



FESTIVAL OF LIGHT, LONGLEAT ESTATE, WILTSHIRE

Ecological Appraisal

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1. Introduction

Brief

- 1.1. Engain was commissioned by Longleat Enterprises Ltd (the Client) to update the previous Ecological Appraisal (September 2025)¹ for the Festival of Light consent within Longleat Safari Park.
- 1.2. This Ecological Appraisal presents the findings of an updated ecological survey of habitats within and immediately adjacent to the Festival of Light application boundary conducted on 24th April 2026. The appraisal identifies designated sites, habitats, and protected or notable species that may be affected by the event and provides recommendations for avoidance and mitigation.
- 1.3. The survey updates previous assessments undertaken in 2023, 2024 and 2025. The application boundary and lighting installation set-up for 2026 is the same as the previous year in 2025, with only minor changes to the positioning of lighting installations. The current assessment reflects the proposed 2025/26 light show, including associated car park lighting.
- 1.4. The update was required to review the baseline ecological conditions and to identify any changes that may have occurred since the earlier surveys.
- 1.5. Recommendations in this report are based on current development proposals.
- 1.6. The study comprised the following:
 - A UKHAB/ PEA survey of the site, extended to search for evidence of, and potential for, protected fauna.
 - Identification of potential ecological constraints to the proposed development and assessments of impacts including appropriate mitigation measures where necessary.

¹ Engain (2025) Festival of Light, Longleat Estate, Wiltshire – Ecological Appraisal (eg230058.02_EA_00)

2. Site Location and Project Description

Site Location

- 2.1. The Site is located on the northern half of the Longleat Estate, Wiltshire, within Longleat Safari Park, BA12 7NW, Wiltshire (the Site). The Site location and layout are shown in Figure 1 below.
- 2.2. The area surveyed is across three discrete areas within the Longleat Estate.
- The main festival installations will be installed around Longleat House centred on OS grid reference (OSGR) ST80884306.
 - Temporary accommodation for workers associated with the festival is also to be provided near the Stalls Farm complex centred on OSGR ST80794392.
 - The site entrance at Longcombe Drive will also be decorated with a small number of lighting installations centred on OSGR ST8282143397.



Key:

-  Stalls Farm
-  Main Lighting Installations around Longleat House and Temporary Car Parking
-  Site Entrance at Longcombe Drive

Figure 1, “Longleat Festival of Light Location Plan”

Proposed Development

2.3. The proposals are located across areas of the Estate (see **Figure 2**), similar as for previous years for the Festival of Light. **Figures 3 and 4** show the proposed light show and proposed lighting in car park areas for the 2026/7 show. In summary, the proposals include:

- Two small temporary fabrication tents within section B2 and F1 (1st September 2026 to 8th November 2026);
- Temporary worker accommodation on existing hardstanding to the rear of the Stable Courtyard in section G (1st September 2026 to 31st January 2027);
- Illuminations, light projections, and temporary food and beverage outlets around the house and grounds (6th November 2026 to 6th January 2027), installations will be illuminated between 16:30 and 20:30 (see **Figure 3**);
- Temporary vehicle matting for car parking at B2 (6th November 2026 to 6th January 2027), (see **Figure 4**);
- Temporary mobile lighting units, fitted with directional shields will be placed around the perimeter of the existing and temporary car parks (6th November 2026 to 6th January 2027), (see **Figure 4**);
- Temporary festoon lighting will be placed in the B1 car park (6th November 2026 to 6th January 2027) (see **Figure 4**);
- Wayfinding lighting will comprise low-level bollard or festoon lighting with directional shields to prevent upward light spill (6th November 2026 to 6th January 2027), (see **Figures 3 & 4**);



Figure 2, “Area Locations”

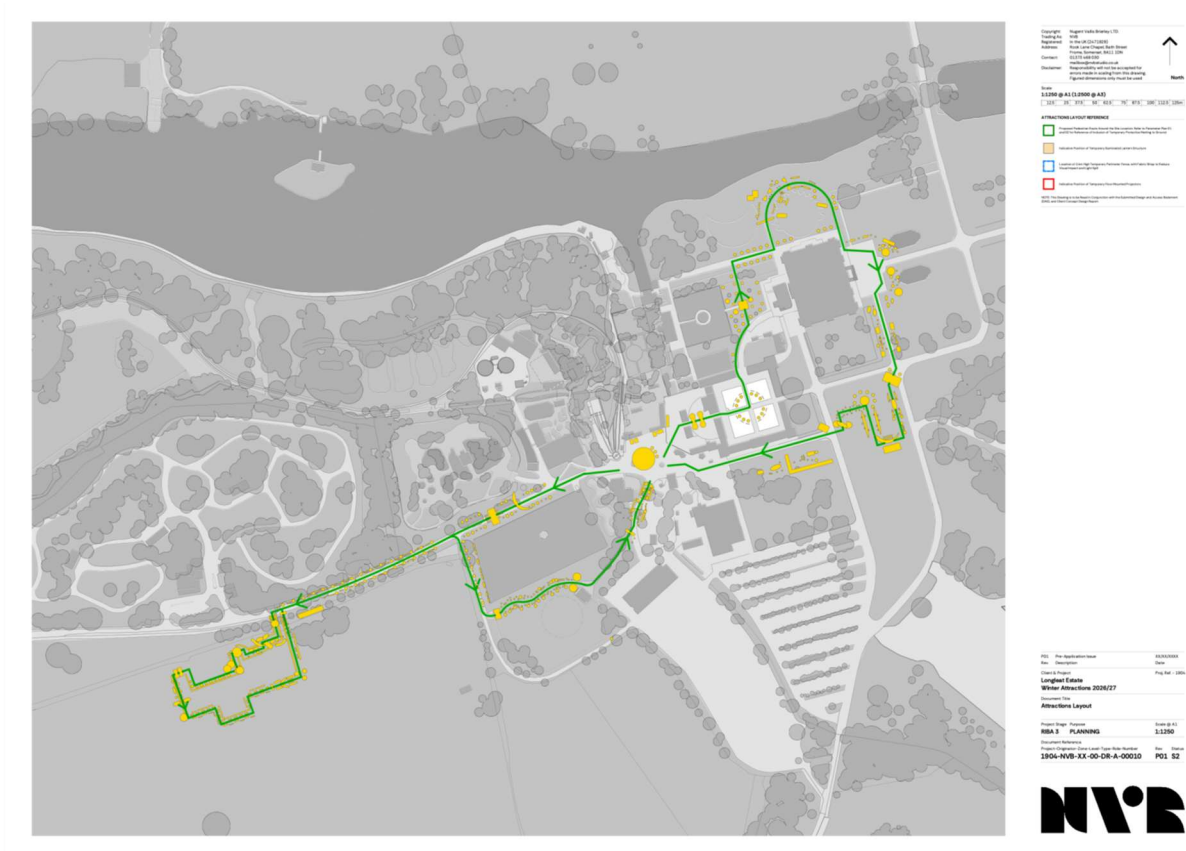


Figure 3, "Proposed Light Show 2026/7"



Figure 4, “Proposed Lighting in Car Park Areas 2026/7”

- 2.4. The proposed development is temporary in nature being operational between 6th November 2026 to 6th January 2027, and will be fully removed following the conclusion of the event.
- 2.5. The scope of this assessment is based on the *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018 2024)², published by the Chartered Institute of Ecology and Environmental Management (CIEEM). The assessment has been prepared in accordance with current best practice standards.

² CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Version 1.3, updated September 2024. Chartered Institute of Ecology and Environmental Management, Winchester.

- 2.6. This assessment is supported by an ecological data search, a desk study to identify notable or protected sites, habitats and species within and around the site, and a field survey to map and describe on-site habitats. The conclusions are further informed by extensive ecological surveys previously undertaken by Engain (2020-2022) across the wider estate in, including dormouse presence/absence surveys (2020-2022), reptile presence/absence surveys (2020), bat transect and static detector surveys and emergence surveys (2020 - 2022), and eDNA sampling of ponds for great crested newts (2020 - 2021). Although these surveys were not all undertaken within the specific areas covered by the Festival of Light application and are over two years old, they provide valuable context and support the evaluation of species likely to be present
- 2.7. The purpose of this Ecological Appraisal is to identify potential ecological constraints associated with the proposals and make any recommendations as required to avoid, mitigate or minimise these.

3. Legislation

UK Legislation

- 3.1. Wildlife in the UK is protected through European Directives, which are transposed into national legislation, supported by a range of national and local policy and guidance. Recent changes in planning policy and legislation have gone beyond site and species-specific protection to set broader goals for the conservation and enhancement of the natural environment and halting the continued loss of biodiversity in the UK.
- 3.2. Development can contribute to these goals through, for example, protecting the best features of a site and making them a valued part of the site's new use, and by incorporating enhancements to improve the site's value for wildlife.
- 3.3. The sections below provide a brief guide to the principal legislation and policy that sets the terms of reference for ecological appraisals in the UK. This is not intended to be a full description of all the obligations enacted by the various referenced documents, which should be referred to in their original form for the full details.
- 3.4. It is the responsibility of those involved with the development works to ensure that wildlife protection and nature conservation legislation is complied with at every stage of the project. Such legislation applies even in the absence of related planning conditions.

Relevant Legislation

- 3.5. The principal pieces of legislation relating to wildlife that are of relevance to this report are:
 - *The Environment Act 2021*
 - *EU Habitats Directive (1992).*
 - *EU Birds Directive (1979).*
 - *Conservation of Habitats and Species (as amended) Regulations 2017.*
 - *The Wildlife and Countryside Act 1981 (as amended).*
 - *The Countryside and Rights of Way Act 2000.*
 - *The Natural Environment and Rural Communities Act 2006.*
 - *The Protection of Badgers Act 1992 (which is extended under The Hunting Act 2004).*

- 3.6. The focus of much of this legislation is the protection of sites and species, the delineation of precisely how they are protected, and what actions would constitute an offence. This report provides guidance on whether any protected features are likely to be affected by the development proposal, and how offences under the legislation can be avoided.

Local Planning Policy

- 3.7. The Wiltshire Core Strategy (2015) is the relevant Local Plan for this project, and Core Policy 50 (Biodiversity and Geodiversity) provides guidelines for the protection and enhancement of the natural environment.

4. Methods

Desk Study

- 4.1. Desktop data obtained from the Wiltshire and Swindon Biological Records Centre (WSBRC) in April 2022 has been relied upon to inform this assessment, supplemented by site-specific records gathered through annual ecological appraisals undertaken by Engain in 2023, 2024 and 2025. Although the formal data search is from 2022, the proposals are temporary in nature, the site has been subject to repeat ecological appraisal each year since 2023, and there has been no material change in surrounding habitats. The dataset is therefore considered appropriate for use in this assessment.
- 4.2. Online resources were also used, including the UK government's online resource for geographic information about the natural environment (MAGIC Map). This and other resources were used to scope the habitat survey at an appropriate scale and level of detail. MAGIC maps and the reports from ecology surveys previously carried out at the site were checked to identify if there were any known or possible locations of rare and/or habitats of high nature conservation priority, including sites of European importance (SACs) within 10km and National importance (SSSIs) within 5km.

Habitat Survey

- 4.3. A habitat survey was conducted on the 24th April 2026 by Daniel Falvey MCIEEM. The field survey method was based on the UK Habitats Classification (2023) version 2.01.
- 4.4. Considering the size of the site and the nature of variation in habitats across the site, the appropriate scale of mapping was determined to be a fine scale Minimum Mapping Unit, meaning no areas of habitats less than 25m² or 5m in length if a linear feature need be recorded.
- 4.5. The Primary Habitats were mapped using the professional edition of the hierarchy, at a minimum of a Level 4 habitat using the UKHabs Habitat Definitions as a guide. Once a Primary Habitat was assigned, a Secondary Code was added to further define the habitat type. Habitats are described with reference to their dominant and constituent species, and their UKHabs codes are given in the relevant sections. In some cases, secondary codes are referred to where there is sufficient variation in the habitat to warrant their use.

Evaluation for Protected/Notable Species

- 4.6. The potential for the Site to support legally protected and notable species has been assessed using the desk study results combined with observations during the field survey.
- 4.7. Badgers (*Meles meles*) are present within the wider estate; however, extensive areas are enclosed by a mammal-proof fence designed to prevent interaction with animals in the safari park. The proposed lighting installations are located outside of this exclusion fence. As the proposals are temporary in nature and do not involve ground works or other activities likely to affect potential sett locations, badgers are not considered further within this appraisal.
- 4.8. There is potential for birds to utilise habitats across the site for nesting e.g. trees and buildings; however, the lighting installation is temporary in nature and will be undertaken outside of the core bird breeding season (March - August inclusive). Breeding birds are therefore not considered further within this appraisal.
- 4.9. Records of dormouse (*Muscardinus avellanarius*) exist within woodland close to the proposed development. However, vegetation within the study area is subject to regular management and disturbance and is therefore considered unsuitable for this species. As the proposals are temporary in nature and do not involve the removal of vegetation, dormice are not considered further within this appraisal.
- 4.10. The surveyed areas do not contain aquatic or terrestrial habitats suitable for great crested newts (*Triturus cristatus*). As the proposals are temporary in nature and do not involve alteration of habitats that could support this species, great crested newts are not considered further within this appraisal.
- 4.11. The proposals are temporary in nature and will be implemented during the winter months, when any reptiles potentially present within the wider estate are expected to be in hibernation. Reptiles are therefore not considered further within this appraisal.
- 4.12. The site is not suitable for white-clawed crayfish (*Austropotamobius pallipes*), and water voles (*Arvicola amphibius*) due to the lack of suitable habitat within the site boundary. These species are not considered further in this appraisal.

- 4.13. During the site visit, an initial ground-level assessment of the bat roosting potential of all trees and buildings within the site and the zone of influence was undertaken. This assessment considered features such as lifted bark, cavities, cracks, and crevices in trees, as well as potential roosting features (PRFs) associated with built structures including roof voids, bargeboards, soffits, and lifted roof tiles. The purpose of this exercise was to establish the presence of any features that could support roosting bats.
- 4.14. As bats are the species most likely to be impacted by the proposed lighting installations, a targeted survey effort was designed and undertaken specifically for them. This included a detailed assessment of the suitability of habitats for roosting, commuting, and foraging, as well as the identification of any constraints that may increase their sensitivity to disturbance. The targeted bat survey allowed for an evidence-based evaluation of potential impacts from artificial lighting, ensuring that the assessment fully addressed the key risks to bats arising from the proposals.
- 4.15. During the site visit, assessments were carried out around Half Mile Pond (Section I) to identify features suitable for use by beavers and otters, such as feeding areas, resting sites, bank burrows, holts, and potential commuting routes. Signs of activity were also searched for, including feeding remains, tracks, droppings (spraints), lodges, and burrows. Attention was given to the south-western sections of Half Mile Pond where the festival of light meets the pond edge. Observations were supplemented by incidental sightings and records reported by site staff.
- 4.16. This combined approach enabled an evaluation of the likelihood of beaver and otter presence within the survey area, the extent of activity, and the potential for the proposed works to impact these species.
- 4.17. The site was also searched for non-native, invasive plant species, with particular care to search for the most commonly occurring and problematic species, i.e. Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens grandiflora*) and giant hogweed (*Heracleum mantegazzianum*).

Assessment of Ecological Value

- 4.18. The ecological value of habitats and species at the site has been assessed in accordance with the *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018, as updated). Under this guidance, valued ecological features are identified and assigned a geographic frame of reference reflecting the level at which they are of nature conservation importance, ranging from International, National (UK), National (England), Regional, County, Local, through to Site level or Negligible.
- 4.19. Valuation takes into account the biodiversity importance of each feature, including its rarity, diversity, naturalness, extent, connectivity, and the degree to which it has been modified by human activity. Particular weight is given to habitats and species that are protected by legislation, listed as Habitats or Species of Principal Importance for the conservation of biodiversity in England under Section 41 of the Natural Environment and Rural Communities Act 2006, identified as priorities within the relevant Local Biodiversity Action Plan, or otherwise recognised as being of conservation concern at a local, regional or national level.

Limitations

- 4.20. Engain cannot verify the accuracy of third-party information.
- 4.21. Habitat surveys are not definitive and represent a snapshot of the ecological status of a site. Data records help to provide a historical context, however the absence of evidence of a species does not prove that it does not use the site.

5. Results

Desk Study

Statutory Sites (SACs or SSSIs) Designated for Bats within 10km of Site

- 5.1. Mells Valley Special Area of Conservation (SAC) is divided into discrete parcels. One such parcel lies 8.9 km to the north-west of the site and also forms part of the nationally designated Old Ironstone Works SSSI, described below. A second parcel is located 7.3 km to the north-west and forms part of the Vallis Vale SSSI, also described below. The SAC is designated for its exceptional breeding population of greater horseshoe bat (*Rhinolophus ferrumequinum*).
- 5.2. Old Ironstone Works SSSI is designated due to it being a summer breeding roost by large numbers of greater horseshoe bats and a smaller number of lesser horseshoe bat (*Rhinolophus hipposideros*).
- 5.3. Vallis Vale SSSI in Somerset is designated for its ancient ash (*Fraxinus excelsior*)–wych elm (*Ulmus glabra*) woodland, rich ground flora, and associated streamside habitats. The site also supports a range of wildlife, notably including records of greater horseshoe bats, alongside breeding birds such as kingfisher (*Alcedo atthis*) and dipper (*Cinclus cinclus*), and is of significant geological interest.

Statutory Sites (SACs, SSSIs, LNRs) within 2km of Site

- 5.4. Longleat Woods Site of Special Scientific Interest (SSSI) – a large area of ancient semi-natural broadleaved woodland, predominantly managed as high forest, which is an unusual habitat type in the south-west of England. The SSSI is located approximately 38m south of the site.

Non-Statutory Sites

- 5.5. There is one Local Wildlife Site (LWS) approximately 200m south of the site, Highwood. Given the distance between the sites, the low impact of the lighting festival and the temporary nature of the festival no adverse impacts to Highwood are envisaged to arise. This site is not mentioned any further in this report.

Habitats

- 5.6. The site has been broken into sections which can be cross referenced to the map in **Figure 5**. High level habitat mapping can be found in **Figure 6**. Photographs of the habitats are provided in Appendix A.



Figure 5, "Habitat Mapping Area Locations"



Figure 6, "Habitat Mapping, Areas A to F"

Table 1, “Survey Results”

Area and Location	Habitats and species notes
A – Gravel overflow car park (Photos 1 – 2)	Hard standing with short, modified grassland verges to the north and south within the RLB. It is also surrounded by modified grassland with scattered trees. Species recorded included perennial ryegrass, greater plantain and knotgrass. Trees adjacent to the car park were assessed for roosting bats (see Figure 9).
B1- Car park (Photos 3-6)	Hard standing with planted lines of lime trees throughout the car park on modified grassland verges. There is a hedgerow with mature oaks running through the centre of B1. There is also a hedgerow with semi-mature trees along the northern boundary of B1. Species recorded in the hedgerows include hawthorn, pedunculate oak, Norway maple, birch sp. and ivy. There is a group of scattered mature trees to the west of B1. Trees within the hedgerow were assessed for roosting bats (see Figure 9).
B2 – Field (overflow car park and fabrication tent) (Photos 7-8)	Modified grassland with very short sward. Species recorded included perennial ryegrass, white clover, silverweed, creeping thistle, scentless mayweed and daisy. There is a hawthorn hedgerow running along the eastern boundary of the field. All trees in this area had negligible suitability for roosting bats.
C - Front lawn (Photo 9) to have lighting installations.	Modified grassland, heavily managed and mown. Perennial ryegrass dominating the sward. There are no trees in this area.
D- Longleat house and Gardens to have lighting installations (Photo 10 - 16).	Longleat House is a secure structure with no bat roost potential and surrounded by gardens with ornamental planting, including rose, English yew, and privet hedging. The grounds contain a secret garden, an orangery and walled garden, and additional ornamental planting of rose and English yew. The wider estate includes a drive and front lawn comprising modified grassland, two concrete fountains, and areas of hedgerow planting dominated by laurel, hawthorn, and beech. Lighting will be installed around this area. The photos in Appendix A show these areas. All trees in this area had negligible suitability for roosting bats.

Area and Location	Habitats and species notes
E1- Lawn and seating area to have lighting installations (Photo 17)	The area comprises a modified grassland dominated by perennial rye grass. Pedunculate oaks to the west of this area to be illuminated have negligible suitability for roosting bats. However, there is a fenced off copse oaks to the north of this area to be illuminated. Trees to the north of in this area were assessed for roosting bats (see Figure 9).
E2- Long house and Café (no lighting in this area) (Photo 18)	<u>Long house</u> Raised bargeboards on the southern gable – likely to be of moderate roosting suitability for bats. <u>Chameleon Tree Café and seating area</u> The café and seating area comprises hard standing with seating and a marquee cover, surrounded by large oak and birch trees, T20 was recorded as having PRF-M roost potential (see Figure 9). These were located on areas of improved grassland and shrub planting including cotoneaster, ivy, and laurel. The Chameleon Tree Café has lifted felt and slipped tiles that could provide access points for crevice-dwelling bats, and is considered to have moderate roosting suitability, while all other buildings in this area have secure roofs with no potential roost features. External lighting in the vicinity of the Long House and Chameleon Tree Café is limited to low-level wayfinding lighting; however, several proposed lighting installations sit within 10 m of T20, which is classed as PRF-M. These installations will need to be repositioned outside the 10 m buffer or, if not feasible, T20 will require further bat survey.
E3 - Grassland and Shed to have lighting installations (Photo 19)	Shed structures/ outbuildings – no PRFs for bats. Modified grassland throughout. Small group of oak trees to the north of this area with no bat roosting potential.
E4- Maze - Lighting to be installed along northern and north-western boundaries (Photo 20)	Heavily managed and landscaped English Yew only suitable for nesting birds. Modified grassland verge dominated by perennial rye grass. There is a line of pedunculate oaks on the north-eastern boundary of E4. A line of trees was assessed for bat roosting suitability (see Figure 9).
E5 - Central Main square to have lighting installed (Photos 21-22)	The main square comprises hardstanding ground and built structures, with large oak and birch trees present, although these offer negligible bat roost potential. The area also includes modified grassland and shrub planting with species such as cotoneaster, ivy, and laurel, alongside ornamental

Area and Location	Habitats and species notes
	bamboo and yew planting. Built features include the gift shop and toilet facilities, brick structures, and dividing walls, as well as the train station and associated gravel train tracks.
E6 – Small mammal enclosures (no lighting) and access road northwards (Photo 23).	Buildings all secure and no PRFs for bats. The trees along the access road northwards also had no PRFs for bats.
F1- Small animal/ petting farm fields. No lighting to be installed.	Animal enclosures
F2 - Small animal sheds/ stalls and large field. Lighting installation to the south of the field (Photo 24)	Dirt/sand ground – small animals (reindeer, goats, ferrets etc). Sheds/ shelters – exposed and well used with no PRFS for bats. The field comprises modified grassland dominated by perennial rye grass with daisy, cock's foot grass, creeping thistle, silverweed, white clover and greater plantain also recorded. There are a group of mature oaks to the east of F2. These were assessed for roosting bats (see Figure 9).
G – Stall farm accommodation (no lighting) (Photo 25).	Hardstanding area with static caravans. Storage barn for seasonal decorations
H – Entrance to have small lighting installations (Photo 26).	Grassland verges with non-native redwoods and mature pedunculate oaks. Hardstanding access road with ticket booths. The surrounding trees were assessed for roosting bats (see Figure 9).
I – Half mile pond (no lighting) (Photo 27).	A large manmade pond is present on site, with the far end containing hippo and sea lion enclosures as well as an island enclosure for monkeys. The top half of the pond is regularly used for boat trips. Trees surround the waterbody, though lifted bark on some specimens does not appear to provide access to any suitable roosting features. The closer end of the pond supports mallards and swans, while the banks contain reed beds and yellow flag iris. On the garden side, the banks comprise improved grassland with a concreted edge. No lighting will be installed on the pond.

Fauna

Bats

- 5.7. The ecological data search returned many records for bats, for greater horseshoe, lesser horseshoe, barbastelle (*Barbastella barbastellus*), serotine (*Eptesicus serotinus*), Brandt's (*Myotis brandtii*), Daubenton's (*Myotis daubentonii*), noctule (*Nyctalus noctula*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and brown long-eared (*Plecotus auritus*).
- 5.8. There are four confirmed bat roosts located on the Longleat Estate itself (**Figure 7**):
- Stalls Farm complex (to the west of the temporary accommodation);
 - The Orangery - confirmed to support a day roost for Brandt's, brown long-eared, serotine and common and soprano pipistrelle;
 - The Generator Roost – confirmed to support 5 greater horseshoe bats in July 2025. The access/egress point for bats is shown in **Figure 8 below**.
 - The 'Bat Cave' roof - confirmed to be a maternity roost for a peak count, c. 200+ lesser horseshoes in 2022 and hibernation roost for low numbers of lesser horseshoes (peak count of 11 during a hibernation check in 2021). It was also confirmed as a day roost for low numbers of common and soprano pipistrelle, Daubenton's and greater horseshoe. The access/egress point for bats is shown in **Figure 8 below**.
 - Surveys of the bat cave roof in June 2023 recorded +200 lesser horseshoe bats from the same egress point.
 - Surveys of the bat cave roof in August 2024 recorded 185 lesser horseshoe bats from the same egress point.
 - Surveys of the bat cave roof in July and September 2025 recorded 108 and 115 lesser horseshoe bats from the same egress point respectively.
 - 1 greater horseshoe bat was recorded emerging from the bat cave roof in September 2025.
- 5.9. The Chameleon Tree Café is considered to offer moderate bat roosting potential due to the presence of slipped tiles on the roof (see **Figure 7**).
- 5.10. The Long House building is considered to offer moderate bat roosting potential due to the raised bargeboard on the southern gable end (see **Figure 7**).

- 5.11. The remaining buildings within the zone of influence of the development had negligible suitability to support roosting bats.
- 5.12. Table 2 below summarises the trees within the zone of influence of the development that were assessed as having bat roosting potential, including their species, location, and roosting features. The locations of the trees are mapped on **Figure 9** below. Photos are provided in Appendix B.
- 5.13. The wider Longleat Estate supports a range of habitats that are highly suitable for foraging and commuting bats. The combination of woodland, parkland trees, hedgerows, and scattered scrub provides structural diversity and supports abundant invertebrate communities, offering extensive foraging opportunities across the site

Table 2, “Ground Level Tree Assessment”

Ref and Species and Grid Reference	Potential Roost Feature (PRF)	Roosting Suitability	Photo
T1 – pedunculate oak ST 80622 43415	Tear out/split at 8m on western aspect. Knot hole at 9m on eastern aspect and a tear out at the top of the tree.	PRF-M ³	Photo 28
T2 - pedunculate oak ST 80639 43069	Knot hole in branch at 3m on northern aspect. Trunk cavity at 10m on southern aspect.	PRF-M	Photo 29
T3 – pedunculate oak ST 80607 43044	Knot holes at 6m, 10m and 12m on southern aspect.	PRF-M	Photo 30
T4 – pedunculate oak ST 80593 43036	Frayed tear out at 5m on southern aspect	PRF-M	Photo 31
T5 – dead pedunculate oak ST 80523 42992	Trunk cavity at 10m on southern aspect.	PRF-M	Photo 32
T6 – pedunculate oak ST 80544 43012	Tear out at 10m on western aspect. Multiple cavities >20m on western aspect.	PRF-M	Photo 33
T7 – pedunculate oak ST 80520 42988	Multiple trunk cavities around stem	PRF-M	Photo 34
T8 – pedunculate oak ST 80483 43024	Branch cavity at 8m on southern aspect. Trunk cavity at 6m on southern aspect.	PRF-M	No photo
T9 – pedunculate oak ST 80575 42898	Multiple cavities and loose bark throughout tree	PRF-M	Photo 35

³ PRF categories describe the suitability of tree features for bat roosting. **PRF-I** (Potential Roost Feature – Individual) is suitable for a single bat or very small numbers. **PRF-M** (Potential Roost Feature – Multiple) is suitable for use by multiple bats and may support maternity colonies or larger group roosts

Ref and Species and Grid Reference	Potential Roost Feature (PRF)	Roosting Suitability	Photo
T10 – pedunculate oak ST 80640 42901	Branch cavity at 3m on eastern aspect, tear out at 5m on eastern aspect. Multiple branch cavities up stem to the top.	PRF-M	Photo 36
T11 – pedunculate oak ST 80741 43010	Two knot holes at 4m on southern aspect. Branch cavity at 7m on western aspect	PRF-M	Photo 37
T12 – hawthorn ST 80738 43021	Trunk cavity at 1m	PRF-M	Photo 38
T13 – pedunculate oak ST 80692 43302	Knot hole at 4m on eastern aspect. Two knot holes under branch at 6m on western aspect	PRF-I	Photo 39
T14 – pedunculate oak ST 82876 43395	Branch cavity at 5m on southern aspect.	PRF-M	Photo 40
T15 – pedunculate oak ST 80541 43008	Branch cavity at 7m on southern aspect	PRF-M	Photo 41
T16 – lime sp. ST 80949 43121	Branch cavity 3m eastern aspect	PRF-M	Photo 42
T17 – lime sp. ST 80868 42886	Trunk cavity 4m on western aspect	PRF-M	Photo 43
T18 – non-native. ST 80847 43065	Trunk cavity 1.5m on southern aspect	PRF-I	Photo 44
T19 – non-native ST 80869 43060	Trunk cavity 1.5m on southern aspect	PRF-I	Photo 45
T20 - pedunculate oak ST 80725 43140	Woodpecker hole 7m on northern aspect	PRF-M	Photo 46

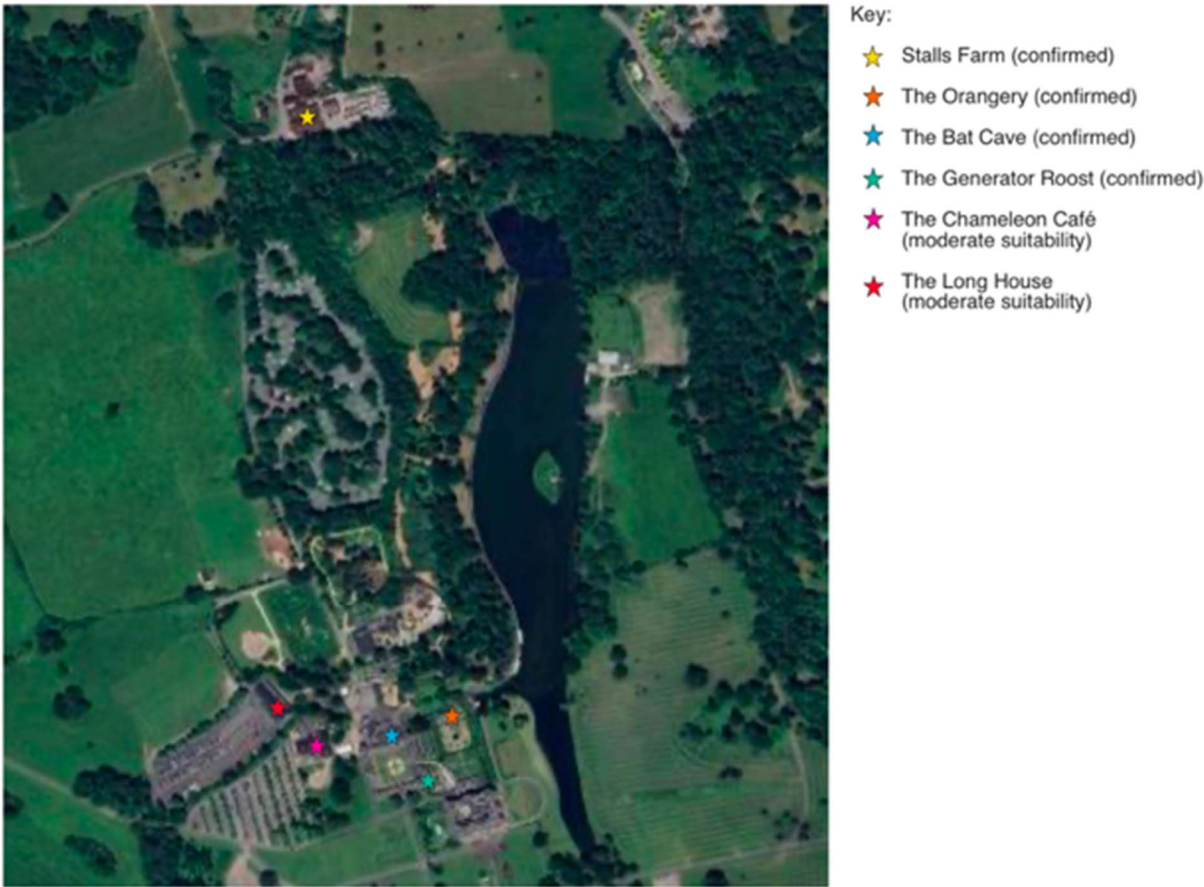


Figure 7, “Confirmed Bat Roosts and PRA”

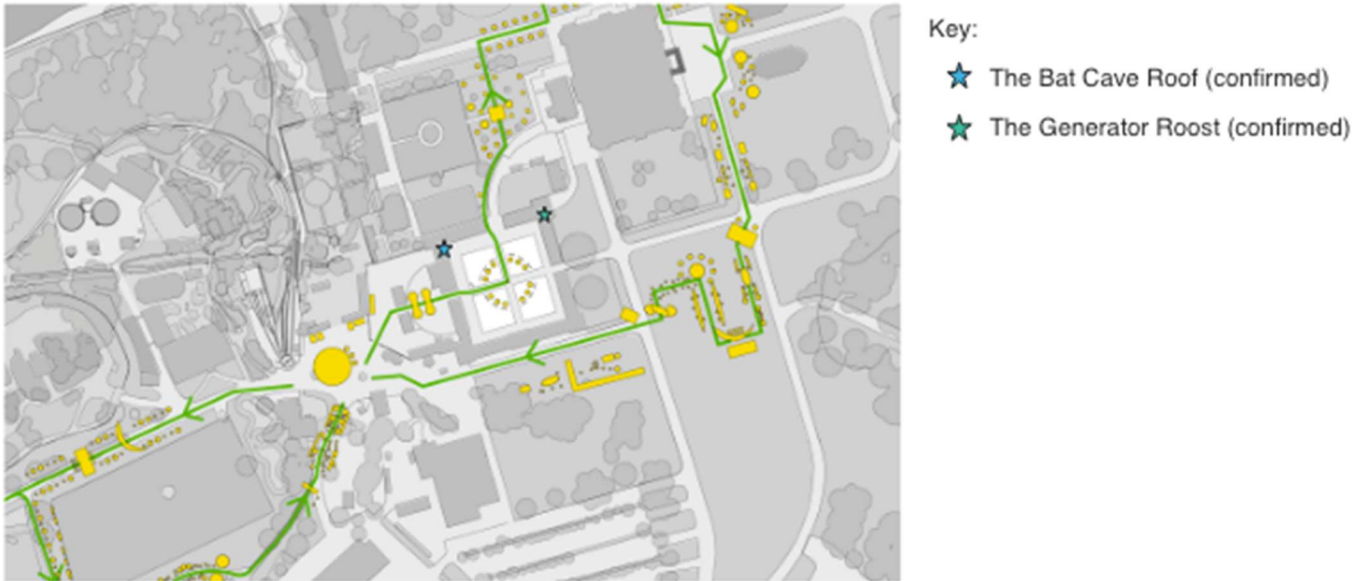


Figure 8, “Bat Cave Roost and Generator Roost – Access/Egress Point

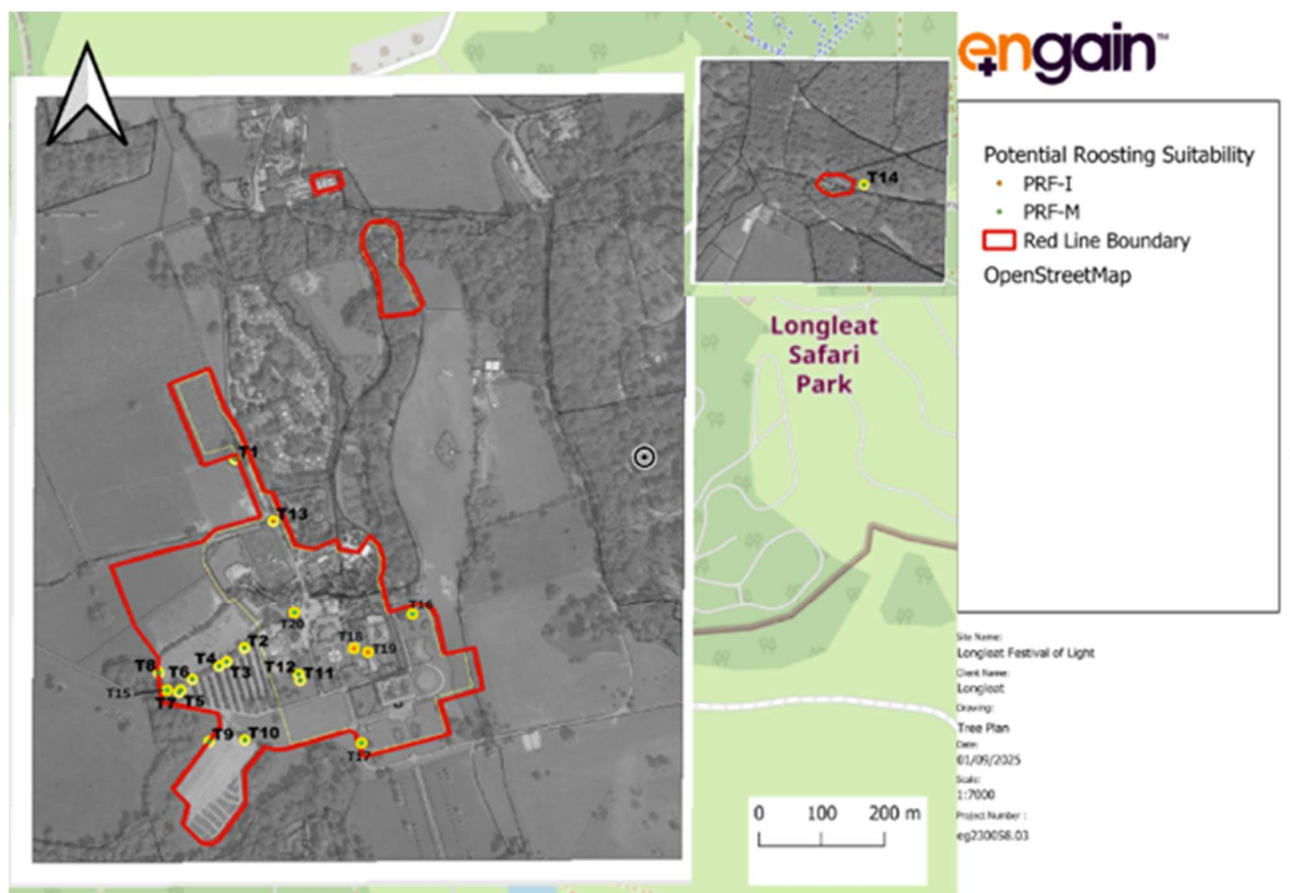


Figure 9, “Ground Level Tree Assessment”

Beavers

- 5.14. Beavers (*Castor fiber*) have been recorded off-site at half mile pond since 2019, though activity is limited to the northern and eastern part of the waterbody (approximately 250-500 m away), where suitable food resources are present. The southern section of the pond, within the site, provides fewer foraging opportunities and is subject to higher levels of visitor disturbance. Beavers have not been recorded within or immediately adjacent to this section of the waterbody.

Otters

- 5.15. Otters (*Lutra lutra*) have been recorded using Half Mile Pond and a brook to the south of the Stalls Farm complex within the wider Longleat Estate. They are known to forage opportunistically, feeding on fish within the waterbody, as well as exploiting food resources around the hippos and the boat visitor attraction once the estate has closed.

6. Evaluation, Mitigation and Enhancement

Designated Sites

Longleat Woods SSSI

- 6.1. Longleat Woods Site of Special Scientific Interest (SSSI) – a large area of ancient semi-natural broadleaved woodland, predominantly managed as high forest, which is an unusual habitat type in the south-west of England. The SSSI is located approximately 38 m south of the southern overflow car park (Section A).
- 6.2. No direct impacts to the SSSI will occur because of the proposals. Temporary mobile lighting units will be placed around the perimeter of the car park and will be fitted with shields to ensure that light spill into surrounding habitats is avoided. Lighting will be installed, directed and managed in accordance with best practice guidance from the Institute of Lighting Professionals (ILP) and Bat Conservation Trust (BCT), ensuring illumination is restricted to the required areas only. All lighting will be temporary and removed immediately following the conclusion of the festival. The lighting will also only be on during use and will therefore be turned off when the cars have left. This approach will prevent lighting of the adjacent SSSI and thereby avoid impacts on sensitive species and habitats.
- 6.3. All wayfinding artificial lighting along footpaths has been designed to meet dark skies requirements, with zero upward light spill and a colour temperature of 2700K. The lanterns are positioned at sufficient distance to ensure that habitats associated with the SSSI will not be illuminated. There will therefore be no direct impacts on nationally designated sites.

Mells Valley SAC/ Old Ironstone Works SSSI

- 6.4. The site lies 7.3 km from the Mells Valley SAC at its nearest point, designated for its breeding population of greater horseshoe bat. At this distance, the site falls within Band C of the Bat Consultation Zone, where only developments with potential for significant habitat loss, new commuting barriers, or substantial lighting impacts would require detailed assessment. The Festival of Light is temporary in nature (6th November 2026 to 6th January 2027), located on hardstanding and modified grassland of low ecological value, and all lighting will be shielded and directional in line with ILP/BCT guidance.

- 6.5. Furthermore, the event will be held during the winter months when greater horseshoe bats are in hibernation and not commuting such distances for foraging during their torpor period. Consequently, there is no credible impact pathway, and the proposals will not give rise to likely significant effects on the SAC or its qualifying features. This assessment therefore concludes no likely significant effect under the Habitats Regulations.

Habitats

- 6.6. The development will not result in the removal or alteration of any habitats of biodiversity interest. As outlined above, all wayfinding artificial lighting has been designed to meet dark skies requirements. In addition, the lighting units will be arranged so that no fittings face the adjacent woodland or hedgerows. Lighting installations will be located on existing hardstanding, which has no ecological value, and on modified grassland fields and lawns of low ecological value. Their placement will therefore have no ecological impact. As such, no impacts from artificial lighting are anticipated.
- 6.7. The erection of fabrication tents in areas B2 and F will take place on modified grassland, away from ecologically sensitive features such as trees with bat roosting potential. The structures are temporary and will not result in any adverse ecological impacts.
- 6.8. Temporary vehicle matting will be installed on the modified grassland field in Section B2. The temporary loss of this low-value habitat is not expected to result in any adverse impacts on wildlife, and the area will be reinstated following removal of the matting.

Bats

Roosting Bats – Buildings and Structures

- 6.9. The temporary accommodation area, located near the Stalls Farm roost, will be set up in September while bats are still active. However, the accommodation is positioned at a sufficient distance to avoid causing increased disturbance. The roost is already subject to moderate levels of disturbance from day-to-day site activities, and the proposals will not add to this. As such, no impacts or additional disturbance to bats are anticipated.
- 6.10. No lighting will be installed in the vicinity of the Orangery bat roost, and visitor disturbance levels will not exceed those typically experienced during the summer or winter months. The roost itself is situated in an inaccessible location, meaning that guests attending the festival will not be able to interfere with or cause disturbance to it.

- 6.11. The Bat Cave was recently reopened to the public as an exhibit in Spring 2025. However, the public entrance to the exhibit is separate from the access and egress point used by native bats recorded in the structure, the bats utilise the roof void above the bat cave exhibit (**Figure 8**). The cave supports a hibernation roost for a small number of lesser horseshoe bats, with between 2 and 11 individuals recorded in winter (2021–2023), compared with larger summer counts of 50–200 bats (2021-2025). The cave is also used as a day roost by low numbers of common pipistrelle, soprano pipistrelle, Daubenton's bat, and greater horseshoe bat (2021-22).
- 6.12. The Generator Roost supports a greater horseshoe day roost, with a count of 5 individuals recorded in September 2025.
- 6.13. The bat access/egress point for the Bat Cave is located approximately 16 m from the nearest proposed lighting installations and illuminated footpaths, and the Generator Roost is access/egress point is located 19m from the lighting (**Figure 8**). These areas will not be directly illuminated by the proposals. Although bats may occasionally emerge in winter during mild weather, activity levels are greatly reduced compared with summer, and the timing of the lighting installations (operating daily only from 16:30 to 20:30 between 6th November 2026 –6th January 2027) further minimises the risk of disturbance. Visitor activity associated with the reopened Bat Cave will be confined to the designated public entrance, and therefore will not interfere with the location of the native bat roost.
- 6.14. All wayfinding artificial lighting along footpaths has been designed to meet dark skies requirements, with zero upward light spill and a colour temperature of 2700K. The lanterns are positioned at sufficient distance from confirmed and potential roost features to ensure no direct illumination of access/egress points or surrounding flight paths.
- 6.15. As with the previous three years' ecology reports in 2025, 2024⁴ and 2023⁵, this assessment agrees that the proposals will not result in any adverse impacts. Given the separation distance, absence of direct illumination, and restriction of public access away from the bat entrance, the proposed works are not anticipated to adversely affect the conservation status of the bat roosts within the cave.

⁴ Engain (2024) Festival of Light, Longleat Estate, Wiltshire – Ecological Appraisal

⁵ Engain (2023) Festival of Light, Longleat Estate, Wiltshire – Ecological Appraisal

- 6.16. The Chameleon Tree Café and Long House are considered to offer moderate bat roosting suitability due to the presence of slipped tiles. However, no lighting installations are proposed in this area, with only low-level wayfinding lighting present for pedestrian access. On this basis, no impacts to roosting bats are anticipated. In summary, the proposed lighting strategy avoids direct illumination of all identified roost features, with installations located in open areas and at sufficient distance from sensitive access/egress points. Disturbance levels associated with the Festival of Light will be comparable to those experienced in previous years, and no new pressures are anticipated. With limited winter bat activity, continued access to foraging habitat, and precautionary buffers around key features, the proposals are therefore not predicted to result in any adverse impacts on the conservation status of bats using the site.

Roosting bats – Trees

- 6.17. 20 trees (T1–T20) within the study area were assessed as having potential to support roosting bats, including possible hibernation sites. The majority were classed as PRF-M (features suitable for multiple bats), with T13, T18 and T19 classed as PRF-I (a feature suitable for an individual or very small number of bats). None of these trees will be removed or directly impacted by the proposed development.
- 6.18. The key consideration is the proximity of proposed lighting installations and associated structures, including those within the car park, to trees assessed as having potential roost features. A precautionary 10-metre buffer will be enforced between all main lighting installations or car park lighting structures and trees with PRF-M roosting potential. T13, T18 and T19 are classed as PRF-I and are therefore considered unlikely to support hibernation roosts or roosts of multiple individuals; no 10-metre buffer is required for these trees.
- 6.19. T20, however, was assessed as PRF-M and was therefore subject to a further aerial (climbing) inspection survey.

T20 Aerial Inspection Survey Findings

- 6.20. A programme of aerial inspection surveys was recommended to determine the presence or likely absence of roosting bats within the feature identified, in accordance with current Bat Conservation Trust guidelines.⁶

- 6.21. An aerial inspection of T20 was undertaken on the morning of Tuesday 9th June 2026, commencing at approximately 07:30, prior to the Safari Park opening to the public.
- 6.22. The survey was carried out by Matthew Kirby MSc, a Natural England Level 2 Bat Class Licence holder (CL18), with a second climber providing ground support for safety purposes. The accessible Potential Roost Feature within the climbable extent of the tree was inspected directly by hand and by torchlight and searched for bats and field signs of bat activity, including droppings, feeding remains, staining and characteristic odour.
- 6.23. One Potential Roost Feature was identified as accessible and was directly inspected during the climb. It was a knot hole located on the north-eastern aspect of the trunk, at approximately 7m above ground level (Appendix C). The feature measures approximately 10cm in diameter at the entrance and extends back and downward for approximately 20cm to a tapering point.
- 6.24. On inspection, the cavity was found to be clean and dry, with woodlice (*Oniscidea*) present towards the rear of the feature. No bats, bat droppings, feeding remains, staining, or odour characteristic of bat occupation were recorded within this feature, or at any other point on the tree accessible during the climb.
- 6.25. Based on the direct inspection, and in the absence of any evidence of bat presence, the feature is considered to provide Low suitability for roosting bats. This represents a downgrade from the precautionary Moderate (PRF-M) classification assigned during the initial ground-level assessment.

Commuting and foraging bats

- 6.3.1. Bats are likely to forage and commute within the study area during the active season. However, the proposed development is temporary in nature, with the majority of activities taking place outside of peak bat activity periods. In addition, all artificial lighting will be dark sky compliant. Consequently, no impacts are anticipated from disturbance, artificial lighting, or visitor pressure.

⁶ Collins, J.(ed.) 2023 Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London

Beavers

- 6.26. Beavers were first recorded in 2019 and have since colonised the eastern (opposite) section of Half Mile Pond, where suitable foraging opportunities and habitat for the construction of bank burrows are present.
- 6.27. The beavers have remained in this area for several years without colonising further south or west, likely due to higher levels of disturbance and less suitable habitat. Although beavers do not hibernate, there is no pathway of effect from the proposals given the distance between the confirmed beaver location (a minimum of 250m) and the installations. This is further supported by the continued presence and success of beavers within Half Mile Pond over several years, despite the annual festival of light installations and regular boat and visitor activity. Consequently, no impacts are anticipated from disturbance or artificial lighting.

Otters

- 6.28. Otters have also been recorded using Half Mile Pond and surrounding waterbodies for many years. Given their transient nature and wide-ranging territories, any otters disturbed by the light installation on Half Mile Pond would be expected to disperse elsewhere within their territory and return once the festival has concluded. On this basis, no impacts from disturbance or artificial lighting on Half Mile Pond are anticipated.

7. Conclusions

- 7.1. The Festival of Light is a temporary, seasonal event (6th November 2026 to 6th January 2027) held within areas of the Longleat Estate comprising of existing hardstanding, modified grassland, and managed parkland habitats of low ecological value. No habitat loss or alteration of importance will occur, and all structures and installations will be fully removed following the event.
- 7.2. Designated sites, including Longleat Woods SSSI, High Wood LWS and the Mells Valley SAC, will not be adversely affected. Lighting has been designed in line with best practice (BCT & ILP, 2023)⁷, with directional shields, dark sky compliance, and placement to avoid illumination of sensitive habitats. There is therefore no credible pathway for significant effects on designated sites or their qualifying species.
- 7.3. Bats were identified as the key ecological receptor. Multiple confirmed roosts exist within the wider estate, including the Stalls Farm complex, the Orangery, the bat cave, and features such as the Chameleon Tree Café, Long House and several trees. The lighting strategy avoids direct illumination of roost features, incorporates precautionary 10 m buffers where appropriate, and confines visitor activity to areas away from sensitive entrances. As with the previous two years' ecological assessments, this report concludes that the proposals will not result in any adverse impacts on the conservation status of roosting bats.
- 7.4. One tree, T20, was assessed as PRF-M and is located close to several proposed lighting installations. However, further survey work confirmed that T20 has no bat roost potential and therefore does not require consideration in relation to lighting impacts.
- 7.5. Other protected or notable species, including badger, dormouse, reptiles, amphibians, otter, and beaver, will not be significantly affected by the proposals. Activity from beavers and otters is limited to areas of the estate well away from the installations, and these species have coexisted with previous years' events without evidence of adverse effects.
- 7.6. The Festival of Light is not predicted to give rise to any significant adverse ecological impacts. This conclusion is based on:
- The temporary nature of the event, running from 6th November 2026 to 6th January 2027 when most animals are inactive.

⁷ Bat Conservation Trust and Institution of Lighting Professionals (2023). *Bats and Artificial Lighting at Night*. Guidance Note 08/23.

- Lighting strategy designed in accordance with ILP/BCT best practice (dark sky compliant i.e. operating from 16:30-20:30 daily, wayfinding artificial lighting with a colour temperature of 2700K, directional shields, no upward light spill).
- Implementation of buffers of 16m and 19m for the confirmed Bat Cave roof roost and The Generator Roost respectively.
- Temporary installations only, located on hardstanding and modified grassland of low ecological value, and fully removed post-event (6th January 2027).
- No direct or indirect significant impacts to designated sites (Longleat Woods SSSI, Mells Valley SAC, Highwood LWS).

Appendix A – Site Photos

Photo 1: Car park at A with modified grassland to the south	Photo 2: Car park at A
	
Photo 3: Group of scattered trees west of B1	Photo 4: Hedgerow with trees running through centre of B1
	
Photo 5: Planted lime trees in the car park at B1	Photo 6: Hedgerow with trees along the northern boundary of B1
	

Photo 7: Field at B2	Photo 8: Hedgerow running along the eastern boundary of B2
	
Photo 9: Front lawn at C (lighting installations)	Photo 10: Ornamental planting and lawn to the east of D (lighting installation)
	
Photo 11: Lawn looking over lake to the east of D (lighting installation)	Photo 12: Hedgerow area north-east of D (lighting installation)
	

Photo 13: Lawns north of D (lighting installations)	Photo 14: Courtyard west of D (lighting installation)
	
Photo 15: Lawn at far west of D (lighting installation)	Photo 16: Verges and driveways south of D (lighting installations)
	
Photo 17: E1 lighting installation on the lawn	Photo 18: Line of oaks leading from E2 in to E3.
	

Photo 19: E3 area to have lighting installations which continues to grassy area beyond	Photo 20: E4 maze and grassland.
	
Photo 21: E5 – lighting to be installed between these buildings	Photo 22: E5 central square
	
Photo 23: E6 lighting to be installed on verges either side of road	Photo 24: F1 lighting installation area
	

Photo 25: Stall farm temporary accomodation at G	Photo 26: Site entrance at H
	
Photo 27: Half mile pond at I (left)	
	

Appendix B – Ground Level Tree Assessment Photos

Photo 28: T1	Photo 29: T2
 A photograph of a large tree with a red oval highlighting a specific branch or area of the canopy. The tree is situated behind a wire fence, and other trees and a building are visible in the background.	 A photograph of a large, mature tree with a thick trunk and dense green foliage, viewed from a low angle looking up towards the sky.
Photo 30: T3	Photo 31: T4
 A photograph of a large tree with a thick trunk and dense green foliage, viewed from a low angle looking up towards the sky.	 A photograph of a large tree with a thick trunk and dense green foliage, viewed from a low angle looking up towards the sky.
Photo 32: T5	Photo 33: T6
 A photograph of a large tree with a thick trunk and dense green foliage, viewed from a low angle looking up towards the sky.	 A photograph of a large tree with a thick trunk and dense green foliage, viewed from a low angle looking up towards the sky.
Photo 34: T7	Photo 35: T8
A photograph of a large tree with a thick trunk and dense green foliage, viewed from a low angle looking up towards the sky.	A photograph of a large tree with a thick trunk and dense green foliage, viewed from a low angle looking up towards the sky.



Photo 36: T10



Photo 37: T11



Photo 38: T12



Photo 39: T13



Photo 40: T14



Photo 41: T15



Photo 42:T16



Photo 43: T17



Photo 44: T18



Photo 45: T19



Photo 46: T20



Appendix C – Aerial Inspection Survey

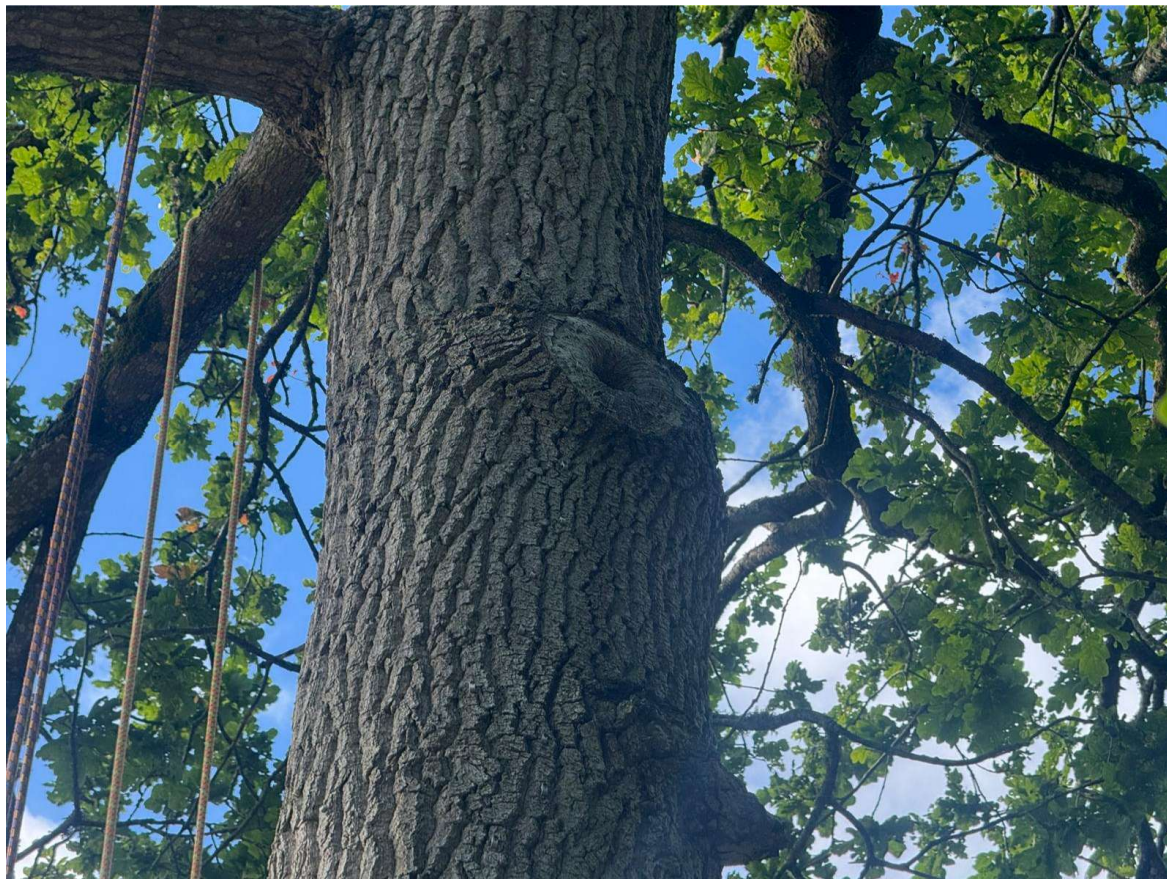


Figure 10 - Knot hole PRF inspected on the trunk of T20, viewed from within the canopy during the climb (M. Kirby, 09/06/2026)



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