturbance/pollution to the surrounding area include:
- measures to avoid run off of surface water from the site into the watercourse which may carry silt, concrete/cement, fuel and other pollutants;

- measures to reduce noise levels on the site as well as to avoid lighting the site after daylight hours. Works to the existing roof of the outbuilding should be undertaken sensitively and by hand to avoid increased dust levels and the potential for building materials to fall into the adjacent watercourse.

Birds (non-shoreline) and Roosting Bats

- 5.6 All species of bird are protected at the nest. Any development that could affect nesting birds should take place outside of the nesting bird season, usually considered March-August (though this is dictated by regional variations in weather and temperature conditions). Works that need to be undertaken within the nesting bird season should be undertaken immediately following an early morning bird survey to assess whether main house or double garage are being used by nesting birds at the time of the works.
- 5.7 As the property has been confirmed as supporting a bat roost for two species, the demolition proposals or renovation works for the site should be undertaken in such a way to minimise any potential impacts to bats. A full Method Statement detailing how impacts on bats will be mitigated during the works in addition to how any destroyed bat roosting opportunities will be compensated will need to be provided to support any planning application for the site. If no planning permission is required renovation works should still follow a detailed Method Statement to avoid impacts on bats. Depending on the nature of the works it may be necessary to gain a European Protected Species Licence to undertake the works on the house.
- 5.8 A Method Statement would include details of the careful timing of the works; these would also need to be undertaken under the supervision of a suitably licensed bat ecologist following a tool-box talk, pre-works survey and inspection.
- 5.9 The Method Statement would also include measures to compensate for the loss of any bat roosting opportunities. These may include features such as:
- Bat Boxes on trees within the boundary of the site to provide temporary roosting opportunities for bats whilst the works are taking place. These boxes would be left up following completion to provide an enhancement to the site for bats;
 - The provision of bat roosting opportunities within the new or renovated house; these should replace like-with-like, therefore features such as bat tiles, a loft, soffit access, ridge tiles access and bat tubes or brick.

Reptiles

- 5.10 Small patches of habitat around the garden of 19a Salterns Lane have the potential to support common and widespread reptile species. It is unlikely that the proposals for the house will have an impact on the boundaries of the site, however small flower border adjacent to the house may need to be removed, particularly if the building gets demolished. As all species of reptile are protected from harm by the Wildlife and Countryside Act 29181

(as amended) it will be necessary to ensure that there are measures in place to protect animals located within the footprint of any works that have the potential to harm them.

- 5.11 Without understanding the true nature of the proposals at 19a Salterns Lane it is not possible to provide a suitably detailed Method Statement for undertaking the works. However, it is considered unlikely that a full translocation programme would be required. A Method Statement is likely to include the following:

- Protection and enhancement of retained habitats along the eastern boundary in addition to the tussocky grass bank towards the rear of the back garden;
- Habitat manipulation of patches to be removed to include the careful cutting back of flower borders by hand;
- The hand capture of any reptiles present within the patches of habitat to be removed and the relocation of animals to retained habitat within the site boundary; and
- Supervised strip of habitats to be removed and the capture of any animals for relocation to retained habitats.

Protected Species and Habitats of My Lords Pond

- 5.12 It is considered unlikely that there will be any direct impacts to protected species using the adjacent watercourse as long as the measures described within paragraph 5.2 are followed. A detailed CMS should be provided to support any planning application outlining all of these measures.

- 5.13 In order to avoid impacts of increased light spill onto both the rear garden (identified as commuting corridor for bats) and My Lords Pond, a lighting strategy for the new residential property will be required to ensure acceptable light levels and sensitive positioning of external lights are achieved.

Enhancements

- 5.14 Within the garden of 19a Salterns Lane some simple measures can be taken to ensure that the proposals include enhancements for biodiversity as a whole, in line with national and local planning policy. Enhancements for the habitats within the garden once the development is complete could include activities such as:

- The planting of native, fruiting shrub species;
- The creation of log piles; and
- The installation of bat boxes and bird boxes on mature trees.

6. Conclusions and recommendations

Conclusions

- 6.1 An Extended Phase 1 Habitat Survey combined with a daytime inspection of the building for bat potential was carried out at 19a Salterns Lane in June 2014 to assess the potential for habitats and species of conservation concern to be present within the zone of influence of the proposed extension.
- 6.2 In addition the property was considered to have potential to support roosting bats and therefore Phase 2 Surveys were undertaken to fully assess this.
- 6.3 Three bats (1x Soprano Pipistrelle and 2x Pipistrelle sp.) emerged during the second dusk survey on the 29th July 2014 and two bats (1x Soprano Pipistrelle and 1x Common Pipistrelle) emerged during the third dusk survey on 20th August 2014 confirming that 19a Salterns Lane supports a small non-maternity summer roosts of two species. In order to fully comply with planning policy and legislation, an application to Natural England for an EPSL in relation to bats may be required, this would be dependent on the nature of the proposals for the site.
- 6.4 Within the site boundary no habitats of any real intrinsic nature conservation value were noted although the house, garage and shrubs have the potential to support nesting birds. In addition small patches of habitat (notably flower and shrub borders) have the potential to support the more common and widespread species of reptile.
- 6.5 As the site of 19a Salterns Lane is immediately adjacent to My Lords Pond, an inlet of Chichester Harbour designated as an SPA, SSSI and Ramsar site, it was considered that this sensitive habitat is within the zone of influence of the proposals. The rear garden of the site is also within the Impact Risk Zone for the SSSI.
- 6.6 My Lords Pond has been identified as supporting flocks of overwintering Dunlin, and also Common Redshank and Oystercatcher. Other species of wader and wildfowl are also likely to be present. To ensure that disturbance to feeding and/or roosting birds at this sensitive time is avoided, a CMS will need to be provided that will include details of timing restrictions of work, and controls and mitigation for visual and audio disturbance.

Recommendations

- 6.7 The mitigation that has been recommended, includes:
- The implementation of a CMS to avoid impacts on the adjacent watercourse and associated shorebirds during both the demolition and construction phase;
 - The implementation of a Bat Mitigation Strategy and Method Statement including suitable methods of demolition, particularly for sensitive features of the buildings, and supervision of demolition by a licensed ecologist;
 - The implementation of a Method Statement to avoid impacts on reptiles located within the work areas
 - A lighting strategy to ensure external light levels (particularly on the northern aspect of the site) are maintained after the development is complete;
 - Installation of three bat boxes and three bird boxes within the garden;

Construction Management Scheme

- Creation of semi-natural habitats with the provision of log-piles and fruiting shrubs etc.
- 6.8 Provided the mitigation recommended above is implemented in full, there should be no residual impacts to bats or other protected species as a result of this scheme and the favourable conservation status of bats and other protected species will be maintained both locally and at the site itself.

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