Shadow Habitat Regulations Assessment

Cricketer Farm
Nether Stowey – Phase 2

March 2024

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Issue:	**Final_V5**
Date:	**8th March 2024**
Project:	**Cricketer Farm Nether Stowey – Phase 2**

Shadow Habitat Regulations Assessment (sHRA)

Assessment of Likely Significant Effects in accordance with the Conservation of Habitat Species Regulations 2017 (as amended) ("the Habitat Regulations")

Habitat Regulations Assessment (HRA) Process:

Consideration of the potential impacts of a development proposal pursuant to Regulation 63 Habitats Regulations is a mandatory stepwise process:

> *63 (1) A Competent Authority before deciding to undertake or give any consent, permission or other authorisation for a plan or project which –*
>
> *a) Is likely to have a significant effect on a European Site or a European offshore marine site (either alone or in combination with other plans or projects), and*
>
> *b) is not directly connected with or necessary to the management of that site,*
>
> *Must make an appropriate assessment of the implications for that site in view of that site's conservation objectives*
>
> *63 (5) in the light of the conclusions of the assessment, and subject to regulation 64 (considerations of overriding public interest), the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European off shore marine site (as the case may be).*

Assessment pursuant to the Habitats Regulations therefore involves:

1) **Screening stage –** to check if the proposal is likely to have a significant effects (LSE) on the site's conservation objectives (which, since the People over Wind decision must exclude measures intended to avoid or reduce potential harmful effects on a European site);
2) **Appropriate Assessment – to assess the LSEs** in more detail and identify way to avoid or minimise any effects.
3) **Derogation –** to consider if proposals that would have an adverse effect on a European site (i.e. fail the integrity test) qualify for an exemption.

The Competent Authority has a duty to have regard to any potential impacts that a project may have.

Planning Application Reference:	Full 36/23/00011
Site Address:	Land at Cricketer Farm, Cannington Road, Nether Stowey, Bridgwater, TA5 1LL
Proposal:	Erection of 58 dwellings (40% affordable units) with access, landscaping, parking, public open space and associated works.

PLAN/PROJECT INFORMATION:

The site comprises arable land, modified grassland, urban sealed habitats, a drainage ditch and hedgerows.

The site is within Consultation Band A for Exmoor and Quantocks Oak Woodlands SAC. The Quantocks SSSI is located 1.9km to the south-west.

INFORMATION ON EUROPEAN SITES WHICH COULD BE AFFECTED:

Exmoor and Quantocks Oak Woodlands SAC
Unitary Authority/County: Devon, Somerset
Designated on 1 April 2005, UK0030148
Grid reference: SS894440
Area (ha): 1895.17
Component SSSI: Barle Valley SSSI, North Exmoor SSSI, The Quantocks SSSI, Watersmeet SSSI, West Exmoor Coast and Woods SSSI

Reasons for Designation:

Site description: This site supports extensive tracts of old sessile oak *Quercus petraea* with transitions to heathland. The oakwoods are rich in bryophytes, ferns (including *Dryopteris aemula)* and epiphytic lichens, the latter often associated with old trees, since parts are former woodpasture rather than the oak coppice that is more common with this type. In the Barle Valley the woods also occur in mosaic with glades and small fields and the combination results in good populations of fritillary butterflies. Valley woodland dominated by alder *Alnus glutinosa* as well as ash *Fraxinus excelsior* which occurs in small areas alongside some of the streams.

A maternity colony of barbastelle bats *Barbastella barbastellus* utilises a range of tree roosts in the oak *Quercus spp.* woodland. The woods also hold Bechstein's bats *Myotis bechstenii*, whilst rivers and streams flowing through the site support otters *Lutra lutra*.

Qualifying habitats: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in **Annex I**:
- H91E0 Alder Woodland on floodplains - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae).*
- H91A0 – Western acidic oak woodland - Old sessile oak woods with Ilex and Blechnum in the British Isles.

Qualifying species: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in **Annex II**:
- S1308 - Barbastelle bat
- S1323 - Bechstein's bat
- S1355 - Otter

Conservation Objectives[1]:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.

[1] Publication date: 27th November 2018, V3.

Site Improvement Plan (SIP):

Priority & Issue	Pressure or Threat	Feature(s) affected	Measure	Delivery Bodies
Invasive species	Pressure/ Threat	Western acidic oak woodland Alder woodland on floodplains	Control invasive species – including knotweed, Montbretia, Himalayan balsam, rhododendron. Strengthen existing Exmoor Knotweed Control Partnership.	Devon County Council, Environment Agency, Exmoor National Park Authority, Forestry Commission, National Trust, Natural England, Quantock Hills AONB, Somerset County Council
Forestry and woodland management	Pressure	Western acidic oak woodland Alder woodland on floodplains	Enhance woodland management through existing agreements. Bringing in new woodland owners into new agrienvironment agreements. Use of SSSI powers to achieve implementation of woodland plans.	Forestry Commission, Natural England
Disease	Threat	Western acidic oak woodland Alder woodland on floodplains Barbastelle	Encourage adaptation to possible *Chalara* impacts by predicting where ash *(Fraxinus excelsior)* is crucial to the SAC features and look at possible management interventions to reduce ash dieback. Investigate the possible impacts of other pests (e.g.	Exmoor National Park Authority, Forestry Commission, National Trust, Natural England

			oak processionary moth and acute oak decline) and diseases by initiating research.	
Air pollution: risk of atmospheric nitrogen deposition	Threat	Western acidic oak woodland Barbastelle	Investigate potential atmospheric nitrogen impacts on the site.	Natural England
Change in Land Management	Threat	Western acidic oak woodland Alder woodland on floodplains	Improve habitat quality in and adjacent to existing wood pasture for habitat important for lichens by re-introducing grazing and associated canopy management	Exmoor National Park Authority, Forestry Commission, Natural England
Deer	Threat	Western acidic oak woodland	Promote deer control in targeted areas.	Forestry Commission, Natural England, Exmoor & District Deer Management Society

Key environmental conditions to support site integrity:

Qualifying features	Key Environmental Conditions
Western acidic oak woodland	• Appropriate woodland management • Air pollution
Alder woodland on floodplains	• Appropriate woodland management
Barbastelle and Bechstein's bats	• Undisturbed roosts • Woodland management • Availability of decaying and veteran trees • Maintenance and connectivity of habitats used as flight lines on and off site • Feeding areas
Otter	• Maintenance of river water quality and flow • Fish stocks • Bankside vegetation • Levels of disturbance

Is the application directly connected with, or necessary to the management of the SAC for Nature Conservation? *Proposals that are clearly necessary for, or of value to, or inevitable as part of, management of the site for its qualifying interests can be scoped out of further assessment.*	No.

1. SCREENING

Is the project likely to have a significant effect either **'alone' OR 'in-combination'**?

Species Surveys: (refer to *Ecological Impact Assessment, Cricketers Farm, Nethery Stowey Phase 2, Ethos 2023,* for full details)

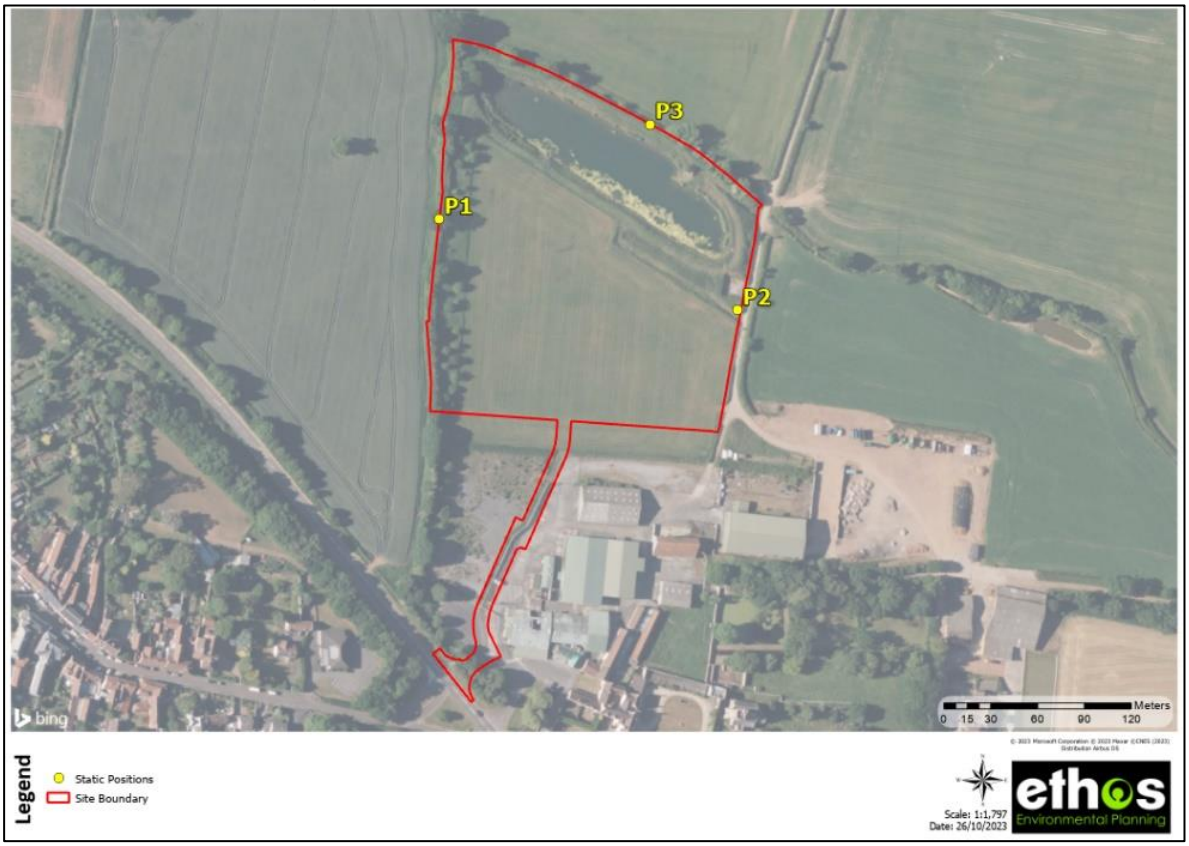


Figure 1 Static locations

Species	Total number of calls (April to October)	% of Total calls recorded
Barbastelle	427	1.12
Bechstein's bat	11	0.03

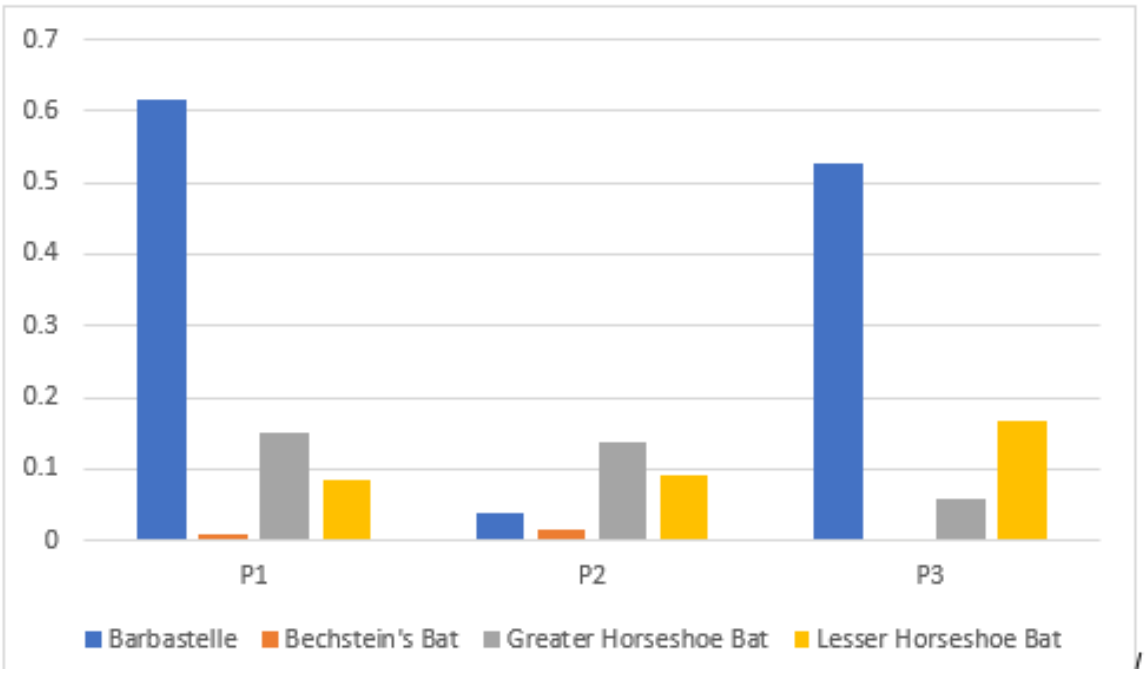


Figure 2 Average calls per hour per night per location

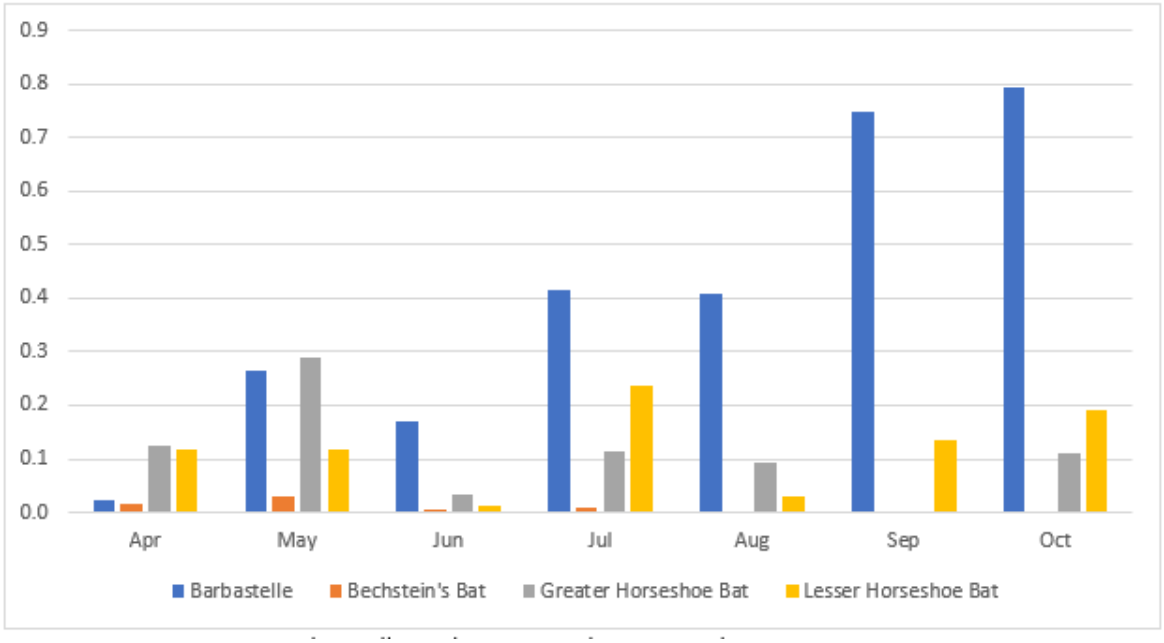


Figure 3 Average calls per hour per night per month (excluding common and soprano pipistrelle)

Barbastelle bats were recorded during each of the monthly survey periods from April to October. There was a significant difference in the average number of barbastelle calls recorded at P1 and P3 which were higher compared to P1 (figure 2). The average number of barbastelle calls recorded across the site increased from July onwards, with peaks in September and October (figure 3). The results provide evidence that the northern and western boundaries of the site (where P1 and P3 were located) provide foraging and commuting opportunities for adult barbastelles which have been roosting in the nearby SAC. It is assessed that the site does not provide opportunities for juvenile barbastelles as it is located outside a Juvenile Sustenance Zone (Somerset County Council, 2019).

Bechstein's bats were sporadically recorded on site between April and July with a total of 11 Bechstein's calls during this period, at locations 1 and 2. No Bechstein's were recorded at location 3 and no Bechstein's bats were recorded at any location August to October. It is assessed that the site does not support foraging habitat or commuting features of importance to Bechstein's bats.

Otter: Given the limited suitability of the riparian habitats on site, the lack of onward connectivity to the west, and the distance between the site and the closest record, it is considered that otter are absent from the site.

Assessment of effects

Feature	Relevant Pressure/ Threat	Sensitivity	Risk to Conservation objectives	LSE – A	LSE – IC
Western acidic oak woodland	Trampling	Increased use of woodland paths	The habitat is vulnerable to trampling from visitors along rights of way and other paths.	**Yes**	/
	Air Quality	Increases in nitrogen depositions from road traffic within 100m of A39 within SAC	This habitat is vulnerable to atmospheric deposition from increased vehicle trips arising from development causing loss of flora species that make up the cited habitats. Air pollution has been linked to ill health amongst trees, particularly over mature specimens, and also a failure to regenerate, either from coppice, pollard or seed. Nitrogen deposition can lead to decreases in mycorrhiza, loss of epiphytic lichens and bryophytes, and changes in ground vegetation.	**Yes**	/
Alder woodland on floodplains	Trampling	Increased use of woodland paths	The habitat is vulnerable to trampling from visitors along rights of way and other paths.	**Yes**	/
Barbastelle bats in SAC Barbastelle bats – functional habitat associated with SAC - north and west hedgerow	Disturbance /loss of roosts	Predominately roost in trees. Maternity roosts almost exclusively found in trees, in particular oaks in ancient woodlands.	Direct loss of roost habitat may result from woodland management and removal/maintenance of dead/decaying trees along pathways for the health and safety of visitors. Increase in visitors may disturb / bats in roosts which in turn can elevate stress levels and lead to disease/starvation. Woodland roosting bats generally more sensitive to disturbance than bats that roost in buildings.	**Yes**	/
	Disturbance /loss of foraging habitat	Communal hunting in home woodland as well as variety of other habitats	**Site** The north and west hedgerows on site are used by foraging and commuting.	**Yes**	/

		including other woodland, riparian habitat, grassland. Faithful to core foraging areas.	**SAC Habitats (recreation pressures)** Maternity colonies of Barbastelle bats are located within mature woodland, which is used year after year. Females disperse from the woodland to feed along established flyways to hunting areas which may be several kilometres away. Flyways consist of tracks and paths through woodland, overgrown hedgerows, and paths with hedgerows on both sides. In open country flyways follow watercourses lined with vegetation. To some extent the ability of the female to feed herself and dependent young depends on the condition of these flyways. Introduction of lighting can cause fragmentation of flyways as Barbastelle bats are highly sensitive to light and will actively avoid lit areas and may abandon commuting routes if they are illuminated. This can then impact accessibility to hunting grounds and ultimately impact populations due reduced breeding success. Protection and enhancement of preferred foraging habitats and linear landscape features (tree lines and hedgerows) connecting suitable foraging habitat.		
	Disturbance /loss / fragmentation of commuting habitat	Favour use of linear features as flyways between roost site and foraging areas. Commuting features include woodland edge habitat, hedgerows, paths with hedgerows, watercourses.		**Yes**	/
Bechstein's bat	Disturbance /loss of roosts	Predominately roost in trees. Maternity and hibernation roosts almost exclusively found in trees.	Direct loss of roosts may result from woodland management and removal/maintenance of dead/decaying trees along pathways for the health and safety of visitors. Increase in visitors may disturb / bats in roosts which in turn can elevate stress levels and lead to disease/starvation. Woodland roosting bats generally more sensitive to disturbance than bats that roost in buildings.	**Yes**	/
	Disturbance /loss of	Communal hunting in home woodland as well as variety of	Protection and enhancement of preferred foraging habitats and linear landscape features (tree	**Yes**	/

	foraging habitat	other habitats including other woodland, riparian habitat, grassland. Faithful to core foraging areas.	lines and hedgerows) connecting suitable foraging habitat		
	Disturbance /loss / fragmentation of commuting habitat	Favour use of linear features as flyways between roost site and foraging areas. Commuting features include woodland edge habitat, hedgerows, paths with hedgerows, watercourses.		Yes	/
Otter	Disturbance of foraging, resting or breeding locations	Otters could be sensitive to increased public access close to their holts and river territories, causing a change of behaviour or abandonment of breeding or resting site.	Negligible risk	No	No

A- Alone
IC – in-combination

2. APPROPRIATE ASSESSMENT – PART 1, REASONED APPRAISAL OF LIKELY SIGNIFICANT EFFECTS

An assessment of the implications for the SAC/Favourable Conservation Status of Qualifying Species, in view of its Conservation Objectives

Scope of Appropriate Assessment

The Sites and Qualifying Features for which significant effects (whether 'alone' or 'in combination') are likely and cannot be ruled out and are relevant to this appropriate assessment are:

- H91A0 - Western acidic oak woodland
- H91E0 - Alder woodland on floodplains
- S1308 – Barbastelle
- S1323 - Bechstein's bats

Environmental Pressure	Risk to Conservation Objectives and Relevant Design Features and Mitigation Measures
Trampling Old sessile oak woods and Alluvial Forests	The proposed development is for 58 new dwellings, which would increase the resident local population by approximately 130 people. A proportion of these are likely to spend some leisure time in accessing woodland in the Quantock component site of the SAC, including some with dogs. This would increase trampling along paths.

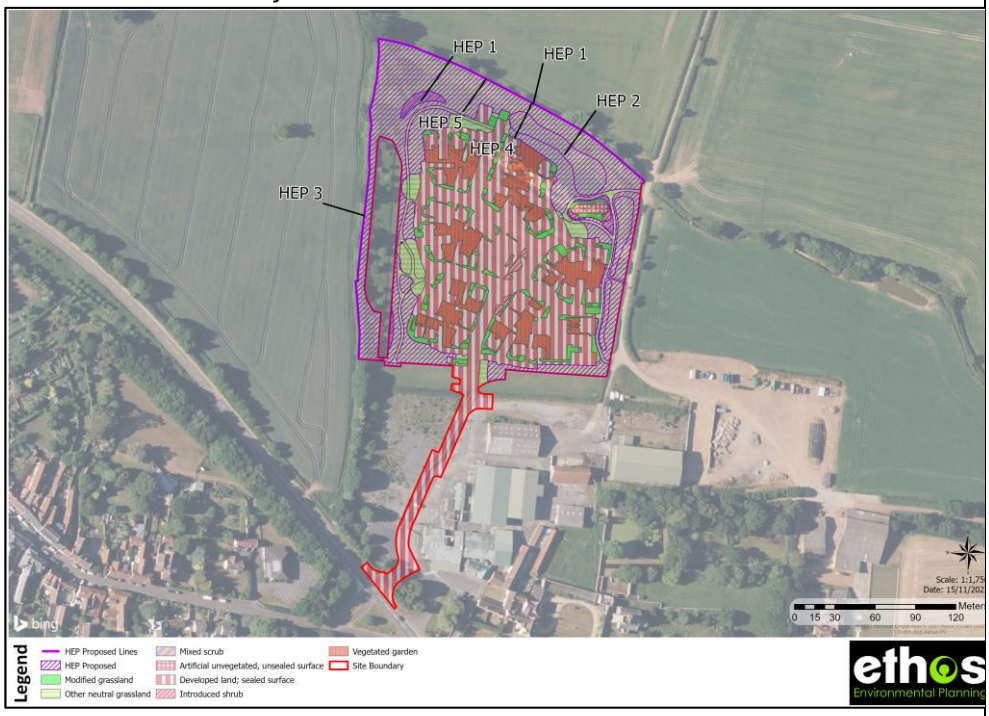
Alder woodland on floodplains	**Conservation objective:** **The extent and distribution of qualifying natural habitats and habitats of qualifying species.** Habitat deterioration and loss from trampling can occur from passages as low as 40 to 50 per year in woodland. Bluebell (*Hyachinthoides non-scripta*) stands are damaged through first passages and 35 passages results in a path that is still visible one year after. Trampling can eliminate species, particularly those of low productivity and especially ancient woodland flora; lichens and some mosses. Trampling can affect species presence 10 metres or more off paths. Horse riders and mountain bikers increase the effect. Plant species on wet soils are more vulnerable and broad-leaved plants disappear before grasses. It is considered that whilst footpaths are likely to be increasingly used it is also likely that this increase in use would continue to be sporadic and confined to the path itself. The habitats are managed by the Forestry Commission and Natural England who put appropriate measures in place to protect habitats from trampling damage, while allowing continued public usage. These include: • Maintenance of footpaths for access; • promoting access opportunities in farmland areas to shift pressures on more sensitive areas of the SAC; • awareness and engagement of people in stewardship of the qualifying habitats; and • implementing positive management by engaging landowners and agreeing and implementing woodland plans. It is considered that with only a sporadic increase in footfall and the existing mitigation measures in place, that the minor increase in recreational pressure would not result in an appreciable risk and therefore would not cause further habitat deterioration that would significantly impact the extent and distribution of the qualifying natural habitats.
Air Quality Old sessile oak woods and Alluvial Forests	**Conservation Objectives:** **The extent and distribution of qualifying natural habitats and habitats of qualifying species.** **The structure and function (including typical species) of qualifying natural habitats.** Air pollution has been linked to ill health amongst trees, particularly over mature specimens, and also a failure to regenerate, either from coppice, pollard or seed. Nitrogen deposition can lead to decreases in mycorrhiza, loss of epiphytic lichens and bryophytes, and changes in ground vegetation. An increase in the amount of traffic on roads including the A39, which runs adjacent to the north boundary of the SAC at Shervage and Alfoxton Woods may result in raised levels over that existing resulting in the loss of vulnerable flora due to deposition of pollutants.

	Road transport is the source of a number of airborne pollutants. The impacts of nitrogen and nitrogen oxides deposition on vegetation growth are of particular concern. Transport produces other pollutants including sulphur dioxide, ozone and particulates. Air pollution has been linked to ill health amongst trees, particularly over mature specimens, and also a failure to regenerate, either from coppice, pollard or seed. Nitrogen deposition can lead to decreases in mycorrhiza, loss of epiphytic lichens and bryophytes, and changes in ground vegetation[2]. It is considered that the influence of road traffic is likely to be confined to within 100 metres of the road in woodland habitats. Given employment opportunities in Somerset linked with employment development in Hinkley, Bridgwater and further afield it is unlikely that commuter traffic would increase significantly along this road. Historically the A39 at Holford may have had higher traffic levels following closure of the railway to Minehead and before road improvements to Barnstaple. The A39 runs along the north side Shervage Wood within the SAC. Traffic along the A39 may increase nitrogen deposition within 100 metres of the road. About 6ha would be affected by depositions from road traffic which is 1.5% of the area of woodland in the Quantocks component of the SAC. However sensitive species are found further than 100 metres away from the road and are therefore unlikely to be affected by air pollution. Therefore it is considered that the minor increase in traffic levels would not significantly effect the extent, distribution or structure or function of the qualifying habitats of the SAC.
Disturbance / loss of roosts Barbastelle & Bechstein's bats	**Conservation Objectives:** **The populations of qualifying species.** **The distribution of qualifying species within the site.** There is no information on the size of the SAC population or the trend in population numbers. Lacking the information, it is assumed for the purposes of the assessment that the colony numbers approximately 30 to 50 individual adult bats, which is the average population size for the species. There is likely to be increased recreational access generated by new residents for the proposed development. Barbastelle bats are very susceptible to disturbance and will often fly during day light if a roost is approached too closely. Many woodland bats are more sensitive to disturbance than a bat species which dwell in buildings. Felling carried out in an area close to where Barbastelle bats are roosting could result in sufficient disturbance to cause them to flee their roosts. In areas where there are known Barbastelle bat roosts, it is critically important to limit public access, rerouting public paths if necessary, to minimise accidental disturbance. Bechstein's bats may similarly be affected by disturbance at roost sites. A number of known Barbastelle bat roosts in SAC woodland are located close to public rights of way and increase use of these paths resulting in a level of disturbance that is not tolerated by Barbastelle bats. Bennett et al (2009)

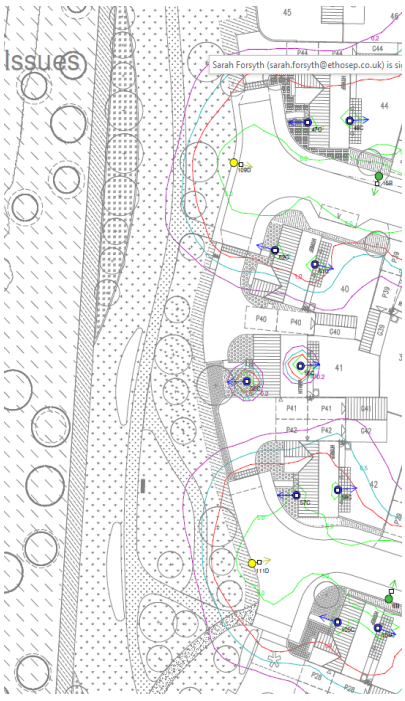
[2] http://www.apisdev.ceh.ac.uk/srcl/results?features=H91A0%2CH&submit=Next&sitecode=UK0030148&sitetype=SAC

	considered Barbastelle bats occupying roosts to be disturbed by human activity within 75 metres within woodland. However, a study of a colony of Barbastelle bats in Bovey Valley Woods in Devon found that in comparison to random point roosts were located on average closer to footpaths than not. Zeale in his study (2009) found that Barbastelle bats 'were never recorded moving away from roosts when approached by trackers during the day, as has occasionally been recorded elsewhere (Russo et al. 2004). Indeed, some roosts were located directly adjacent to footpaths frequently used by tourists. Despite this, in agreement with Russo et al. (2004) tracks and paths, where created to facilitate logging operations or recreational activities, should avoid likely barbastelle roosting areas and known roost locations to minimise disturbance.' The SAC maternity roost is located 4.7km as the crow flies away in Alfoxton Woods. It is considered that footpaths within Bin Combe and Severage Wood more likely to be used being closer and more accessible than those in Alfoxton Wood. Bechstein's bats are present in Alfoxton Wood and Hodder Combe, the latter is about 3.9km from the application site 'as the crow flies'. It is therefore unlikely that the proposed development would result in a significant effect on bat roosts due to the proximity of recreational disturbance.
Disturbance / loss of foraging habitats Barbastelle & Bechstein's bats	**Conservation Objectives:** **The structure and function of the habitats of qualifying species.** **The populations of qualifying species.** **The distribution of qualifying species within the site.** Within the colony's home range each has individual core areas of between 2 and 70 hectares (ha). Dietz et al (2009) report foraging areas of 8.8ha with single bats hunting each night in up to 10 separate areas. Although the home wood is shared there is minimal overlap of individual core foraging areas. Given the typical size of a Barbastelle bat colony the loss or degradation of one feeding area can be significant alone. The submitted Landscape Masterplan (Landmark Practice, 3613_TLP_XX_XX-DL_L_1001 Rev 12) shows areas of habitat that are suitable for supporting support prey species for bats including trees, rough grassland, swales and hedgerows. The majority of these habitats will be retained as dark habitat which will be available for foraging bats. An assessment of this habitat has been undertaken using the HEP metric provided in the technical guidance for the Exmoor and Quantocks Oak Woodlands SAC (appendix 1). The calculations exclude an area of habitat that was previously used for HEP habitats for the application to the south of the site. The available suitable bat habitats provide a **net gain of 0.49ha** of equivalent bat habitat over and above what would be required to ensure no overall loss of suitable foraging habitat.

HEP habitats available for bats:



Former Lighting Plan



Updated lighting plan

The updated lighting plans:

(i) with street lighting only 3216-DFL-ELG-XX-LD-EO-13001, PO7, DLF 08.03.24.

(ii) in combination, street lighting and external lighting on dwellings 3216-DFL-ELG-XX-LD-EO-13002, PO2, DLF 08.03.24.

	includes adjustment to locations of luminaries on the west boundary, such that there is further reduced, minimal ingress of light over 0.5 lux to the area, thereby slightly increasing the available HEP habitat on the west buffer habitat. **<u>Summary</u>** Development proposals have been designed to provide buffers to foraging habitat. The landscape plan provides habitat features suitable for prey species. HEP calculations demonstrate a gain of at least 0.49ha of suitable bat habitat over and above what would be required to ensure no significant effect on the integrity of the conservation objectives of the SAC. By mitigating loss of foraging habitat on the development site for barbastelle bats, this will maintain the features used by barbastelle (and Bechstein's) and therefore the breeding success (favourable conservation status) for the barbastelle (and Bechstein's).
Disturbance / loss of fragmentation of commuting habitat Barbastelle & Bechstein's bats	**Conservation Objectives:** **The structure and function of the habitats of qualifying species.** **The populations of qualifying species.** **The distribution of qualifying species within the site.** Barbastelle bat passes have been recorded along the hedgerows on site with the northern and western hedgerows being assessed of most importance. Introduced lighting could potentially affect the function of hedgerow habitat by increasing illumination above levels likely to cause adverse disturbance to commuting Barbastelle bats and their prey. Displacement could affect the fitness of more than 1% of Barbastelle bat maternity roosts which could be considered significant. The application site is remote from woodland that is used by the SAC Bechstein's bat population. However, loss of commuting structure used seasonally to access swarming sites may be affected. As the effect on Bechstein's would be similar to that on Barbastelle bats the risk is assessed further as for that on the latter species. The application site is remote from woodland that is used by the SAC Bechstein's bat population. If used by Bechstein's seasonally to access swarming sites to mate, for example, the effect of lighting would be of greater impact as the species is light sensitive. Updated lux contour plans for the proposals have been submitted which demonstrate that the retained and replacement habitats for bats around the western, northern and eastern boundaries are retained as dark habitats below 0.5 lux (refer to 'Horizontal Illuminance (lux) Plan, Nether Stowey Phase 2, Design for Lighting, refs: (3216-DFL-ELG-XX-LD-EO-13001, PO7, 08.03.24 and 3216-DFL-ELG-XX-LD-EO-13002, PO2, 08.03.24). The luminaries will be used with integral LED's only and all lighting will distribute light downwards only to reduce light spill onto bat habitat.

	As detailed in the lighting report (PO4, DFL, 2024), the design approach uses the main colour temperature as required by Somerset requirements, however in agreement with Somerset Council Highway Lighting Team and the County Ecologist, the colour temperature is reduced to PC amber lighting, to ensure that any residual light spill into the HEP corridors is in line with guidance. The lux contour plan (worst-case scenario modelling) demonstrates that the north and west bat commuting and foraging features are retained dark (below 0.5 lux) both horizontally and vertically (refer to appendix 2 of Lighting Report, P04, DfL 2024). External lighting on houses, front and rears, will be specified and maintained as down lighters only, with a maximum colour temperature of 2700K. Light spill is mitigated by using an optic with a narrow beam facing towards the ground. This will retain any light to the property area only, and not spill onto surround buffer habitat. The updated lux plan demonstrates that the combined light spill from street lighting and external lighting installed on dwellings, would not exceed 0.5 lux on sensitive bat habitat. The proposed landscape master plan shows that hedgerows being used by Barbastelle bats for commuting are being retained and buffered, it is therefore considered that the proposed development would not result in a significant effect on flyways used by Barbastelle bats. The bat activity surveys recorded a total of 11 records of Bechstein's bats on site, therefore, the seasonal presence of Bechstein's bats cannot be ruled out. However, the means of mitigation provide for Barbastelle will also ensure there is no effect on Bechstein's bats. By mitigating loss /fragmentation of commuting habitat on the development site for barbastelle bats, this will maintain the features used by barbastelle (and Bechstein's) and therefore the breeding success (favourable conservation status) for the barbastelle (and Bechstein's).

Residual Risks and Cumulative Effects:
There are no identified residual risks and appreciable effects likely to arise from this scheme that have the potential to act in-combination with those from other plans or projects.

3. CONCLUSIONS ON SITE INTEGRITY
Is the proposal likely to have a significant effect 'alone' or 'in combination' on a European Site?

In the absence of mitigation, the development has the potential to impact the integrity of the SAC (habitat and qualifying species) through the following LSEs:

- Habitat degradation (recreational pressures and air pollution effects)
- Disturbances to roosts in woodland habitats (recreational pressures)
- Loss and degradation of bat foraging habitat (development and recreational pressures)
- Loss and fragmentation of flyways (development and lighting)

The risks of recreational pressures and air pollution (nitrogen deposition) on the habitats of the SAC and risks of disturbance to roosts of the qualifying species in the woodland habitats; are assessed to

be sufficiently mitigated by existing woodland management as the development will not result in an appreciable increase in number of visitors to the SAC.
The mitigation measures provided within the scheme comprising the retention and buffering of commuting features; provision of a net gain in replacement bat habitat; and the design of the external lighting scheme (street and dwellings combined) to retain dark corridors (<0.5lux) on functional habitat associated with the SAC, means that favourable conservation status of the qualifying species of the SAC, Barbastelle and Bechstein's bats, will likely be avoided.

A landscape and Ecology Management Plan (LEMP) will also be required to ensure that replacement habitat is managed for the duration of the development to ensure that the mitigation is sustained and effective in its provision, so that an adverse effect does not occur in the medium and long term.

Therefore, it can be concluded, in view of the site conservation objectives, that the development proposals (taking into account the scheme's mitigation measures including a net gain in suitable replacement bat habitat and dark corridors on functional habitats) will not have an adverse effect on the integrity of the Exmoor and Quantocks Oak Woodlands SAC, either alone or in combination with other plans and projects; provided the mitigation (replacement bat habitat, dark corridors on functional habitat) is secured and delivered through planning obligations.