LIZARD
Landscape Design and Ecology

ECOLOGICAL IMPACT ASSESSMENT

REDEVELOPMENT OF 32 NEW LANE, HAVANT UPDATED TO INCLUDE FIRE HYDRANT TANKS AND PUMP HOUSE

On Behalf of: Havant Property Investment LLP

Planning Issue

Prepared by	GS
Checked by	CO
Date	27th October 2022
Project Reference	LLD2177
Revision	04

Contents

		Page No.
SUMMARY		01
1.0	Introduction	02
2.0	Planning Policy and Legislation	04
3.0	Methodology	06
4.0	Baseline Ecological Conditions	10
5.0	Assessment of Effects and Mitigation Measures	20
6.0	Enhancements	25
7.0	Conclusions	26
8.0	References	27

TABLES

Table No. 01 – Bat Roost Suitability Guidelines (BCT, 2016)

Table No. 02 – Statutory Designated Sites

Table No. 03 – Non-Statutory Protected Sites

Table No. 04 – Species List

Table No. 05 – Target Notes

APPENDICES:

Appendix A – Site Photographs

LIZARD

Landscape Design and Ecology

The Old Bank, 34 South Street, Tarring, Worthing, West Sussex, BN14 7LH

T. 01903 216033 E. lizard.landscape@btconnect.com W. lizardlandscapeecology.com

SUMMARY

Lizard Landscape Design and Ecology has been commissioned to undertake an Ecological Impact Assessment of the proposed redevelopment of 32 New Lane, Havant *(Grid Reference: SU 725 071– hereafter referred to as 'the site').*

A Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment of the site was undertaken on 15th December 2020, to appraise the existing ecological resource within the land and the surrounding area. A full Ecological Impact Assessment was then undertaken using this baseline data.

The site is formed of existing buildings surrounded by hard / bare ground, introduced shrubs and amenity grassland, with a number of scattered trees and treelines. The site itself is of **low ecological value** with no habitats of interest noted. The site borders a railway lined with trees, which offers **moderate ecological value** as a wildlife corridor.

The site proposals are now nearing completion, and as such the site consists of an active construction site. This assessment has been updated in October 2022 to include the addition of a fire hydrant facility to the north-east corner of site.

The site was found to be of negligible value to roosting bats. The surrounding trees are unlikely to provide roosting, foraging or commuting opportunities for bats, with a single tree offering '*moderate'* bat roost potential just outside of the site; mitigation measures have been devised to ensure the development does not contravene any UK or European legislation. No potential for other protected species has been recorded on the site.

Once avoidance and mitigation measures have been taken into account, the impacts of the planned development upon biodiversity will be **negligible, non-significant** with proposed ecological enhancements resulting in a minor **net gain** and a **long-term positive increase** in biodiversity in line with national planning policy guidance.

The addition of the fire hydrant facility to the site to replace the existing would remove a small area currently laid to hard surface and existing structure. The area was originally proposed to be an ecological enhancement zone. Most of this enhancement can still be implemented and the proposals would still result in a Biodiversity Net Gain.

1.0 INTRODUCTION

1.1 Lizard Landscape Design and Ecology has been commissioned to undertake an Ecological Impact Assessment of land proposed for development at 32 New Lane, Havant *(Grid Reference: SU 725 071 – hereafter referred to as 'the site').*

1.2 A Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment of the site was undertaken on 15th December 2020, to appraise the existing ecological resource within the land and the surrounding area. A full Ecological Impact Assessment was then undertaken using this baseline data. The site proposals are now nearing completion, and as such the site consists of an active construction site. This assessment has been updated in October 2022 to include the replacement of a fire hydrant facility to the north-east corner of site.

1.3 A summary of the results of these surveys, potential impacts of the proposals, and details of avoidance, mitigation and compensation measures have been detailed within this report. This report has been prepared by George Sayer (*MCIEEM; Senior Ecologist; Lizard Landscape Design and Ecology)* and reviewed by Catherine O'Reilly *(MCIEEM; Senior Ecologist; Lizard Landscape Design and Ecology*).

Site Information

1.4 The site consists of a commercial / industrial site of approximately 6.68Ha. The site is dominated by buildings (*totalling c. 2.74 Ha*), hard surface parking, access or gravelled areas, with small grass verges and introduced shrubs. The northern boundary is separated by a fence and sparse treeline from adjacent commercial properties. The eastern boundary rises steeply onto a heavily tree-lined bank, separating the site from the adjacent railway. To the southern boundary a fence and hedge separate the site from an adjacent commercial/industrial area. The western boundary is formed of a fence and grass verge, separating the site from New Lane and residential properties beyond.

1.5 The site proposals are now nearing completion (27th *October 2022*), and as such the site consists of an active construction site.

Surrounding Landscape

1.6 The immediate surroundings are that of the Havant commercial / industrial zone, with residential estates beyond. To the north-east, beyond the railway line and built-up area is an open area of farmland and parkland surrounding Southleigh Park House. To the north-east of this is a large area of deciduous woodland called Hollybank Woods/Southleigh Forest, much of which is *Ancient Woodland.* The nearest parcel of *Ancient Woodland (Barton's Copse, 12.4 Ha)* is 1.0 km to the north-east. Soils on-site are described as *freely draining slightly acid loamy soils.*

Development Proposals

1.7 The scheme proposals are for the redevelopment of the site for new commercial uses. The proposals would re-use the existing access points to the south and centre of the western boundary, with a new third access point proposed to the north of the western boundary. The new building would be lower than the existing and would be sited within the centre of the site, with access roads and parking surrounding.

1.8 The proposals have been updated to include replacement of the existing fire hydrant tanks and pump house on the site. This assessment has been updated in October 2022 to include the potential impacts of this.

Survey Aims

1.8 The aim of this ecological appraisal survey has been:

- *To identify habitats and protected species present, and any other features of ecological value;*
- *Identify any potential ecological constraints;*
- *Identify impacts of the proposed development and set out appropriate avoidance, mitigation and compensation measures;*
- *To provide suggestions for enhancements to be incorporated into the scheme.*

2.0 PLANNING POLICY AND LEGISLATION

Legislation

2.1 Legislation relating to wildlife and biodiversity of particular relevance to this EcIA includes:

- *The Conservation of Habitats and Species Regulations 2017 (as amended);*
- *The Wildlife and Countryside Act 1981 (as amended);*
- *The Natural Environment and Rural Communities (NERC) Act 2006.*

2.2 Since production of the original report, the Environment Act has been passed (2021). The Act mandates measurable Biodiversity Net Gain being built into development proposals. At present the Act has yet to be transposed into planning legislation.

2.3 This above legislation has been addressed, as appropriate, in the production of this report.

National Planning Policy

2.4 The National Planning Policy Framework (*NPPF*) 2021 sets out the government planning policies for England and how they should be applied. '*Chapter 15: Conserving and Enhancing the Natural Environment*' states that development should consider '*minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*.'

2.5 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

2.6 The British Standard *BS42020:2013 – "Biodiversity. Code of practice for planning and development"* seeks to integrate biodiversity into all stages of the planning process, with a particular focus on the mitigation hierarchy and the use of transparent approaches, to stop net losses of biodiversity.

Local Planning Policy

2.7 The Havant Borough Core Strategy 2011 states that development will only be permitted where:

- Natural features e.g. woodland, streams, trees and hedgerows are protected;
- Schemes provide new landscape works that integrate successfully with the local environment and existing natural features, using local materials and plant species;
- There is no harmful effect on nature conservation within the Chichester and Langstone Harbour SSSIs and SPA, Solent Maritime SAC and Ramsar site, or any SINCs and Local Nature Reserves.

2.8 Havant Borough Council Allocations Plan (2014) Policy DM23 Sites for Brent Geese and Waders states that: "*Planning permission will be granted for developments that avoid important sites for Brent Geese and/or waders outside of the statutory designated areas, identified on the Policies Map*". Policy DM24 Recreational Disturbance to Special Protected Areas (SPAs) from Residential Development states that: "*Planning permission will be granted for residential developments that avoid or mitigate a likely significant effect on the SPAs, caused by recreational disturbance through the in-combination effect of net additional dwellings."* This proposal is not for residential use however the proposals have been designed in accordance with both policies, with the site not being in or adjacent to any sites for Brent Geese as shown on the policy map.

2.9 The *Solent Recreation Mitigation Strategy (December 2017*) dictates that any development which increases the recreational pressure upon the *Chichester, Langstone and Pagham Harbours* from residential development must provide contributions to mitigate the impacts, as determined by the number of additional bedrooms created.

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 The Multi-Agency Geographic Information for the Countryside (*MAGIC*) was consulted for all nationally designated sites, priority habitats and protected species licence records within 2.0km of the site, and all internationally designated sites within 10.0 km. The desk search was conducted on 4th January 2020. Given the nature of the site and habitats present, a full data search of the local Biological Records Centre was not considered proportionate.

3.2 Field Survey

3.2.1 A preliminary ecological appraisal was undertaken on 15th December 2020, and the site subjected to an ecology survey using guidelines set out in the *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit (JNCC, 2010).*

3.2.2 Habitats within the site were classified and the presence, or potential presence, of certain protected and / or notable species of flora and fauna were identified. A summary description of the habitats within the site following the *Phase 1 Habitat Survey Methodology* is presented in Section 4.0. This involved identifying features that may be used by protected species, potential foraging areas and other signs of use. Water bodies were recorded wherever possible, within 500 metres of the proposed development site.

3.2.3 The results are summarised and accompanied in large part by photographic evidence contained in *Appendix A – Site Photographs*.

3.3 Preliminary Bat Roost Assessment

3.3.1 A Preliminary Bat Roost Assessment of buildings on site was undertaken on 15th December 2020 by an experienced, licenced bat surveyor (*George Sayer 2018-34434-CLS-CLS)* who undertook an external examination of the existing building and trees. The bat surveyors assessed the existing building and structures visually and searched for evidence such as;

- *Staining beneath or around a hole caused by natural oils in bat fur;*
- *Bat droppings beneath a hole, roost or resting area;*
- *Bat droppings and / or insect remains beneath a feeding area;*
- *Audible squeaking from within a hole;*
- *Insects (especially flies) around a hole;*
- *Dead bats.*

3.3.2 An external investigation assessed the fabric of the building to determine whether there were access points readily available for bats to utilise. Gaps / crevices identified within the structure were examined using a Clulite CB2 torch, ladder and endoscope where appropriate.

3.3.3 Trees were visually identified from the ground, using binoculars where necessary, for features that could be used by bats such as:

- *Woodpecker Holes;*
- *Knot Holes;*
- *Tear-outs;*
- *Flush Cuts;*
- *Double Leaders.*

3.3.4 Once features had been assessed the trees and buildings were then categorised in accordance with *Table 4.1 of the Bat Conservation Trust's Good Survey Guidelines (2016) (shown below):*

Table No. 01 – Bat Roost Suitability Guidelines (BCT, 2016)

Category	*Buildings*	*Trees*
`Negligible`	*No suitable features identified.*	*No suitable features identified.*
`Low`	*A structure which could be used opportunistically, however, are not likely to be used on a regular basis / by a large number of bats.*	*Tree of sufficient size / age to support bat roost features; but with none identified from the ground.*
`Moderate`	*A building with features which, could be used regularly by a small number of bats.*	*Tree with features which, may support a bat roost of low conservation status.*
`High`	*A building with features suitable for use by a large number of bats on a regular basis.*	*A tree with several potential bat roost sites that are suitable for use by a large number of bats.*

3.4 Ecological Impact Assessment

3.4.1 The methodology for Ecological Impact Assessment (EcIA) follows best practice guidelines set by the Chartered Institute of Ecology & Environmental Management (CIEEM): 'Guidelines for Ecological Impact Assessment' (CIEEM, 2018). This includes identifying the baseline conditions on the site and subsequently rating the potential effects of the development based on the sensitivity and value of the resource affected, combined with the magnitude, duration and scale of the impact (or change). This is initially assessed without mitigation measures, and then assessed again after allowing for the proposed mitigation measures; this provides the residual effects. The assessment is divided into construction effects and longer-term operational effects.

3.4.2 Each ecological feature within the site has been considered within a defined Geographic context such as:

- *International and European;*
- *National;*
- *Regional;*
- *County;*
- *District;*
- *Local;*
- *Site Level;*
- *Negligible.*

3.4.3 Based upon CIEEM guidance, value was determined with reference to the following factors:

- *Its inclusion as a Designated Site or other protected area;*
- *The presence of habitat types of conservation significance, e.g. Habitats of Principal Importance (NERC 2006);*
- *The presence (or potential presence) of species of conservation significance e.g. Species of Principal Importance (NERC 2006);*
- *The presence of other protected species e.g. those protected under The Wildlife and Countryside Act 1981;*
- *The sites social and economic value.*

3.4.4 The ecological impacts resulting from the proposals were then described according to a defined set of characteristics as defined within *'Guidelines for Ecological Impact Assessment in the UK and Ireland*' (CIEEM, 2018). This assessment considers residual impacts (once all mitigation has been taken into account), with any significant effects highlighted. A significant effect is defined as "*an effect which either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general*".

3.4.5 The confidence that a certain activity will result in a significant adverse effect has been ranked as follows:

- *Highly probable;*
- *Probable;*
- *Unlikely;*
- *Highly unlikely.*

3.4.6 Where initial impacts have been identified as significant, avoidance, mitigation and compensation measures have been proposed to avoid, prevent or offset such effects. Enhancement has been proposed to ensure that the development represents a net gain in biodiversity in accordance with National Policy.

3.4.7 The original Impact Assessment has been updated (*27th October 2022*) to account for the replacement of the fire hydrant facility.

4.0 BASELINE ECOLOGICAL CONDITIONS

4.1 Designated Sites

Statutory Protected Sites

4.1.1 Statutory protected sites within 2.0 km of the site are shown in *Table No. 02* below:

Table No. 02 – Statutory Protected Sites

Site	Reason for Designation	Location
Chichester Harbour Area of Outstanding Natural Beauty (AONB).	*One of the few remaining undeveloped coastal areas in Southern England; a haven for wildlife and a popular boating destination.*	*1.05 km SE*
Warblington Meadow SSSI.	*Unimproved grazing marsh of special interest for its gradation from freshwater, base-rich marsh to old reclaimed saltmarsh, and for its rich associated flora.*	*1.7 km S*
The Solent Harbours Protected sites: • *Chichester and Langstone Harbours Ramsar* • *Chichester Harbour SSSI* • *Solent Maritime SAC* • *Solent and Isle of Wight Lagoons SAC* • *Chichester and Langstone Harbours SPA*	*A complex of harbours containing extensive intertidal mudflats and sandflats with seagrass beds, areas of saltmarsh, shallow coastal waters, coastal lagoons and coastal grazing marsh and which support internationally important numbers of wintering wildfowl and waders, as well as the Annex II species desmoulin's whorl snail Vertigo moulinsiana.*	*1.75 km S*

Portsmouth Harbour SPA, Ramsar	*Portsmouth Harbour is a large, industrialised estuary, composed of extensive intertidal mudflats and sandflats with seagrass beds, areas of saltmarsh, shallow coastal waters, coastal lagoons and coastal grazing marsh. Classified due to internationally and nationally important numbers of birds and specifically protects the following features: dark-bellied Brent goose; red-breasted merganser; dunlin; and black-tailed godwit.*	*7.6 km SW*
Kingley Vale SAC	*The largest area of yew woodland in Britain, with areas of chalk grassland also present.*	*8.2 km NE*

4.1.2 The site is within the *Impact Risk Zones (IRZ)* of the Solent Harbours. The proposals would not increase the recreational pressures on the designated sites and therefore would not require a contribution towards strategic management. The proposals do not alter the overall scale or nature of the site from its existing commercial / industrial basis and would not require consultation with *Natural England*.

Non-Statutory Protected Areas

4.1.3 *Sites Importance for Nature Conservation (SINC's)* are non-statutory designations given to areas of high, local conservation value. Despite being non-statutory, *SINC's* are still recognised by local planning authorities in their policies and plans. *SINC's* located within 2.0km of the site are detailed in *Table No. 03* below.

Table No. 03 – Non-Statutory Protected Sites

Name	Distance
Havant Battins Copse.	*640.0 M NE*
Barton's Copse and the Slip.	*1,150.0 m NE*
Great Copse, Havant.	*1,235.0 m NW*
High Lawn.	*1,500.0 m N*
Southleigh Forest.	*1,550.0 m NE*
Warblington Castle Farm East.	*1,600.0 m SE*
Warblington Castle Farm West.	*1,600.0 m S*
Wakefords Copse.	*1,700.0 m N*
Thicket Lawn.	*1,700.0 m NW*
Brook Farm B	*1,780.0 m SE*
Thicket Bottom Woods and Lake.	*1,800.0 m N*
Land West of Emsworth Recreation Ground.	*1,800.0 m SE*
Wade Court Park.	*1,830.0 m SW*
Lower Beacon Field.	*1,850.0 m N*
Nore Grassland and Saltmarsh	*1,900.0 m SE*
Conigar Point Meadows	*1,930.0 m SE*
Hammond's Lands Copse.	*1,950.0m N*
Thicket Bottom.	*2,000.0 m N*

4.1.4 The site is neither located within nor adjacent to any *Non-Statutory Designated Site*. The intervening distance and discrepancy between habitats suggest that the development proposals would not have an adverse effect upon any of the above sites.

4.2 Habitats

4.2.1 Within 2.0 kilometres of the site there are *Priority Habitats* of *lowland meadows, lowland dry acid grassland, coastal and floodplain grazing marsh, deciduous woodland*, *ancient woodland, woodpasture and parkland* and *traditional orchard.*

4.2.2 Habitats within and adjacent to the site include:

- *Existing Building;*
- *Hard / Bare Ground;*
- *Amenity Grassland;*
- *Scattered Trees;*
- *Treelines;*
- *Intact, Species-poor Hedges;*
- *Introduced Shrub;*
- *Dense Scrub.*

Existing Building

4.2.3 The buildings on site are all commercial in nature, being dominated by factory and warehousing with security buildings and several silos and containers. The buildings are all of modern construction and are of **negligible ecological value.**

Hard / Bare Ground

4.2.4 The site is dominated by access and parking areas and access paths of tarmac and concrete. A wide expanse of land to the north-west is of bare gravel. Several patches of bare open soil are noted within amenity grassland. These habitats are of **negligible** ecological value.

Amenity Grassland

4.2.5 Several grass verges are present on the site. The vegetation is relatively well-maintained; in shaded areas the grassland is dominated by mosses, especially springy turf-moss (*Rhytidiadelphus squarrosus*). Several areas of fescue (*Festuca sp.)* were noted, with other common, coarse grasses dominating. Forbs included yarrow (*Achillea millefolium),* dovesfoot cranesbill (*Geranium mole),* catsear (*Hypochaeris radicata),* and daisy (*Bellis perennis)* with no notable species recorded. This common, habitat is of **negligible value**.

Scattered Trees

4.2.6 The trees on the site are relatively small, and whilst being ornamental in nature are a mixture of ornamental species such as cherry plum (*Prunus cerasifera)* and native species such as pedunculate oak (*Quercus robur).* Two holm oak (*Quercus ilex)* trees front the site and are protected by Havant Borough Council TPO (1034 – T1 and T2). TPO 0943, T1 and T2 were originally listed on the site but have been previously removed under permissions 01/52191/028 and 04/52191/036. The trees are mostly of **site value** only, with the developing oaks and TPO holm oaks of **local value** for ecological and amenity value.

Treelines

4.2.7 The northern boundary is partially lined by a group of early-mature sycamore (*Acer pseudoplatanus).* These trees offer some screening and habitat but would be subject to high disturbance and are poorly connected, making them of no more than **site value.**

4.2.8 Lining the railway bank, outside the site to the east, is a mixed treeline. At its northern end, the treeline begins as dense scrub of elder (*Sambucus nigra).* This rapidly develops into a deciduous treeline of ash (*Fraxinus excelsior),* field maple (*Acer campestre)* and horse chestnut (*Aesculus hippocastanum).* Tall poplar trees (*Populus sp.)* soon begin to dominate and continue in a dense line down to the southern boundary. Approximately halfway down the boundary, a dense hedge of Leyland cypress (*Cupressocyparis x leylandii)* forms a dense visual barrier beneath the poplar trees. The treeline forms part of the wider railway vegetation, and whilst not of great depth or optimal species composition and structure, probably provides a green corridor past the site and habitat for small mammals, birds and invertebrates. The treeline is of **local value.**

Intact, Species-poor Hedges

4.2.9 A section of hedge formed of yew (*Taxus baccata)* lines the southern edge of the site. The hedge offers some limited screening but little ecological value. A continuous hedge of hawthorn (*Crataegus monogyna)* lines the western frontage, providing bird nesting habitat and low-level screening. The hedges are relatively intact, but generally disconnected from other habitats and subject to high disturbance. Hedges are generally considered priority habitats.

Introduced Shrub

4.2.10 Small patches of introduced shrub are present within the site. Species noted include juniper (*Juniperus sp.),* barberry (*Berberis sp.)* and Japanese spindle (*Euonymus japonicus)*. This common, widespread habitat is of limited extent and structure and of **negligible value**. Several shrubs of *Cotoneaster sp.* were noted on site but could not be identified to species level – given that 5no. species of this genus are listed on Schedule 9 of the *Wildlife and Countryside Act* as invasive species, the shrubs should be considered as such.

Dense Scrub

4.2.11 Outside the southern boundary, A line of bramble (*Rubus fruticosus*) scrub starts near the south-eastern corner of site and runs further south into waste land. The vegetation is low and dense, and may provide some limited shelter to wildlife. Given its small extent and lack of diversity this habitat is of **site value.**

4.3 Protected Species

4.3.1 The following species assessment is based upon protected species records returned from desk study and the field study of the site. Those species for which no suitable habitat exists on site have been screened out of the assessment.

Bats

Desk Study

4.3.2 6 no. bat species have been recorded within 5.0 km of the site including Serotine (*Eptesicus serotinus),* Daubenton's bat *(Myotis daubentonii),* Noctule *(Nyctalus noctula*), Common and Soprano pipistrelle (*Pipistrellus pipistrellus* and *Pipistrellus pygmaeus)* and Brown long-eared (*Plecotus auritus*).

Site Assessment

4.3.3 The buildings on-site are modern factory, warehouse and security buildings. The majority (*B1*) are entirely metal-clad with metal seam flat and pitched roof. The large eastern building (*B2*) is of brick construction with the upper storey metal clad, with flat roofs covered in felt and in some areas (*it is presumed)* metal. The remaining buildings include a security block formed mostly of glass with flat roofs, several demountable buildings with flat roofs, several small security stations and a metal silo structure to the north-east. All buildings are in a good state of repair and considered highly unsuitable for bats. Given that commercially and physically sensitive manufacturing is undertaken in many buildings, internal access was generally not possible. No potential ingress points or external roost features were noted. The buildings on-site are considered to be of **negligible value** to roosting bats.

4.3.4 No trees on the site itself offered any significant potential for bats; the two holm oaks (*TG01; T15 and T18 on the LLD2177-ARB-DWG-001 – Tree Constraints Plan*) are mature with numerous large limbs but no potential roost features noted. As holm oaks are known for holding cavities at maturity, these should be considered as of '*low'* bat roost potential as small unseen cavities may be possible. A single horse chestnut (*Aesculus hippocastanum; T02, within TG44 on the LLD2177-ARB-DWG-001 – Tree Constraints Plan*) tree in the eastern treeline off-site displayed a suitable knothole for a roosting bat; the access route to the hole was cluttered by branches but would still be accessible with the treeline forming a foraging and commuting feature. This tree is of *'moderate'* bat roost potential.

4.3.5 The treeline to the north and hedges to the west and south are generally too limited in extent and connectivity, and too heavily disturbed to be of any significant foraging or commuting value for bats, with lighting to both sides of the frontage. The treeline to the east is tall with significant foliage above any lighting. It forms a dense, relatively continuous feature along the sides of the railway all the way to ancient woodland in the north. It is therefore possible that the treeline, whilst unlikely to be of significant foraging value due to the species composition, may be used by bats for commuting, especially light-tolerant species such as pipistrelle and serotine.

Breeding Birds

Desk Study

4.3.6 Over 100 bird species have been recorded within 2.0km of the site, including Schedule I species of redwing (*Turdus iliacus),* fieldfare (*Turdus pilaris*), firecrest (*Regulus ignicapilla)*. The nearby Langstone Harbour is internationally significant for populations of breeding and wintering waterfowl.

Site Assessment

4.3.7 The site is completely unsuitable for wintering birds, beyond occasional fieldfares or redwings commuting through and sheltering or foraging in the boundary vegetation. The boundary hedges and treelines are highly suitable for nesting and foraging garden birds, with scattered trees of lower potential but still suitable. The holm oak trees are regularly used by woodpigeon.

4.3.8 The flat roofs of the buildings were being used as a perching spot by several herring gulls. Access to determine whether nests were present was not possible.

Amphibians

Desk Study

4.3.9 There are no records of Great Crested Newt within 2.0km of the site. Smooth Newt, Palmate Newt, Common Toad and Common Frog are known to be present within the wider site area.

Site Assessment

4.3.10 Introduced shrubs and the areas beneath treelines and hedges would be suitable for amphibians, however the habitat is sub-optimal and very limited in extent.

4.3.11 There is a single pond, 400.0 m south-west of the site on Old Copse Road. The pond appears heavily overgrown with trees, and is separated from the site by dense housing and New Lane. The site is situated within a commercial / industrial area which would prevent newt dispersal; whilst the railway could form a commuting feature, the nearest pond accessible from it is almost 2.0 km away. The site is of **negligible value** to amphibians.

Reptiles

Desk Study

4.3.12 Only common lizard (*Zootoca vivipara)* is recorded in the local area; however, widespread reptiles such as slow-worm are also likely to be present in suitable habitats.

Site Assessment

4.3.13 Amenity grassland and habitats beneath tree lines and hedges within the site may provide some suboptimal terrestrial habitat for reptiles, however the habitat is extremely limited in extent and isolated from other suitable habitats. The adjacent railway habitats could be used by commuting reptiles, but the areas adjacent the site are largely shaded and of limited potential. The dense scrub on the adjacent site is suitable for low numbers of reptiles but would not be affected by proposals and reptiles would have no reason to visit the site from here. The site is considered to be of **negligible** value to reptiles.

Dormice

Desk Study

4.3.14 There are very limited records of dormice locally; these are confined to woodland areas to the north-east, with no records in or around Havant itself. The wider Hampshire area is a national stronghold for dormice.

Site Assessment

4.3.15 The boundary hedges, whilst of suitable species are too gappy and lacking in diversity to offer any potential for foraging dormice. The site is isolated from other suitable habitats. The vegetation along the eastern boundary connects to other vegetation, and ultimately ancient woodland however the connectivity is poor and the woody species present here unsuitable for dormice. The site is considered to be of **negligible value** to dormice.

Badgers

Desk Study

4.3.16 Badger records are confidential; badgers are unlikely to be present within the dense residential and commercial areas locally but may be present in parks, woodland and other open spaces.

Site Assessment

4.3.17 The site itself offers very limited potential for badgers. A number of mammal holes were found and attributed to foxes. The only suitable habitats are the off-site dense scrub and eastern treeline. These may provide both foraging and commuting opportunities but given the dense development to the immediate east and west this is considered unlikely. The site is considered to be of **negligible value** to badgers.

Others

4.3.18 No suitable habitat for any other protected species was recorded within or adjacent to the site area. The remains of a hedgehog were found under a holm oak tree; the site is therefore likely used by hedgehogs.

5.0 ASSESSMENT OF EFFECTS AND MITIGATION MEASURES

5.1 Designated Sites

Potential Impacts

5.1.1 The site is located within the *Impact Risk Zone* of Chichester and Langstone Harbours. The designated sites are over 1.75 km away; no construction-phase impacts are predicted. The proposals seek to replace an existing commercial-industrial complex with a new commercial complex; the changes in traffic, air, noise and light pollution at the wider scale are unlikely to have any impact upon protected sites. Given the nature of the proposals, no increase in recreational pressure is predicted and no contribution towards management of protected sites is required.

Mitigation and Compensation

5.1.2 None required – no impacts are anticipated.

Residual Impacts

5.1.3 **No likely significant effect** upon surrounding designated sites will arise from the proposed development.

5.2 Habitats

Potential Impacts

5.2.1 Development will cause the temporary loss of areas of amenity grassland, intact, species-poor hedgerow, scattered trees and introduced shrub. In the absence of mitigation, impacts upon surrounding trees, treelines and hedges could include increased disturbance through noise, vibration and lighting, degradation of habitat through dust smothering and pollution events resulting from fuel or chemical spills. Given the small scale of the site, impacts would be of minor impact magnitude and limited to the site level. Harm or damage to the treeline to the east would be of moderate impact at the local level.

5.2.2 Inappropriate disposal of introduced plants, most notably the Cotoneaster may result in its spread in the wild, harming other habitats. This would be a breach of the Wildlife and Countryside Act (as amended) 1981.

Mitigation and Compensation

5.2.3 All construction activities will be undertaken in accordance with best practice guidance with regards dust, vibrations and noise control. Construction lighting (if required) will be angled down and away from the surrounding trees and hedges. All light spill on the surrounding trees and hedges will be avoided during the operational phase. The construction compound and any storage of materials / fuel will be located outside of tree root areas under a detailed tree protection scheme devised in accordance with BS5837. Existing hedges shall be retained and protected within the tree protection measures. The post-development landscape scheme will replace areas of amenity grassland, trees, hedges and shrubs with like-for-like habitats.

5.2.4 Any cotoneaster requiring removal shall be identified by a SQE and shall be removed under supervision and treated as controlled waste, double-bagged and carried under a waste transfer licence to an appropriate green waste recycling facility.

Residual Impacts

5.2.5 Residual impacts after mitigation will be negligible and **non-significant**.

5.3 Bats

Potential Impacts

5.3.1 In the absence of mitigation impacts could include the disruption of commuting corridors and foraging habitat through inappropriate lighting, dust and pollution. Damage to trees TG01 or T02 might result in the loss of a bat roost feature and potentially harm to a low number of bats.

Mitigation and Compensation

5.3.2 All light spill upon surrounding scattered trees, treelines and hedges will be avoided. TG01 and T02 shall be fully protected in accordance with BS5837; T02 is already subject to regular crown-reduction and as such this can be continued, ideally during winter. The post-development landscape scheme will replace areas of amenity grassland, trees, hedges and shrubs with like-for-like habitats.

Residual Impacts

5.3.3 Residual impacts after mitigation will be negligible and **non-significant.**

5.4 Breeding Birds

Potential Impacts

5.4.1 In the absence of avoidance / mitigation, the development could result in the damage / destruction of a bird nest and loss of foraging and commuting habitats, including to very small numbers of winter migrants.

Mitigation and Compensation

5.4.2 Any suitable vegetation should be removed outside the nesting season *(season: March-August, although pigeons may nest all year)* or should be checked prior to removal by a suitably qualified person. The post-development landscape scheme will replace trees, hedges and shrubs with like-for-like habitats.

5.4.3 All flat roofs shall be subject to a final check for nesting gulls within 48hrs of demolition to ensure no nests are disturbed.

Residual Impacts

5.4.4 The overall impact of the scheme will be **negligible, non-significant.**

5.5 Amphibians

Potential Impacts

5.5.1 No impacts upon protected amphibian species are anticipated.

Mitigation and Compensation

5.5.2 None required – no impacts anticipated.

Residual Impacts

5.5.3 Residual impacts after mitigation will be negligible and **non-significant.**

5.6 Reptiles

Potential Impacts

5.6.1 In the absence of mitigation, construction works might impact upon reptile habitats on adjacent sites.

Mitigation and Compensation

5.6.2 All off-site habitats will be protected through strict compliance with all relevant guidance with regards to prevention of dust and chemical pollution, including BS5837 to ensure protection of trees and hedges.

Residual Impacts

5.6.3 Residual impacts after mitigation will be negligible and **non-significant.**

5.7 Dormice

Potential Impacts

5.7.1 None anticipated – habitat on-site is not suitable for dormice.

Mitigation and Compensation

5.7.2 None required.

Residual Impacts

5.7.3 Residual impacts after mitigation will be negligible and **non-significant.**

5.8 Badger

Potential Impacts

5.8.1 Badgers passing through the adjacent habitats may fall into excavations and become trapped. Impacts would be of moderate magnitude.

Mitigation and Compensation

5.8.2 Appropriate barriers erected in accordance with BS5837 shall adequately prevent badger ingress into the site. The remainder of the site is securely fenced already. All footings and excavations deeper than 1.0m shall be covered or fitted with a means of escape such as a ramp and checked for trapped wildlife daily.

Residual Impacts

5.8.3 Residual impacts after mitigation will be negligible and **non-significant.**

6.0 ECOLOGICAL ENHANCEMENTS

6.1 The design of the proposed development includes ecological enhancements for the benefit of wildlife in line with the *National Planning Policy Framework* and *Local Planning Policy*. Ecological enhancements which will be included as part of development proposals include:

- *The use of flowering shrubs as listed within the RHS 'Plants for Pollinators' plant list to create a border between the new building and adjacent path;*
- *Planting of new trees, hedges and understorey planting;*
- *Installation of bird and bat boxes to boundary trees;*
- *Installation of swift boxes (either integrated or wall-mounted) into the new buildings;*
- *Provision of at least one hedgehog box;*
- *Provision of new invertebrate boxes or similar natural refuges;*
- *Provision of new habitat areas to the corners of the site, particularly where connected to other habitats. These shall consist of wildflower areas, log piles, small wetland features or dense shrubs. The proposed replacement fire hydrant tanks and pump house will occupy a small part of the space proposed for this enhancement but the majority can still be enacted.*

7.0 CONCLUSIONS

7.1 The site is dominated by buildings and hard surfaces of low ecological value. The site is isolated from higher-quality habitats and is of low ecological value itself with no habitats of interest noted. Several hedges are present which technically fall into the priority habitat designation however the hedges are largely for amenity value and their ecological value is limited.

7.2 The site was found to be of very limited potential for protected species, with the only potential for any significant harm present within the eastern treeline; mitigation measures have been devised to ensure the development does not contravene any UK or European legislation and generally preserves higher-quality habitats.

7.3 Once avoidance and mitigation measures have been taken into account, the impacts of the planned development upon biodiversity will be **negligible, non-significant** with proposed ecological enhancements resulting in a minor **net gain** and a **long-term positive increase** in biodiversity in line with national planning policy guidance.

7.4 The replacement of the fire hydrant facility rather than complete removal would have no significant impact upon ecology or the ability of the site to achieve Biodiversity Net Gain.

8.0 REFERENCES

BCT & ILP. (2018). Guidance Note 08/18. Bats and artificial lighting in the UK. Bats and the Built Environment series

British Standards Institution. (2013). BS 42020:2013 Biodiversity – Code of practice for planning and development. London: BSI

CIEEM. (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM. (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management. Winchester, UK

Collins J (ed): Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed.) The Bat Conservation Trust (2016);

JNCC: Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit; (2010);

Mitchell-Jones and McLeish: Bat Workers Manual; JNCC, 3rd Edition (2004);

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus). Herpetological Journal 10 (4), 143-155;

Streeter, D.: The Most Complete Guide to the Flowers of Britain and Ireland; Harper Collins, London (2010);

www.magic.gov.uk.

Table No. 04 – Species List for Habitat Parcels

Amenity Grassland

Common Name	***Scientific Name***	***DAFOR***
Black Medic	*Medicago lupulina*	***F***
Bristly Oxtongue	*Helminthotheca echioides*	***F***
Catsear	*Hypochaeris radicata*	***F***
Cocksfoot	*Dactylis glomerata*	***F***
Daisy	*Bellis perennis*	***F***
Dandelion	*Taraxacum agg.*	***O***
Dovesfoot Cranesbill	*Geranium mole*	***O***
Fescue	*Festuca sp.*	***LA***
Meadow Grass	*Poa sp.*	***F***
Ordinary Moss	*Brachythecium rutabulum*	***LA***
Perennial Ryegrass	*Lolium perenne*	***D***
Ragwort	*Jacobaea vulgaris*	***R***
Ribwort Plantain	*Plantago lanceolata*	***O***
Smooth Sow-thistle	*Sonchus oleraceus*	***R***
Spear Thistle	*Cirsium vulgare*	***R***
Springy Turf-moss	*Rhytidiadelphus squarrosus*	***LA***
Yarrow	*Achillea millefolium*	***LA***

Dense Scrub

Common Name	***Scientific Name***	***DAFOR***
Bramble	*Rubus fruticosus*	***D***
Cleavers	*Galium aperine*	***O***
Common Hogweed	*Heracleum sphondylium*	***F***
Hemp Agrimony	*Eupatorium cannabinum*	***O***
Nettle	*Urtica dioica*	***LA***

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

Scattered Trees, Treelines and Hedges

Common Name	***Scientific Name***	***DAFOR***
Ash	*Fraxinus excelsior*	***LF***
Cherry	*Prunus sp.*	***O***
Cherry Plum	*Prunus cerasifera*	***R***
Cypress	*Cupressus sp.*	***O***
Elder	*Sambucus nigra*	***O***
Field Maple	*Acer campestre*	***O***
Hawthorn	*Crataegus monogyna*	***LD***
Holm Oak	*Quercus ikex*	***O***
Hornbeam	*Carpinus betulus*	***R***
Horse Chestnut	*Aesculus hippocastanum*	***O***
Leyland Cypress	*Cupressocyparis x leylandii*	***LD***
Maple	*Acer sp.*	***O***
Norway Maple	*Acer platanoides*	***O***
Pedunculate Oak	*Quercus robur*	***O***
Poplar	*Populus sp.*	***LD***
Red Cedar	*Thuja sp.*	***R***
Silver Birch	*Betula pendula*	***O***
Sycamore	*Acer pseudoplatanus*	***LA***
Yew	*Taxus baccata*	***LD***

Introduced Shrubs

Common Name	***Scientific Name***	***DAFOR***
Barberry	*Berberis sp.*	***O***
Snowberry	*Symphoricarpos albus*	***LA***
California Lilac	*Ceonothus sp.*	***O***
Rosemary	*Rosmarinus officinalis*	***R***
Dogwood	*Cornus sp.*	***F***
Japanese Spindle	*Euonymus japonicus*	***F***
Mexican Orange Blossom	*Choisya ternate*	***O***
Lavender	*Lavandula angustifolia*	***O***
Box	*Buxus sempervirens*	***LF***
Oregon Grape	*Mahonia sp.*	***R***
Cabbage Palm	*Cordyline australis*	***R***
Cotoneaster*	*Cotoneaster sp.*	***O***
Juniper	*Juniperus sp.*	***O***
Lawson Cypress	*Chamaecyparis lawsoniana*	***O***
Japanese Maple	*Acer pseudoplatanus*	***R***

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

*** = Invasive Species Listed on Schedule 9 of Wildlife and Countryside At (as Amended) 1981**

Table No. 05 – Target Notes

Ref.	*Description*
TN01	Location of hedgehog remains and mammal digging.

Legend

- Development Site Boundary / Survey Area.
- Existing Building and Walls.
- B1 — Building Number.
- A — Amenity Grassland.
- Intact Species-Poor Hedgerow.
- Hard / Bare Ground.
- Introduced Shrub.
- Scattered Trees.
- TN01 — Target Notes.
- Dense Scrub.
- Deciduous Treelines.
- T01 — Trees with Bat Roost Potential.

PLANNING ISSUE

Rev	Description	Date	Initials
01	Planning Issue	04.02.21	GS
00	Planning Issue	13.01.21	GS

LIZARD
Landscape Design and Ecology
The Old Bank, 34 South Street, Tarring, Worthing, West Sussex, BN14 7LH
T. 01903 216033 E. lizard.landscape@blueconnect.com W. lizardlandscapeecology.com

Client
Kingsbridge Estates Ltd
Project Title and Location
32 New Lane
Havant, Hampshire

Drawing Title
Figure No. 01 - Site Habitat Plan

Scale	Drawn	Approved	Date
1:500@A0	LB	GS	04.02.21

Drawing No	Revision
LLD2177-ECO-FIG-001	01

N

0 5 10 25 50 100 m
Scale 1:500

Site Habitat Plan
32 New Lane, Havant

APPENDICES:

Appendix A – Site Photographs

Photo 1 – Buildings on-site offer negligible bat roost potential but should be checked for nesting gulls prior to demolition.

Photo 2 – Buildings to the east are largely brick but still offer negligible bat roost potential.

Photo 3 – Buildings to the east are largely brick but still offer negligible bat roost potential.

Photo 4 – Much of the site is dominated by hard and bare surfaces of negligible ecological value.

Photo 5 – The northern treeline.

Photo 6 – The western treeline, with amenity grassland to centre and hawthorn hedge to the right.

Photo 7 – the eastern treeline.

Photo 8 – The yew hedge to the south.

Photo 9 – Introduced shrubs within the site.

Photo 10 – Dense scrub off-site.

Photo 11 – one of the mature holm oaks with TG01, displaying mature limbs which may contain small concealed cavities, conferring low bat roost potential.

Photo 12 – Knothole in T02 conferring moderate bat roost potential.

Photo 13 – Hedgehog remains to west of site.