



Photograph 5a & 5b. Views of the hedgerow sections on the southern boundary of the land north of Sun Lane.

3.3 Badgers

3.3.1 Survey Results





3.3.3 Interpretation

3.4 Bats

3.4.1 Natural Roost Features – Trees

A ground level tree assessment was conducted in October 2025, identifying two trees with potential roosting features for bats. These trees, their location and their features along with survey recommendations if removal is proposed can be found in Table 4 and Figure 10.

Table 4. Trees with potential roost features for bats.

Tree ref.	Species	Grid Reference	Description of features	Survey findings
T1	Ash	SU 71988 63081	Medium-sized ash with knot hole in the north-western aspect of the trunk, approximately 2.5m above ground.	PRF-I – aerial inspection of potentially suitable roosting features recommended if tree is to be removed.
T2	Ash	SU 71988 63081	Medium-sized ash with fissures identified on the underside of a branch extending from the north-western aspect, approximately 4.5m above the ground.	PRF-I – aerial inspection of potentially suitable roosting features recommended if tree is to be removed.



Figure 10. Aerial image indicating the location of trees with bat roosting potential within the application site. Images produced courtesy of Magic maps (<http://www.magic.gov.uk/>, contains public sector information licensed under the Open Government Licence v3.0).

3.4.2 Bat Activity Surveys – Walked Transects

Survey conditions and timings are presented in Table 5. The results of each walked transect survey is summarised in Figures 11 and 12. This shows the distribution of all bat observations on each walked transect, during which the route was covered at least three times in a session.



Table 5. Walked transect metadata: dates, times, temperature, weather conditions. BF= Beaufort Scale, cc= Cloud cover.

Date	Survey start time/end time	Temp. degrees centigrade, weather conditions	Surveyors
16/07/25	21:13-23:13 Sunset: 21:13	Max/min temp.: 19.5°C 80% cloud cover, BF0, dry.	Ben Small Roxanne Cook
30/09/25	18:45-20:26 Sunset: 18:45	Max/min temp.: 15-12°C 15% cloud cover, BF0-1, dry	Ben Small Holly Waters
April 2026	TBC		

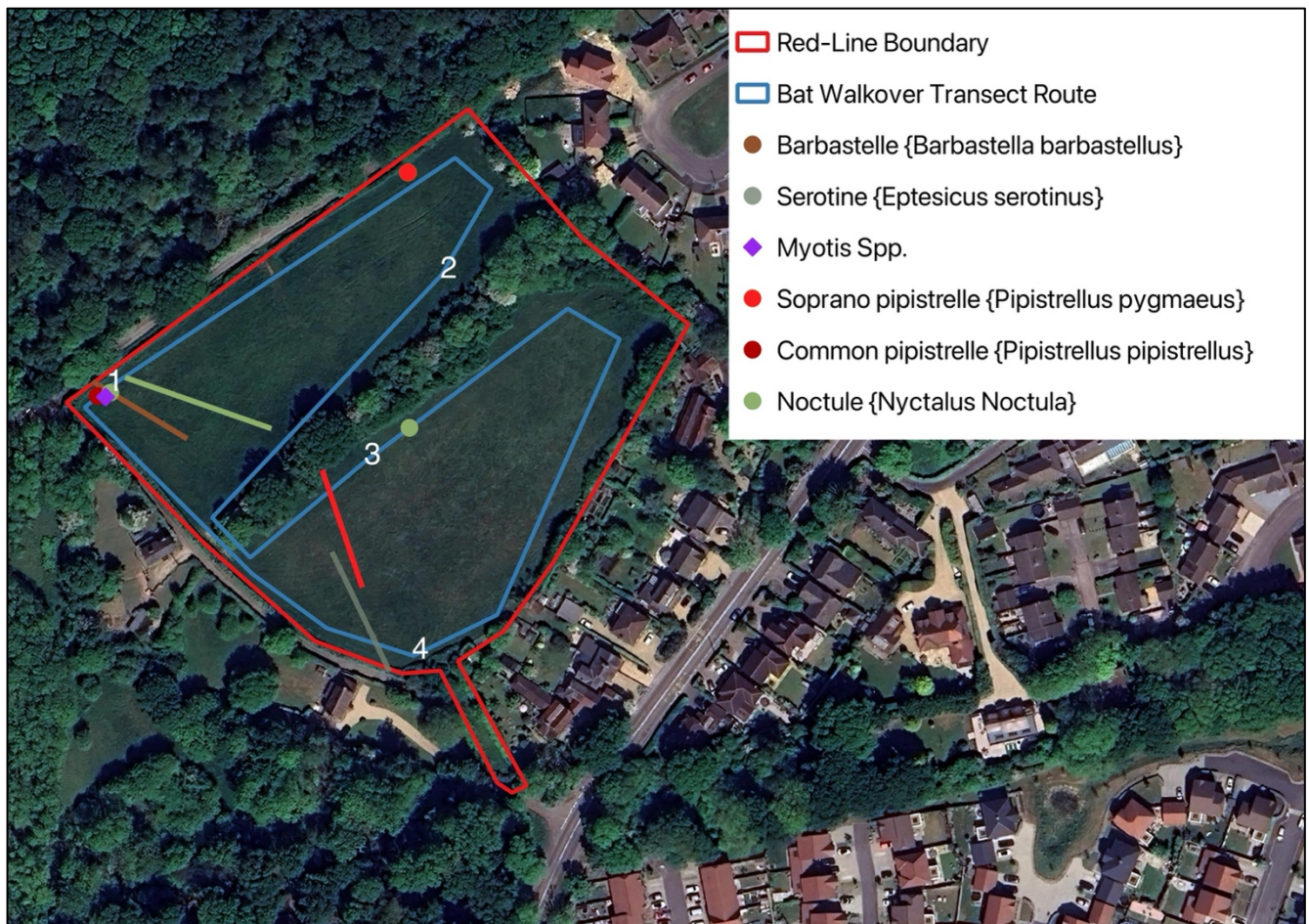


Figure 11. Approximate distribution of bats detected during the bat walkover survey on 16th July 2025. Coloured dots represent bat activity. Images produced using QGIS software, version 3.34 – Prizren.

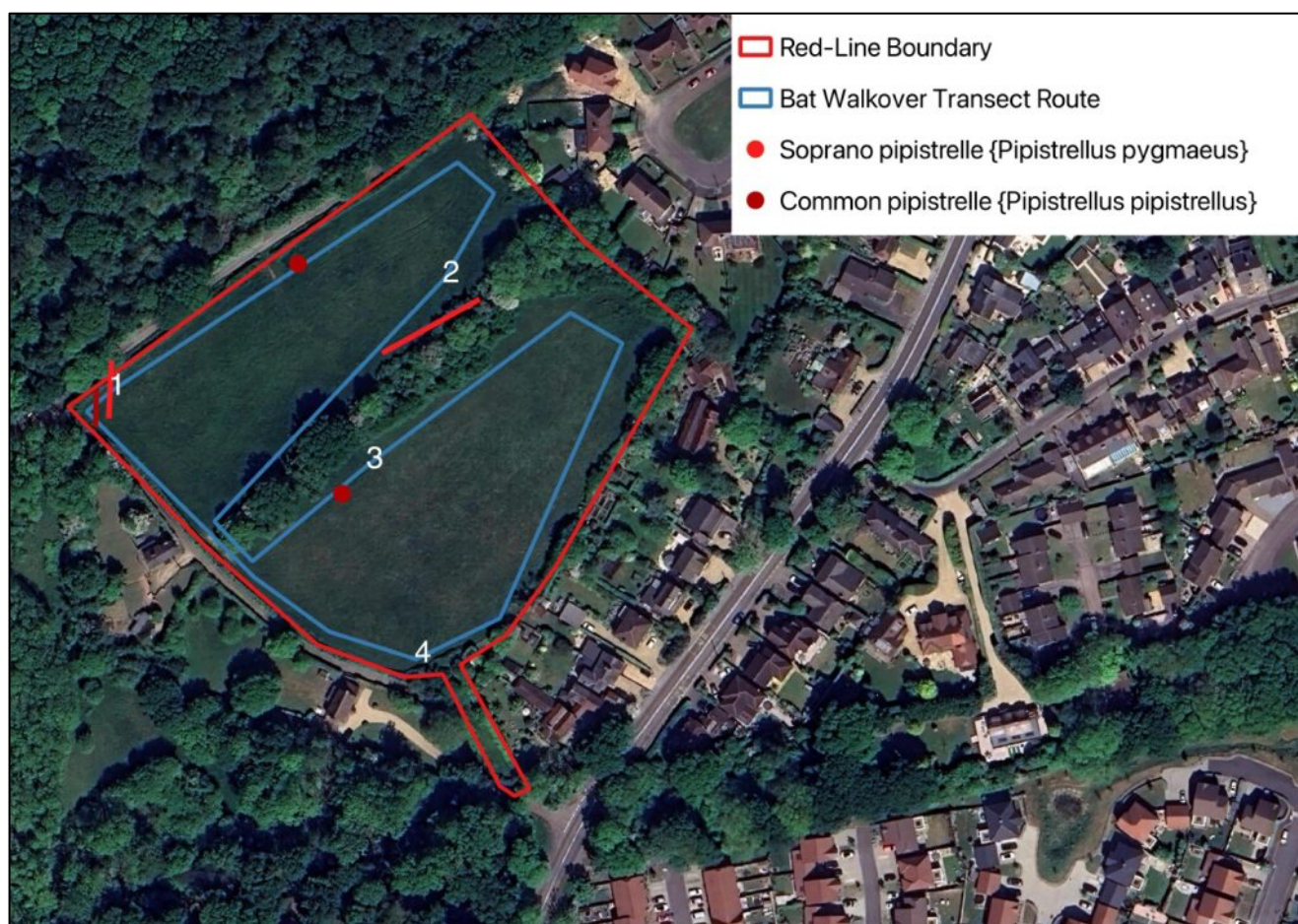


Figure 12. Approximate distribution of bats detected during the bat walkover survey on 30th September 2025. Coloured dots represent bat activity. Images produced using QGIS software, version 3.34 – Prizren.

3.4.3 Bat Activity Surveys – Automated Static Bat Detecting

The results of the automated static bat detector surveys are summarised in Table 6.

Table 6. Mean number of passes recorded by each static detector (rounded to nearest whole number) per night.

Location	Date	Common pipistrelle	Soprano pipistrelle	Nathusius pipistrelle	Long-eared	Barbastelle	Myotis sp.	Serotine	Noctule
South-western Corner Hedgerow	July 2025 (5 nights)	21.8	19.6	0.2	5.7	2.6	2.4	6	12.2
	August 2025 (5 nights)	30.6	40	0	119	1	3	7	20.2
	September 2025 (5 nights)	0.2	1.4	0.2	1.2	0.2	0.2	0	0.4
	October 2025 (5 nights)	4.4	2.6	0	2.2	0.8	3	0.4	0.8
	April 2026	–	–	–	–	–	–	–	–
	May 2026	–	–	–	–	–	–	–	–
	June 2026	–	–	–	–	–	–	–	–
Central	July 2025 (5 nights)	30.4	8.2	0	7.8	2.6	5.4	5.4	7.6
	August 2025 (5 nights)	13.6	14.2	0.4	51	4.8	4.2	4.2	4.4
	September	10	11.4	0	13.6	29.8	0.8	0	10 (±2)



Line of Trees	2025 (5 nights)								
	October (5 nights)	2	2.2	0	13.8	0.2	1.6	0	1.6
	April 2026	–	–	–	–	–	–	–	–
	May 2026	–	–	–	–	–	–	–	–
	June 2026	–	–	–	–	–	–	–	–

3.4.4 Pre-existing Records

The HBIC and TVERC records searches indicate the presence of serotine *Eptesicus serotinus*, noctule *Nyctalus noctule*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *pipistrellus pygmaeus*, Nathusius' pipistrelle *Pipistrellus nathusii*, brown long-eared bat *Plecotus auritus*, Daubenton's bat *Myotis daubentonii*, and barbastelle *Barbastella barbastellus* within 2km of the site.

3.4.5 Interpretation

The bat activity surveys completed in 2025 indicate that the main areas of importance for commuting bats are the northern hedgerow and central line of trees. The static loggers indicate that the site boundaries and the central line of trees are frequently utilised by common and soprano pipistrelles, long-eared bats, noctule and barbastelle bats (with the central line of trees regularly utilised during the September deployment). Additionally, Nathusius' pipistrelle, *Myotis* bats and serotine were also recorded using these habitats, likely for commuting purposes due to the lower average number of passes per night. The conservation status of bats recorded at the site is detailed in Table 7, along with their local distribution.

Due to the presence of barbastelle and serotine, both classed as 'vulnerable', the site is considered important to bats at a **district** level.

Table 7. Conservation status and distribution of bats recorded on site.⁸

Species	Conservation status England	Distribution in England
Barbastelle	Vulnerable	South and central England
Serotine	Vulnerable	South and south-east of England
Common pipistrelle	Least concern	Widespread
Soprano pipistrelle	Least concern	Widespread
Brown long-eared	Least concern	Widespread
Noctule	Least concern	Widespread
<i>Myotis</i> species	Least concern (common species)	Widespread

⁸It is not possible to identify the species of *Myotis* without droppings for DNA analysis or the capture of a live animal.

3.5 Breeding Birds

Further surveys with regards to breeding birds are scheduled for April-July 2026. The results and impact assessment for breeding birds will therefore be provided once these are completed.

⁸ The Mammal Society (2020): <https://www.mammal.org.uk/science-research/red-list/>



3.6 Dormice

3.6.1 Nest-tube Survey

The survey findings, dates of checks, weather conditions are presented in Table 8. The nest tube survey confirmed the presence of dormouse through the discovery of a nest on the north-western boundary hedgerow (see Figure 13). Another mouse (*Apodemus*) species was found to be using the nest tube on the south-western boundary, with additional food caches identified on the south-eastern boundaries.

Table 8. Results of the dormouse surveys completed at the land north of Sun Lane.

Date	Start time	Air temp. °C	Weather conditions	Results
19/08/25	10:00	18°C	100% cc, BF2, Dry	<i>Apodemus</i> species nest found on south-western boundary, food cache found on south-eastern boundary
12/09/25	09:30	12°C	70% cc, BF0, Dry	Dormouse nest found on north-western boundary Food caches found in south-western corner and on south-eastern boundary
22/10/25	08:30	16°C	50% cc, BF1, Dry	Dormouse nest confirmed on the north-western boundary (same location as previous survey)

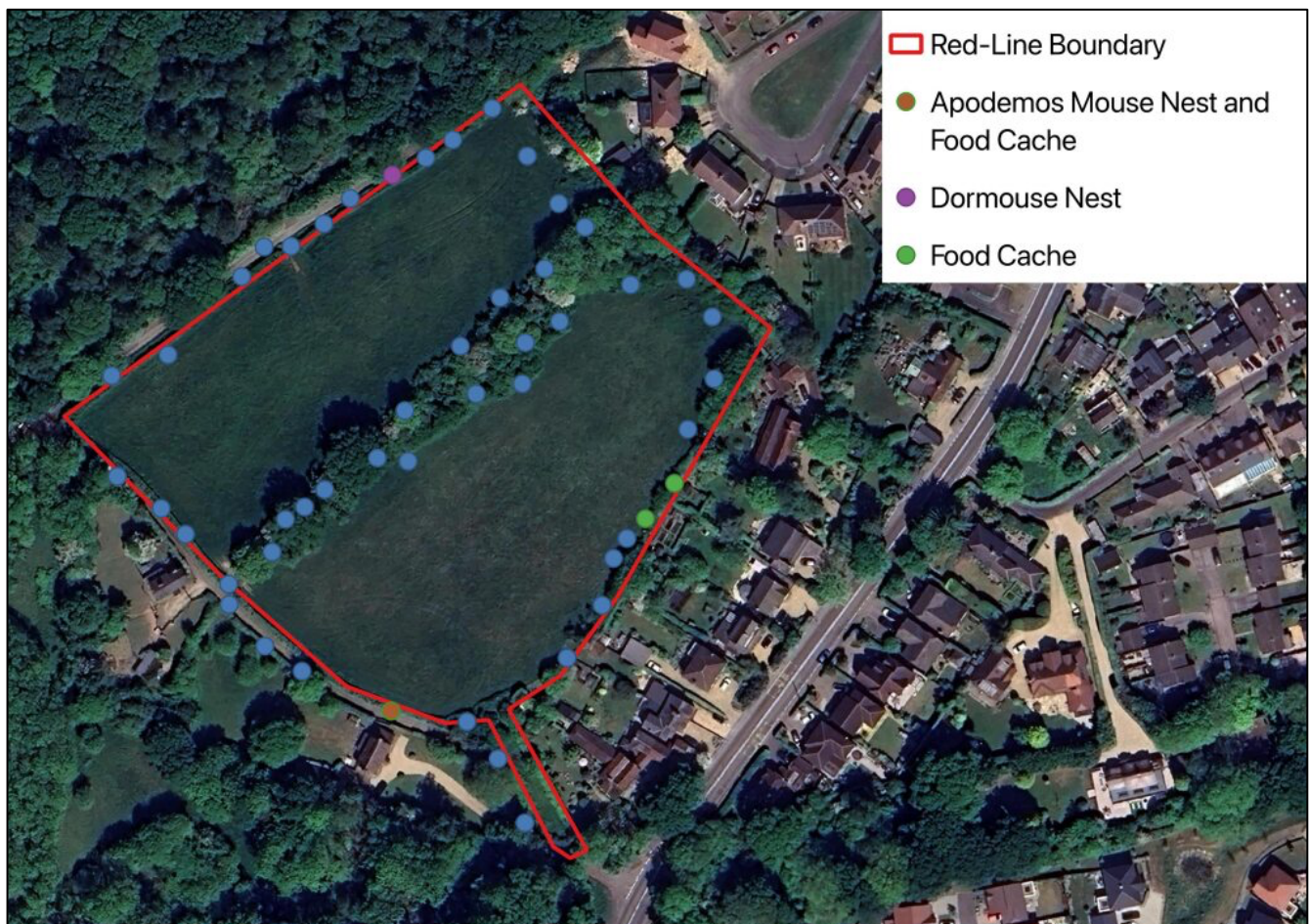


Figure 133. Dormouse survey results, with confirmed dormouse nests (purple dot), *Apodemus* mouse species with a food cache (brown dot with green outline) and food caches (green dots), as well as the other nest tubes that were discovered to be empty (blue dots). Images produced using QGIS software, version 3.34 – Prizren.



3.6.2 Pre-existing Records

Two records of dormouse were returned in the TVERC records search, located 0.2km and 0.3km to the south-east of the site. While no records of this species were provided by HBIC Biodiversity Records Centre, this species is known to be under-recorded and could occur in any suitable habitat in Hampshire.

3.6.3 Interpretation

The surveys confirmed the presence of dormice on site. Whilst dormice are a conservation priority species in the UK and a European protected species, they are relatively common and widespread in South East England. Given that the population at the site probably represents a small proportion of the local population of this species, the site is considered to be important to dormice at a **local level**.

3.7 Great Crested Newts

3.7.1 Survey Results

Six ponds are situated within 500m of the site, with the closest of these situated approximately 160m south-east of the site boundary, although this is separated from the site by residential housing which reduces the likelihood of newts crossing from this pond on to the site.

The site has suitability to support great crested newts during their terrestrial phase, with the long grassland, scrub, and hedgerows providing sheltering opportunities for this species. However, access to the site from nearby ponds is obstructed by residential development and major roads, and as such it is unlikely that great crested newts are present on site. No great crested newts or common toads were identified incidentally during the further surveys in 2025.

3.7.2 Pre-existing Records

The TVERC records search returned eight records of great crested newts, with the closest of these situated 1.4km north of the site; records of palmate *Lissotriton helveticus* and smooth newts *Lissotriton vulgaris* were also returned. The HBIC biodiversity records search did not return any records of great crested newts or other amphibians within proximity to the site.

3.7.3 Interpretation

It is highly unlikely great crested newts will be present on site, despite the suitable habitat present. The site is therefore considered to be of **negligible** importance to great crested newts and they are not considered any further within this assessment.

3.8 Reptiles

3.8.1 Survey Results

The survey findings, dates and conditions are presented in Table 9 below. No reptiles were found during the surveys.

**Table 9.** Reptile survey results. BF= Beaufort Scale, cc= Cloud cover.

Date	Start time	Air temp. °C	Refugia temp. °C	Weather conditions	Results
19/08/25	09:00	17°C	22.7°C	100% cc, BF2, Dry	No reptiles
22/08/25	09:30	12°C	14.2°C	70% cc, BF0, Dry	No reptiles
27/08/25	08:30	16°C	19°C	50% cc, BF1, Dry	No reptiles
09/09/25	10:45	17°C	20°C	50% cc, BF2, Dry	No reptiles
12/09/25	10:15	16°C	16°C	0% cc, BF1, Dry (but had rained night before)	No reptiles
15/09/25	10:30	15°C	16.5°C	50% cc, BF3, Dry	No reptiles
23/09/25	09:40	10°C	10.5°C	70% cc, BF1, Dry	No reptiles

3.8.2 Pre-existing Records

The TVERC records search returned three records of grass snake within 2km of the site, with the closest of these situated 1.5km north-west of the site. The HBIC biodiversity records search did not return any records of reptiles.

3.8.3 Interpretation

The surveys confirmed a likely absence of reptiles on site, despite the suitable habitat present. The site is therefore considered to be of **negligible** importance to common reptiles and they are not considered any further within this assessment.

3.9 Invasive Non-native Species

3.9.1 Survey Results

No Schedule 9 species were identified during the surveys, although non-native Persian ivy was found in a hedgerow section on the southern boundary.

3.9.2 Pre-existing Records

The HBIC biodiversity records search indicates the presence of multiple invasive non-native species within 2km of the site. Seven of these were bird species including Egyptian goose *Alopochen aegyptiacus* and Canada goose *Branta canadensis*, two fish species: carp *Cyprinus carpio* and rainbow trout *Oncorhynchus mykiss*, 12 plant species including giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera*, one crustacean: signal crayfish *Crangonyx pseudogracilis/floridanus* and three mammal species: muntjac *Muntiacus reevesi*, grey squirrel *Sciurus carolinensis* and American mink *Neovison vision*, within 2km of the site.

3.9.3 Interpretation

As Persian ivy is not a Schedule 9 species, it likely presents a risk to be significant at a **site level** only and it is thus not considered further within this assessment.



3.10 Other Notable Species

3.10.1 Survey Results

No notable invertebrate or mammal species have been identified on the site during the 2025 surveys, and while suitable habitat for hedgehogs and brown hare is present on site in the scrub, hedgerow and grassland, additional high value habitat for these species is present within the wider landscape.

3.10.2 Pre-existing Records

The HBIC and TVERC searches indicate the presence of hedgehog and brown hare within 2km of the site.

3.10.3 Interpretation

Hedgehogs and brown hare are relatively common and widespread, and there is extensive similar habitat within the surrounding landscape. Therefore, the site is only considered to be of value to these species at the **site level** and they are not considered further within this assessment.

4 IMPACT ASSESSMENT

In this section, the predicted impacts and effects of the proposed scheme are described for each important ecological feature in turn. This is based on the best available information, both on the baseline ecological condition and on the method of construction, timescale and other development/planning constraints known at the time. The significance of the impact on nature conservation is recorded in accordance with CIEEM guidance and the degree of uncertainty relating to the occurrence and severity of an impact is discussed.

The illustrative proposed scheme has all matters reserved except for access for the construction of up to 44 dwellings, including affordable housing together with access, landscaping and associated infrastructure. In its current design the scheme will include removal of sections of the south-western boundary hedgerow of the site and central line of trees.

Activities that will occur during the proposed construction and operational phases that could give rise to significant ecological impacts include:

Construction:

- direct harm from pollution, noise, lighting, vibration and the movement of people and construction machinery
- soil compaction
- habitat severance caused by construction works on-site
- habitat destruction during site clearance activities

Post construction/operation:

- permanent habitat loss
- chronic disturbance from noise, lighting, vibration and the movement of people, vehicles on-site; risk of traffic collisions
- increased recreational use of adjacent habitats and nearby designated sites leading to soil compaction, human/dog disturbance, littering, physical damage to trees



- increase in numbers of people and pets on site.

4.1 Designated Sites

4.1.1 Impact Characterisation

The site is situated within 2km of Stanford End Mill and River Loddon SSSI, The Marshes LNR and Swallowfield Meadow LNR, with several SINCs and LWSs also within close proximity. The illustrative proposed development allows for the construction of up to 44 residential dwellings, which would likely result in an increase of recreational pressure on these designated sites.

4.1.2 Significance of Effects

Based on the above, in the absence of mitigation the illustrative proposed development will likely cause negative impacts upon designated sites, considered to be significant at the **regional level**.

4.2 Priority Habitats

4.2.1 Impact Characterisation

The illustrative development will result in the direct loss of other neutral grassland, with some areas of hedgerow, scrub and a line of trees also potentially being lost. Although direct impacts on the remaining habitats will be unlikely, during the construction phase there is the potential for damage due to dust deposition, digging and manoeuvring of heavy machinery, resulting in damage of roots and compaction of root zones.

Post-construction, occupancy of the residential development could result in increased recreational pressure on the remaining areas of other neutral grassland, hedgerow, scrub and line of trees. This could lead to trampling of vegetation, soil compaction, littering, fly tipping, damage to trees, disturbance to wildlife, pollution of the watercourse, and increased nutrient levels from pet fouling, as a result of increased site use by residents. The adjacent Coldharbour Wood (priority deciduous woodland) and St Leger's Copse (ancient woodland) may also be impacted by increased recreational pressure and associated impacts from the development.

4.2.2 Significance of Effects

The extensive loss of other neutral grassland will result in a **negative impact** significant at the **local level**, in the absence of mitigation or compensation. The loss of hedgerow, scrub and line of trees will result in a **negative impact** significant at a **site level**, in the absence of mitigation. The degradation of retained habitats on site as a result of increased footfall and littering will result in a **negative impact** significant at a **site level**.

4.3 Bats

4.3.1 Impact Characterisation

It is understood that the proposed scheme will not affect any buildings that are known to support roosting bats or that have potential roosting features suitable for bats. Therefore, no direct impacts on bat roosts in buildings is predicted. The scheme does have potential to impact on bats roosting in trees, although the scale of this impact is unclear until the location and scale of tree clearance is known. Further surveys (either tree climbing inspections using an endoscope, or bat emergence surveys), will be required to assess the potential for affected trees to



support roosting bats in advance of the scheme.

The illustrative proposed development has potential to result in disturbance to commuting and foraging bats, both during construction and in the long term after completion, through increased artificial lighting, disruption of commuting corridors and direct loss of the other neutral grassland habitat that could be an important source of insect prey for bats. The impact of the development on the surrounding habitats must also be considered, particularly with respect to artificial lighting. The following species were determined to be using the site for commuting and foraging purposes and therefore will be impacted: common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, long-eared bats, *Myotis* species, serotine, noctule and barbastelle.

4.3.2 Significance of Effects

The bat activity surveys identified the presence of at least eight bat species on site, including notable species such as barbastelle and serotine bats. The removal of sections of the hedgerows and line of trees will result in the loss of potential commuting features for these species, with the potential to cause severance impact upon these species in the absence of mitigation. The significance of the impact on roosting bats will need to be assessed following the recommended surveys of any trees to be directly impacted by the proposed plans.

Foraging activity at the site comprises mostly common species, although barbastelle bats were identified to frequently use the central line of trees during the September deployment, and occasional passes of serotine was also recorded. While serotine and barbastelle are classed as 'vulnerable', given the presence of suitable alternative foraging habitat in the woodland to the north-west and south-west of the site, the loss of foraging habitat on site will have a negative impact on bats not expected to be significant beyond the **local level**.

4.4 Common Dormice

4.4.1 Impact Characterisation

A dormouse nest was identified on the northern boundary hedgerow of the site, with previous records of and EPS licences granted for this species within the surrounding area. Given that all hedgerows, scrub and the central line of trees are well-connected to each other, this species should be considered to be present in all of these habitats within the site. Dormice are rare and vulnerable to extinction in the UK.

The illustrative proposed development will remove areas of the boundary hedgerow and the central line of trees. Clearance of vegetation prior to construction has the potential to result in direct harm to dormice and destruction of their nests and young, if carried out during the breeding season.

As dormice are nocturnal, the illustrative proposed development has the potential to result in disturbance, during the construction and operational phases, through increased artificial lighting. The development will likely also result in an increased predation risk from cats.

4.4.2 Significance of Effects

Based on the local status of this species, these impacts are predicted to result in significant negative impacts to dormice at a **local level**. Furthermore, these impacts would constitute an offence under current wildlife legislation.



4.5 Cumulative Effects

4.5.1 Impact Characterisation

Currently there are no plans to complete the development in stages, and as such no cumulative effects are anticipated. If plans are updated to complete the development in phases, an updated assessment will be needed to assess potential cumulative effects.

4.5.2 Significance of Effects

At this current stage there are no plans to complete the development in stages, and as such it is considered that any cumulative effects of the development would be **negligible**.

5 MITIGATION PROPOSALS

5.1 Designated Sites

5.1.1 Impact Avoidance

The illustrative proposed development has all matters reserved except for access for the construction of up to 44 dwellings, and appropriate amenity space should be included within the proposal to discourage homeowners and dog walkers from visiting the adjacent St Leger's Copse/Collins Copse LWS and Coldharbour Wood SINC, as well as nearby Stanford End Mill and River Loddon SSSI, The Marshes LNR and Swallowfield Meadow LNR.

5.1.2 Mitigation Measures

The creation of other green space may therefore be required to provide a suitable alternative and discourage residents from travelling to these sites. Given the relatively large scale of the illustrative proposal and close proximity of some of the SINCs, mitigation measures for construction phase impacts such as dust, lighting, physical damage, vibration and noise may need to be detailed in a separate Construction and Environment Management Plan (CEMP), to ensure these do not adversely impact these designated sites.

The site also lies 2.3km west of Thames Valley Basin Heath SPA, with a Habitat Regulations Assessment (HRA) produced by The Ecology Co-op in January 2026⁹ advising a contribution to the Local Authority's Suitable Alternative Natural Greenspace (SANG) to ensure there are no residual likely significant effects on this site.

5.1.3 Residual Effects

Even with the mitigation measures in place the illustrative proposed development could still result in increased recreational pressure on the nearby LWSs, SINCs, SSSIs and LNRs through the creation of up to 44 new dwellings. With contribution to a SANG there are expected to be no residual effects upon Thames Basin Heath SPA.

5.1.4 Compensation Measures

The design of appropriate public amenity spaces within the development should discourage residents to visit the nearby LWSs, SINCs, SSSIs and LNRs and minimise recreational pressure on these non-designated and

⁹ The Ecology Co-op (2026). *P10586 Land North of Sun Lane Shadow HRA Issue Rev01*.



designated sites.

5.2 Priority Habitats

5.2.1 Impact Avoidance

In the first instance the other neutral grassland, scrub, hedgerows and line of trees should be retained where possible. Any proposed ground works construction works or landscaping work within the root protection zones (RPZ) of the trees within the retained line of trees must be undertaken using hand tools only, in accordance with specialist arboriculturist advice. The retained line of trees and hedgerows will be protected by the installation of barrier fencing (such as Heras fencing) outside the Root Protection Areas (RPAs), and permanent and temporary ground protection as required, in accordance with specialist arboriculturist advice.

5.2.2 Mitigation Measures

The implementation of mitigation measures to be included within the CEMP should also cover impacts upon these habitats.

5.2.3 Residual Effects

There will be a permanent loss of other neutral grassland, as well as likely losses of sections of scrub, hedgerow and a line of trees on site.

5.2.4 Compensation Measures

A Biodiversity Impact Calculation (BIC) will be required for the site to demonstrate a 10% net gain in biodiversity on site, as required by Wokingham Borough Council¹⁰ and Hart District Council¹¹. A Habitat Management and Monitoring Plan (HMMP) will also be required to set out processes for maintenance of habitats created.

New scrub planted with native species could be planted at roadside verges and site boundaries, while species-rich hedgerows could be planted between residential properties (see Appendix 4 for a full list of recommended species). Once established these would provide ecologically valuable habitat to compensate for any removed during the proposed development. Removal of non-native Persian Ivy *Hedera colchica* from the southern boundary hedgerow will also improve this hedgerow's ecological value.

5.3 Bats

5.3.1 Impact Avoidance

There will be an unavoidable loss of grassland habitat which supports the invertebrate prey of bats, and fragmentation of the central hedgerow which is currently used as a commuting flight patch for bats.

Further surveys will be required if the development requires the removal of any trees with bat roosting features.

¹⁰ Wokingham Borough Council (2025). *What is biodiversity net gain (BNG) and when is it happening?*. Available online at: <https://www.wokingham.gov.uk/planning/how-apply-permission/how-apply-planning-permission/what-biodiversity-net-gain-bng-and-when-it-happening>

¹¹ Hart District Council (2020). *Hart Local Plan (Strategy and Sites) 2032*. Available online at: <https://www.hart.gov.uk/planning-and-building-control/planning-policy/plans-and-policies>



5.3.2 Mitigation Measures

To mitigate for impacts resulting from artificial light, it is important that the proposed scheme incorporates a 'sensitive lighting plan' developed as part of the detailed design, in accordance with the guidelines set out by the Bat Conservation Trust (summarised in Appendix 5). This should include measures to create dark corridors along boundary hedgerows and central line of trees, as well as measures to minimise light spill onto all semi-natural habitats. All street lighting should be directed downwards and light sources that are not attractive to insects should be used. Reflective white line marking should be used in preference to artificial lighting in all non-essential applications.

5.3.3 Residual Effects

There will be a permanent loss of grassland habitat at the site and potential fragmentation of the boundary hedgerows and central line of trees.

5.3.4 Compensation Measures

Addition of new species-rich hedgerows around the site will increase the commuting suitability of the site and will increase the insect diversity, mitigating for some of the loss of grassland foraging habitat.

To enhance the development site and encourage roosting bats, the development will incorporate a minimum of 15 artificial bat roosts, either to be integrated into the new building design, or to be installed on the surrounding trees. See Figure 14 for examples of artificial bat roosts. These will be secured through addition into a Landscape and Ecology Management Plan (LEMP).



Figure 14. Left to right, 1FR Schwegler bat tube, and its appearance once installed in a group of three, Beaumaris Woodstone Bat Box and Improved Crevice Bat Box, with other brands available at many on-line wildlife stores. The Beaumaris and Improved Crevice Bat Boxes may be attached to trees or buildings.

5.4 Common Dormouse

5.4.1 Impact Avoidance

The illustrative proposed development is likely to cut into the boundary hedgerows and central line of trees and fragment these habitats. In the event this occurs (and these impacts are unavoidable), a European Protected Species (EPS) licence must be obtained from Natural England for the development to legally proceed. The development proposals will need to illustrate that they can satisfy the three 'derogation tests' under Regulation 53



(e) of the Conservation of Habitats and Species Regulations can be met, through a clear illustration that the conservation status of this species can be preserved through the development.

5.4.2 Mitigation Measures

Details of the mitigation measures will be set out in a method statement submitted with the licence application at an appropriate time before construction and habitat restoration works commence. In accordance with best practice guidance, this is likely to involve timing clearance of all vegetation above ground in winter, during the hibernation period for dormice, followed by excavation/stump removal in the following spring when they are active. All vegetation/stump clearance should be preceded by fingertip searches for dormouse nests of all potentially suitable features (e.g., coppice stools, hedgerows, accumulations of leaf litter, log piles and debris) by a suitably qualified ecologist.

5.4.3 Residual Effects

The above mitigation measures will prevent harm to individual dormice during site clearance and construction. However, there will be a residual loss of suitable dormouse habitat that cannot be avoided. In order to meet the licence conditions, this loss of habitat will require compensation to ensure that the conservation status of dormice is maintained despite the loss of habitat.

5.4.4 Compensation Measures

The development will include a planting scheme of hedgerows that will benefit dormice and compensate for the minimal vegetation removal noted above.

Further, dormouse nest boxes (Figure 15) can be used to installed within the retained sections of the central line of trees to provide nesting opportunities for these species.



Figure 15. An example of a dormouse box as sold by NHBS.



6 CONCLUSIONS

A summary of the EclA process is presented in Table 10 below.

Table 10. EclA summary table for the land north of Sun Lane.

Ecological feature	Importance	Impact characterisation	Level of significance	Avoidance/ Mitigation	Residual effects	Compensation
Stanford End Mill and River Loddon SSSI	National	Construction impacts through dust and noise pollution. No direct loss but indirect damage through increased recreation pressure	Regional	CEMP to minimize construction risks. Incorporation of amenity green.	Increased footfall	N/A
The Marshes LNR	National	As above	Local	As above	Increased footfall	N/A
Swallowfield Meadow LNR	National	As above	Local	As above	Increased footfall	N/A
Thames Basin Heath SPA	International	No direct loss but indirect damage through increased recreation pressure, site is over 2km from the site.	Regional	As above	Increased footfall	Financial contribution to relevant LPA's SANG
Coldharbour Wood SINC	County	Construction impacts through dust and noise pollution. No direct loss but indirect damage through increased recreation pressure	County	As above	Increased footfall	N/A
St Leger's Copse, Collins Copse LWS	County	As above	County	As above	Increased footfall	N/A
New Inn Copse SINC	County	As above	County	As above	Increased footfall	N/A
Highgrove Copse LWS	County	As above	County	As above	Increased footfall	N/A
Birchen Copse and Mill Wood SINC	County	As above	County	As above	Increased footfall	N/A
Wellington Country Park Lakes SINC	County	As above	County	As above	Increased footfall	N/A
The Marshes LWS	County	As above	County	As above	Increased footfall	N/A
Beaumi's Castle Wood and Moat LWS	County	As above	County	As above	Increased footfall	N/A
Habitats contained within site	Local	Direct loss of large area of other neutral grassland and sections of scrub, boundary hedgerow and line of trees	Local	CEMP for scheme. Heras and solid boarding to protect habitats. Maintenance and management plan to be included within a LEMP	Loss and fragmentation of habitat	Biodiversity enhancements recommend in creation of additional scrub and hedgerow
Badgers	Site	N/A				
Foraging and commuting bats	District	Temporary loss of foraging habitat and change of habitat characteristics	Local	Sensitive lighting scheme	Site	Planting of species-rich hedgerow and installation of bat boxes



Ecological feature	Importance	Impact characterisation	Level of significance	Avoidance/ Mitigation	Residual effects	Compensation
Roosting bats	District	To be assessed following further survey of trees if they are to be impacted by the development				
Bat assemblage in adjacent woodland habitat	Unknown	Disturbance and deterioration of habitat quality through increased recreation pressure	Uncertain-potentially district	Ecologically sensitive lighting design	Site	N/A
Breeding bird assemblage on development site	To be established following surveys in 2026					
Breeding bird assemblage in adjacent woodland habitat	To be established following surveys in 2026					
Common dormouse population	Local	Harm caused by clearance of vegetation and disturbance by artificial lighting	Local	European Protected Species (EPS) licence for removal of vegetation. Sensitive lighting scheme	Loss of habitat	Planting of species-rich hedgerows and installation of dormouse boxes
Great crested newts and Common Toads	Site	N/A				
Common reptiles	Negligible	N/A				
Other Notable Species	Site	N/A				
Invasive Non-native Species	Site	N/A				



APPENDIX 1 – LEGISLATION AND POLICY

Introduction

The following text is intended for general guidance only and does not constitute comprehensive professional legal advice. It provides a summary of the current legal protection afforded to wildlife in general and certain species. It includes current national planning policy relevant to nature conservation.

The ‘Birds Directive’, ‘Habitats Directive’ and ‘Natura 2000 Sites’

The Council Directive 79/409/EEC on the Conservation of Wild Birds (“the Birds Directive”) sets a framework for the protection of wild birds. Under the Directive, several provisions are made including the designation and protection of ‘Special Protection Areas’ (SPAs) – areas which support important bird populations, and the legal protection of rare or vulnerable species.

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the “Habitats Directive”) directs member states of the EU to take measures to maintain the favourable conservation status of important habitats and species. This requires the designation of a series of sites which contain important populations of species listed on Annex II of the Directive. Together with ‘Special Areas of Conservation’ (SACs), SPAs form a network across Europe of protected areas known as the ‘Natura 2000’.

Annex IV lists species in need of more strict protection, these are known as “European Protected Species (EPS)”. All bat species, common dormice *Muscardinus avellana*, otter *Lutra lutra* and great crested newts *Triturus cristatus* are examples of EPS that are regularly encountered during development projects.

The ‘Habitats Regulations’

The Conservation of Habitats and Species Regulations 2017, as amended (the Habitats Regulations”) is the principle means of transposing the Habitats Directive and the Birds Directive, and updates the Conservation (Natural Habitats, &c.) Regulations 1994 (“the 1994 regulations”) in England and Wales.

‘Natura 2000’ sites, now known as National Site Network sites under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, receive the highest level of protection under the Regulations which requires that any activity within the zone of influence of these sites would be subject to a Habitats Regulations Assessment (HRA) by the competent authority (e.g. planning authority), leading to an Appropriate Assessment (AA) in cases where ‘likely significant effects’ to the conservation objectives are identified.

For European Protected Species, Regulation 41 makes it a criminal offence to:

- deliberately capture, injure or kill any such animal;
- deliberately disturb wild animals of such species;
- deliberately take or destroy their eggs (where relevant);
- damage or destroy a *breeding or resting place* of such an animal;
- possess, control, sell or exchange any live or dead animal or plant, of such species;
- deliberately pick, collect, cut, uproot or destroy a wild plant of such species.

The Habitats Directive and Habitats Regulations provide for the derogation from these prohibitions for specific reasons provided certain conditions are met. An EPS licensing regime allows operations that would otherwise be unlawful acts to be carried out lawfully. Natural England is the licensing Authority and, in order to grant a license,



ensures that three statutory conditions (sometimes referred to as the 'three derogation tests') are met:

- a licence can be granted for the purposes of "preserving public health or safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment" (Regulation 53 (2) (e));
- a licence can be granted if "there are no satisfactory alternatives" to the proposed action;
- a licence shall not be granted unless the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Wildlife and Countryside Act (1981) as amended

The Wildlife and Countryside Act (1981)¹² remains one of the most important pieces of wildlife legislation in the UK. There are various schedules to the Act protecting birds (Schedule 1), other animals including insects (Schedule 5), plants (Schedule 8), and control of invasive non-native species (Schedule 9).

Under the Wildlife and Countryside Act (WCA) 1981, all wild birds (with the exception of those listed on Schedule 2), their eggs and nests are protected by law and it is an offence to:

- take, damage or destroy the nest of any wild bird while it is in use or being built
- take or destroy the egg of any wild bird
- disturb any bird listed on Schedule 1, while it is nest building, or at a nest with eggs or young, or disturb the dependant young of any such bird.

Schedule 5 lists all non-avian animals receiving protection to a varied degree. At its strongest, the Act makes it an offence to intentionally kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturb animals while occupying such places. Examples of species with *full protection* include all EPS, common reptile species, water vole *Arvicola amphibius*, white-clawed crayfish *Austropotamobius pallipes* and Roman snail *Helix pomatia*. Other species are protected from sale, barter or exchange only, such as white letter hairstreak *Satyrrium w-album*.

The Act makes it an offence to intentionally pick, uproot or destroy any plant or seed, and sell or possess any plant listed on Schedule 8. It is also an offence to intentionally uproot any wild plant not listed on Schedule 8 unless authorised [by the land owner]. Species on Schedules 5 and 8 are reviewed every 5 years when species can be added or removed.

Measures for the prevention of spreading non-native species which may be detrimental to native wildlife is included in the Act, which prohibits the release of animals or planting of plants into the wild of species listed on Schedule 9 (for example Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandifera*, New Zealand Pygmyweed *Crassula helmsii*).

The Wildlife and Countryside Act 1981 (as amended) also prohibits certain inhumane methods of traps and devices for the capture or killing of wild animals and certain additional methods such as fixed trap, poisoning with gas or smoke, or spot-lighting with vehicles for killing species listed on Schedule 6 of the Act (this includes all bat species, badger, otter, polecat, dormice, hedgehog and red squirrel).

Natural Environment and Rural Communities (NERC) Act (2006)

¹² Wildlife and Countryside Act (WCA) (1981). HMSO London.



The NERC Act (2006)¹³ places a statutory duty under Section 40 on all public bodies, including planning authorities, to take, or promote the taking by others, steps to further the conservation of *habitats and species of principal importance for the conservation of biodiversity* in England (commonly referred to as the 'Biodiversity Duty'). This duty extends to all public bodies the biodiversity duty of Section 74 of the Countryside and Rights of Way (CROW) Act 2000, which placed a duty only on Government and Ministers. Section 41 lists the habitats and species of principle importance. This includes a wide range of species from mosses, vascular plants, invertebrates through to mammals and birds. It originates from the priority species listed under the UK Biodiversity Action Plan (UK BAP) with some omissions and additions.

Environment Act (2021)

The Environment Act sets a target of halting the decline in species through the inclusion of a legally binding 2030 species abundance target. Aiming to restore natural habitats and enhance biodiversity, the Act requires new developments to improve or create habitats for nature (through mechanisms such as mandatory Biodiversity Net Gain), and tackle deforestation. Going forwards, UK businesses will need to look closely at their supply chains as amongst other measures they will be prohibited from using commodities associated with wide-scale deforestation. Woodland protection measures are also strengthened through the Act.

The Act enables the reform of the Habitats Regulations and further improves protection for nature through the establishment of Local Nature Recovery Strategies that support national Nature Recovery Networks. In addition, the Act provides for the production of Protected Site Strategies and Species Conservation Strategies, aimed at supporting the design and delivery of strategic approaches to deliver better outcomes for nature.

Protection of Badgers Act (1992)

The Badger *Meles meles* is afforded specific legal protection in Britain under the Protection of Badgers Act (1992)¹⁴, and Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) (see above).

Under this legislation, it is a criminal offence to:

- intentionally kill, injure, take, possess, or cruelly ill-treat, a Badger, or to attempt to do so;
- interfere with a sett, by damaging or destroying it;
- to obstruct access to, or any entrance of, a badger sett; or
- to disturb a badger when it is occupying a sett.

A licence may be obtained from Natural England to permit certain prohibited actions for a number of defined reasons including interference of a sett for the purpose of development, provided that a certain number of conditions are met. Note that licenses are not normally granted for works affecting badgers between the end of November and the start of July.

National Planning Policy Framework

The National Planning Policy Framework (NPPF 2024)¹⁵ sets out the Government's view on how planners should balance nature conservation with development and helps ensure that Government meets its biodiversity commitments with regard to the operation of the planning system.

Paragraph 192b, states that council plans should “*promote the conservation, restoration and enhancement of*

¹³ Natural Environment and Rural Communities Act (2006). HMSO London.

¹⁴ Protection of Badgers Act (1992). HMSO London.

¹⁵ HM Government (2024). National Planning Policy Framework. Department for Communities and Local Government. Available online at: <https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf>.



priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."

The Office of the Deputy Prime Minister (ODPM) Circular 06/2005, 2005)¹⁶. In accordance with the NPPF, it is important that developments should contribute to and enhance the natural and local environment by:

- minimising impacts on existing biodiversity and habitats;
- providing net gains in biodiversity and habitats, wherever possible;
- establishing coherent ecological networks that are more resilient to current and future pressures.

UK Post-2010 Biodiversity Framework

The UK Biodiversity Action Plan (UK BAP), published in 1994, was the UK's response to the commitments of the Rio Convention on Biological Diversity (1992). The UK BAP was replaced by the UK Post-2010 Biodiversity Framework. This framework covers the period 2011 to 2020 and forms the UK government's response to the new strategic plan of the United Nations Convention on Biodiversity (CBD) published in 2010. This promotes a focus on individual countries delivering target for protection for biodiversity through their own strategies.

The most recent biodiversity strategy for England, 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services' was published by Defra (2011)¹⁷, and a progress update was provided in July 2013 (Defra 2013)¹⁸.

'Biodiversity 2020' builds on the Natural Environment White Paper for England – 'The Natural Choice', published on 7 June 2011, and sets out the strategic direction for biodiversity policy for the next decade.

Biodiversity 2020 deliberately avoids setting specific targets and actions for local areas because Government believes that local people and organisations are best placed to decide how to implement the strategy in the most appropriate way for their area or situation.

Birds of Conservation Concern (BoCC)

In 1996, the UK's leading non-governmental bird conservation organisations reviewed the conservation status of all bird species in the UK against a series of criteria relating to their population size, trends and relative importance to global conservation. The lists, known as the 'Red', 'Amber' and 'Green' lists (in order of decreasing concern) are used to inform key conservation policy and decisions. The lists are reviewed every five years and are a useful reference for determining the current importance of a particular site for birds. The most recent review was undertaken in 2021¹⁹ (Stanbury et al, 2015), which provides an up to date assessment of the conservation status of birds in the UK.

¹⁶ HM Government (2005) ODPM Circular 06/05 Government Circular: *Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf.

¹⁷ Defra (2011) Biodiversity 2020: A strategy for England's wildlife and ecosystem services. Available at: <https://www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services>.

¹⁸ Defra (2013) Progress Update. Available at: <https://www.gov.uk/government/publications/biodiversity-2020-simple-guide-and-progress-update-july-2013>.

¹⁹ Stanbury, A., Eaton, M., Aebischer, N., Balmer, N., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021). Birds of Conservation Concern 5: the status of bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man. *British Birds* 114, pp 723-747.



APPENDIX 2 – WOKINGHAM BOROUGH COUNCIL AND HART DISTRICT COUNCIL LOCAL PLANNING POLICIES

Wokingham Borough Council Adopted Core Strategy Development Plan Document (January 2010).

Policy Number/Title	Policy Summary
CP7 - Biodiversity	Sites designated as of importance for nature conservation at an international or national level will be conserved and enhanced and inappropriate development will be resisted. The degree of protection given will be appropriate to the status of the site in terms of its international or national importance. Development: A) Which may harm county designated sites (Local Wildlife Sites in Berkshire), whether directly or indirectly, or B) Which may harm habitats or, species of principle importance in England for nature conservation, veteran trees or features of the landscape that are of major importance for wild flora and fauna (including wildlife and river corridors), whether directly or indirectly or; C) That compromises the implementation of the national, regional, county and local biodiversity action plans will be only permitted if it has been clearly demonstrated that the need for the proposal outweighs the need to safeguard the nature conservation importance, that no alternative site that would result in less or no harm is available which will meet the need, and: i) Mitigation measures can be put in place to prevent damaging impacts; or ii) Appropriate compensation measures to offset the scale and kind of losses are provided.
CP8 - Thames Basin Heaths SPA	Development which alone or in combination is likely to have a significant effect on the Thames Basin Heaths Special Protection Area will be required to demonstrate that adequate measures to avoid and mitigate any potential adverse effects are delivered.

Hart Local Plan (Strategy and Sites) 2032 (April 2020).

Policy Number/Title	Policy Summary
NBE2 - Landscape	Development proposals will be supported where there will be no adverse impact to: Important local and natural features such as trees, woodlands, hedgerows, water features e.g., rivers and other landscape features and their function as ecological networks
NBE3 – Thames Basin Heaths Special Protection Area	New development which is considered to have a likely significant effect on the ecological integrity of the Thames Basin Heaths Special Protection Area (TBHSPA) will be required to demonstrate that adequate measures will be implemented to avoid or mitigate any potential adverse effects. When considering development proposals for residential or similar forms of development



	the following principles will apply: • There is an 'exclusion zone' set at 400m linear distance from the TBHSPA boundary. Permission will not be granted for development causing a net increase in residential units within this zone unless it is demonstrated through an Appropriate Assessment that there will be no adverse effect on the integrity of the TBHSPA; • There is a "zone of influence" set between 400m and 5km linear distance from the THSPA boundary. Mitigation measures will be required for all net new dwellings and must be based on a combination of Strategic Access Management and Monitoring (SAMM) and the provision and maintenance of Suitable Alternative Natural Greenspace (SANG); • Residential development of over 50 net new dwellings falling 5-7km from the TBHSPA may be required to provide mitigation measures The provision of SANG will meet the following arrangements: • A minimum of 8 hectares of SANG land should be provided in perpetuity per 1,000 new occupants; • Developments must fall within the catchment of the SANG that provides mitigation, except developments of less than 10 net new residential units
NBE4 – Biodiversity	New development will be permitted provided: • It will not have an adverse effect on the integrity of an international, national or locally designated site including the TBHSPA, SSSIs, SINC, NNRs and LNRs; • It does not result in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless development benefits clearly outweigh the loss; • Opportunities to protect and enhance biodiversity and contribute to wildlife and habitat connectivity are taken where possible, including the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations. All development proposals will be expected to avoid negative impacts on existing biodiversity and provide a net gain where possible If significant harm resulting from a development cannot be avoided, mitigated or, as a last resort, compensated for, in the case of European Protected sites does not comply with the Conservation of Habitats and Species Regulations 2017, then planning permission will be refused.



APPENDIX 3 - IMPORTANCE OF ECOLOGICAL FEATURES

Table 11. Determining importance of an ecological feature.

Level of importance	Criteria
International	Internationally designated site; Special Protected Area (SPA), Special Areas of Conservation (SAC), Ramsar, Biosphere Reserves; Regularly occurring population of internationally important species listed in Annex 1, 2 or 4 of the Habitats Directive and Annex 1 of the Birds Directive; A viable area of a habitat listed in Annex 1 of the Habitats Directive or area important for maintaining viability listed as in Annex 1 of the Habitats Directive; Areas outside designated sites that are important for supporting and maintaining the viability of the above designated habitats and/or species.
National	Nationally designated sites; Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR), Local Nature Reserves (LNR). A sufficiently large population of a species or area of habitat listed as a priority for nature conservation (S41 NERC Act) to make a significant contribution to the national conservation status (e.g. greater than 1% of the national total). A viable or regularly occurring population of a species that is nationally scarce, threatened or declining on a national scale. A habitat type that is nationally scarce, threatened or declining on a national scale.
Regional	A habitat type that is scarce, threatened or declining on a regional scale. A sufficiently large population of a species or area of habitat listed as a priority for nature conservation (S41 NERC Act) to make a significant contribution to the regional conservation status (e.g. greater than 1% of the national total).
County	Locally designated sites; Local Wildlife Sites (LWSs), Sites of Nature Conservation (SNCIs) and Site of Importance for Nature conservation (SINCs). A sufficiently large population of a species or area of habitat listed as a priority for nature conservation (S41 NERC Act) to make a significant contribution to the conservation status of the species at county level (e.g. greater than 10% of the county total). A viable or regularly occurring population of a species that is rare in the county, but may be common and widespread elsewhere, For example, a population at the edge of a species' range. A habitat type that is scarce in a county but may be more frequent elsewhere.
Local/parish	Habitats and species which are scarce in the local area but are sufficiently common and widespread elsewhere that they do not meet the above criteria.
Site/negligible	Habitats with little to no ecological value (e.g. amenity grassland and hardstanding)



APPENDIX 4 - EXAMPLE PLANTING SCHEMES

Table 12. Recommended list of native trees and shrubs

Native trees and shrubs		
	Latin name	Common name
1	<i>Prunus avium</i>	Wild cherry
2	<i>Sorbus aucuparia</i>	Rowan
3	<i>Malus sylvestris</i>	Crab apple
4	<i>Corylus avellana</i>	Hazel
5	<i>Cornus sanguinea</i>	Dogwood
6	<i>Crataegus monogyna</i>	Hawthorn
7	<i>Prunus spinosa</i>	Blackthorn
8	<i>Viburnum opulus</i>	Guelder rose
9	<i>Viburnum lantana</i>	Wayfaring-tree
10	<i>Ilex aquifolium</i>	Holly
11	<i>Rhamnus cathartica</i>	Buckthorn
12	<i>Eunonymus europaea</i>	Spindle
13	<i>Ligustrum vulgare</i>	Wild privet
14	<i>Quercus robur</i>	English oak
15	<i>Betula pendula</i>	Silver birch
16	<i>Prunus avium</i>	Wild cherry
17	<i>Carpinus betulus</i>	Hornbeam
18	<i>Fagus sylvatica</i>	Beech



APPENDIX 5 - ARTIFICIAL LIGHTING AND WILDLIFE

Bright external lighting can have a detrimental impact upon foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Artificial lighting can also cause significant impacts to other nocturnal species, most notably moths and other nocturnal insects. It can also result in disruption of the circadian rhythms of birds, reducing their fitness.

Guidelines issued by the Bat Conservation Trust²⁰ should be referred to when designing the lighting scheme. Note that lighting designs in very sensitive areas should be created with consultation from an ecologist and using up-to-date bat activity data where possible. The guidance contains techniques that can be used on all sites, whether a small domestic project or larger mixed-use, commercial or infrastructure development. This includes the following measures:

Avoid lighting key habitats and features altogether

There is no legal duty requiring any place to be lit. British Standards and other policy documents allow for deviation from their own guidance where there are significant ecological/environmental reasons for doing so. It is acknowledged that in certain situations lighting is critical in maintaining safety, such as some industrial sites with 24-hour operation; however, in the public realm, while lighting can increase the perception of safety and security, measurable benefits can be subjective. Consequently, lighting design should be flexible and be able to fully consider the presence of protected species.

Apply mitigation methods to reduce lighting to agreed limits in other sensitive locations – lighting design considerations

Where bat habitats and features are considered to be of lower importance or sensitivity to illumination, the need to provide lighting may outweigh the needs of bats. Consequently, a balance between a reduced lighting level appropriate to the ecological importance of each feature and species, and the lighting objectives for that area will need to be achieved. The following are techniques which have been successfully used on projects and are often used in combination for best results:

- dark buffers, illuminance limits and zonation;
- sensitive site configuration, whereby the location, orientation and height of newly built structures and hard standing can have a considerable impact on light spill;
- consideration of the design of the light and fittings, whereby the spread of light is minimised ensuring that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Consideration should be given to the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light-spill or require more columns. Column height should be carefully considered to balance task and mitigation measures. Consider no lighting solutions where possible such as white lining, good signage, and LED cat's eyes. For example, light only high-risk stretches of roads, such as crossings and junctions, allowing headlights to provide any necessary illumination at other times;
- screening, whereby light spill can be successfully screened through soft landscaping and the installation of walls, fences and bunding;
- glazing treatments, whereby glazing should be restricted or redesigned wherever the ecologist and lighting

²⁰ Bat Conservation Trust and Institute for Lighting Professionals (2023) Guidance note 08/23. Bats and Artificial Lighting. <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>



professionals determine there is a likely significant effect upon key bat habitat and features;

- creation of alternative valuable bat habitat on site, whereby additional or alternative bat flightpaths, commuting habitat or foraging habitat could result in appropriate compensation for any such habitat being lost to the development;
- dimming and part-night lighting. Depending on the pattern of bat activity across the key features identified on site it may be appropriate for an element of on-site lighting to be controlled either diurnally, seasonally or according to human activity. A control management system can be used to dim (typically to 25% or less) or turn off groups of lights when not in use.

Demonstrate compliance with illuminance limits and buffers

- *Design and pre-planning phase*; it may be necessary to demonstrate that the proposed lighting will comply with any agreed light-limitation or screening measures set as a result of your ecologist's recommendations and evaluation. This is especially likely to be requested if planning permission is required.
- *Baseline and post-completion light monitoring surveys*; baseline, pre-development lighting surveys may be useful where existing on or off-site lighting is suspected to be acting on key habitats and features and so may prevent the agreed or modelled illuminance limits being achieved.
- *Post-construction/operational phase compliance-checking*; as a condition of planning, post-completion lighting surveys by a suitably qualified person should be undertaken and a report produced for the local planning authority to confirm compliance. Any form of non-compliance must be clearly reported, and remedial measures outlined. Ongoing monitoring may be necessary, especially for systems with automated lighting/dimming or physical screening solutions.

Lighting Fixture Specifications

The Bat Conservation Trust recommends the following specifications for lighting on developments to prevent disturbance:

- Lighting spectra: peak wavelength >550nm
- Colour temperature: <2700K (warm)
- Reduction in light intensity
- Minimal UV emitted
- upward light ratio of 0% and good optical control.

Further reading:

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Planning Practice Guidance (2014) When is light pollution relevant to planning? Available at: <https://www.gov.uk/guidance/light-pollution>



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