Beckington Neighbourhood Development Plan

Habitats Regulations Assessment

Locality

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Quality information

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Table of Contents

1. Introduction 1
1.1 Background to the Project 1
1.2 Legislative Framework 1
2. Methodology 3
2.2 HRA Task 1 – Likely Significant Effects 3
2.3 HRA Task 2 – Appropriate Assessment (AA) 4
2.4 HRA Task 3 – Avoidance and Mitigation 4
3. Summary of scoping of report 5
3.1 Introduction 5
3.2 Habitats sites relevant to the neighbourhood plan 5
3.3 Other plan documents considered for in-combination effects 6
4. Test of Likely Significant Effects 7
5. Appropriate assessment 8
5.1 Atmospheric pollution 8
5.2 Loss of functionally linked habitat 10
5.3 Recreational pressure 11
6. Conclusions and recommendations 14
7. References 15
Appendix A Figures 16
Appendix B Details of Habitats sites 17
B.1 Bath & Bradford on Avon Bats SAC 17
Description 17
Qualifying features 17
Environmental vulnerabilities 17
B.2 Mells Valley SAC 17
Description 17
Qualifying features 18
Environmental vulnerabilities 18
B.3 Mendip Woodlands SAC 18
Description 18
Qualifying features 18
Environmental vulnerabilities 19
B.4 Salisbury Plain SAC 19
Description 19
Qualifying features 19
Environmental vulnerabilities 20
Appendix C Screening of policies 21

Figures

Figure 1 Location of Habitats sites in relation to the BNDP 16

Tables

Table 1. Habitats sites included for consideration in this HRA 5
Table 2. Main sources and effects of air pollutants on habitats and species 8
Table 3. Band Widths for Horseshoe Bat Consultation Zone (in metres) 10

Table 4. Screening of policies 21

1. Introduction

1.1 Background to the Project

1.1.1 AECOM was appointed by Locality to undertake the appropriate assessment component of a Habitats Regulations Assessment (HRA) for the Draft Beckington Neighbourhood Development Plan 2023-2045 (BNDP). This is to inform the planning group and Somerset Council of the potential effects of the BNDP development on Habitats sites (Previously "European sites") and how they are being or should be addressed in the draft BNDP. Habitats sites are Special Areas of Conservation (SAC), Special Protection Areas (SPA) and as a matter of convention Ramsar sites. Somerset Council will then be able to utilise this report to inform their formal Habitats Regulations Assessment decision making regarding the Neighbourhood Plan.

1.2 Legislative Framework

1.2.1 The UK left the EU on 31 January 2020 under the terms set out in the European Union (Withdrawal Agreement) Act 2020 ("the Withdrawal Act"). This established a transition period, which ended on 31 December 2020. The Withdrawal Act retains the body of existing EU derived law within our domestic law. The most recent amendments to the Habitats Regulations – the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – make it clear that the need for HRA has continued after the end of the Transition Period.

1.2.2 Under the Conservation of Habitats and Species Regulations 2017 (as amended) (HM Government, 2017) (the "Habitats Regulations"), an appropriate assessment is required, where a plan or project is likely to have a significant effect upon an international site, either individually or in combination with other projects.

1.2.3 The following text from the regulations describes the requirements.

Conservation of Habitats and Species Regulations 2017 (as amended)

With specific reference to Neighbourhood Plans, Regulation 106(1) states that:
'A qualifying body which submits a proposal for a neighbourhood development plan must provide such information as the competent authority [the Local Planning Authority] *may reasonably require for the purposes of the assessment under regulation 105* [which sets out the formal process for determination of 'likely significant effects' and the 'appropriate assessment']…'.

1.2.4 It is therefore important to note that this report has two purposes:

1. To assist the Qualifying Body (Beckington Parish Council) in preparing their plan by recommending (where necessary) any adjustments required to protect international sites, thus making it more likely their plan will be deemed compliant with the Conservation of Habitats and Species Regulations 2017 (as amended); and
2. On behalf of the Qualifying Body, to assist the Local Planning Authority (Somerset Council) to discharge their duty under Regulation 105 (in their role as 'plan-making authority' within the meaning of that regulation) and Regulation 106 (in their role as 'competent authority').

1.2.5 As 'competent authority', the legal responsibility for ensuring that a decision of 'likely significant effects' is made, for ensuring an 'appropriate assessment' (where required) is undertaken, and for ensuring Natural England are consulted, falls on the local planning authority and the neighbourhood plan examiner. However, they are entitled to request from the Qualifying Body the necessary information on which to base their judgment and that is a key purpose of this report.

1.2.6 Over the years the phrase 'Habitats Regulations Assessment' has come into wide currency to describe the overall process set out in the Conservation of Habitats and Species Regulations from screening through to Imperative Reasons of Overriding Public Interest (IROPI). This has arisen in order to

distinguish the process from the individual stage described in the law as an ‘Appropriate Assessment’. Throughout this report we use the term Habitats Regulations Assessment for the overall process.

2. Methodology

2.1.1 The HRA has been carried out with reference to the general EC guidance on HRA (European Commission, 2001), general guidance on HRA published by the UK government in 2021 (Department for Environment, Food & Rural Affairs, 2021)

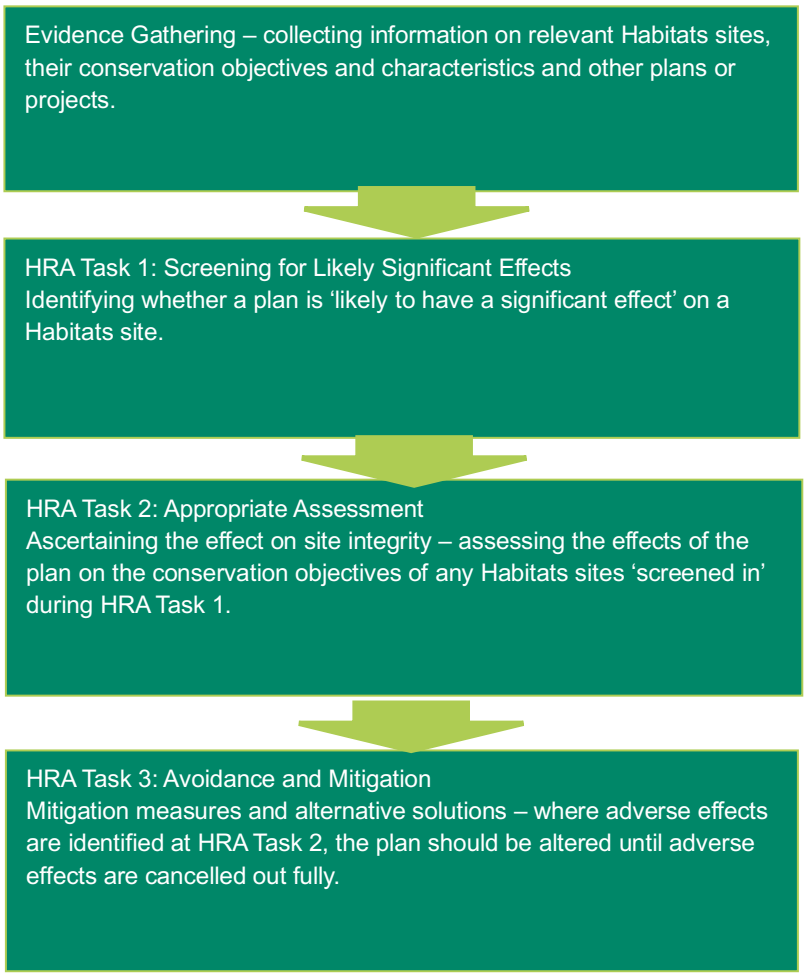


Plate 1. Four Stage Approach to Habitats Regulations Assessment (Department for Environment, Food & Rural Affairs, 2021)

2.1.2 Plate 1 above outlines the stages of HRA according to current Department for Levelling Up, Housing & Communities guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations, and any relevant changes to the Plan until no significant adverse effects remain.

2.2 HRA Task 1 – Likely Significant Effects

2.2.1 Following evidence gathering, the first stage of any Habitats Regulations Assessment is a Likely Significant Effect (LSE) test - essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

"*Is the project, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon Habitats (European) sites?*"

2.2.2 The objective is to 'screen out' those plans and projects that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon Habitats sites, usually because there is no mechanism for an adverse interaction with Habitats sites. This stage is undertaken in Chapter 4 of this report.

2.3 HRA Task 2 – Appropriate Assessment (AA)

2.3.1 Where it is determined that a conclusion of 'no likely significant effect' cannot be drawn, the analysis has proceeded to the next stage of HRA known as Appropriate Assessment. Case law has clarified that 'Appropriate Assessment' is not a technical term. In other words, there are no particular technical analyses, or level of technical analysis, that are classified by law as belonging to Appropriate Assessment rather than determination of likely significant effects. It literally means '*whatever level of further assessment is appropriate to form a conclusion regarding effects on the integrity of relevant European sites'.*

2.3.2 During July 2019 the Department for Levelling Up, Housing and Communities (DLHC) published guidance for Appropriate Assessment (Department for Levelling Up, Housing and Communities, 2019). Paragraph: 001 Reference ID: 65-001-20190722 explains: '*Where the potential for likely significant effects cannot be excluded, a competent authority must make an appropriate assessment of the implications of the plan or project for that site, in view of the site's conservation objectives. The competent authority may agree to the plan or project only after having ruled out adverse effects on the integrity of the habitats site. Where an adverse effect on the site's integrity cannot be ruled out, and where there are no alternative solutions, the plan or project can only proceed if there are imperative reasons of over-riding public interest and if the necessary compensatory measures can be secured*'.

2.3.3 One of the key considerations during Appropriate Assessment is whether there is available mitigation that would address the potential effect.

2.4 HRA Task 3 – Avoidance and Mitigation

2.4.1 Where necessary, measures are recommended for incorporation into the Plan in order to avoid or mitigate adverse effects on Habitats sites. There is considerable precedent concerning the level of detail that a Neighbourhood Plan document needs to contain regarding mitigation for recreational impacts on European sites. The implication of this precedent is that it is not necessary for all measures that will be deployed to be fully developed prior to adoption of the Plan, but the Plan must provide an adequate policy framework within which these measures can be delivered.

2.4.2 In evaluating significance, AECOM has relied on professional judgement and the Local Plan HRA regarding development impacts on the Habitats sites considered within this assessment.

2.4.3 When discussing 'mitigation' for a Neighbourhood Plan document, one is concerned primarily with the policy framework to enable the delivery of such mitigation rather than the details of the mitigation measures themselves since the Local Development Plan document is a high-level policy document. A Neighbourhood Plan is a lower-level constituent of a Local Development Plan.

3. Summary of scoping of report

3.1 Introduction

3.1.1 There is no guidance that dictates the general physical scope of an HRA of a Plan document. Therefore, in considering the physical scope of the assessment, we were guided primarily by the identified impact pathways (called the source-pathway-receptor model).

3.1.2 Briefly defined, impact pathways are routes by which the implementation of a project can lead to an effect upon a Habitats site. An example of this would be visual and noise disturbance arising from the construction/decommissioning work or operational phase associated with a project. If there are sensitive ecological receptors within a nearby European site (e.g. non-breeding overwintering birds), this could alter their foraging and roosting behaviour and potentially affect the site's integrity. For some impact pathways (notably air pollution) there is guidance that sets out distance-based zones required for assessment. For others, a professional judgment must be made based on the best available evidence.

3.2 Habitats sites relevant to the neighbourhood plan

3.2.1 Current guidance suggests that the following Habitats Sites should be included in the scope of an HRA assessment:

- Habitats sites within the plan area,
- Habitats sites within 10 km of the plan area, and
- Other Habitats sites which can be credibly linked to the BNDP via an 'impact pathway' (discussed below).

3.2.2 Generally, it is uncommon for elements of a neighbourhood plan be deemed to have significant impacts on Habitats Sites situated more than 10 km distant. However, impacts can extend beyond 10 km, particularly where hydrological pathways are involved. As such, the source-pathway-receptor concept is also used to help determine whether there are potential pathways connecting elements of the BNDP to Habitats Sites. This takes site-specific sensitivities into account.

3.2.3 Briefly defined, impact pathways are routes by which the elements of the IRMP can lead to an effect upon a Habitats Site. For example, pollution of water could affect Habitats Sites through causing harm to qualifying species of the site. it should be noted that the presence of a conceivable impact pathway linking the IRMP to a Habitats Site does not mean that LSE exist.

Table 1. Habitats sites included for consideration in this HRA

Site name and designation	Site Description	Distance and direction from BNDP area
Bath & Bradford on Avon Bats SAC	Comprises extensive networks of caves, mines and man-made tunnels which are used by bats for hibernation, mating and as a staging post prior to dispersal.	7.7 km north
Mells Valley SAC	Contains the maternity site associated with an exceptional breeding population of greater horseshoe bats *Rhinolophus ferrumequinum*.	3.4 km southwest
Mendip Woodlands SAC	Mendip Woodlands contains extensive examples of mixed woodlands on limestone.	9.6 km southwest
Salisbury Plain SAC	The largest surviving semi-natural dry grassland in Europe and is therefore the most important site for this habitat in the UK.	7.6 km east

3.2.4 Given that foraging bats can travel considerable distances, North Somerset and Mendips Bats SAC was reviewed for inclusion in this report, however the Guidance for Development (North Somerset Council, 2026) at this site indicates that the BNDP area is not within any of the consultation zones defined. The North Somerset and Mendips Bats SAC is not therefore considered within this HRA.

3.2.5 The River Avon SAC is just outside of the 10 km zone to the south, and which flows south to discharge into the English Channel at Christchurch. Beckington is in the catchment area for the River Frome which flows north from Beckington. The relevant water treatment works (Beckington Treatment Plant) discharges into the River Frome. The River Avon SAC is therefore not considered within this HRA.

3.3 Other plan documents considered for in-combination effects

3.3.1 The following plans are considered to have the potential to act in-combination with the BNDP:

- Wessex Water: Water Resource Management Plan 2024
- Mendip District Council Draft Local Plan 2006 – 2028
- Neighbourhood Plan for Frome 2008 – 2028

3.3.2 It should be noted that, while their broad potential effects are considered, this assessment does not undertake full HRA of each of these planning documents. Instead, where available, existing HRAs conducted for surrounding LPAs were drawn upon.

4. Test of Likely Significant Effects

4.1.1 Full results of the policy screening for LSE are presented in Appendix C of this report.

4.1.2 Nine polices within the BNDP were assessed, of these, one policy “Policy HA - Housing Allocation” was screened in for appropriate assessment.

4.1.3 Appropriate assessment for this policy is required for the following impact pathways:

- Atmospheric Pollution: Nitrogen deposition
- Functionally Linked Land
- Recreational Pressure

5. Appropriate assessment

5.1 Atmospheric pollution

5.1.1 The main pollutants of concern for Habitat sites are oxides of nitrogen (NOx), ammonia (NH3) and sulphur dioxide (SO2). Other pollutants that are of relevant to human health (e.g. particulates such as PM10) are not relevant to impacts on ecological receptors. NOx can have a directly toxic effect upon vegetation. In addition, greater NOx or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils. An increase in the deposition of nitrogen from the atmosphere to soils is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats.

Table 2. Main sources and effects of air pollutants on habitats and species

Pollutant	Source	Effects on habitats and species
Acid deposition	SO_2, NOx and ammonia all contribute to acid deposition. Although future trends in Sulphur (S) emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased Nitrogen (N) emissions may cancel out any gains produced by reduced S levels.	Can affect habitats and species through both wet (acid rain) and dry deposition. Some sites will be more at risk than others depending on soil type, bed rock geology, weathering rate and buffering capacity.
Ammonia (NH_3)	Ammonia is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but levels have increased considerably with expansion in numbers of agricultural livestock. Ammonia reacts with acid pollutants such as the products of SO_2 and NO_X emissions to produce fine ammonium (NH_4+) containing aerosol which may be transferred much longer distances (can therefore be a significant trans-boundary issue.)	Adverse effects are as a result of nitrogen deposition leading to eutrophication. As emissions mostly occur at ground level in the rural environment and NH_3 is rapidly deposited, some of the most acute problems of NH_3 deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides NO_x	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations, one-half from motor vehicles, and the rest from other industrial and domestic combustion processes.	Deposition of nitrogen compounds (nitrates (NO_3), nitrogen dioxide (NO_2) and nitric acid (HNO_3)) can lead to both soil and freshwater acidification. In addition, NO_x can cause eutrophication of soils and water. This alters the species composition of plant communities and can eliminate sensitive species.
Nitrogen (N) deposition	The pollutants that contribute to nitrogen deposition derive mainly from NO_X and NH_3 emissions. These pollutants cause acidification (see also acid deposition) as well as eutrophication.	Species-rich plant communities with relatively high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication, due to its promotion of competitive and invasive species which can respond readily to elevated levels of N. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O_3)	A secondary pollutant generated by photochemical reactions from NO_x and volatile organic compounds (VOCs). These are mainly released by the combustion of fossil fuels. The increase in combustion of fossil fuels in the UK has led to a large increase in background ozone concentration. Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	Concentrations of O_3 above 40 ppb can be toxic to humans and wildlife, and can affect buildings. Increased ozone concentrations may lead to a reduction in growth of agricultural crops, decreased forest production and altered species composition in semi-natural plant communities.
Sulphur Dioxide SO_2	Main sources of SO_2 emissions are electricity generation, industry and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in busy ports. Total SO_2 emissions have decreased substantially in the UK since the 1980s.	Wet and dry deposition of SO_2 acidifies soils and freshwater, and alters the species composition of plant and associated animal communities. The significance of impacts depends on levels of deposition and the buffering capacity of soils.

5.1.2 Sulphur dioxide emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil as well as (particularly on a local scale) shipping.

5.1.3 Ammonia emissions are dominated by agriculture, with some chemical processes also making notable contributions. As such, it is unlikely that material increases in SO2 or NH3 emissions will be associated with Local Plans. NOx emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). Within a 'typical' housing development, by far the largest contribution to NOx (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison . Emissions of NOx could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the Local Plan.

5.1.4 According to the World Health Organisation, the critical NOx concentration (critical threshold) for the protection of vegetation is 30 µgm-3; the threshold for sulphur dioxide is 20 µgm-3. In addition, ecological studies have determined "critical loads" of atmospheric nitrogen deposition (that is, NOx combined with ammonia NH3). These are bespoke to particular habitats and are available on the Air Pollution Information System apis.ac.uk.

5.1.5 According to the Department of Transport's Transport Analysis Guidance, "Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant" . This is because traffic exhausts are situated only a few inches above the ground and are horizontal to it, such that the vast majority of emitted pollutants are never dispersed far and are very quickly deposited. This distance is also related to the mix of the exhaust gases, the small dimension of the exhausts and the velocity of the exhaust gases leaving the exhaust.

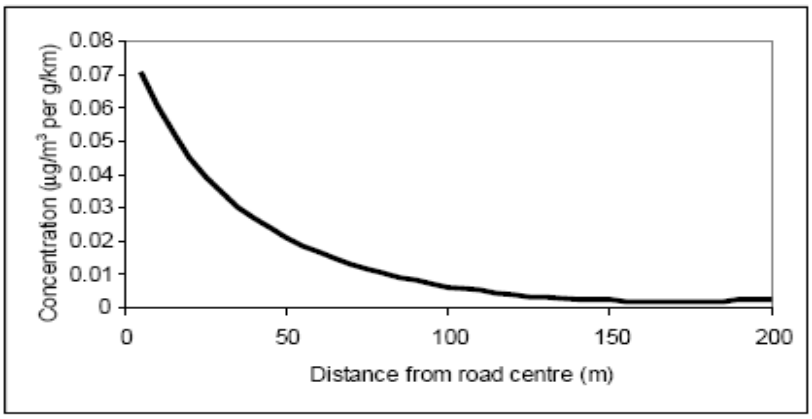


Plate 2: Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT[Error! Bookmark not defined.]**)**

5.1.6 This is therefore the distance that has been used throughout this HRA in order to determine whether Habitat sites are likely to be significantly affected by traffic generated by development under the NBDP.

5.1.7 The following identified Habitats sites are potentially vulnerable to atmospheric pollution from nitrogen deposition:

- Mells Valley SAC
- Mendip Woodlands SAC
- Salisbury Plain SAC

5.1.8 There are no major roads within 200 m of either the Mells Valley SAC or the Mendip Woodlands SAC.

5.1.9 Although major roads do pass through or adjoin the Salisbury Plain SAC the closest of these (A360) is approximately 20km from the BNDP. 2021 Census data indicates that the majority (nearly 70%) of people in employment in the UK travel less than 10 km to work and the remainder will generally have dispersed across the network by that distance.

5.1.10 Following appropriate assessment, it can be concluded that that there will be no adverse impacts on the integrity of Habitats sites alone or in combination through the impact pathway of atmospheric pollution.

5.2 Loss of functionally linked habitat

5.2.1 While most Habitat sites have been geographically defined in order to encompass the key features that are necessary for coherence of their structure and function, this is not the case for all such sites. Due to the highly mobile nature of waterfowl, it is inevitable that areas of habitat of crucial importance to the maintenance of their populations are outside the physical limits of the Habitat site for which they are an interest feature. However, this area will still be essential for maintenance of the structure and function of the interest feature for which the site was designated and land use plans that may affect this land should still therefore be subject to further assessment. This has been underlined by a recent European Court of Justice ruling (C-461/17, known as the Holohan ruling) which in paragraphs 37 to 40 confirms the need for an appropriate assessment to consider the implications of a plan or project on habitats and species outside the Habitat site boundary provided that those implications are liable to affect the conservation objectives of the site.

5.2.2 Loss of habitat related to the identified Habitats sites is potentially relevant as a threat to bat species. The designated bat features use functionally linked land surrounding the SACs to forage, commute and use for seasonal migration into the wider countryside.

5.2.3 The following qualifying species of bat are of relevance to the BNDP with respect to functionally linked land

- Bechstein's Bat *Myotis bechsteinii* (Bath & Bradford on Avon Bats SAC)
- Greater Horseshoe Bat *Rhinolophus ferrumequinum* (Bath & Bradford on Avon Bats SAC and Mells Valley SAC)
- Lesser Horseshoe Bat *Rhinolophus hipposideros* (Bath & Bradford on Avon Bats SAC)

5.2.4 **Bechstein's** bats tend to forage within or close to the woodland in which they roost (North Somerset Council, 2026), foraging distance is usually limited to 1-2 km of their roost (Bat Conservation Trust, 2026). Bath and Bradford Avon Bats SAC is 8.3 km from the BNDP area and therefore it can be concluded that there is no potential for loss of functionally linked land for Bechstein's bat within the NDBP area.

5.2.5 Consultation zones for horseshoe bats are provided in Table 1Table 3.

Table 3. Band Widths for Horseshoe Bat Consultation Zone (in metres)

Zone	Greater Horseshoe Bat Maternity Roost	Greater Horseshoe Bat Other Roost	Lesser Horseshoe Bat Maternity Roost	Lesser Horseshoe Bat Other Roost
A	0 – 2200	N/A	0 – 600	N/A
B	2201 – 4000	0 – 610	601 – 2500	0 – 300
C	4001 – 8000	611 – 2440	2301 – 4100	301 – 1250

Source: (Somerset County Council, 2019)

5.2.6 The Strategic Environmental Assessment and Habitats Regulations Screening Report for the BNP identifies that much of the Plan area lies within Band C for the Mells Valley Bats SAC and the Bath and Bradford on Avon Bats SAC.

5.2.7 The two site allocations identified within the plan are within Zone C for **greater horseshoe** bat maternity roosts for Mells Valley SAC. At the closest point, the site allocations are 8.9 km from the Bath and Bradford on Avon SAC and are therefore outside of any zone.

5.2.8 Although it is recognised that Greater Horseshoe bats mostly forage within 2.2km of a maternity roost, i.e. within Band A, they can also make regular use of key foraging habitat within 4km, i.e. within Band B. Furthermore, some key areas in Band C can be up to 8km away. .

5.2.9 The top five feeding areas include: pasture with cattle as single stock of part of mixed stock (38.6%); ancient semi natural woodland (16.6%); pastures with stock other than cattle (10.3%); meadows grazed by cattle in the autumn (9.4%); and other meadows and broadleaved woodland (4.9%) (Duverge, 1994).

5.2.10 Based on aerial imagery the proposed sites consist of woodland, arable land and scrub and are not cattle grazed.

5.2.11 Greater horseshoe bats travel away from the roost towards foraging grounds along distinct flight paths. The majority of flight paths (about 70%) run along the edges of woods, woodland rides or tall hedges, only rarely crossing open fields (Ransome, 1996).

5.2.12 The two site allocations are to the east of Beckington, whereas Mells Valley SAC is to west so there is no direct commuting route to the allocations and the allocations themselves do not contain strong features for use as foraging habitat or commuting routes. However, the A33 runs close to the allocation sites and is an unlit road (in this area) with hedgerows running alongside. This could be used for commuting purposes and, if so, could potentially be disrupted by construction or operational lighting.

5.2.13 There is a long history of development being delivered whilst taking into account roosting, commuting, and foraging locations for bats. The National Planning Policy Framework (NPPF) sets out government policy regarding consideration of biodiversity in planning decisions. Under the NPPF the presence of a protected species (such as the greater and lesser horseshoe bat) is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat, as such all bat species are protected irrespective of whether they are associated with an SAC. This would be through the detailed design of individual developments, the delivery of the developments and relevant planning obligations.

5.2.14 This could include provisions including habitat retention, habitat enhancements and designing lighting for the development that will not expose boundary features of retained/ enhanced habitats to artificial illumination greater than 0.5 lux through a combination of careful luminaire and lighting column design and physical separation between the relevant corridors and the built footprint of the development. Any planning application for allocated sited will need to be accompanied by up-to-date bat surveys and if the presence of horseshoe bats is identified using boundary features, there will be a requirement for an adequate buffer to the feature and other measures to control lighting in line with Bat Conservation Trust advice[1].

5.2.15 As such it is recommended that Policy EP – Environmental Protection and Sustainability be strengthened to include the following:

"The integrity of Sites which are designated for bats must be protected. Developers must take sufficient steps, including surveying for bats, to ensure development works do not have an adverse effect on a Habitats site. Failure to provide the necessary information in support of an application is likely to lead to delays in registration and determination, and the application may need to be withdrawn. If insufficient information is submitted to allow the local planning authority to assess the application in accordance with the Habitats Regulations, the application is likely to be considered unacceptable."

5.2.16 With this recommendation included, it can be concluded that there is no potential for loss of functionally linked land for greater horseshoe bat within the NDBP area.

5.2.17 For **lesser horseshoe bat** the BNDP area is not within any zone for Bath & Bradford on Avon Bats SAC. Therefore, it can be concluded that there is no potential for loss of functionally linked land for greater horseshoe bat within the NDBP area.

5.2.18 As there will be no loss of functionally linked habitat from the BNDP alone there can be no in combination effects.

5.2.19 Following appropriate assessment, it can be concluded that that there will be no adverse impacts on the integrity of Habitats sites alone or in combination through the impact pathway of loss of functionally linked land.

5.3 Recreational pressure

5.3.1 Human activity can affect bats either directly (e.g. by causing them to flee) or indirectly (e.g. by damaging their habitat). Human activity can also lead to behavioural changes (e.g. alterations in feeding behaviour, avoidance of certain areas etc.) and physiological changes (e.g. an increase in

[1] Artificial Lighting Guidance - Buildings, planning and development - Bat Conservation Trust

heart rate) that, although less noticeable, may ultimately result in major population-level effects by altering the balance between immigration/birth and emigration/death.

5.3.2 As well as disturbance of bat, physical damage to habitats is of relevance. This applies to the interest features of Mells Valley SAC. Most types of terrestrial Habitat site can be affected by trampling, which in turn causes soil compaction and erosion:

5.3.3 Wilson & Seney (Wilson, 1994) examined the degree of track erosion caused by hikers, motorcycles, horses and cyclists from 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, it was concluded that horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.

5.3.4 Research (Cole, 1995a) (Cole, 1995b) which conducted experimental off-track trampling in 18 closed forests, dwarf scrub and meadow & grassland communities (each tramped between 0 – 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and an inverse relationship with trampling intensity was discovered, although this relationship was weaker after one year than two weeks indicating some recovery of the vegetation. Differences in plant morphological characteristics were found to explain more variation in response between different vegetation types than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered least resistant. Cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were least resilient to trampling. It was concluded that these would be the least tolerant of a regular cycle of disturbance.

5.3.5 Cole (Cole, 1995c) conducted a follow-up study (in 4 vegetation types) in which shoe type (trainers or walking boots) and trampler weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier tramplers caused a greater reduction in vegetation height than lighter tramplers, but there was no difference in effect on cover.

5.3.6 Cole & Spildie (Cole D. S., 1998) experimentally compared the effects of off-track trampling by hiker and horse (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb understorey and one with a low shrub understorey). Horse traffic was found to cause the largest reduction in vegetation cover. The forb-dominated vegetation suffered greatest disturbance but recovered rapidly. Higher trampling intensities caused more disturbance.

5.3.7 Walkers with dogs contribute to pressure on sites through nutrient enrichment via dog fouling and also have potential to cause greater disturbance to fauna as dogs are less likely to keep to marked footpaths and also tend to move in a more erratic manner. Motorcycle scrambling and off-road vehicle use can cause more serious erosion, as well as disturbance to sensitive species.

5.3.8 The following identified Habitats sites are potentially vulnerable to recreational pressure:

- Bath and Bradford on Avon Bats SAC (8.3 km north)
- Mells Valley SAC (4.7 km southwest)

5.3.9 There is no defined core catchment area for recreational pressure for these Habitats sites. A typical distance for impact of 6.7 km in is used in this assessment.

5.3.10 Bath and Bradford on Avon Bats SAC is beyond this distance and it can therefore be concluded that there are no adverse impacts from recreational impacts on this site.

5.3.11 The BNDP allows for an increase of approximately 96 dwellings and some windfall development. On their own these are highly unlikely to create any noticeable increase in recreational pressure on the Mells Valley SAC, however in-combination effects must be considered.

5.3.12 The Site Improvement Plan[2] for Mells Valley lists public access/ disturbance as a threat to greater horseshoe bats, but not to Dry grasslands and scrublands on chalk or limestone.

[2] Available at: https://publications.naturalengland.org.uk/file/4896385117716480 [Accessed 25/06/2026]

5.3.13 The most likely risk of disturbance to greater horseshoe bats is through disturbance to their roosts. The bats utilize an interconnected network of natural caves, man-made tunnels, and historic stone ruins scattered across the landscape for both breeding and hibernation. The precise location of the key maternity roosts is not publicly available.

5.3.14 The HRA of the Mendip Local Plan (Somerset Council, 2024) concluded that there were no adverse effects on integrity of the Mells Valley SAC for recreational pressure as a result of the plan. The small amount of development in the BNDP will not change this conclusion.

5.3.15 Following appropriate assessment, it can be concluded that that there will be no adverse impacts on the integrity of Habitats sites alone or in combination through the impact pathway of recreational pressure.

6. Conclusions and recommendations

6.1.1 Nine polices within the BNDP were assessed, of these, one policy “Policy HA - Housing Allocation” was screened in for appropriate assessment.

6.1.2 Appropriate assessment for this policy for the identified impact pathways concluded that the BNDP would not have an adverse impact on the conservation objectives of any of the identified Habitats sites

6.1.3 No recommendations for changes to the BNDP were made.

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Appendix A Figures

Figure 1 Location of Habitats sites in relation to the BNDP

Appendix B Details of Habitats sites

B.1 Bath & Bradford on Avon Bats SAC

Description

This site comprises extensive networks of caves, mines and man-made tunnels which are used by bats for hibernation, mating and as a staging post prior to dispersal. It also includes areas of calcareous grassland, scrub and woodland which are used as feeding and commuting habitat by the bats[3].

Qualifying features

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II[4]:

- Bechstein's bat *Myotis bechsteinii*
- Greater horseshoe bat *Rhinolophus ferrumequinum*
- Lesser horseshoe bat *Rhinolophus hipposideros*

Environmental vulnerabilities

The Site Improvement Plan for the SAC lists the following threats and pressures[5]:

- Planning permission: general
- Change in land management
- Direct impact from third party
- Feature location/ extent unknown
- Offsite habitat availability/ management
- Public access/ disturbance
- Change in site conditions
- Inappropriate designation boundary

B.2 Mells Valley SAC

Description

Mells Valley in southern England contains the maternity site associated with an exceptional breeding population of greater horseshoe bats *Rhinolophus ferrumequinum*. A proportion of the population also hibernates at the site. The bats use a network of caves, quarries and old buildings.

An area of species-rich unimproved calcareous grassland occurs in the field to the east of Stoke Lane Quarry (in St Dunstan's Well Catchment SSSI). Sheep's-fescue *Festuca ovina,* meadow oat-grass *Avenula pratensis*, crested dog's-tail *Cynosurus cristatus* and common *bent Agrostis capillaris* are the most common grasses, and glaucous sedge *Carex flacca* and spring sedge *C. caryophyllea* are abundant. Herbs of interest include Lady's mantle *Alchemilla filicaulis,* devil's-bit scabious *Succisa pratensis*, salad burnet *Sanguisorba minor*, cowslip *Primula veris*, fairy flax *Linum catharticum*,

[3] Available at: https://publications.naturalengland.org.uk/file/6652449532149760 [Accessed 24/06/2026]
[4] Ibid
[5] Available at: https://publications.naturalengland.org.uk/file/5753272461688832 [Accessed 24/06/2026]

common rock-rose *Helianthemum nummularium* and wild thyme *Thymus praecox*. Early-purple orchid *Orchis mascula* and common spotted-orchid *Dactylorhiza fuchsii* are widespread[6].

Qualifying features

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I[7]:

- Caves not open to the public
- Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*FestucoBrometalia*). (Dry grasslands and scrublands on chalk or limestone)

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II[8]:

- Greater horseshoe bat *Rhinolophus ferrumequinum*

Environmental vulnerabilities

The Site Improvement Plan for the SAC lists the following threats and pressures[9]:

- Public access/ disturbance
- Wildfire/ arson
- Direct impact from 3rd party
- Undergrazing
- Inappropriate designation boundary
- Air pollution: impact of nitrogen deposition

B.3 Mendip Woodlands SAC

Description

Mendip Woodlands contains extensive examples of mixed woodlands on limestone. They have developed on dolomitic conglomerate, lower limestone shales and Carboniferous limestone strata on the southern escarpment of the Mendip Hills. Although they are dominated by ash *Fraxinus excelsior* a rich variety of other trees and shrubs are present, including elm *Ulmus spp*., small-leaved lime *Tilia cordata* field maple *Acer campestre* and whitebeam *Sorbus aria*. At Ebbor Gorge elm rather than lime is mixed with ash in a steep-sided gorge; at both Rodney Stoke and Cheddar Wood lime and ash are found on rocky slopes with patches of deeper soil between the outcrops. Ferns, characteristic of this woodland type, such as hart's-tongue Phyllitis scolopendrium and shield-ferns *Polystichum spp.*, are common. The site is in the centre of the range of common dormouse *Muscardinus avellanarius* and Cheddar Wood holds a large population of this species[10].

Qualifying features

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I[11]:

- Tilio-Acerion forests of slopes, screes and ravines. (Mixed woodland on base-rich soils associated with rocky slopes)

[6] Available at: https://publications.naturalengland.org.uk/file/6301977415778304 [Accessed 24/06/2026]
[7] Ibid
[8] Ibid
[9] Available at: https://publications.naturalengland.org.uk/file/4896385117716480 [Accessed 24/06/2026]
[10] Available at: https://publications.naturalengland.org.uk/file/5707512066080768 [Accessed 24/06/2026]
[11] Ibid

Environmental vulnerabilities

The Site Improvement Plan for the SAC lists the following threats and pressures[12]:

- Vehicles: illicit
- Deer
- Disease
- Air pollution: impact of atmospheric nitrogen deposition

B.4 Salisbury Plain SAC

Description

Salisbury Plain in central southern England is believed to be the largest surviving semi-natural dry grassland in Europe and is therefore the most important site for this habitat in the UK. It supports extensive examples of upright brome *Bromopsis erecta* grassland, the most widespread calcareous grassland in the UK, with significant areas of *Avenula pubescens* grassland and the rare sheep's-fescue – mouse-ear-hawkweed – wild thyme *Festuca ovina – Hieracium pilosella – Thymus praecox* grassland. The wider site supports the largest UK population of the nationally scarce burnt orchid *Orchis ustulata*, together with significant populations of green-winged orchid *Orchis morio* and frog orchid *Coeloglossum viride*, both uncommon orchids associated with calcareous grassland.

Salisbury Plain represents *Juniperus communis* formations near the southern edge of the habitat's range on chalk in southern England, where it is particularly rare. This site is the best remaining example in the UK of lowland juniper scrub on chalk. The juniper is juxtaposed with extensive semi-natural dry grassland and chalk heath. Other scrub habitat has developed recently by invasion of open chalk grassland, some areas containing few typical shrub species and others with the southern mixed scrub type, enriched by roses *Rosa spp.*, wild privet *Ligustrum vulgare*, dogwood *Cornus sanguinea*, wayfaring tree *Viburnum lantana* and other species characteristic of the type.

Salisbury Plain also supports an important population of marsh fritillary butterfly *Euphydryas aurinia* on dry calcareous grassland with large sub-populations breeding on chalk grassland[13].

Qualifying features

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I[14]:

- *Juniperus communis* formations on heaths or calcareous grasslands. (Juniper on heaths or calcareous grasslands)
- Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*). (Dry grasslands and scrublands on chalk or limestone)
- Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) (important orchid sites). (Dry grasslands and scrublands on chalk or limestone, including important orchid sites)

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia*

[12] Available at: https://publications.naturalengland.org.uk/file/6231948148080640 [Accessed 24/06/2026]
[13] Available at: https://publications.naturalengland.org.uk/file/5364389880266752 [Accessed 24/06/2026]
[14] Ibid

Environmental vulnerabilities

The Site Improvement Plan for the SAC lists the following threats and pressures[15]:

- Changes in species distribution
- Air pollution: risk of atmospheric nitrogen deposition

[15] Available at: https://publications.naturalengland.org.uk/file/5230260905836544 [Accessed 24/06/2026]

Appendix C Screening of policies

Table 4. Screening of policies

Policy Name	Brief Policy Description	Potential Likely Significant Effect?
Policy VL - Valued Landscape Protection	Development proposals within the defined Values Landscape Zone (VLZ) must: • must demonstrate how they protect and enhance the landscape's special physical attributes and identified qualities. • Proposals must align with the findings of the Landscape Value Statement and provide evidence via a Landscape Visual Impact Assessment (LVIA) of how they will preserve the zone's beauty, tranquillity, ecological value, and cultural significance.	**No Likely Significant Effects** This policy provides guidance for development in relation to the local landscape. It does not in itself lead to any development.
Policy HE – Heritage and Historic Environment	Development proposals must preserve or enhance the special architectural and historic interest of heritage assets, including listed buildings and the Conservation Area.	**No Likely Significant Effects** This policy provides guidance for development in relation to the local heritage features. It does not in itself lead to any development.
Policy EP – Environmental Protection and Sustainability	Development proposals must demonstrate that they will not exacerbate the risk of untreated wastewater entering the River Frome and must protect and enhance local biodiversity.	**No Likely Significant Effects** This policy provides guidance for development in relation to the potential to create additional wastewater. It is a positive environmental policy designed to prevent/ reduce wastewater entering the local water courses. It does not in itself lead to any development.
Policy LGS - Local Green Space	Development within and adjacent to defined Local Green Spaces will only be supported in very special circumstances. This may include essential utility infrastructure,	**No Likely Significant Effects** This policy provides guidance for development in relation to local green spaces. It is a positive environmental policy designed to maintain the integrity of those green spaces. It does not in itself lead to any development.
Policy PV - Protected Views	Developments should be located and designed to take account of the identified Protected Views, preserving, conserving and, where practicable, enhancing such views and/or providing greater accessibility to them.	**No Likely Significant Effects** This policy provides guidance for development in relation to the local protected views. It does not in itself lead to any development.
Policy AT - Active Travel	Development Proposals must consider how residents will be able to move around the parish without reliance on a motor vehicle.	**No Likely Significant Effects**

		This policy provides guidance for development proposals in relation to transport, it promotes the availability of low carbon transport options. It does not in itself lead to any development.
Policy HM - Housing Mix	To be supported, proposals for 3 or more homes must provide a mix of dwellings that meets local needs identified in the latest Beckington Housing Needs Assessment (HNA). Proposals should deliver a balance of different housing unit types and sizes which help to bring Beckington's housing mix closer to the suggested 'ideal' mix as set out in the most recent HNA.	**No Likely Significant Effects** This policy provides guidance for development proposals in relation to housing mix. It does not in itself lead to any development.
Policy HD - Housing Design	All proposals for new development and alterations that require planning permission must demonstrate due regard to the objectives, guidance and codes set out in the Beckington Parish Design Guidance and Codes Report dated August 2024.	**No Likely Significant Effects** This policy sets out the requirement for development plans to adhere to the current guidance and codes. It does not in itself lead to any development.
Policy HA - Housing Allocation	The following sites have been identified as potentially suitable for housing to meet the balance of the indicative requirement of 95 new homes between 2025 and 2045: • Land North of the Warminster Road (BNDP SA36). • Land between the Warminster Road and A36 (BNDP SA7). Windfall and speculative sites will be considered providing that they contribute to the housing requirement.	**Likely Significant Effects** This policy identifies sites and indicative numbers of dwellings to be built. This policy is screened in for the following impact pathways: • Atmospheric pollution: nitrogen deposition • Loss of functionally linked land • Recreational pressure

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