

Tournerbury Wedding & Events Venue, Tournerbury Woods Estate, Tournerbury Lane, Hayling Island, Hampshire, PO11 9DL

Ecological Impact Assessment Report

June 2020

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Ecological Impact Assessment Report
Tournerbury Wedding & Events Venue, Tournerbury Woods Estate, Tournerbury Lane,
Hayling Island, Hampshire, PO11 9DL
for the
Tournerbury Woods Estate

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This report represents sound industry practice; reports and recommends correctly, truthfully and objectively; is appropriate given the local site conditions; scope of works proposed and resources allocated to us by the client; and avoids invalid, biased, and exaggerated statements.

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Contents

1	EXECUTIVE SUMMARY.....	6
2	INTRODUCTION.....	12
2.1	PURPOSE OF THIS REPORT	12
2.2	BACKGROUND TO THE PROJECT	12
2.3	PROPOSED ACTIVITIES.....	13
2.4	CURRENT PLANNING STATUS	13
2.5	STRUCTURE OF THIS REPORT	13
3	ASSESSMENT METHODOLOGY AND UNCERTAINTY	14
3.1	OUTLINE OF METHODOLOGY	14
3.2	ESTABLISHMENT OF BASELINE	14
3.2.1	<i>Desk Based Assessment</i>	14
3.2.2	<i>Sources of Information</i>	14
3.2.3	<i>Ecological Surveys</i>	15
3.3	IDENTIFICATION AND ASSESSMENT OF IMPACTS AND MITIGATION MEASURES	16
3.3.1	<i>General</i>	16
3.3.2	<i>Assessment of Significance of Residual Impacts</i>	16
	Confidence in predictions (levels of uncertainty)	17
	Magnitude and Extent	17
	Complexity	17
	Duration	17
	Reversibility of Impact.....	17
	Timing and Frequency.....	17
	Cumulative Effects	18
	Geographic Frame of Reference	18
	Table 3.3.2.1. Geographic Frame of Reference	18
	Assessment of Significance	19
3.4	LEGISLATION AND POLICY CONTEXT	20
3.4.1	<i>Key legislation and regulations</i>	20
	Table 3.4.1.1. Key Legislation and Regulations.	20
3.4.2	<i>National planning context</i>	23
3.4.3	<i>National Planning Policy Framework (NPPF)</i>	23
3.4.4	<i>Natural Environment and Rural Communities (NERC) Act</i>	24
3.4.5	<i>Core Strategy – Havant Borough Local Plan Review 2011</i>	25
3.4.6	<i>Ecological Impact Assessment guidelines</i>	25
3.5	SCOPING CRITERIA.....	25
3.6	LIMITATIONS TO THE ASSESSMENT	25
3.6.1	<i>Uncertainty and technical difficulties encountered</i>	25
3.6.2	<i>Further surveys</i>	26
4	BASELINE OVERVIEW	27
4.1	DESK STUDY.....	27

4.1.1	<i>Designated sites</i>	27
	Table 4.1.1.1. Statutory designated sites within the 5km and 2km search areas of the site..	27
	Table 4.1.1.2. Locally designated sites within the 1km search area of the site.	28
4.1.2	<i>Notable species records</i>	28
4.2	HABITATS AND PLANT SPECIES	28
4.2.1	<i>Overview</i>	28
4.2.2	<i>Semi-natural broad-leaved woodland</i>	29
4.2.3	<i>Broad-leaved plantation woodland</i>	30
4.2.4	<i>Scrub</i>	30
4.2.5	<i>Improved Grassland</i>	30
4.2.6	<i>Amenity Grassland</i>	31
4.2.7	<i>Saltmarsh</i>	31
4.2.8	<i>Waterbodies</i>	31
4.2.9	<i>Built Structures</i>	31
4.3	PROTECTED VERTEBRATES.....	32
4.3.1	<i>Bats</i>	32
4.3.2	<i>Dormice</i>	32
4.3.3	<i>Great crested newt</i>	32
4.3.4	<i>Otter and water vole</i>	32
4.3.5	<i>Badger</i>	33
4.3.6	<i>Birds</i>	33
	General	33
	Heronry	33
	Table 4.3.6.1. BTO Heronry census count data 1966 to 2019 (source: BTO).....	34
4.3.7	<i>Widespread species of reptiles</i>	35
4.3.8	<i>Other mammals</i>	36
4.4	SUMMARY ASSESSMENT OF NATURE CONSERVATION VALUE	36
	Table 4.4.1. Summary of ecological importance and receptor sensitivity.....	37
	Table 4.4.2. Summary of impacts without mitigation - broad habitat types and species groups.....	39
5	ASSESSMENT OF IMPACTS AND MITIGATION.....	41
5.1	DESK STUDY.....	41
5.1.1	<i>Statutory and non-statutory designations</i>	41
5.1.2	<i>Habitats Regulations Assessment (HRA)</i>	41
5.2	HABITATS AND PLANTS.....	41
5.2.1	<i>Habitats</i>	41
5.2.2	<i>Plant species</i>	43
5.3	BATS	43
5.4	DORMICE.....	44
5.5	GREAT CRESTED NEWT.....	44
5.6	OTTER AND WATER VOLE.....	44
5.7	BADGER	44
5.8	BIRDS	45
	General	45

	Table.5.8.1. Bird boxes to be erected within the site with additional details on positioning to increase chances of occupancy.	46
	Heronry	46
5.9	WIDESPREAD SPECIES OF REPTILES	46
5.10	OTHER MAMMALS	47
6	SUMMARY OF RESIDUAL IMPACTS AND SIGNIFICANCE.....	48
	Table 6.1. Summary of residual impacts – broad habitat types and species groups.	49
7	FIGURES.....	50
8	REFERENCES.....	53
9	APPENDIX A: PROTECTED SPECIES LEGISLATION	55
9.1	GENERAL	55
9.2	BATS	55
9.3	DORMICE.....	55
9.4	GREAT CRESTED NEWT.....	56
9.5	OTTER	56
9.6	WATER VOLE	57
9.7	BADGER	57
9.8	BIRDS.....	58
	9.8.1 <i>Birds - general protection</i>	58
	9.8.2 <i>Birds - specially protected species</i>	58
9.9	WIDESPREAD SPECIES OF REPTILE.....	58
9.10	EUROPEAN PROTECTED SPECIES LICENCES	58
9.11	NATIONAL PLANNING CONTEXT	59
	9.11.1 <i>General</i>	59
	9.11.2 <i>National Planning Policy Framework (NPPF)</i>	59
10	APPENDIX B: RESULTS OF DATA SEARCH FOR PROTECTED AND NOTABLE SPECIES RECORDS.....	61

1. This report presents the results of an Ecological Impact Assessment (EcIA) carried out by Hampshire Ecological Services Ltd for the Tournbury Woods Estate in connection with an application of retrospective planning permission for a wedding & events venue at Tournbury Woods Estate, Tournbury Lane, Hayling Island, Hampshire, PO11 9DL (approximate Ordnance Survey Grid Reference SU460158). The site location is shown in *Figures 1 and 2* in *Section 7*.
2. A Phase 1 Habitat Survey was carried out by John Wenman Ecological Consultancy LLP in 2013, followed by a National Vegetation Classification (NVC) survey in 2014. An update to the Phase 1 Habitat survey was carried out in May 2018 by the same company.
3. Hampshire Ecological Services Ltd has been engaged to undertake a number of surveys and reports on the Tournbury Woods Estate, including a Breeding Bird survey in 2014; Heronry surveys in 2015 & 2019; and a shadow Habitat Regulations Assessment report in 2020.
4. The following reports contain the survey information that is summarised in this report:
 - *Tournbury Woods Estate, Hayling Island, Hampshire. National Vegetation Classification Survey* (John Wenman Ecological consultancy LLP, 2014).
 - *Tournbury Woods, The Tournbury Woods Estate, Tournbury Lane, Hampshire, PO11 9DL. Breeding Birds Survey Report* (Hampshire Ecological Services Ltd, 2015).
 - *Tournbury Woods Estate, Tournbury Lane, Hayling Island, Hampshire, PO11 9DL. Updated Phase 1 Habitat Survey* (John Wenman Ecological Consultancy LLP, 2018).
 - *Tournbury Woods Estate, Tournbury Lane, Hayling Island, Hampshire, PO11 9DL. Heronry Survey Report* (Hampshire Ecological Services Ltd, 2019).
 - *Wedding & Event Venue, Tournbury Woods, Tournbury Woods Estate, Tournbury Lane, Hayling Island, Hampshire PO11 9DL. Shadow Habitat Regulations Assessment Report* (Hampshire Ecological Services Ltd, 2020).
5. According to the Multi-Agency Geographic Information for the Countryside website (www.magic.gov.uk), the site lies within Chichester and Langstone Harbours SPA and Ramsar Site. Tournbury is designated as a unit of the Chichester Harbour SSSI. In addition, the eastern part of the site lies adjacent to the Solent Maritime SAC. There are five further statutory designated sites within 2km of the site. These are listed in *Table 4.1.1.1*. There are two locally designated sites - Sites of Importance for Nature Conservation (SINCs) - within 1km of the marquee. These are listed in *Table 4.1.1.2*. No impacts are anticipated on Solent Maritime SAC or Chichester and Langstone Harbours SPA and Ramsar Site.
6. As the site is within the boundary of the Chichester and Langstone Harbours SPA and Ramsar Site, a shadow HRA has been produced. This is a separate document – see *Wedding & Event Venue, Tournbury Woods, Tournbury Woods Estate, Tournbury Lane, Hayling Island,*

Hampshire PO11 9DL. Shadow Habitat Regulations Assessment Report (Hampshire Ecological Services Ltd, 2020). This concluded that there would be no impact on the SPA.

7. No habitat is due to be removed and therefore there will be no impact on the habitats for which Chichester Harbour SSSI has been designated. In addition, condition assessments have been regularly carried out by Natural England on the Chichester Harbour SSSI. The SSSI is divided into 45 units. The Tournembury Woods Estate unit has been assessed as being in 'Favourable Condition' since 1997. The northern area of the Tournembury Woods Estate, adjacent to the access track, is the only part of the estate with habitat for which the SSSI was designated for: W10 *Quercus robur*–*Pteridium aquilinum*–*Rubus fruticosus* woodland. This is outside of the footprint of the development (the wedding & events venue area). Therefore, there will be no direct impact on the vegetation of the SSSI.
8. No impacts are anticipated on the other nearby SSSIs, Sinah Common SSSI and Langstone Harbour SSSI; or the LNRs within 2km and SINC's within 1km (see *Section 4.1.1*).
9. Of the notable species recorded within 1km of the site, five are amphibians; two are reptiles; 149 are birds; 97 are vascular plants; three are non-vascular plants (liverworts, hornworts & mosses); 121 are invertebrates; nine are terrestrial mammals (including eight species of bat); and two are marine mammals. A full list of notable species with details of their respective protection and/or designations is provided in *Appendix B*.
10. Tournembury Wood is a mixture of semi-natural broad-leaved woodland within Saxon earthworks (subsequently referred to as The Bury) with adjoining broad-leaved plantation woodland and secondary woodland (Tournembury plantation) established on former open ground in the late 19th Century. There is a small area of improved grassland within the woodland. In the south eastern corner of the site the woodland habitats open out into amenity grassland around Woods Cottage. There is a patch of species-poor semi-improved grassland to the west of the cottage that has been heavily grazed by rabbits. Further to the south-west, the woodland opens out into a small area of saltmarsh. Scattered scrub has established along the south eastern edge of the site. The following habitats are present on site:
 - semi-natural broad-leaved woodland;
 - broad-leaved plantation woodland;
 - conifer plantation;
 - amenity grassland;
 - improved grassland;
 - species-poor semi-improved grassland;
 - scrub; and
 - saltmarsh.
11. A Phase 1 Habitat Map showing the location of the various habitats is given in *Figure 3* in *Section 7*). Plant species recorded from the site (along with relative abundance) are tabulated in the Phase 1 Habitat Survey report with further species lists in the NVC report (John Wenman Ecological consultancy LLP, 2014 & 2018).

12. A *Rhododendron* species (*Rhododendron*) was originally planted on the western edge of the plantation and along the southern access road to woods cottage. It has expanded its range in that area slightly and is being actively managed by the landowner. No other plant species listed on Schedules 8 or 9 of the *Wildlife and Countryside Act 1981* were recorded on the site.
13. The majority of the habitats and plant species observed are widespread and common. The habitats are of no particular nature conservation value from a botanical perspective. The exception is the woodland of The Bury, which would be impossible to recreate once felled. In addition, deciduous woodland is classified as a UK Priority Habitat – a habitat of conservation importance under the *NERC Act 2006*. Some of the habitats have value from the perspective of the species they support *e.g.* the saltmarsh that contributes to the wider habitat of Chichester harbour that is used by overwintering birds.
14. As all the habitat on site will be retained under the proposals, there is no impact on the habitat or the plant species that they contain. As such there is no need for mitigation or compensation measures.
15. There is suitable habitat for roosting, commuting and foraging bats (woodland, scrub and grassland). The woodland, ponds and Chichester Harbour all provide good habitat, and there are good connections into the wider landscape. In addition, there are records for the following bats within 1km of the site: common pipistrelle, soprano pipistrelle, brown long-eared bat, serotine, noctule, Leisler's bat, Daubenton's bat, whiskered/ Brandt's bat and *Myotis* species.
16. Lighting, especially increased lighting, can affect commuting, foraging and roosting bats. However, lighting will have been present on site throughout its use, particularly as a residential dwelling. Lighting has increased slightly during the sites' use as a wedding and events location, although this has been minimised as much as possible.
17. Any external lighting should avoid spillage of greater than 1 lux onto the trees and woodland. The use of non-UV LED lighting (preferably using warm spectrum wavelengths) is strongly recommended to avoid the most deleterious impacts of lighting on biodiversity and bats in particular. Where lighting is necessary, downlighting/ hoods or similar devices should be used to allow the light to be directed onto where it is needed and avoid any light spill into the adjacent woodland. Alternatively, low-level lighting could be used instead.
18. There is currently no information on what bat species are present on the site, including whether Woods Cottage is a bat roost. Therefore, bat surveys will be carried out in accordance with *Bat Surveys – Good Practice Guidelines, 3rd edition* (Bat Conservation Trust, 2016) to establish if there are any roosts either in Woods Cottage or in trees on or around the development footprint, as well as what species are using the site. This will enable the impacts to be fully assessed. It is currently planned that bat surveys will be carried out on the site in the 2020 survey season.

19. The site will be enhanced for bats through the provision of bat boxes, especially in the plantation woodland where the younger trees mean that there are likely to be fewer trees with bat roost suitability.
20. The woodland provides suitable habitat for nesting, foraging and hibernating dormice. The woodland and scrub contain a mixture of plants producing flowers and berries, and plants producing nuts. This mixture of different species provides food sources throughout the year and as such provides good foraging habitat. However, there are no records of dormice within 1km of the site and the suitable habitat will be unaffected by the proposals. Therefore, there should be no impact on dormice should they be present.
21. There are several small woodland ponds within the South Wood as well as a large pond at the centre of the site (the duck pond). The smaller ponds were mostly dried out at the time of the Phase 1 Habitat Survey (John Wenman Ecological Consultancy LLP, 2018) and the duck pond was heavily used and disturbed by large numbers of waterfowl.
22. The footprint of the development is sub-optimal terrestrial habitat for great crested newts due to its close mown amenity grassland providing no cover and hence a risk of predation. As the ponds are all to be retained and no terrestrial habitat is to be removed, there should be no impact on great crested newts, should they prove to be present.
23. There are no streams or rivers on the site. Although water voles can be found in brackish habitats they are uncommon in estuarine or saltmarsh habitats except where there are relatively stable reed-fringed lagoons. There are no records for water vole within 1km of the site. In addition, there is no suitable water vole habitat within the development footprint. Therefore, it is unlikely that water voles are present on site.
24. The proximity of the site to Mengham Rythe and Chichester Harbour, where otters are known to be present, makes it likely that otters will either cross the site or move along its boundaries. Therefore, it cannot be ruled out that otters would cross the site. However, they would be unlikely to cross the area of the development footprint, especially during an event. There is no impediment to otters crossing any part the site at any time. As such there should be negligible impact on otters.
25. During the Phase 1 Habitat Survey (John Wenman Ecological Consultancy LLP, 2018), a pathway through the wood and 3-4 mammal burrow entrances were found within the earthworks of the former hill fort (The Bury). This is outside of the development footprint and as such will not be affected.
26. It is possible that badgers may forage on the amenity grassland within the development footprint. However, there are alternative foraging areas close by that the badgers could use if an event is taking place *e.g.* the improved grassland within the plantation woodland, and the horse-grazed paddocks adjacent to the site. In addition, there are no badger records from the estate so the status is unknown. Therefore, there should be negligible impact on badgers.

27. All the woodland, scrub, shrubs and trees on the site have the potential to support nesting birds during the breeding season.
28. The breeding bird survey (Hampshire Ecological Services Ltd, 2015) identified the value of the site to birds as relatively low with only small numbers of the more common woodland birds being recorded. The majority of the species assemblage is typical of lowland woodland, but with a low number (in both species count and number of birds) of wetland species (*e.g.* grey heron, little egret and moorhen) recorded. With the exception of moorhen, this is almost certainly due to the presence of trees suitable for nesting and roosting combined with the coastal location of the woodland, rather than the site offering large areas of suitable wetland foraging habitat.
29. The habitat at the site is fairly uniform in value for birds with no notable difference in species composition or assemblage across the site. The species recorded on site are typical of the main habitats available, which is characterised by species of woodland, but with a few wetland/coastal species also recorded.
30. Due to the presence of seven amber list species and two red list species recorded occurring at the site in locally sustainable populations the site is classed as having 'Local Nature Conservation Value' for birds. However, it should be noted that no significant numbers or flocks of notable species were recorded during the surveys and all species occurring on site are either common or fairly common within Hampshire and the surrounding area.
31. No vegetation is to be removed and as such there should be minimal impact on nesting birds. The only potential impact would be that birds that may chose to nest near to or in the trees and bushes in the development footprint. Many species easily become habituated to the presence of humans and readily nest in close proximity, as such is it not anticipated that there will be a significant impact on nesting birds. However, the site will be enhanced through the provision of bird boxes. The proposed bird boxes are summarised in *Table 5.8.1*.
32. A heronry is present within the woodland to the north of the site (outside the development footprint). It has been suggested that the heronry was a qualifying feature for the inclusion of the wider Tournembury Woods Estate in the Chichester Harbour SSSI. However, the heronry is not listed among the 30 notified features of the SSSI.
33. Hampshire Ecological Services were commissioned by the Tournembury Woods Estate to monitor the heronry within the estate during 2015 and 2019 (Hampshire Ecological Services Ltd, 2015 & 2019). While the majority of the nests observed were occupied by grey heron (a Green List species) one nest was occupied by little egret (Amber List species). Whilst it appears the number of grey heron nests has halved since 2015, this heronry is believed to have originated from a larger colony formerly present on the nearby Thorney Island (Eyre, 2015). As a small secondary colony, it is likely to be subject to natural fluctuations in population size. In addition, the presence of a rookery in the woodland to the south-east of the heronry may

discourage the heronry from becoming bigger. The number of little egret nests has remained the same since 2015. Little egret are recent colonisers to Britain, which lies at the northern limit of their European breeding range.

34. Herons and little egrets have continued breeding in the heronry despite the wedding and events traffic on the entrance track during their breeding season (April to June). Therefore, there is no impact on these species.
35. There is suitable foraging and hibernation habitat for widespread species of reptile (such as slow-worms) on the site. However, the majority of the development footprint is short mown amenity grassland and as such is unsuitable for reptiles due to the lack of cover and risk of predation. In addition no vegetation will be removed. Therefore, although reptiles may be present at the edges of the development footprint, they will be unaffected by the proposals.
36. Rabbits are known to be present on site and therefore it is likely their predators such as foxes are also present on or near the site. Given the habitats present it is likely that there are other small mammals present such as voles and shrews, as well as larger mammals such as deer. No vegetation is to be removed, therefore any present will be unaffected by the proposals.
37. The nature conservation importance assigned to each valued ecological receptor is listed in *Table 4.4.1*, and includes the protected species, species of nature conservation concern together with valuable habitats. The impact on each ecological receptor without mitigation is given in *Table 4.4.2*.
38. The ecological receptors that may still be impacted if present are as follows:
 - commuting and foraging bats;
 - bat roost(s), if present within the development footprint; and
 - a small number of widespread birds nesting within the development footprint.The residual impacts for habitats and species groups are summarised in *Table 6.1*.

INTRODUCTION

2.1 Purpose of this report

This report presents the results of an Ecological Impact Assessment (EclA) carried out by Hampshire Ecological Services Ltd for the Tournembury Woods Estate in connection with an application of retrospective planning permission for a wedding & events venue at Tournembury Woods Estate, Tournembury Lane, Hayling Island, Hampshire, PO11 9DL (approximate Ordnance Survey Grid Reference SU460158). The site location is shown in *Figures 1 and 2 in Section 7*.

Baseline information derives from a desk-top study, field surveys to identify areas and species of nature conservation interest. Their importance is evaluated and impacts are assessed.

Baseline data are presented in associated reports. The remainder of this report therefore addresses the following topics:

- assessment methodology with reference to ecology;
- an overview of the ecological baseline;
- an account of impacts on specific habitat types and species groups together with discussion of appropriate mitigation; and
- a summary of residual impacts in tabular form.

The following reports contain the survey information that is summarised in this report:

- *Tournembury Woods Estate, Hayling Island, Hampshire. National Vegetation Classification Survey* (John Wenman Ecological consultancy LLP, 2014).
- *Tournembury Woods, The Tournembury Woods Estate, Tournembury Lane, Hampshire, PO11 9DL. Breeding Birds Survey Report* (Hampshire Ecological Services Ltd, 2015).
- *Tournembury Woods Estate, Tournembury Lane, Hayling Island, Hampshire, PO11 9DL. Updated Phase 1 Habitat Survey* (John Wenman Ecological Consultancy LLP, 2018).
- *Tournembury Woods Estate, Tournembury Lane, Hayling Island, Hampshire, PO11 9DL. Heronry Survey Report* (Hampshire Ecological Services Ltd, 2019).
- *Wedding & Event Venue, Tournembury Woods, Tournembury Woods Estate, Tournembury Lane, Hayling Island, Hampshire PO11 9DL. Shadow Habitat Regulations Assessment Report* (Hampshire Ecological Services Ltd, 2020).

2.2 Background to the project

A Phase 1 Habitat Survey was carried out by John Wenman Ecological Consultancy LLP in 2013, followed by a National Vegetation Classification (NVC) survey in 2014. An update to the Phase 1 Habitat survey was carried out in May 2018 by the same company.

Hampshire Ecological Services Ltd has been engaged to undertake a number of surveys and reports on the Tournembury Woods Estate, including a Breeding Bird survey in 2014; Heronry surveys in 2015 & 2019; and a shadow Habitat Regulations Assessment reports in 2020.

The site is situated on the eastern side of Hayling Island on the northern side of the Mengham Rythe estuary. The woodland skirts the northern edge of the Mengham Rythe estuary and extends northwards with Tournembury Farm and Golf Course to the north; a small field to the east used for cattle grazing; and agricultural fields to the west that have been given over to horse paddock use. The woodland at Tournembury is woodland and forms 19% of the total wooded habitat on Hayling Island.

The remainder of Hayling Island is predominantly agricultural/ horse paddocks with a medium size urban cluster formed along the southern coast and extending north along the main road. The majority of the coastland is either pebbled/sandy beaches or floodplain/marsh. The Chichester Harbour SSSI covers 3695 hectares and Tournembury forms 0.4% of its total area.

2.3 *Proposed activities*

The surveys were carried out in connection with an application for retrospective planning permission for a wedding & events venue at Tournembury Woods Estate, Tournembury Lane, Hayling Island, Hampshire, PO11 9DL.

2.4 *Current planning status*

Retrospective planning permission is being applied for.

2.5 *Structure of this report*

This report is structured as follows:

- *Section 1* contains the executive summary;
- *Section 2* contains an introduction;
- *Section 3* describes the assessment methodology and uncertainty;
- *Section 4* gives a baseline overview;
- *Section 5* provides an assessment of impacts and mitigation;
- *Section 6* summarises the residual impacts and significance;
- *Section 7* contains the figures including:
 - *Figure 1* shows the site location;
 - *Figure 2* gives an Ordnance Survey map showing the location of the site; and
 - *Figure 3* gives a Phase 1 Habitat Survey map for the site.
- *Section 8* gives photographs of the site;
- *Section 9* lists the references; and
- *Appendix A* lists key legislation and regulations; and
- *Appendix B* gives the results of the Hampshire Biodiversity Information Centre (HBIC) data search for protected and notable species records.

3.1 Outline of Methodology

The Ecological Impact Assessment (EcIA) involved the following stages:

- scoping, involving desk study to define the scope of the assessment and following accepted survey practises;
- identifying the zone of influence arising from the whole lifespan of the project;
- identifying and evaluating the ecological resources and features likely to be affected;
- identifying the biophysical changes likely to affect valued ecological resources (VERs);
- assessing whether these changes will have a significant impact upon the integrity of a defined site or ecosystem, and/or the conservation status of habitats or species within a given geographical area, including cumulative impacts;
- incorporating ecological enhancement measures and mitigation measures to avoid or reduce negative impacts, and compensation measures for any residual significant negative impacts; and
- assessing the significance of residual ecological impacts of the proposed project.

3.2 Establishment of Baseline**3.2.1 Desk Based Assessment**

Information relating to nature conservation within and outside of the site was collated from statutory and non-statutory bodies. Information relates to statutory and non-statutory wildlife sites, habitats, features and corridors, and notable and protected species.

3.2.2 Sources of Information

A search was made of all available reference materials relating to the ecology of the site. Information on statutory (those that are internationally and nationally important sites for ecology) and non-statutory designated sites (those that are important in a local context); notable species, and any other additional details that may be relevant to the project, were requested from the local biological records centre (Hampshire Biodiversity Information Centre) for a search area of 1km of from the site. Additional sources on the internet, such as the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk) were also consulted. The search area for this was 2km for LNRs, NNRs and SSSIs and 5km for SACs, SPAs and Ramsar sites, as specified in Hampshire's *Biodiversity Checklist*.

Species included in the search parameters are:

- species that are protected by international law;
- species listed in European directives and legislation;
- nationally protected species under *Schedules 1, 5 and 8 of the Wildlife & Countryside Act 1981*, the *Protection of Badgers Act 1992* (as amended) and the *Deer Act 1991*;

- species listed as Critically Endangered, Endangered or Vulnerable on the *IUCN Red List*;
- all species listed on the RSPB *Birds of Conservation Concern 2015* as Red or Amber; and
- Nationally Rare or Nationally Scarce species.

HBIC has its own extensive database of habitat and higher plant data for the county. In addition, it holds copies of datasets belonging to partner organisations. Through data exchange agreements with these organisations HBIC is provided with regular database updates and can supply species information on their behalf. HBIC currently holds copies of the following datasets:

- Botanical Society of the British Isles' (BSBI) vascular plant database for Hampshire;
- British Bryological Society (Mosses, Liverworts, Hornworts);
- Butterfly Conservation's butterfly and moth database for Hampshire;
- Hampshire Ornithological Society (HOS) bird records;
- Hampshire Bat Group (HBG) Records of bat roost visits and sightings;
- Survey data administered by the Hampshire and Isle of Wight Wildlife Trust (HIWWT):
 - Monitoring Survey for the Nail Fungus (*Poronia punctata*); and
 - Alien and Native Crayfish.
- Data administered by the Hampshire and Isle of Wight Wildlife Trust (HIWWT) on behalf of the species recording groups below:
 - Hampshire Amphibian and Reptile Recording Network (HARRN); and
 - Hampshire Mammal Group (HMG) (excluding records for bats and badgers).
- Hampshire records from The Bees, Wasps and Ants Recording Society (BWARS);
- Hampshire records from National Stag Beetle Surveys and 'Great Stag Hunts' run by the Peoples Trust for Endangered Species (PTES);
- Hampshire Odonata records from The Dragonfly Recording Network, maintained by the British Dragonfly Society (BDS);
- Spider and Fungi records gleaned from collections housed and curated by the Hampshire Cultural Trust (HCT);
- Independent Hampshire Entomologist's records; and
- Earthworm Society of Britain's records

The data includes protected and notable species records from the above datasets within the search area recorded in the last 15 years. For plants this has been extended to 30 years, for bats there is no time restriction.

3.2.3 Ecological Surveys

A Phase 1 Habitat Survey was carried out by John Wenman Ecological Consultancy LLP in October 2013. Following this a National Vegetation Classification (NVC) survey was carried out in the woodland survey on the 24th April 2014 and the grassland survey was carried out on the 12th June 2014. An update to the Phase 1 Habitat Survey was carried out by John Wenman Ecological Consultancy LLP on the 22nd May 2018.

Hampshire Ecological Services Ltd has undertaken a number of surveys on the Tournerbury Woods Estate, including a breeding bird survey in 2014, and heronry surveys in 2015 and 2019.

The breeding bird surveys were carried out on five days between 16th May and 13th June 2014.

The 2015 heron surveys were carried out on three days between 27th March and 17th April 2015.

The 2019 heronry surveys were carried out on three days between 29th March and 23rd April 2019.

Details of the methodologies used in the various surveys are given in the relevant report.

3.3 Identification and Assessment of Impacts and Mitigation Measures

3.3.1 General

Important ecological receptors were identified through desk study and field surveys using professional judgment and best practice guidance. Potential impacts were identified from consideration of receptor sensitivity in relation to proposals and constraints. Mitigation measures were formulated using best practice techniques and guidance, with due consideration to Hampshire Ecological Services Ltd in-house experience of the success of techniques used in the past.

3.3.2 Assessment of Significance of Residual Impacts

This assessment has been carried out with reference to the 2018 *Guidelines for Ecological Impact Assessment in the UK and Ireland* issued by the Chartered Institute of Ecology and Environmental Management (formerly Institute of Ecology and Environmental Management) with updates in 2019.

Habitats and species that may be affected by the proposed development (referred to as Valued Ecological Receptors - VERs) are given a value which is defined by geographical context, using the following categories:

- international (*i.e.* Europe);
- UK;
- national (*i.e.* England);
- regional (*i.e.* southern England);
- county (*i.e.* Hampshire);
- district (*i.e.* Havant Borough);
- local or parish; and
- site (*i.e.* Tournerbury Woods Estate).

Impacts were evaluated on the basis of the following criteria: the level of confidence associated with the predictions, their extent and complexity, magnitude, duration, reversibility, timing and frequency, and the potential for cumulative effects.

Confidence in predictions (levels of uncertainty)

Consideration is given to the likelihood that an impact will occur as predicted. This describes whether the impact is:

- certain or near certain (probability estimated at 95% or higher);
- probable (probability estimated above 50% but below 95%);
- unlikely (probability estimated above 5% but below 50%); or
- extremely unlikely (probability below 5%).

Magnitude and Extent

Magnitude refers to the size or amount of an impact and is determined on a quantitative basis where possible.

Extent refers to the physical area affected or the geographical pattern of the effect.

When the receptor being considered is the habitat itself, magnitude and extent may be synonymous.

Complexity

Complexity refers to whether the impact is direct or indirect.

Duration

The scale of the impact will also depend upon duration. This is the length of time before which mitigation measures are expected to reverse or instigate recovery of the VER, defined in terms of ecological characteristics (*i.e.* lifecycle of a species) rather than in a human context.

Reversibility of Impact

An irreversible (permanent) impact is one for which recovery is not possible within a reasonable timescale, or for which there is no reasonable chance of action being taken to reverse it.

A reversible (temporary) impact is one for which recovery is possible through natural regeneration, by spontaneous recovery or through the application of mitigation measures.

Timing and Frequency

Timing considers whether the impact will coincide with a critical life cycle stage for a species e.g. breeding season for birds, which may be avoided by scheduling works to commence outside this period.

Frequency considers whether the impact will be occasional or continuous.

Cumulative Effects

The potential for cumulative effects on the VERs takes into account other current proposals, completed projects and, where possible, natural trends.

Geographic Frame of Reference

The value or potential value of a VER is determined within a defined geographical context, for which examples are provided in *Table 3.3.2.1.*

Table 3.3.2.1. Geographic Frame of Reference

Receptor Value	Examples
International	An internationally designated site or candidate site (SPA, SAC, Ramsar site, Biogenetic Reserve) or an area which Natural England has determined meets the published selection criteria for such designation, irrespective of whether or not it has yet been notified. A viable area of a habitat type listed in Annex I of the Habitats Directive, or smaller areas of such habitat which are essential to maintain the viability of a larger whole. A European protected species listed in the <i>Conservation Habitats & Species (Amendment) Regulations 2012.</i>
National	A nationally designated site (SSSI, ASSI, NNR, Marine Nature Reserve) or a discrete area, which Natural England has determined meets the published selection criteria for national designation (<i>e.g.</i> SSSI selection guidelines) irrespective of whether or not it has yet been notified. A viable area of a priority habitat, or of smaller areas of such habitat which are essential to maintain the viability of a larger whole; this could include a network of ancient species-rich hedgerows or even small groups of ancient trees. Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. <i>i.e.</i> it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK or of uncertain conservation status or of global conservation concern. A regularly occurring, nationally significant population/number of any internationally important species.
Regional	Viable areas of key habitat identified as being of Regional value in the appropriate Natural Area profile. Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or relevant Natural Area on account of its regional rarity or localisation. A regularly occurring, locally significant number of a species identified as

Receptor Value	Examples
	important on a regional basis. Any regularly occurring population of a nationally important species (for example, a species of principal importance for biodiversity under Section 74 of the CROW Act (2000)) which is threatened or rare in the region.
County	County Council/Unitary Authority designated sites and other sites which the designating authority has determined meet the published ecological selection criteria for designation, including Local Nature Reserves selected on defined ecological criteria and Wildlife Trust sites. A regularly occurring, locally significant number of a species identified as important on a county/metropolitan basis. Semi-natural woodland greater than 0.5 ha which is considered to be in 'good condition'.
District	Semi-natural woodland greater than 0.25 ha which is considered to be in 'good condition' or greater than 0.5ha in unfavourable condition. Network of inter-connected hedgerows including some species-rich hedgerows. Individual Important hedgerows or other ancient-countryside linear features. Any regularly occurring population of a nationally important species (Section 74) which is not threatened or rare in the region or county. Sites/features that are scarce within the District/Borough or which appreciably enrich the District/Borough habitat resource. Other features identified as wildlife corridors or migration routes.
Local	Semi-natural woodland smaller than 0.25 ha. Diverse and/or ecologically valuable hedgerows. Diverse and/or ecologically valuable grassland. Habitat included in an agri-environment scheme but not otherwise containing species or habitats listed above. Common species legally protected primarily for reasons of animal welfare (badger, reptiles). Established semi-natural or artificial habitats of limited ecological value when assessed in isolation but which offer a range of opportunities for widespread and commonly occurring species within the wider landscape.
Site	Features of value to the immediate area only.

Assessment of Significance

Impacts are defined as being positive, neutral or negative. Whether or not an impact is significant, is independent of the value of the receptor. A significant impact is defined as an impact on the

integrity of a defined ecosystem and/or the conservation status of habitats or species within a given geographical area.

Significance of the impact is determined at the geographical level at which the resource has been valued. If an impact is determined as being not significant at this level then it is considered at progressively lower levels.

3.4 *Legislation and policy context*

3.4.1 *Key legislation and regulations*

Table 3.4.1.1 sets out key wildlife legislation underpinning the conservation of habitats and species. More detail of the legislation relating to species and groups of species is provided in Appendix A.

Table 3.4.1.1. Key Legislation and Regulations.

Act/Regulation	Key Relevant Provisions
The Berne Convention on Conservation of European Wildlife and Natural Habitats, 1979	Aims to conserve wild flora and fauna and their natural habitats, particularly endangered and vulnerable species. It applies at EC level by <i>EC Directive Conservation of Natural Habitats and of Wild Fauna and Flora, 1992</i> . In the UK it has effect through the <i>Countryside Act, 1968</i> and the <i>Wildlife and Countryside Act, 1981</i> . Among likely species, great crested newt, otter and all bats (except pipistrelle) are included in <i>Appendix 2</i> , while pipistrelle bat and badger are included in <i>Appendix 3</i> .
The Bonn Convention on Conservation of Migratory Species of Wild Animals, 1979	Aims for management of migratory species across national or jurisdictional boundaries. This Convention is implemented in UK law by the <i>Environmental Protection Act, 1990</i> . All bats are included in <i>Appendix 2</i> .
The EC Directive on Conservation of Wild Birds, 1979 (The 'Birds Directive')	Requires Member States to take measures for the conservation of wild birds by the designation of Special Protection Areas (SPAs). Implementation was primarily through the <i>Wildlife and Countryside Act, 1981</i> (as amended), but has since been amended by the Habitats Directive (below) and is now fully implemented in the UK through the <i>Conservation Habitats & Species Regulations 2017</i> (as amended) (below).
The Wildlife and Countryside Act, 1981 (the WaCA)	Strengthened protection for SSSIs, provided additional safeguards for particular types of area, and restricted the killing, taking from the wild and disturbance of various species. All UK wild bird species are protected under this

Act/Regulation	Key Relevant Provisions
	Act, which makes it an offence to damage or destroy the birds themselves, their eggs or their nests whilst they are in use. Extra protection is given to birds on <i>Schedule 1</i> . Other species (including all bats and otter) are protected under <i>Schedules 5</i> and <i>6</i> while great crested newt only has protection under <i>Schedule 5</i> , and badger under <i>Schedule 6</i> . Water voles and their habitats are protected under <i>Schedule 5</i> in one of several amendments.
The Convention on Biological Diversity, 1992	Objectives are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits of the utilisation of genetic resources. The UK's non-statutory strategy for achieving these commitments was published in 1994, <i>Biodiversity – The UK Action Plan</i> . Priority Species in the Action Plan include all bats, water vole, brown hare, otter and great crested newt, amongst others. The <i>Countryside and Rights of Way Act, 2000</i> now creates a legal requirement for Government Departments and Ministers to have regard to the purpose of conserving and enhancing biodiversity.
The EC Directive on Conservation of Natural Habitats and of Wild Fauna and Flora, 1992 (The 'Habitats Directive')	Contributes to the conservation of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species at favourable conservation status by the designation of Special Areas of Conservation (SACs). It gives greater protection for various species. Great crested newt, otter and some bat species are listed in <i>Annexes 2</i> and <i>4</i> , while bat species are listed in <i>Annex 4</i> only. It modifies the Birds Directive.
Conservation Habitats & Species Regulations 2017 (as amended) (The 'Habitats Regulations', or 'Conservation Regulations')	Gives UK implementation to the <i>Conservation Habitats & Species Regulations 2017</i> (as amended). They amend planning legislation to implement the Habitats Directive by affecting applications for planning permission and all other consents and orders by which permission is given to develop land. They introduce a review procedure for plans and projects likely to significantly affect a European site, and licensing requirements for developments that may affect European species for example all bats, otter and great crested newt.
National Parks and Access to the Countryside Act, 1949	Introduced the concept of National Nature Reserves and SSSIs, important for their flora and fauna, geological or physiographical features, and conferred powers on local authorities to create nature reserves. <i>The Countryside Act</i> ,

Act/Regulation	Key Relevant Provisions
	<i>1968</i> strengthened many powers under the 1949 Act and imposed on every minister, government department and public body a duty to have regard to the desirability of conserving the natural beauty and amenity of the countryside in the exercise of their functions relating to land.
The Environmental Protection Act, 1990	Established 3 country conservation councils (English Nature - now Natural England), Countryside Council for Wales (now Natural Resources Wales) and Scottish Natural Heritage) and the Joint Nature Conservation Committee to succeed the Nature Conservancy Council; and provided further protection for SSSIs.
Protection of Badgers Act, 1992	Badgers are protected under the <i>Protection of Badgers Act, 1992</i> (as amended), which makes it unlawful for either an animal or its sett to be damaged or disturbed.
The Hedgerow Regulations, 1997	Made under <i>Section 97</i> of the <i>Environment Act, 1995</i> they require prior consent for the removal of either the whole or parts of a hedgerow if it is in or runs alongside agricultural land, common land including town or village greens, land used for forestry or for the breeding or keeping of horses etc., a local nature reserve or SSSI. The criteria upon which a hedgerow may be classed as Important relate to wildlife and landscape or archaeology and history.
The Countryside and Rights of Way Act, 2000 (The CROW Act)	The Act covers the right of access to open land, updates to the public rights of way system, the legislation of the Biodiversity Action Plan, more stringent management, protection and consenting measures for SSSIs, greater penalties for wildlife crime, and new duties within Areas of Outstanding Natural Beauty. In addition, the Act lists species and habitats of principal importance for biodiversity (<i>Section 74</i> species and habitats)
The Natural Environment and Rural Communities Act, 2006 (The NERC Act)	As well as creating Natural England, <i>Section 40</i> of this act imposes a new duty on all public authorities to have regard for conserving biodiversity within the commission of their duties, this includes a duty to restore and enhance as well as maintain biodiversity. The act also strengthens protection for SSSI and makes authorities liable for allowing damage to such sites or their features.

3.4.2 National planning context

Surveys should be completed in line with Natural England's *Standing Advice for Local Authorities* (<https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications>). It should be noted:

- Natural England will not comment on applications that are submitted without the relevant protected species surveys (see flowchart) if there are no other issues (*i.e.* in relation to SSSIs or landscape).
- Natural England will not comment on scoping surveys that recommend further surveys where these have not been undertaken and submitted with the scoping reports.

In addition to the above, *Section 40* of the *Natural Environment and Rural Communities Act* (2006) imposes a new duty on all public authorities to have regard for biodiversity.

3.4.3 National Planning Policy Framework (NPPF)

From the 19th February 2019, the Government published the revised National Planning Policy Framework. The document sets out the government's planning policies for England and how these are expected to be applied. This replaces a previous version which was published in March 2012. It states: "at the heart of the Framework is a presumption in favour of sustainable development (paragraph 11)."

Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):

- an economic objective;
- a social objective; and
- an environmental objective.

The environmental objective is to "contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy".

Planning policies and decisions should contribute to and enhance the natural and local environment by "protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan)" and "minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures".

If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused. Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted.

Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists. It states that *"development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity"*.

It should be noted that *"presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site"*.

The NPPF also encourages *"minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"* and aims to *"promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity"*. This applies to non-statutory designated sites including Sites of Importance for Nature Conservation (SINCs) and equivalent county wildlife sites. Early engagement with all necessary stakeholders, including expert bodies, is encouraged by the NPPF.

3.4.4 Natural Environment and Rural Communities (NERC) Act

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.

There are 943 species of principal importance included on the S41 list. These are the species found in England which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006 "to have regard" to the conservation of biodiversity in England, when carrying out their normal functions. In particular:

- Local Planning Authorities will use it to identify the species and habitats that should be afforded priority when applying the requirements of planning policy to maintain, restore and enhance species and habitats.

- Local Planning Authorities will use it to identify the species and habitats that require specific consideration in dealing with planning and development control, recognising the aim of planning decisions should be to avoid harm to all biodiversity.
- All Public Bodies will use it to identify species or habitats that should be given priority when implementing the NERC Section 40 duty.

3.4.5 *Core Strategy – Havant Borough Local Plan Review 2011*

In the adopted Local Plan the site is identified as being a non-built up area, a site of international/national nature conservation and an Area of Outstanding Natural Beauty (AONB). The site is also part of the Chichester & Langstone Harbour, which is designated as a Site of Special Scientific Interest (SSSI) and as a Special Area of Conservation (SAC) protected under European legislation.

3.4.6 *Ecological Impact Assessment guidelines*

This Ecological Impact Assessment (EcIA) takes account of the Chartered Institute of Ecology and Environmental Management (previously Institute of Ecology and Environmental Management) *Guidelines for Ecological Impact Assessment in the UK and Ireland* (2018).

3.5 *Scoping Criteria*

The habitat on the site was initially assessed to determine whether or not it is suitable for those protected vertebrates that occur in the region.

An assessment was made of the likelihood of protected vertebrates using the site. Taking into consideration the geographical region and habitat type, species and groups that might be encountered are:

- bats;
- dormice;
- great crested newts;
- otter;
- water vole;
- badger;
- breeding birds (including amber and red list Birds of Conservation Concern); and
- reptiles.

3.6 *Limitations to the assessment*

3.6.1 *Uncertainty and technical difficulties encountered*

The CIEEM *Guidelines for Ecological Impact Assessment in the UK & Ireland* (CIEEM, 2018) were issued in 2018 with updates in 2019. It is possible that others may interpret and apply the guidelines in a slightly different way.

Not all plant and animal species are visible throughout the year and therefore the survey reports represent snapshots of the site at the time of the survey only. The plant species recorded should not be considered a comprehensive list of species present.

The names, qualifications and experience of the surveyor(s) were not cited in the John Wenman Ecological Consultancy LLP reports other than “*a full member of the Chartered Institute of Ecology and Environmental Management*”. Protected species were not assessed in these reports.

3.6.2 Further surveys

It was not possible to complete all the relevant surveys required within the timeframe for submission of this report. Surveys to be completed in the upcoming survey season include the following:

- Inspections of Woods Cottage and trees within the development footprint to establish their bat roost suitability.
- Bat foraging and commuting surveys to ascertain likely impact on behaviour.