

Pulborough Neighbourhood Development Plan 2019-2031: Regulation 14 Draft

Habitats Regulations Assessment (HRA) including Appropriate Assessment – April 2020







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# Contents

Summa	ary	vi
1.	Introduction	1
1.1	The Purpose of This Report	1
1.2	The Pulborough Neighbourhood Plan 2014-2031 (April 2019)	1
2.	Legislative Background	2
2.1	Habitats Regulations Assessment (HRA)	2
3.	HRA Screening	3
3.1	Habitat Regulations Assessment of Development Plans	3
3.2	Court Judgements and their consideration in this Report	3
3.3	Habitats (European) Sites	4
3.4	Method and Approach (overview and HRA Screening)	6
3.5	Results of HRA Screening of Pulborough Neighbourhood Plan Policies	10
3.6	HRA Screening Conclusion and Considering the Next Stage	22
4.	Appropriate Assessment and Considering the Integrity Test	23
4.1	Introduction to Appropriate Assessment	23
4.2	Approach and Methodology of the Appropriate Assessment	24
4.3	Stage 2 Appropriate Assessment for Pulborough Neighbourhood Plan	26
<b>5</b> .	Conclusions	35
Append	dix I	36
The Nei	ighbourhood Plan Area for Pulborough	36
Append	II xib	37
Pulboro	ough parish and Habitats sites within 20km	37
Append	III xib	38
Characteristics of Habitats Sites		38
Appendix IV		
Barbast	telle Maternity Woods Key Flightlines	61



## **List of Tables**

Table 1: Habitats Sites within 20km of the development	5
Table 2: Assessment of potential impacts	8
Table 3: Screening categories	9
Table 4: Summary of Findings from the HRA screening	10
Table 5: Results of embedding mitigation within the policy text of Pulborough Neighbourhood Plan	28
Table 6: Other plans or projects considered for in combination effects	31

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#### Report version control:

Version	Date	Author	Description of changes
1.1	1.12.19	Zara Hanshaw	Drafted
1.2	11.12.19	Sue Hooton	Reviewed internally
1.3	12.12.19	Zara Hanshaw	Updated
1.4	19.12.19	Sue Hooton	Drafted
1.5	14.01.20	Sue Hooton	Issue
1.6	25.03.20	Jonathan Crane	Final updated

Horsham District Council

Client:



# Glossary of Acronyms

AA Appropriate Assessment

DC District Council

DPD Development Plan Document

EA Environment Agency
EC European Commission

EU European Union

Ha Hectare

HDC Horsham District Council

HRA Habitats Regulations Assessment
IRZ Impact Risk Zone (for SSSIs)

Km Kilometre

LPA Local Planning Authority

NP Neighbourhood Development Plan

NE Natural England

NPPF National Planning Policy Framework

PRoW Public Right of Way

RAMS Recreational disturbance Avoidance and Mitigation Strategy

SAC Special Area of Conservation
SIP(s) Site Improvement Plans(s)
SPA Special Protection Area

SSSI Site of Specific Scientific Interest SuDS Sustainable Drainage System

ZOI Zone of Influence



## Summary

- 0.1 The Conservation of Habitats and Species Regulations 2017 requires the Competent Authority to undertake a Habitat Regulations Assessment (HRA) before making a decision about permission for any plan or project, which may result in a likely significant effect upon a Habitats (European) Site.
- 0.2 As the Habitats Regulations Assessment screening indicates that, without mitigation for potential impacts on protected species outside the protected sites and on water quantity and quality, it is not possible to rule out likely significant effect from the Regulation 14 Pre-Submission Pulborough Neighbourhood Plan. It is not possible to embed mitigation at Stage 1 HRA screening so Stage 2 Appropriate Assessment is triggered.
- 0.3 An Appropriate Assessment has therefore been prepared to enable Horsham District Council, the Local Planning Authority, to comply with Regulation 63 of The Conservation of Habitats and Species Regulations 2017.
- 0.4 There is potential for Likely Significant Effects on designation features of Sussex Bat SACs (Barbastelle and Bechstein's bats, both Annex II of the Habitats Directive) from impacts to Functionally Linked Land within the Parish (ie outside of the Habitats sites) from severance of hedgerows and lighting. There is also potential for Likely Significant Effects, due to linkages to watercourses, on designation features of Arun Valley SPA, SAC & Ramsar sites from water abstraction and discharge to the River.
- 0.5 The recommendation of this HRA Appropriate Assessment is that mitigation measures need to be embedded into the text for each of the policies in the Plan which have been assessed as Category C in Table 4. As it is not sufficient to rely on a general policy aimed at protecting Habitats sites, explicit caveats need to be included where there may be conflicts between a general policy to protect Habitats sites from development and another policy. The amended text therefore needs to refer to avoiding adverse effect on site integrity of the The Mens SAC, Ebernoe Common SAC and Arun Valley SPA, SAC & Ramsar sites. Such additional wording has been factored into the Plan policies.
- 0.6 Safeguards to be added include a commitment to ensure that any phasing of development does not exceed infrastructure capabilities and that the necessary upgrades are in place prior to development coming forward) will ensure that a given development will not proceed until the necessary infrastructure upgrades have been provided as necessary in accordance with Southern Water and Environment Agency advice; good practice in relation to run off, air quality & noise during construction, on site silt management etc. to secure Construction Environment Management Plan (CEMP); ensure that waste water treatment for all new development meets Environment Agency requirements and avoid habitat damage, loss and fragmentation of Key Conservation Areas for bat foraging and commuting.
- 0.7 Assuming that the text within policies 1-15 of the Regulation 14 Pre-Submission Pulborough Neighbourhood Plan are amended, and re-applying the integrity test to consider the mitigation, these polices can be removed from further assessment. This therefore demonstrates Horsham DC's compliance with the Conservation of Habitats and Species Regulations 2017.
- 0.8 It is concluded that, provided the Regulation 14 Pre-Submission Pulborough Neighbourhood Plan is amended to embed the recommended mitigation measures in the policies identified, which has been forthcoming, this Plan will have no adverse impact on site integrity of the Habitats sites within scope for this assessment, either alone or in combination.



## 1. Introduction

#### 1.1 The Purpose of This Report

This report screens to determine whether the Regulation 14 Pre-Submission Pulborough Neighbourhood Plan 2014-2031 requires a Habitats Regulations Assessment (HRA) in accordance with Article 6(3) and (4) of the EU Habitats Directive and with Regulation 63 of the Conservation of Habitats and Species Regulations 2017. A Stage 1 HRA is required when it is deemed that likely adverse significant effects may occur on protected Habitats (European) Sites as a result of the implementation of a plan/project, either alone or in combination with other plans and projects.

## 1.2 The Pulborough Neighbourhood Plan 2014-2031 (April 2019)

The main purpose of the Plan is to set out and identify the best ways to direct local planning towards community wants and needs, while protecting the natural environment and cultural assets, ensuring a more sustainable future for the community. The Regulation 14 Pre-Submission Neighbourhood Plan will set out planning policies for Pulborough Parish and within the confines of the Neighbourhood Plan boundary as defined (see Appendix 1).

Once formally 'made' or 'adopted', a Neighbourhood Plan carries the same legal weight as Local Development Plans adopted up by the Local Planning Authority (LPA), in this case Horsham District Council.



# 2. Legislative Background

### 2.1 Habitats Regulations Assessment (HRA)

Under the provisions of the EU Habitats Directive and translated into English law by the Habitats Regulations (*The Conservation of Habitats and Species Regulations 2017*), a competent authority must carry out an assessment of whether a plan or project will significantly affect the integrity of any Habitats Site, in terms of impacting the site's conservation objectives.

The first stage of HRA is the screening assessment of the impacts of a land use proposal against the conservation objectives of Habitats sites. Specifically, it is to ascertain whether or not a proposal (either alone or in combination with other proposals) would potentially damage the internationally designated features of that site. European sites are also known as Natura 2000 sites and Habitats sites in the NPPF (2019).

This HRA Screening Report has been undertaken in order to support the Pulborough Neighbourhood Plan which is being produced by Pulborough Parish Council in accordance with the Neighbourhood Planning (General) Regulations 2012. The area covered by the Plan is shown in Appendix 1.

The Neighbourhood Planning (General) Regulations 2012, state that submitted Plans need to be accompanied by a statement explaining how the proposed Plan meets the 'basic conditions' set out in Schedule 4B of the 1990 Town and Country Planning Act. These basic conditions include a requirement to demonstrate how the Plan is compatible with EU obligations, which includes the need to undertake a HRA.

In line with the Court judgement (CJEU People Over Wind v Coillte Teoranta C-323/17), mitigation measures cannot be taken into account when carrying out a screening assessment to decide whether a plan or project is likely to result in significant effects on a Habitats site.

The recent Court judgement (CJEU Holohan C- 46117/18) now imposes more detailed requirements on the competent authority at Appropriate Assessment stage although this is not part of this report.



# 3. HRA Screening

## 3.1 Habitat Regulations Assessment of Development Plans

This section forms a plan level Habitats Regulations Assessment (HRA) screening report as required by Regulation 63 of The Conservation of Habitats and Species Regulations 2017.

This section of this Report aims to:

- Identify the Habitats sites within 20km of the Pulborough Plan area.
- Summarise the reasons for designation and Conservation Objectives for each site to be considered in this assessment.
- Screen the Pulborough Neighbourhood Plan for its potential to impact upon a Habitats site.
- Assess the potential for in combination effects from other projects and plans in the area.
- Identify if there are any outstanding issues that need further investigation.

### 3.2 Court Judgements and their consideration in this Report

## 3.2.1 CJEU People Over Wind v Coillte Teoranta C-323/17

As previously mentioned, in line with the Court judgement (CJEU People Over Wind v Coillte Teoranta C-323/17), mitigation measures cannot be taken into account when carrying out a screening assessment to decide whether a plan or project is likely to result in significant effects on a Habitats Site.

This HRA Screening Report does not therefore consider mitigation measures within the assessment of Likely Significant Effects resulting from the Pulborough Neighbourhood Development Plan.

#### 3.2.2 CJEU Holohan C- 461/17

This Court judgement now imposes more detailed requirements on the competent authority for any plans or projects at Appropriate Assessment stage:

- 1. [...] an 'Appropriate Assessment' must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.
- 2. [...] the competent authority is permitted to grant to a plan or project consent which leaves the developer free to determine subsequently certain parameters relating to the



construction phase, such as the location of the construction compound and haul routes, only if that authority is certain that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

3. [...] where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be obtained, the 'Appropriate Assessment' must include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned.

Within this Stage 1 HRA Screening report, the assessment will determine the requirement for whether or not a Stage 2 Appropriate Assessment is needed for the Pulborough Neighbourhood Development Plan.

### 3.3 Habitats (European) Sites

'Habitats sites' is the term used in the (revised) NPPF (2019) to describe the network of sites of nature protection areas. The aim of the network is to assure the long-term survival of Europe's most valuable and threatened species and Habitats.

The sites are designated under the European Union (EU) Birds Directive (Council Directive 79/409/EEC on the Conservation of Wild Birds) and the EU Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora).

The Birds Directive requires the establishment of Special Protection Areas (SPAs). The Habitats Directive similarly requires Special Areas of Conservation (SACs) to be designated for other species, and for Habitats. Wetlands of International Importance (Ramsar sites) are also part of the Habitats (Sites) network. This is because all SPAs and SACs are comprised of Sites of Special Scientific Interest (SSSIs) and all Ramsar sites in England are SSSIs. Together, SPAs, SACs and Ramsar Sites make up the Habitats Sites in England. The following offers a description and explanation of SPAs, SACs and Ramsar Sites.

### 3.3.1 Explanation of SPAs, SACs and Ramsar Sites

#### **Special Protection Areas (SPAs)**

SPAs are areas which have been identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds found within EU countries. Example: The Arun Valley SPA is internationally important for wintering waterfowl. *Legislation: EU Birds Directive*.

#### **Special Areas of Conservation (SACs)**

SACs are areas designated to protect habitat types that are in danger of disappearance, have a small natural range, or are highly characteristic of the region; and to protect species that are endangered, vulnerable, rare, or endemic. Example: The Mens SAC is designated as a woodland which features Barbastelle bat maternity roosts.



#### Ramsar Sites (Wetlands of International Importance)

Ramsar Sites are designated to protect the biological and physical features of wetlands, especially for waterfowl Habitats. example Ramsar sites often overlap with SACs and SPAs and UK planning policy determines that they should be accorded the same importance when developments are proposed. Example: Chichester and Langstone Harbours Ramsar is an estuarine system on the south coast of England, unique in Britain and Europe for their hydrographic regime with double tides, as well as for the complexity of the marine and estuarine habitats present within the area. Legislation: Ramsar Convention (1971) – Wetlands of International Importance.

#### 3.3.2 Habitats Sites to be considered

There are 12 Habitats sites (SPA/SAC/Ramsar) which lie within 20 km of Pulborough plan area and are shown on the map in Appendix 2. The Plan area lies within the 5km Impact Risk Zone (IRZs) for the Arun Valley SPA, SAC and Ramsar sites, 12km Zone of Influence for The Mens SAC and Ebernoe Common SAC evidenced by the Draft Sussex Bat SAC Planning and Landscape scale Enhancement Protocol (South Downs National Park Authority & Natural England, undated). However the parish lies outside the IRZs for Pagham Harbour SPA & Ramsar site and Wealden Heaths Phase II.

Table 1: Habitats Sites within 20km of the development

SPA	SAC	Ramsar
The Arun Valley	Ebernoe Common	The Arun Valley
Pagham Harbour	The Mens	Pagham Harbour
Wealden Heaths Phase II	The Arun Valley	
	Duncton to Bignor Escarpment	
	Singleton And Cocking Tunnels	
	Rook Clift	
	Kingley Vale	

The Plan area lies with the Zones of Influence of 5 Habitats Sites as identified by Natural England to consider potential impacts on statutory sites. However, the only underpinning SSSIs listed by Natural England as in scope for residential development in Pulborough Parish are the Arun Valley SSSIs (Pulborough Brookes SSSIs, Amberley Wild Brooks SSSIs and Waltham Brook SSSI) which make up the SPA, SAC and Ramsar site, Ebernoe Common SSSI (SAC) and The Mens SSSI (SAC). The other Habitats sites are therefore scoped out from any further assessment in this report.



After consideration of the Zones of Influence as shown on MAGIC website <a href="www.magic.gov.uk">www.magic.gov.uk</a>, in relation to the types of development identified in the Neighbourhood Plan, it was concluded that the FOUR Habitats Sites underpinned by the above two SSSIs should now be assessed for any likely significant effects resulting from the Regulation 14 Draft Pulborough Neighbourhood Plan.

#### 3.3.3 Conservation Objectives

Information on each of the above Habitats sites has been obtained from the Natural England website.

Appendix 3 indicates the reason why each Habitats site is important and has been designated; the Conservation Objectives and Designation Features for each site. It also reflects the Supplementary Advice for Conservation Objectives which describes the range of ecological attributes that are most likely to contribute to a site's overall integrity and key vulnerabilities to consider within Habitats Regulations assessments.

### 3.4 Method and Approach (overview and HRA Screening)

The Neighbourhood Planning (General) Regulations 2012, state that submitted Plans need to be accompanied by a statement explaining how the proposed Plan meets the 'basic conditions' set out in Schedule 4B of the 1990 Town and Country Planning Act. These basic conditions include a requirement to demonstrate how the Plan is compatible with EU obligations, which includes the need to undertake a HRA screening report; this is necessary to ensure the making of the neighbourhood plan is not likely to have a significant effect on a Habitats (European site or a European offshore marine site), either alone or in combination with other plans or projects.

# 3.4.1 Potential impacts of the Pulborough Neighbourhood Plan on Habitats Sites

During the Screening stage each policy has been screened for Likely Significant Effects. Where it is not possible to rule out Likely Significant Effects there will be a need to progress to Stage 2 Appropriate Assessment.

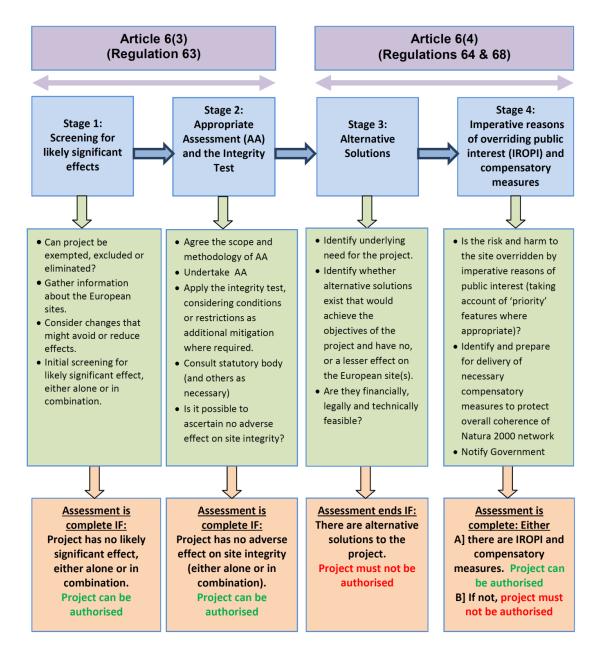
There are a wide range of potential impacts from development which can be summarised below as likely to cause a Likely Significant Effect -

- Habitat loss and fragmentation / land take as a result of development;
- Impact on Designated interest features (species) which travel outside the protected sites
  (Functionally Linked Land) may be relevant where development could result in effects on qualifying
  species within the Habitats site, for example through the loss of feeding grounds or severance of
  flightlines for an identified species.
- Increased disturbance, for example from recreational use resulting from new housing development and / or improved access due to transport infrastructure projects;
- Changes in water availability, or water quality as a result of development and increased demands for water treatment, and changes in groundwater regimes due to increased impermeable areas;



Changes in atmospheric pollution levels due to increased traffic, waste management facilities etc. Pollution discharges from developments such as industrial Developments, quarries and waste management facilities.

Figure 1: Outline of the Four Stage Approach to the Assessment of Plans under the Habitats Regulations





The Impact Risk Zones which are provided on the MAGIC website <a href="www.magic.gov.uk">www.magic.gov.uk</a> have been used as a starting point in determining Likely Significant Effects on Habitats sites and spatial data has been used to determine the proximity of allocated development locations to the Habitats sites During the HRA screening stage, a number of assumptions based on professional judgement have been applied in relation to assessing Likely Significant Effects that may result from the Pulborough Neighbourhood Plan.

When checking the policy allocations on MAGIC maps against the Impact Risk Zones for SSSIs underpinning the Habitats sites within scope for this report, Natural England advise that residential development of 50 units or more are considered likely to result in significant impacts and any residential development of 10 or more houses outside existing settlements/urban areas are also of concern so trigger consultation at application stage.

The Pulborough Neighbourhood Plan is therefore be assessed against the above criteria in Table 2.

**Table 2: Assessment of potential impacts** 

Nature of potential impact	How the Pulborough Neighbourhood Plan (alone or in combination with other plans and project) could affect a Habitats site?	Why these effects are/ not considered likely to be significant?
Land take by development	The Plan area is outside the boundaries of the 12 Habitats sites within scope of this HRA.	N/A
Impact on protected species outside the protected sites	Construction of new development could have the potential to "result in likely significant effects upon the Barbastelle bats of The Mens SAC and Ebernoe Common SAC via direct habitat loss or disturbances from lighting, noise and vibrations both during construction and operational phases of development	Due to Functionally Linked Land with the Parish for designation features of Sussex Bat SAC (Barbastelle and Bechstein's bats, both Annex II of the Habitats Directive), without mitigation, there is potential for Likely Significant Effect. The need to embed mitigation is not possible at Stage 1 HRA Screening so Stage 2 Appropriate Assessment is triggered.
Recreational pressure and disturbance	It is considered that although there is a pathway, it is not considered that any development is likely to result in any significant pollution impacts.	Pathway but unlikely to be significant due to small scale of Neighbourhood Plan
Water quantity and quality	There is a potential pathway for development at Pulborough to impact on the SPA & Ramsar sites within scope of the HRA as the Parish lies within the Zones of Influence.	Due to linkages to watercourses, without mitigation, it is not possible to screen out the potential for Likely Significant Effect on designation features of Arun Valley SPA, SAC & Ramsar sites from policy allocations in the Pulborough Neighbourhood Plan. The need to embed mitigation is not possible at Stage 1 HRA Screening so



Nature of potential impact	How the Pulborough Neighbourhood Plan (alone or in combination with other plans and project) could affect a Habitats site?	Why these effects are/ not considered likely to be significant?
		Stage 2 Appropriate Assessment is triggered for each Policy in the Plan.
Changes in air & noise pollution levels	It is considered that although there is a pathway, it is not considered that any development is likely to result in any significant pollution impacts.	Pathway but unlikely to be significant due to small scale of Neighbourhood Plan

#### 3.4.2 Stage 1: HRA screening

This screening stage identifies if alternatives are needed because any policies will have an impact on a Habitats Site, amendments need to be made in Neighbourhood Plans. Table 3 identifies the different categories assigned to each policy in the Plan: Category A identifies those policies or projects that may not result in a Likely Significant Effect and are considered to have No Negative Effect. Category B identifies those policies or projects that will have No Likely Significant Effect. Category C identifies those policies or projects that might have Likely Significant Effect and thus upon a European Site either alone or in combination with other plans or projects.

Each of the policies in the Pulborough Neighbourhood Plan has been screened to identify whether they would have any impact on a Habitats Site and allocated to a category as shown in Table 3.

**Table 3: Screening categories** 

#### Category A: No negative effect

Policies or projects that will not be likely to have any negative effect on a Habitats site.

#### Category B: No Likely Significant Effect

Policies or projects that could have an effect but would not be likely to have a likely significant effect on a Habitats site alone or in combination. This conclusion could only be reached if the effects, even in combination and taking the precautionary principle into account, are considered trivial.

#### Category C: Likely Significant Effect

Policies or projects which are predicted to have a likely significant effect on a Habitats Site either on its own or in combination with other plans and projects and require revision or further assessment (Appropriate Assessment).



# 3.5 Results of HRA Screening of Pulborough Neighbourhood Plan Policies

The HRA Screening exercise explores whether there will be any Likely Significant Effect resulting from each of the Plan's policies. These Policies are:

- Policy 1: A Spatial Plan for the Parish
- Policy 2: Land at New Place Farm, Pulborough (PPNP09 & PPNP10)
- Policy 3: Land off Glebelands, Pulborough (PPNP11)
- Policy 4: Land off Station Approach, Pulborough (PPNP05)
- Policy 5a: Land at Harwoods Garage, Pulborough, on eastern side of A29 (PPNP06)
- Policy 5b: Harwoods Car Park, Pulborough, on western side of A29 (PPNP07)
- Policy 6: Land at Highfields (PPNP17)
- Policy 7: Broomers Hill Industrial Estate, Codmore Hill (PPNP24)
- Policy 8: Toat Café, Stane Street (PPNP27)
- Policy 9: Pulborough Garden Centre, Stopham Road (PPNP16)
- Policy 10: Multi-Purpose Community & Sports Centre, Pulborough
- Policy 11: West Glebe, Pulborough (PPNP16)
- Policy 12: Tourism Development
- Policy 13: Community Facilities
- Policy 14: Local Green Spaces
- Policy 15: Design

This section considers each policy in turn and the results of the HRA screening exercise is recorded in Table 4. Please note that since the first iteration of the HRA/AA, a number of recommendations that were made at that stage have been factored into the final Pre-Submission Neighbourhood Plan, but might not be reflected in the wording included below.

Table 4: Summary of Findings from the HRA screening

Policy	Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
Policy 1: A Spatial Plan for the Parish	No, Category A	No specific recommendations
The Neighbourhood Plan defines the Built up Area Boundary of Pulborough, as shown on the Policies Map.		



Policy	Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
Development proposals located inside this boundary will be supported provided they accord with the other provisions of the development plan. Development proposals outside of this boundary will be required to conform to development plan policies in respect of the control of development in the countryside.		
Policy 2: Land at New Place Farm, Pulborough - New Place Nurseries and Land adjacent to Drovers Lane (PPNP09 & PPNP10)  The Pulborough Neighbourhood Plan supports the development of the site known as Land at New Place Farm, Pulborough (5.8 Ha) as shown on the Policies Map for approximately 170 dwellings. Any proposal must be delivered in accordance with the following principles:  i. Any proposal must include a landscape-led masterplan for which there should be consideration of the following criteria:  a) A thorough understanding of the wider landscape impact of any proposal is demonstrated as well as considering all the elements which contribute to the character of the site. Regard should be given to visibility and key views. These should inform design and layout of the site;  b) Where appropriate existing field boundaries will be retained and enhanced with native species to ensure an appropriate and effective soft scape/green transition from urban to rural and help to minimise the visual impact of the proposal.  ii. Any proposal will deliver predominantly 2 and 3 bed dwellings to meet local need. The layout and location of this housing will be outlined in the masterplan and should be of an appropriate scale and massing in keeping with the character of the surroundings.	Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2 Appropriate Assessment.

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Policy		Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
	Regard should be given to the Pulborough Design Statement;		
iii.	Any proposal will deliver affordable homes in accordance with identified need and the policies in the development plan;		
iv.	Primary access into the site will be delivered off Glebelands;		
V.	A comprehensive transport assessment must be submitted with the application. Any reasonable mitigation to make the development proposal acceptable in planning terms must be implemented in full;		
vi.	A full ecological and biodiversity survey of the site is submitted as part of the application. Any reasonable mitigation proposed by the surveys must be implemented in full;		
vii.	A contamination assessment of the site is submitted as part of the application. Any reasonable mitigation proposed by the assessment must be implemented in full;		
viii.	Support is given to the provision of Sustainable Drainage (SuDs) and green infrastructure with the opportunity to create and enhance local habitats and bring about a net increase biodiversity;		
ix.	Appropriate contributions to local community facilities is made to make the proposal acceptable in planning terms;		
х.	All external lighting shall be designed and laid out to minimise light pollution and support the dark skies policy of the South Downs National Park;		
xi.	A countryside park is provided on the northern half of the site in accordance with the Policy Map.		



Policy		Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
xii xiii	Part of the intended site covers the Large Roman Settlement Archaeological Notification Area. Assessing any potential deposits should be part of any archaeological survey.  Any development should be sympathetic to		
	existing listed buildings adjacent to the site.		
The Pulboi developme Pulborougi approxima	and off Glebelands, Pulborough (PPNP11)  rough Neighbourhood Plan supports the ent of the site known as Land at Glebelands, the (0.8 Ha) as shown on the Policies Map for tely 20 dwellings. Any proposal must be an accordance with the following principles:	Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2
i.	The site will come forward as a Community Land Trust proposal and will deliver affordable housing, and may provide opportunities for self-build;		Appropriate Assessment.
ii.	Affordable housing provision will be made available to qualifying households with a local connection and should be in conformity with the district's housing policy;		
iii.	Primary access will be delivered off Glebelands;		
iv.	All external lighting shall be designed and laid out to minimise light pollution and support the dark skies policy of the South Downs National Park;		
V.	Where appropriate existing field boundaries will be retained and enhanced with native species to ensure an appropriate and effective soft scape/green transition/buffers from urban to rural and help to minimise the visual impact of the proposal; and		

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Policy		Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
vi.	Regard should be given to visibility and key views. These should inform design and layout of the site.		
vii.	Part of the intended site covers the Large Roman Settlement Part of the intended site covers the Large Roman Settlement Archaeological Notification Area. Assessing any potential deposits should be part of any archaeological survey		
(PPNP05)  The Pulbo developme Approach, Map for ap	Land off Station Approach, Pulborough  rough Neighbourhood Plan supports the ent of the site known as Land off Station Pulborough (0.3 Ha) as shown on the Policies proximately 18 dwellings. Any proposal must be in accordance with the following principles:  The proposal should come forward as a mixed-use development comprising of retail and office uses (A1, A2 and B1) primarily on the ground floor with residential development on the upper floors;  The proposal should come forward with no net loss of employment floorspace unless it can be demonstrated further employment is not viable on this site supported by robust evidence and an appropriate marketing campaign;	Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2 Appropriate Assessment.
iii.	Any proposal should be sympathetic to local character. Particular regard should be given to design, height, massing and use of materials appropriate to the local context; and		
iv.	Appropriate parking provision is provided to support the development.		
V.	Part of the intended site covers the Large Roman Settlement Archaeological Notification Area. Assessing any potential		



Policy	Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
deposits should be part of any archaeological survey.		
Policy 5a: Land at Harwoods Garage, Pulborough, on eastern side of A29 (PPNP06)  The Pulborough Neighbourhood Plan supports the development of the site known as Land at former Harwood Garage, Pulborough as shown on the Policies Map for approximately 15 dwellings. Any proposal must be delivered in accordance with the following principles:  i. The proposal should come forward as a mixed-use development and support is given to the following uses of retail, commercial or community and residential development. If employment generating uses are no longer viable on the site it must be robustly demonstrated through an agreed comprehensive viability and marketing strategy or it can be demonstrated commercial uses on this site are relocated elsewhere in the district with no net loss of commercial floorspace;	Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2 Appropriate Assessment.
ii. The proposal should come forward with a net loss of employment floor space of no more than 50% within the parish, unless it can be demonstrated that further employment generating uses are no longer needed or viable.		
iii. Any proposal should be sympathetic to local character. Particular regard should be given to design, height, massing and use of materials appropriate to the local context;		
iv. A comprehensive environmental assessment must be submitted with the application. Any reasonable mitigation to make the development proposal acceptable		



Policy		Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
v.	in planning terms must be implemented in full;  Safe access and safe parking is provided on site;  Any proposal should safeguard protection		
	for Tree Preservation Orders and appropriate mitigation is applied.		
western si The Pulbon developme shown on a	Harwoods Car Park, Pulborough, on ide of A29 (PPNP07)  rough Neighbourhood Plan supports the ent of the site known as Harwoods Car Park as the Policies Map for approximately 9 dwellings. sal must be delivered in accordance with the principles:  Any proposal should be sympathetic to local character. Particular regard should be given to design, height and massing and the use of materials appropriate to the local context;  Any proposal should safeguard protection for Tree Preservation areas and appropriate mitigation applied'  Safe access and safe parking are provided on site.	Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2 Appropriate Assessment.
Policy 6: Land at Highfields (PPNP17)  The Pulborough Neighbourhood Plan supports the site known as Land at Highfields, Pulborough (0.98 Ha) as shown on the Policies Map for approximately 26 houses. Any proposal must be delivered in accordance with the following principles:  i. A traffic management scheme is submitted which will indicate that access on to the site is via the new development at Brookfields; not directly on to the A29;		Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2 Appropriate Assessment.



Policy		Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
ii.	The site is within an Archaeological Notification Area (ANA). An archaeological assessment would be required and the appropriate mitigation carried out;		
iii.	Any proposal will deliver affordable housing in accordance with identified need and the policies within the Neighbourhood Plan.		
Pulboroug uses at La shown on only. Supp	Broomers Hill Industrial Estate, Codmore Hill  th Neighbourhood Plan allocates commercial and South of Broomers Hill Industrial Estate as the Policies Map (3 Ha) for commercial uses port is given to any proposal subject to the criterion are met:  Support is given to the development of commercial uses at Land South of Broomers Hill. Particular support is given to providing premises for start-up and expanding commercial uses;	Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2 Appropriate Assessment.
ii. iii.	Safe access is achieved off the A29;  Appropriate provision for non-vehicular modes of transport is made to improve connectivity from the site back into the village of Pulborough. Support would be given to the creation of a footpath/cycle way to link Broomers Hill at a point adjacent to the industrial site, following the western side of the railway line down to meet the existing footpath at River View (Path No. 2330);		
iv.	Where appropriate existing field boundaries will be retained and enhanced with native species to ensure an appropriate and effective soft scape/green transition from proposed development to the wider open countryside and help to minimise the visual impact of the proposal;		



Policy		Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
V.	A full ecological and biodiversity survey of the site is submitted as part of any application. Any recommendations arising from the assessment or study in order to make the development acceptable in planning terms must be implemented;		
vi.	Any proposal should look to meet and implement the highest energy efficiency standards for commercial buildings;		
vii.	Any proposal should demonstrate it is appropriate to the local context. Particular regard should be given to design, height, massing and use of materials appropriate to the local context;		
viii.	All external lighting shall be designed and laid out to minimise light pollution and support the dark skies policy of the South Downs National Park; and		
ix.	Any development should be sympathetic to existing listed buildings adjacent to the site.		
Policy 8: Land formerly known as the Toat Café, Stane Street, Pulborough (PPNP27)  Support is given to the redevelopment of Land formerly known as the Toat Café as shown on the Policies Map for the following uses to include commercial, leisure parkland and some enabling housing development. Support is given to any proposal subject to the following criterion are met:		Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2 Appropriate
i. ii.	Safe Access is provided off the A29; Any proposal should demonstrate it is appropriate to the local context. Particular regard should be given to design, height, massing and use of materials appropriate to the local context;		Assessment.
iii.	All external lighting shall be designed and laid out to minimise light pollution and support the dark skies policy of the South Downs National Park;		



Policy		Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
iv. v.	Where appropriate existing field boundaries will be retained and enhanced with native species to ensure an appropriate and effective soft scape/green transition from proposed development to the wider open countryside and help to minimise the visual impact of the proposal.  Any planning application should address the issue of poor surface water drainage in the area.  Any development should be sympathetic to existing listed buildings adjacent to the site.		
(PPNP16)  Proposals existing ga at Pulboro the Policies	for development to intensify or to extend the riden centre and the facilities of its ancillary uses ugh Garden Centre within the land shown on a Map will be supported provided any proposed or addition:  Has regard to conserving the special landscape and scenic beauty of the South Downs National Park;  Considers re-designing the entrance to accommodate any increase in traffic;  Reviews hours of operation due to the rural nature of the site and its locality;  Is designed in such a way that the massing and height of any proposal is appropriate to the area.  Any development should be sympathetic to existing listed buildings adjacent to the site.	Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2 Appropriate Assessment.
Policy 10: Multi-Purpose Community & Sports Centre, Pulborough  Proposals to improve and extend the existing sports pavilion on Rectory Close, as shown on the Policies Map,		Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.



Policy	Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
including the provision of new community (D2) use buildings, will be supported.		Progress to Stage 2 Appropriate Assessment.
Policy 11: West Glebe, Pulborough (PPNP01)  Proposals to extend the graveyard into, and to install a new public footpath across, land at West Glebe, as shown on the Policies Map, will be supported, provided they do not harm the openness of the Local Green Space.	Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2 Appropriate Assessment.
Proposals for the development of new tourism facilities to encourage trips from the railway station to the South Downs National Park will be supported provided they have regard to conserving the special landscape and scenic beauty of the National Park.	No, Category A	No specific recommendations
Proposals to improve the viability of an established community use of the following buildings and facilities by way of the extension or partial redevelopment of existing buildings will be supported, provided the design of the scheme and the resulting increase in use are appropriate in design terms and will not harm the amenities of adjoining residential properties:  1. Village Hall 2. Allotments sites 3. St Mary's Primary School 4. Youth Club 5. Sports Pavilion, Rectory Close 6. Bowling Club, Rectory Close 7. Library/Community hub 8. St Mary's Church 9. United Reformed Church	Yes, Category C	Identify mitigation for impacts on features outside of the Habitats sites and Water Quality/Quantity.  Progress to Stage 2 Appropriate Assessment.



Policy		Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
10.	Roman Catholic Church and accompany car park		
Policy 14: Loc	al Green Spaces	No, Category A	No specific
_	hood Plan designates Local Green Spaces locations, as shown on the Policies Map:		recommendations
1	. Main Recreation Ground including Bowling Club		
2	. Cousins Way Recreation Ground including Allotment Site		
3	. Rivermead Nature Reserve		
4	. East Glebe Field		
5	. West Glebe Field		
6	. Marehill Common		
7	. Nutbourne Common Recreation Ground		
resisted, unless a public recrea	levelopment in a Local Green Space will be s they are ancillary to the use of the land for tional purpose or are required for a infrastructure purpose.		
Policy 15: Des	ign	No, Category A	No specific
Since work started on the Neighbourhood Plan in 2013 – and since both the Pulborough and Nutbourne Design Statements were published – there is a wide realisation that climate change is now inevitable. The Neighbourhood Plan Steering Group is concerned that there needs to be greater emphasis that all construction, including extensions and renovations, are planned with the needs of living in warmer and wetter conditions. Rising sea levels might be expected to affect the tidal flows and winter flood levels of the River Arun.			recommendations
The Neighbourhood Plan Steering Group would like to draw attention to the recent work of the scientists of BRE Group (previously Building Research Establishment) in developing the BREEAM range of sustainability standards and especially the Home Quality Mark (HQM). HQM is a national standard for new homes, which uses a simple 5-star rating to provide impartial information to home-owners			



Policy	Will Policy have Likely Significant Effect on a Habitats Site?	Recommendations
and buyers from independent experts on a new home's design, construction quality and running costs.		
The scale, density, massing, height, landscape design, layout and materials of all development proposals, including alterations to existing buildings, will be required to reflect the architectural and historic character and scale of the surrounding buildings and landscape, as detailed in the Pulborough Design Statement and Nutbourne Design Statement. In particular, the effects of any proposed development should respect any conservation area within the parish.		
Particular regard should be had to the design principles which start on page 43 of the Pulborough Design Statement.		

### 3.6 HRA Screening Conclusion and Considering the Next Stage

There are recommendations for all policies relating to allocation of land for development in this Regulation 14 Pre-Submission Pulborough Neighbourhood Plan as they have all been assigned to Category C (Likely Significant Effect) with a need to amend policy text to embed mitigation measures to inform applications.

As Likely Significant Effect is predicted from the Plan alone, it is not necessary to assess the likely effects from the Plan, in combination with other plans and projects at Stage 1 HRA Screening.

In line with the Court judgment (*CJEU People Over Wind v Coillte Teoranta C-323/17*), mitigation measures can no longer be taken into account when carrying out a HRA screening assessment to decide whether a plan or project is likely to result in *Likely Significant Effects* on a Habitats Site. Consequently, HRA screening has concluded that it is not possible to rule out the potential for Likely Significant Effects without further assessment and possible mitigation for the polices set out in Table 3 above.

An Appropriate Assessment is therefore required under the UK Conservation of Habitats and Species Regulations 2017. The Pulborough Neighbourhood Plan may only be adopted after having ascertained that it will not result in adverse effect on integrity of the Habitats sites within scope of this assessment.

This stage can be an iterative process as measures can be incorporated in order to be able to ascertain that there is no significant adverse effect on the integrity, before re-screening and making a final assessment.

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# Appropriate Assessment and Considering the Integrity Test

## 4.1 Introduction to Appropriate Assessment

As the Pulborough Neighbourhood Plan is, without mitigation, to result in Likely Significant Effects, the second stage of HRA is to undertake an 'Appropriate Assessment' of the implications of the plan (either alone or in combination with other plans or projects) and establish whether there may be an Adverse Effect on Integrity (AEOI) of any Habitats sites in view of their Conservation Objectives. The process undertaken for the Appropriate Assessment is set out in this Chapter.

Many of the policies in the Pulborough Neighbourhood Plan will need to be amended to mitigate some of the potential Likely Significant Effects which have been identified and will be considered as part of the Appropriate Assessment. This stage thus becomes an iterative process as avoidance and reduction measures can be incorporated in order to be able to ascertain that there is no Adverse Effect on Integrity on any Habitats Site, before making a final assessment.

The Appropriate Assessment should be undertaken by the competent authority and should assess all aspects of the Neighbourhood Plan which can by themselves, or in combination with other plans and projects, affect the sites' Conservation Objectives. The assessment must consider the implications for each qualifying feature of each potentially affected Habitats Site. Key vulnerabilities are set out in Appendix III and the Site Improvement Plans were used to obtain this information. Site Improvement Plans have been developed for each Habitats Site in England as part of the 'Improvement Programme for England's Natura 2000 sites (IPENS)'. The Neighbourhood Plan provides a high level overview of the issues (both current and predicted) affecting the condition of the designation features of the site(s) and outlines the priority measures required to improve the condition of the features These can be found at: http://publications.naturalengland.org.uk/category/5458594975711232.

In order to identify potential in combination effects other plans and projects which may affect the Habitats Sites need to be identified. The list of county and district level plans which provide for development in Pulborough will be considered will be identified in liaison with the Sustainability Appraisal.

This should involve an 'Appropriate Assessment' of the implications of the Pulborough Neighbourhood Plan, either alone or in combination with other plans or projects, in order to establish whether there may be an *Adverse Effect on the Integrity* of any Habitats Sites in view of their Conservation Objectives. This stage is to undertake objective scientific assessment of the implications of the Neighbourhood Plan on the Qualifying Features of the listed Habitats Sites using the best scientific knowledge in the field. It should apply the best available techniques and methods to assess the extent of the effects of the Neighbourhood Plan on the integrity of the Habitat Sites. The description of the site's integrity and the impact assessment should be based on the best possible indicators specific to the Habitat Sites' qualifying features, which can also be useful in monitoring the impact of the Neighbourhood Plan's implementation.

The Appropriate Assessment should assess all aspects of the Plan which can by themselves, or in combination with other plans and projects, affect the Conservation Objectives of one or more Habitats site. The assessment must consider the implications for each qualifying feature of each potentially affected Habitats site. The focus of the appropriate assessment is therefore on the species and / or the habitats for

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which the Habitats site is designated.

The best scientific knowledge should be used when carrying out the Appropriate Assessment in order to enable the competent authority to conclude with certainty that there will be no Adverse Effect on the Integrity of any Habitats site.

It is important that the Appropriate Assessment provides a better understanding of potential effects and can therefore assist in the identification of mitigation measures where possible to avoid, reduce or cancel significant effects on Habitats sites which could be applied when undertaking the 'integrity test'. All mitigation measures built into the Plan can be taken into account. The Appropriate Assessment is an iterative process, re-assessing changes and new or different mitigation measures before making its final conclusion. It must be clear which mitigation measures are being relied upon in order to meet the integrity test.

The integrity test must apply the precautionary principle. However, plan assessments are less precise than project assessments, and so it is important for the assessment process to eliminate the prospect of adverse effects integrity insofar as it is possible, given the level of specificity of this Neighbourhood Plan.

Natural England should be formally consulted on this document.

#### Approach and Methodology of the Appropriate Assessment 4.2

The potential Likely Significant Effects considered at Screening Stage are now carried forward for consideration at Appropriate Assessment. The policies and their potential to have adverse effects on any Habitats site through a variety of impact pathways are now considered in more detail, for example habitat loss or deterioration, disturbance, direct and indirect effects; extent of the effects (habitat area, species numbers or areas of occurrence); importance and magnitude (e.g. considering the affected area or population in relation to the total area and population size).

Key vulnerabilities of each Habitats Site are set out in Appendix III using the relevant Site Improvement Plans. Site Improvement Plans have been developed for each Habitats (Natura 2000) Site in England as part of the 'Improvement Programme for England's Natura 2000 sites (IPENS)' but they do not include Ramsar sites. Each Site Improvement Plan provides a high level overview of the issues (both current and predicted) affecting the condition of the Natura 2000 features on the site(s) and outlines the priority measures required to improve the condition of the features These can be found at:

Additional information is also provided for each site on the Designated Sites website and this information has been interrogated.

## 4.2.1 Use of Mitigation Measures

All mitigation measures built into the Pulborough Neighbourhood Plan can now be taken into account for the Appropriate Assessment. At this stage other policies of the Plan can be considered in order to mitigate some of the potential Likely Significant Effects which have been identified. This stage is an iterative process as avoidance and reduction measures can be incorporated in order to be able to avoid the potential impacts identified in the Appropriate Assessment or reduce them to a level where they will no longer adversely affect the site's integrity.



An example may include a requirement for Sustainable Drainage Schemes (SuDS) for new housing and employment sites which can help to mitigate for surface water flooding and prevent water pollution.

Where there may still be adverse effects on the ecological integrity of Habitats Sites, in view of the Site's conservation objectives, additional mitigation measures may also need to be proposed. Generic mitigation is used where possible. This should help to address water quality, air pollution, noise, and other (non-recreational) forms of disturbance. Construction Environment (Ecological) Management Plans (CEMPs) — often a condition of consent - can help to direct seasonal working, damping down of dust and measures to alleviate noise pollution.

Reduction in the scale of the potentially damaging provision by mitigation measures may reduce the potential effects on a Habitats site, but they may still require the residual effects to be assessed in combination. This may or may not allow the Pulborough Neighbourhood Plan to pass the integrity test. All the necessary measures need to be incorporated into the Plan before the integrity test can be applied.

Monitoring will be required as part of the Pulborough Neighbourhood Plan where residual effects are identified.

#### 4.2.2 Applying the Integrity Test

Following the Appropriate Assessment and the consideration of all mitigation measures, the competent authority needs to make a judgement on whether any of the policies will have an *Adverse Effect on Integrity* on any Habitats Site either alone or in combination with other plans and projects. This test incorporates the precautionary principle.

#### 4.2.3 In Combination Effects with other Plans and Projects

The Appropriate Assessment also needs to include a comprehensive identification of all the potential effects of the Pulborough Neighbourhood Plan likely to be significant, taking into account the combination of the effects of the Neighbourhood Plan with those of other plans or projects. An example is the existing Horsham District Planning Framework.

### 4.2.4 Embedding Mitigation into the Pulborough Neighbourhood Plan

Horsham District Council, as the competent authority, should consider the manner in which the Pulborough Neighbourhood Plan is to be implemented and any mitigation measures which could be relied upon when deciding whether it would have an Adverse Effect on Integrity, including when and how they can be embedded into the Neighbourhood Plan. It needs to ensure that mitigation is embedded into the Plan through amendments to policies where necessary. It is not sufficient to rely on a general policy aimed at protecting Habitats sites. Instead, explicit caveats need to be included where there may be conflicts between a general policy to protect Habitats sites from development and another policy.

## 4.2.5 Re-applying the Integrity Test

As each potential impact pathway against the policies screened in, has been considered and how they might be mitigated, this Chapter provides an assessment as to whether embedded mitigation is sufficient to avoid Adverse Effect on Integrity. Where there may still be adverse effects on the ecological integrity of Habitats



sites, in view of their conservation objectives, additional mitigation measures should be considered.

Assuming that the text within policies 1-15 are amended, and re-applying the integrity test to consider the mitigation, the Pulborough Neighbourhood Plan can avoid Adverse Effect On Integrity of Habitats sites from the Plan alone, and these polices can now be removed from further assessment. As of March 2020, the latest iteration of the Plan has indeed amended relevant policies to factor in the recommendations of this AA.

Then the LPA needs to consider if the Pulborough Neighbourhood Plan can avoid AEOI in-combination with other plans and projects.

# 4.3 Stage 2 Appropriate Assessment for Pulborough Neighbourhood Plan

The competent authority, in this case Horsham DC needs to apply the Integrity test needs to the Plan alone and it can now consider mitigation measures to assess if the Pulborough Neighbourhood Plan can avoid AEOI on the Habitats sites screened in at Stage 1 HRA. These are The Mens SAC, Ebernoe Common SAC, Arun Valley SPA, SAC and Ramsar site.

#### 4.3.1 Mitigation measures

As a precautionary approach is required in order to conclude that the Pulborough Neighbourhood Plan will not lead to AEOI either alone or in combination, mitigation measures are necessary and need to be embedded in the Pulborough Neighbourhood Plan to avoid impacts from the pathways summarised below:

- Water quality and quantity potential impacts from water abstraction and discharge to the River Arun (Arun Valley SPA, SAC and Ramsar site)
- Loss of Functionally Linked Land / Impact on Designated Features, habitat damage, loss and fragmentation of Key Conservation Areas for bat foraging from The Mens SAC and Ebernoe Common SAC (see Appendix IV)

Considering the potential impacts from the Pulborough Neighbourhood Plan alone, each of the above impact pathways is considered below with mitigation recommended.

#### 4.3.1.1Water quality and quantity

Mitigation measures must be embedded in policy text to avoid AEOI on the Habitats Sites. Recommendation to add safeguards to each policy identified as likely to result in a Significant Effect without mitigation to include a commitment to ensure that any phasing of development does not exceed infrastructure capabilities and that the necessary upgrades are in place prior to development coming forward) will ensure that a given development will not proceed until the necessary infrastructure upgrades have been provided as necessary in accordance with Southern Water and Environment Agency advice.

Although there is no need to amend policy text to avoid impacts from water quality & quantity, project level HRAs at application stage e.g. to cover construction impacts and good practice in relation to run off, air quality during construction. This can be achieved by securing appropriate mitigation measures e.g. Sustainable Drainage Schemes (SuDS), as identified through a project level HRA at application stage to



cover both construction and operational impacts and good practice in relation to run off, air quality & noise during construction, on site silt management etc. to secure Construction Environment Management Plan (CEMP): Biodiversity as a condition of any consent issued. It will also be important to ensure that waste water treatment for all new development meets Environment Agency requirements. This should be added to each development relating to policy assessed as Category C in Table 4 and refer to avoiding adverse effect on site integrity for the Habitats sites in this Assessment.

#### 4.3.1.2Loss of Functionally Linked Land (habitat loss/damage/modification/isolation)

As identified in the Draft landscape scale protocol for planning and enhancement of Sussex Bat SAC, potential physical changes from development include removal of trees, hedgerows and woodland caused by development on foraging or commuting routes, alteration of conditions to roosts or nearby and changes to management of habitats. These changes result in impacts such as loss, change, modification or isolation of bats and their roosts, commuting corridors, feeding areas and potentially killing and injury of bats.

The impacts of increased lighting levels both during construction and operation / occupation can also result in considerable impacts on bats outside the bat SAC boundaries. These include emerging later or not at all which leads to reduced feeding opportunities, roost abandonment and reduction in use of foraging areas and ability to use commuting routes to/from their roosts.

It is therefore important for any development proposed within Pulborough Neighbourhood Plan to avoid severance of hedgerows and lighting impacts by

- Re-designing the scheme (or elements of the scheme) to ensure habitats and features used by bats are not directly or indirectly impacted
- Designing the lighting so that the light levels for all roosts, feeding and commuting habitats during construction and operational phases does not increase above pre-development/impact levels.

The above mitigation measures therefore need to be embedded into the text for each of the policies of the Plan which have been assessed as Category C in Table 4 and refer to avoiding adverse effect on site integrity for the Habitats sites in this Assessment. For example, the policy wording needs to be updated as per vii and viii below for **Policy 3: Land off Glebelands, Pulborough:** 

The Pulborough Neighbourhood Plan supports the development of the site known as Land at Glebelands, Pulborough (0.8 Ha) as shown on the Policies Map for approximately 20 dwellings. Any proposal must be delivered in accordance with the following principles:

- i. The site will come forward as a Community Land Trust proposal and will deliver affordable housing, and may provide opportunities for self-build;
- ii. Affordable housing provision will be made available to qualifying households with a local connection and should be in conformity with the district's housing policy;
- iii. Primary access will be delivered off Glebelands;
- iv. All external lighting shall be designed and laid out to minimise light pollution and support the dark skies policy of the South Downs National Park;

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- v. Where appropriate existing field boundaries will be retained and enhanced with native species to ensure an appropriate and effective soft scape/green transition/buffers from urban to rural and help to minimise the visual impact of the proposal; and
- vi. Regard should be given to visibility and key views. These should inform design and layout of the site.
- vii. The scheme shall identify and retain those features on site that are particularly important for bats and any impacts likely to cause disturbance to important routes used by bats for foraging or commuting; and show how and where any external lighting will be installed (through the provision of appropriate lighting contour plans, Isolux drawings and technical specifications) so that it can be clearly demonstrated that areas to be lit will not disturb or prevent bats using their territory.
- viii. All external lighting shall be installed in accordance with the specifications and locations set out in the scheme and maintained thereafter in accordance with the scheme. Under no circumstances should any other external lighting be installed without prior consent from the local planning authority.

Table 5: Results of embedding mitigation within the policy text of Pulborough Neighbourhood Plan

Policy	Mitigation proposed	With proposed mitigation embedded in the policy text, can adverse effects on integrity of the identified Habitats Sites be avoided?
Policy 1: A Spatial Plan for the Parish	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.
Policy 2: Land at New Place Farm, Pulborough	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.
Policy 3: Land off Glebelands, Pulborough	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.



Policy	Mitigation proposed	With proposed mitigation embedded in the policy text, can adverse effects on integrity of the identified Habitats Sites be avoided?
Policy 4: Royal Mail Sorting Depot, Pulborough	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.
Policy 5: London Road Commercial Area, Pulborough	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.
Policy 6: Broomers Hill Industrial Estate, Codmore Hill	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.
Policy 7: Toat Café, Stane Street	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.
Policy 8: Pulborough Garden Centre, Stopham Road	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.
Policy 9: Multi-Purpose Community & Sports Centre, Pulborough	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.



Policy	Mitigation proposed	With proposed mitigation embedded in the policy text, can adverse effects on integrity of the identified Habitats Sites be avoided?
Policy 10: Land off Stopham Road, Pulborough	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.
Policy 11: West Glebe, Pulborough	Amend sup Other plans or projects considered for in combination effects porting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.
Policy 13: Community Facilities	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.
Policy 15: Design	Amend supporting text and strengthen Policy text to explicitly ensure that there will be no AEOI. Project level AA will be required at application stage.	No adverse effects on site integrity with mitigation embedded.

Re-applying the Integrity test with the mitigation embedded as recommended in the sections above, the Pulborough Neighbourhood Plan is not predicted to have any adverse effect on integrity (AEOI) on any Habitats Sites, alone.

## 4.3.2 In-combination effects with other plan and projects

The following table explores in-combination effects with other relevant plans and projects.



Table 6: Other plans or projects considered for in combination effects

Title of plan or Project	Competent authority/ statutory body/plan owner	Title of HRA	Potential for in combination effects
Horsham District Planning Framework	Horsham District Council	Horsham District Planning Framework Preferred Options HRA Screening Report (Treweek Environmental Consultants, 2012)	Adverse effects on The Mens SAC could not be ruled out. Mitigation required in the Plan so in combination impacts on Sussex bat SAC are not predicted.
			With regards to water quantity (resource) issues adverse effects on Arun Valley SPA & Ramsar site could not be ruled out. Mitigation was required in the Plan.
			It was concluded that the Horsham Core Strategy was not proposing development levels that exceed the existing capacity of waste water treatment works in the District and it was therefore considered that there is unlikely to be a significant effect on the water quality of the Arun Valley SPA and in combination impacts on Sussex bat SAC are not predicted.
			Adverse effects with regards air quality on Ebernoe Common could not be ruled out. Advice from English Nature (now Natural England) at the time suggested that local authorities should focus on local air

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Title of plan or Project	Competent authority/ statutory body/plan owner	Title of HRA	Potential for in combination effects
			pollution impacts. However, there are no clear, direct road links between the proposed new housing and the European sites and no evidence that there will be increases in traffic along roads within 200m of the
			European sites. Given the considerable distance from Pulborough to sensitive SAC habitats, there is no pathway for this impact in combination with the Neighbourhood Plan.
Land at Wiltshire Farm Pickhurst Lane Codmore Hill Pulborough DC/19/0591	Horsham District Council	Wiltshire Farm Pulborough HRA Appropriate Assessment DC190591 (Place Services, August 2019)	Once the avoidance, mitigation and enhancement measures have been incorporated, no potential to contribute to any adverse effects, in combination with other plans and projects.
Platts Roundabout, Billingshurst DC/19/0295	Horsham District Council	Platts Roundabout Billingshurst HRA Appropriate Assessment DC190295 (Place Services, August 2019)	Once the avoidance, mitigation and enhancement measures have been incorporated, no potential to contribute to any adverse effects, in combination with other plans and projects.
Land at Brinsbury Fields Stane Street North Heath DC/19/0814	Horsham District Council	Land at Brinsbury Fields Stane Street North Heath HRA Appropriate Assessment DC190814 (Place Services, Sept 2019)	Once the avoidance, mitigation and enhancement measures have been incorporated, no potential to contribute to any adverse effects, in combination with other plans and projects.
Land North of	Horsham	Land North of	Once the avoidance,

Client: Horsham District Council



Title of plan or Project	Competent authority/ statutory body/plan owner	Title of HRA	Potential for in combination effects
Downsview Avenue Storrington RH20 4LU DC/19/2015	District Council	Downsview Avenue Storrington HRA Appropriate Assessment DC192015 (Place Services, Nov 2019)	mitigation and enhancement measures have been incorporated, no potential to contribute to any adverse effects, in combination with other plans and projects.
Core Strategies/Local Plans and DPDs produced by local authorities surrounding the Neighbourhood Plan area	Neighbouring LPAs	Various	Once the avoidance, mitigation and enhancement measures have been incorporated, no potential to contribute to any adverse effects, in combination with other plans and projects.
South Downs Partnership Management Plan 2014-2019	South Downs National Park Authority	South Downs National Park Authority Local Plan Habitats Regulations Assessment (AECOM, 2015 and 2017)	Once the avoidance, mitigation and enhancement measures have been incorporated, no potential to contribute to any adverse effects, in combination with other plans and projects.
Environment Agency South East River Basin Management Plan	Environment Agency	River Basin  Management Plan for the South East River Basin District Habitats Regulations Assessment Updated (Dec 2015)	Once the avoidance, mitigation and enhancement measures have been incorporated, no potential to contribute to any adverse effects, in combination with other plans and projects.
Environment Agency Abstraction Licensing Strategies (Arun and Western Streams; Adur and Ouse)	Environment Agency	Not available	Licences only issued where avoidance, mitigation and enhancement measures have been incorporated to ensure, no potential to contribute to any adverse

Client: Horsham District Council



Title of plan or Project	Competent authority/ statutory body/plan owner	Title of HRA	Potential for in combination effects
			effects, in combination with other plans and projects.
Environment Agency and Southern Water position statements on wastewater treatment works	Environment Agency and Southern Water	Not available	Permits only issued where avoidance, mitigation and enhancement measures have been incorporated to ensure no potential to contribute to any adverse effects, in combination with other plans and projects.

Re-applying the Integrity test with the mitigation embedded as proposed in the sections above, the Pulborough Neighbourhood Plan is not predicted to have any adverse effect on integrity (AEOI) on any Habitats Sites in combination with other plans and projects.



## 5. Conclusions

This Habitat Regulation Assessment, including Appropriate Assessment, considers the impacts arising from the Regulation 14 Pre-Submission Pulborough Neighbourhood Plan.

The HRA Screening stage identified that, without mitigation, further consideration was required at the Appropriate Assessment stage to determine whether the Pulborough Neighbourhood Plan, either alone or incombination with other plans and projects, would adversely affect the integrity of Habitats sites as a result of various potential impact pathways, i.e.; loss of functionally-linked land and changes in water quality and quantity.

With regards to potential **loss of functionally-linked land**, the hedgerows, trees and woodland around the parish of Pulborough provide important feeding and commuting routes for Barbastelle bats roosting in The Mens SAC. Site allocations in the Pulborough Neighbourhood Plan were individually assessed to determine their suitability for supporting qualifying features. The assessment determined that these most of the policies were on land that which could be deemed to be functionally-linked land. It is therefore considered that providing that additional wording is embedded into a number of policies within the Plan, there will be no adverse effect on integrity of Habitats sites from Pulborough Neighbourhood Plan, either alone or in combination. Such additional wording has been factored into the Plan policies.

With regards to water quality and quantity, land with connectivity for water which drains into the River Arun, creates uncertainty for managing water quality. In times of high rainfall Water Recycling Centres could overflow into the valley creating potential water quality issues for the Arun Valley Habitats Sites. Sustainable Drainage Systems (SuDS) have been identified as being crucial to prevent this by retaining water on site, thereby reducing the water going to Water Recycling Centres. With mitigation embedded into the Neighbourhood Plan requiring that each development site must offset its own increase in runoff. The additional mitigation and amendments to polices provide assurance that this is a suitably robust approach to ensure that adverse effects on the integrity of Habitats sites as a result of change in water quality or quantity arising from Pulborough Neighbourhood Plan would be avoided, either alone or in-combination. Potential effects as a result of construction can generally be mitigated for example by requiring Construction Environment Management Plans. The text for each policy should also provide additional text to explicitly require that there will be no adverse effect on site integrity. Such additional wording has been factored into the Plan policies.

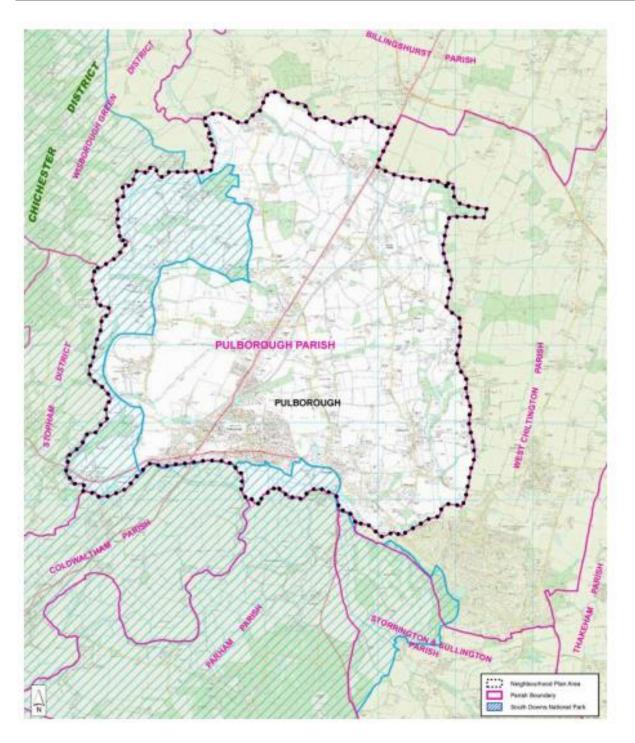
Subject to Natural England's review, this HRA Screening Report including Appropriate Assessment concludes that the Regulation 14 Pre-Submission Pulborough Neighbourhood Plan is not predicted to result in any Adverse Effect on the Integrity of the Habitats sites in scope, either alone or in combination with other plans and projects.

The content of the Pulborough Neighbourhood Plan has therefore been <u>screened out</u> for any further assessment and Horsham DC can now conclude that the Plan can progress as it demonstrates compliance with the UK Habitats Regulations 2017.



# Appendix I

## The Neighbourhood Plan Area for Pulborough

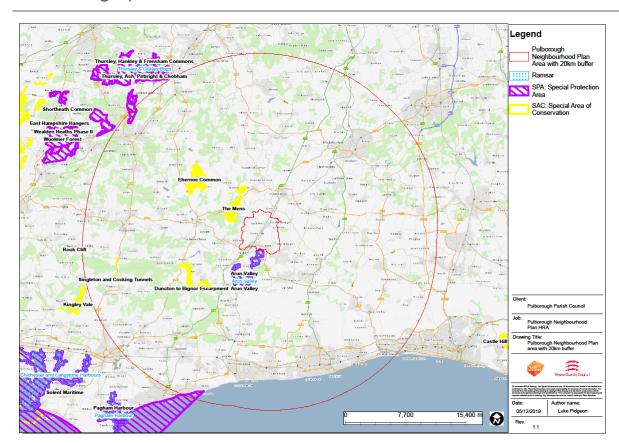


Source: Pulborough Parish Neighbourhood Plan 2015 – 2031: Submission Plan



# Appendix II

## Pulborough parish and Habitats sites within 20km



Source: Place Services, 2019



## Appendix III

#### Characteristics of Habitats Sites

This appendix contains information about the Habitats Sites included in the scoping for this HRA. Information about each site's area, the site descriptions, qualifying features and pressures and threats are drawn from Natural England's Site Improvement Plans (SIPs) and the Standard Data Forms or Ramsar Information Sheets available from the JNCC website. Site conservation objectives are drawn from Natural England's website and are only available for SACs and SPAs. Supplementary Advice has also been added to describe the range of ecological attributes that are most likely to contribute to a site's overall integrity and key vulnerabilities to consider within Habitats Regulations assessments.



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available	Key vulnerabilities / factors affecting
			for SACs & SPAs)	site integrity

#### **Arun Valley**

The Arun Valley in West Sussex is located just north of the South Downs escarpment. It consists of low-lying grazing marsh, largely on alluvial soils, but with an area of peat derived from a relict raised bog. Variation in soils and water supply lead to a wide range of ecological conditions and hence a rich flora and fauna. Southern parts of the Arun Valley are fed by calcareous springs, while to the north, where the underlying geology is Greensand, the water is more acidic. The history of management of fields, and their water levels, determines the plant communities present, with drier fields dominated by meadow grasses, Crested Dog's-tail *Cynosurus cristatus* and Perennial Rye-grass *Lolium perenne*. In wetter areas, rushes, sedges and Tufted Hair-grass *Deschampsia cespitosa* are more frequent. Ungrazed fields have developed into fen, scrub or woodland. Fen areas consist of Common Reed *Phragmites australis*, Reed Sweet-grass *Glyceria maxima* and Greater Tussock-sedge *Carex paniculata*, often with scattered elder *Sambucus* sp. and sallow scrub. On firmer ground, there is Alder *Alnus glutinosa*, Willow *Salix* sp., Birch *Betula* sp., and sallow, with Oak *Quercus robur* and Hazel *Corylus avellana* woodland on the driest ground. The ditches and margins between grazing marsh fields have an outstanding aquatic flora and invertebrate fauna. The Arun Valley supports important numbers of wintering waterbirds, which feed in the wetter, low-lying fields and along ditches. The Arun Valley SPA is situated within the South Downs National Character Area (NCA Profile 125).

Arun Valley Ramsar	528.6	Ramsar criterion 2  The site holds seven wetland invertebrate species listed in the British Red Data Book as threatened. One of these, <i>Pseudamnicola confusa</i> , is considered to be endangered. The site also supports four nationally rare and four nationally scarce plant species  Ramsar criterion 3  In addition to the Red Data Book invertebrate and plant species, the ditches intersecting the site have a particularly diverse and rich flora. All five British		Inappropriate water levels Environment Agency is ceasing to administer Internal Drainage Board (IDB) ditches, and water control structures, with the likelihood that management will revert to landowners/Local Authorities. This has implications for management/clearance of the ditches and maintenance of water controlling structures. There could be impacts on water levels, the marginal and in-channel flora and associated species.  Anisus vorticulus is not known to tolerate occasional ditch drought (M.Willings, Pers
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Site name Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
	duckweed ( <i>Lemna</i> species), all five water-cress ( <i>Rorippa</i> species), and all three British water milfoils ( <i>Myriophyllum</i> species), all but one of the seven British water dropworts ( <i>Oenanthe</i> species), and two-thirds of the British pondweeds ( <i>Potamogeton</i> species) can be found on site.  Ramsar criterion 5  Assemblages of international importance:  • Species with peak counts in winter- 13774 waterfowl (5 year peak mean 1998/99-2002/2003)  Species/populations identified subsequent to designation for possible future consideration under criterion 6:  • Species with peak counts in winter: Northern pintail , <i>Anas acuta</i> , NW Europe 641 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)		Comm 2014). Bewick's Swan and the majority of water bird assemblage species for which the site is classified require large bodies of in field water and water levels maintained within the ditch systems.  The Environment Agency are reviewing management of river bank defences adjacent to the Special Protection Area/Site of Community Importance in the medium term (beyond 10 years) as part of the Lower Tidal River Arun Strategy (LTRAS) project. If the banks are not maintained, there will be a permanent increase in water levels, with added risk of changes in salinity, water levels, and increasing water pollution (rivers Stor and Arun failing for phosphorus levels). Anisus vorticulus is not known to have a tolerance for elevated salinity levels. The majority of Ramsar plant species (also key supporting habitat for A. vorticulus and Bewick's swan) are intolerant of poor water quality. Impacts of increased salinity largely unknown.



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				Water pollution There's a risk that undetected deterioration in the quality of water entering the ditch systems is impacting upon SPA/SAC/Ramsar species. <i>Anisus</i>
				vorticulus requires good water quality. An important food source for Bewick's swan is Potamogeton spp. (pond weeds), which also requires good water quality, as do the majority of aquatic plant species for which the Ramsar is designated, and which is the essential supporting habitat for A.vorticulus. The rivers Arun and Stor are failing on phosphate levels. Directly linked
				to this is point source pollution from a sewage treatment works upstream of the site. There may also be a risk of increased levels of nutrients entering the site through flooding, especially if the river banks are not maintained (see issue of changes in water levels). The classified bird species are also vulnerable to increased levels of nutrient enrichment as there is an increased likelihood of certain disease. Increase in growth of vegetation from



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				sustained nutrient enrichment can make the habitat unsuitable for many bird species (Literature Review, Mott McDonald, 2006). Diffuse pollution from agricultural run-off is likely to be contributing to the phosphate levels (this issue is managed via Catchment Sensitive Farming).  Inappropriate ditch management This is linked to issue 1 and possible cessation or changes in the method and frequency of ditch management/clearance.  Anisus vorticlus is sensitive to changes in, and cessation of ditch management, as are the marginal and in-channel flora. The management requirements of A. vorticulus are little understood, so further research is required. Further surveys are also required- there has not been a full survey of A. vorticulus at Amberley since 1997. A full survey has been undertaken at Pulborough 2013/14, but repeat surveys will be necessary.



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				The nature, scale, timing and duration of some human activities can result in the disturbance of birds at a level that may substantially affect their behaviour, and consequently affect the long-term viability of the population. Such disturbing effects can for example result in changes to feeding or roosting behaviour, increases in energy expenditure due to increased flight, and desertion of supporting habitat (both within or outside the designated site boundary where appropriate). This may undermine successful feeding and/or roosting, and/or may reduce the availability of suitable habitat as birds are displaced and their distribution within the site contracts. Disturbance associated with human activity may take a variety of forms including noise, light, sound, vibration, trampling, and presence of people, animals and structures.
Arun Valley SAC	487.48	Qualifying Species:	Ensure that the integrity of the site is maintained or restored as appropriate, and	Similar to the Ramsar site (above)



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Little whirlpool ram's-horn snail Anisus vorticulus	ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;	
			<ul> <li>The extent and distribution of the habitats of qualifying species</li> </ul>	
			<ul> <li>The structure and function of the habitats of qualifying species</li> </ul>	
			<ul> <li>The supporting processes on which the habitats of qualifying species rely</li> </ul>	
			<ul> <li>The populations of qualifying species, and,</li> </ul>	
			<ul> <li>The distribution of qualifying species within the site.</li> </ul>	
Arun Valley SPA	530.42	Qualifying species:  • A037, Bewick's swan; Cygnus columbianus bewickii (non-breeding)  Desired the time of site position the CDA	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds	Similar to the Ramsar site (above)
		During the time of site notification, the SPA supported 115 individuals representing at least 1.6%	Directive, by maintaining or restoring;	



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		of the wintering population in Great Britain (5 year peak mean 1992/93 - 1996/97).	<ul> <li>The extent and distribution of the habitats of the qualifying features</li> </ul>	
		Qualifying assemblage of species:  During the non-breeding season the SPA regularly supports an assemblage of waterfowl with the area regularly supporting 27,241 individual waterfowl (5 year peak mean for 1992/93 to 1996/97) including:  • Shoveler; Anas clypeata,  • Teal; Anas crecca,  • Wigeon; Anas penelope,  • Bewick's Swan; Cygnus columbianus bewickii	<ul> <li>The structure and function of the habitats of the qualifying features</li> <li>The supporting processes on which the habitats of the qualifying features rely</li> <li>The population of each of the qualifying features, and,</li> <li>The distribution of the qualifying features within the site.</li> </ul>	
		<ul> <li>Qualifying habitats (which support wintering birds):         <ul> <li>MG5 Cynosurus cristatus-Centaurea nigra lowland meadows</li> <li>MG13-related; Inland wet grassland</li> <li>S5 Glyceria maxima (Reed Sweet-grass) swamp</li> </ul> </li> </ul>		



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<ul> <li>S22 Glyceria fluitans (floating-sweet grass) water-margin vegetation</li> <li>Network of ditch systems</li> </ul>		

#### **Duncton to Bignor Escarpment**

The site itself is an example of mature beech *Fagus sylvatica* woodland located on a steep scarp face of the South Downs. The site has developed over chalk which is overlain in places by a clay-with-flints capping. The resulting soil conditions have produced beech dominated mosaic with: ash *Fraxinus excelsior* woodland, scrub and chalk grassland. The high habitat quality present at Duncton to Bignor Escarpment has allowed many rare plants to flourish such as white helleborine *Cephalanthera damasonium*, yellow bird's nest *Monotropa hypopitys*, and limestone fern *Gymnopcarpium robertium*. The scrubby woodland is also home to the largest British colony of the rare snail *Helicodonta obvoluta*, and a notable assemblage of rare moth species, many of which are dependent on the scrubby woodland at Duncton Down.

Duncton to Bignor Escarpment SAC	214.47	H9130. Asperulo-Fagetum beech forests;     Beech forests on neutral to rich soils	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  - The structure and function (including typical species) of qualifying natural habitats, and	No current issues affecting the Natura 2000 feature(s) have been identified on this site
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Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
			<ul> <li>The supporting processes on which the qualifying natural habitats rely</li> </ul>	

#### **Ebernoe Common**

Ebernoe Common is an extensive complex of ancient woodland and former wood pasture in West Sussex, five miles south-east of Haslemere. The central core of the site, approximately a third of the total area, forms Ebernoe Common National Nature Reserve. It is a varied site with a range of woodland communities and age structures which have developed due to differences in underlying soils and past management. This range of conditions together with a long continuity of woodland cover has in turn resulted in the site supporting an outstanding diversity of species: Barbastelle and Bechstein's bats, which favour ancient woodland, breed in the site because it provides suitable roosting and feeding habitats. While Bechstein's feed exclusively in the woodland, Barbastelles commute into the surrounding countryside using the woodland corridors which branch out from the site. In addition, the native trees, particularly those with old growth characteristics, support rich lichen and fungal communities, including a number of rare and scarce species, and the woodland complex as a whole supports a diverse breeding bird assemblage.

Ebernoe Common SAC	234.05	H9120 Atlantic acidophilous beech forests with llex  Qualifying species     S1308 Barbastelle bat; Barbastella barbastellus     S1323 Bechstein's bat; Myotis bechsteini	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	Forestry and woodland management Woodland management for SSSI features (lichens, invertebrates) which require higher light levels may have a significant impact on the bat species. Additionally some management of the beech woodland is necessary in places. More information about potential impacts on bat species is required.  Offsite habitat availability/ management The protected site is limited woodland core
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Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
			<ul> <li>The structure and function (including typical species) of qualifying natural habitats</li> <li>The structure and function of the habitats of qualifying species</li> <li>The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely</li> <li>The populations of qualifying species, and,</li> <li>The distribution of qualifying species within the site.</li> </ul>	area where breeding colonies are known to exisit. The bats, however, rely on commuting and foraging habitat outside of the site and this needs to be better understood, protected and appropriately managed. It would also be useful to understand how this site relates to other bat SACs in the southern part of the UK to ensure that they and the connecting habitats are managed appropriately to maintain favourable populations.  Habitat fragmentation  Ebernoe Common and The Mens are similar SACs which lie within 5km of each other. It is likely that the bat populations of both sites are genetically linked.  Barbastelle bats are known to commute more than 5km and there is continuous woodland cover between the sites to allow Bechstein's to travel. There is a case to investigate whether the two sites should be treated within one overarching Natura 2000 site. It would also be useful to understand (through genetic analysis) how



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				this site relates to other bat SACs in the southern part of the UK to ensure that they and the connecting habitats are managed appropriately to maintain favourable populations.
				Changes in land management Land management in the surrounding countryside will have an impact on foraging areas for Barbastelle bats but at present the forage requirements (how much habita and of what type) are poorly understood. Ultimately, inadequate foraging will impact on breeding success within the site. Further investigation of foraging and bat commuting route requirements of notified bat species is required, informing better management of mature hedgerows which need to be restored and maintained in the area around the site.
				Hydrological changes Recent research has shown that water availability (ponds and streams) within Bechstein's breeding sites is likely to be important. Housing development around



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				the site and hydrological changes in the local area could impact on the availability of these habitats
				Air Pollution: risk of atmospheric nitrogen deposition Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site. This requires further investigation.
				Public access and disturbance It is known that light pollution has an impact on both myotis species, ie Bechstein's and Horseshoe bats. The investigation would seek to identify what light levels are presently and deduce whether they are having an impact on bat movements/roosting availability in and around the SAC areas.



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available	Key vulnerabilities / factors affecting
			for SACs & SPAs)	site integrity

Kingley Vale is approximately 208.5 hectares in size and is situated within both the South Downs National Character Area (NCA Profile 125) and National Park. The site has great archaeological significance, hosting 14 scheduled ancient monuments including Bronze Age and Roman earthworks such as: burial mounds, cross dykes, a camp and a field system. The Yew *Taxus baccata* woodlands of Kingley Vale are considered to be among the largest and best in Europe; it also contains an important grove of ancient Yews some of which are at least 500 years old. The Yew woodland is considered to be of such high quality in part because of the presence of successional stages from scrub grassland to mature woodland, which are provide a high variation in woodland structure and function, which is important for many breeding birds and invertebrates including: Red kites *Milvus milvus*, the forester moth *Adscita statices* and the nationally rare fly *Doros sonopseus*. The remainder of woodland which is not pure yew woodland is mixed woodland chiefly comprised of yew, ash and oak. In addition to woodland the site contains three nationally uncommon habitats: chalk grassland, juniper scrub and Yew scrub. The chalk grassland in particular is rich in flowering plants dominated by sheep's fescue *Festuca ovina*, meadow oat *Avenula pratensis* and salad burnet *Sanguisorba minor*. Several uncommon plants are also present, including: autumn gentian *Gentianella amarella*, roundheaded rampion *Phyteuma tenerum*, bee orchid *Ophrys apifera*, autumn lady's tresses *Spiranthes spiralis* and fly orchid *Ophrys insectifera*.

Kingley Vale SAC	208.5	<ul> <li>• H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia); Dry grasslands and scrublands on chalk or limestone.</li> <li>• H91J0. Taxus baccata woods of the British Isles; Yew-dominated woodland</li> </ul>	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	Deer Large herds of fallow deer present on the site appear to be a large factor in preventing natural regeneration of the yew trees. Surveys carried out in 2013 recorded little or no regeneration of yew.  Undergrazing Undergrazing is a threat at this site due to the conflicting issues around grazing animals and yew toxicity.  Agriculture Parts of the site are adjacent to land that is intensively managed for agriculture. This
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Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
			<ul> <li>The structure and function (including typical species) of qualifying natural habitats, and</li> <li>The supporting processes on which qualifying natural habitats rely</li> </ul>	management includes the regular application of fertiliser and pesticide, which, if allowed to come into direct contact with the grassland sward, can destroy the sward entirely or, through the addition of nitrogen cause loss of species diversity.
				Air Pollution: risk of atmospheric nitrogen deposition Nitrogen deposition exceeds site relevant critical loads

#### **Rook Clift**

Rook Clift is a small wooded combe on the scarp slope of the South Downs. The soils are predominantly calcareous in nature, overlying the chalk of the Downs. Deeper soils occur at the foot of the slope, and also the course of a stream, arising within the wood. This site is ancient woodland which remains in a semi-natural condition. Large-leaved lime *Tilia platyphyllos* dominates the canopy, together with some ash *Fraxinus excelsior* and beech *Fagus sylvatica*. It lies on the deeper soils towards the base of the slope and valley bottom of the small wooded combe, which gives the site its humid microclimate. The soils are rather deeper and there is less exposed rock at this site because the chalk is more readily weathered than the limestones on which many of the other sites lie. Despite this, the vegetation is otherwise typical of the habitat type, with an abundance of ferns such as hart's-tongue *Phyllitis scolopendrium* and shield-fern *Polystichum* spp.

Rook Clift SAC	10.62	Qualifying habitats:	Ensure that the integrity of the site is	Deer
		<ul> <li>H9180. Tilio-Acerion forests of slopes, screes and ravines; Mixed woodland on</li> </ul>	maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation	Deer are currently present in numbers that



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		base-rich soils associated with rocky slopes	Status of its Qualifying Features, by maintaining or restoring;  - The extent and distribution of qualifying natural habitats	threaten potential regeneration of the woodland shrub and canopy species.  Forestry and woodland management The woodland as a whole requires
			<ul> <li>The structure and function (including typical species) of qualifying natural habitats, and</li> <li>The supporting processes on which qualifying natural habitats rely</li> </ul>	management; however, there is currently no agreed management plan in place stating management priorities or timescales. Previous recommendations to coppice the Large-leaved lime have been followed. Further work is required for sustainable management into the future.
				Feature location/ extent/ condition unknown The distribution and abundance of Large-leaved lime trees within the woodland is not recorded. It is therefore not possible to monitor change or identify management requirements.

#### **Singleton And Cocking Tunnels**

Page 53

Singleton and Cocking Tunnels are two disused brick railway tunnels located in rural Sussex, just over 2 miles south of Midhurst. They once formed part of the Chichester to Midhurst railway line. The majority of the tunnels lie within the South Downs National Character Area (NCA 125) but the northern entrance of Cocking tunnel is within the Wealden Greensand National Character Area (NCA 120). The disused tunnels are one of the most important sites for hibernating bats in south-east England. In

The structure and function of the

The supporting processes on

which the habitats of qualifying

The populations of qualifying

The distribution of qualifying

habitats of qualifying species

species rely

species, and,

species within the site.



countryside could be used to better protect

disused railway tunnels to the north and

south of the site have significant numbers

of bats within them and probably form part

of the suite of hibernacula used by bats in

understand (through genetic analysis) how

southern part of the UK to ensure that they

and the connecting habitats are managed

this site relates to other bat SACs in the

the integrity of the site. Additionally,

the area. It would also be useful to

Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
	s bat <i>Myotis n</i>	e occurred in the tunnels: In addition to barbastelle Bark pattereri, Daubenton's bat Myotis daubentoni, Brown Io		
Singleton and Cocking Tunnels SAC	2.45	Qualifying species:	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 the habitats of qualifying species	Habitat connectivity  The protected site is limited to the tunnels themselves and does not include the surrounding area which is used for commuting in and out of the tunnels, for foraging during periods of semi hibernation and for swarming in the autumn (directly outside the tunnel). More information on



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				appropriately to maintain favourable populations.
				Habitat fragmentation Land management in the surrounding countryside, eg through the destruction or inappropriate management of hedgerows and woodland, is likely to have an impact on the commuting routes the bats use in and out of the site.
				Public access and disturbance In the last ten years, there has been repeated suggestions that the tunnels should be reopened as a cycle route. This would be expected to cause disturbance to the bats.  It is known that light pollution has an impact on both <i>myotis</i> species, ie  Bechstein's and Horseshoe bats. The investigation would seek to identify what light levels are presently and deduce whether they are having an impact on bat movements/roosting availability in and around the SAC areas.



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				Air Pollution: risk of atmospheric nitrogen deposition  Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site. This requires further investigation. The local effect on the Bechstein's bats hibernating in the tunnel is likely to be low

#### The Mens

The Mens is one of the largest ancient woodlands in West Sussex and supports a significant population of barbastelle *Barbastella barbastellus*. It is eight miles south-west of Horsham and falls within the Low Weald National Character Area (NCA 121). Most of the woodland lies on Weald Clay although in some places Paludina limestone outcrops at the surface. It is a varied site with a range of woodland communities and age structures which have developed due to differences in underlying soils and past management. The site also supports outstanding invertebrate, fungi, lichen and bryophyte assemblages. The woodland is predominantly high forest of sessile oak *Quercus petraea* and pedunculate oak *Quercus robur*, beech *Fagus sylvatica*, holly *Ilex aquifolium* and locally, ash *Fraxinus excelsior*, birches *Betula* spp. and wild service tree *Sorbus torminalis*. Beech dominates the lighter soils over an understorey of holly and yew *Taxus baccata*. On the heavier clay soils oak-ash woodland occurs over a mixed shrub layer which includes hazel *Corylus avellana*, hawthorn *Crataegus monogyna*, crab apple *Malus sylvestris* and blackthorn *Prunus spinosa*. It is developing a near-natural high forest structure, in response to only limited silvicultural intervention over the 20th century, combined with the effects of natural events such as the 1987 great storm. Barbastelles roost within the woodland but tend to forage outside of the site, commuting along woodland corridors into the wider countryside.



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
The Mens SAC	203.28	H9120. Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer ( <i>Quercion robori-petraeae</i> or <i>Ilici-Fagenion</i> ); Beech forests on acid soils  Qualifying species     S1308 Barbastelle bat; <i>Barbastella barbastellus</i>	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, and,	Forestry and woodland management A small area of the site was clear felled without consent in the last ten years and needs restoring to woodland. Woodland management for SSSI features (lichens, invertebrates) which require higher light levels may have a significant impact on the bat species. Additionally some management of the beech woodland is necessary in places. More information about potential impacts on bat species is required.  Habitat connectivity The protected site is limited to a woodland core area where breeding colonies are known to exist. The bats, however, rely on commuting and foraging habitat outside of the site and this needs to be better understood, protected and appropriately managed. It would also be useful to understand how this site relates to other bat SACs in the southern part of the UK to ensure that they and the connecting habitats are managed appropriately to



Site name Area	ea (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
			<ul> <li>The distribution of qualifying species within the site.</li> </ul>	maintain favourable populations.  Ebernoe Common and The Mens are similar SACs which lie within 5km of each other. It is likely that the bat populations of both sites are genetically linked.  Barbastelle bats are known to commute more than 5km and there is continuous woodland cover between the sites to allow Bechstein's to travel. There is a case to investigate whether the two sites should be treated within one overarching N2K site. It would also be useful to understand (through genetic analysis) how this site relates to other bat SACs in the southern part of the UK to ensure that they and the connecting habitats are managed appropriately to maintain favourable populations.  Invasive species  Rhododendron is invading the south eastern edges of the site and surrounds the edges of the site on the northern side.  Change in land management  Land management in the surrounding



Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				countryside will have an impact on foraging areas for Barbastelle bats but at present the forage requirements, i.e. how much habitat and of what type, are poorly understood. Ultimately, inadequate foraging will impact on breeding success within the site. Further investigation of foraging and bat commuting route requirements of notified bat species is required, informing better management of mature hedgerows which need to be restored and maintained in the area around the site.  Air Pollution: risk of atmospheric nitrogen deposition  Nitrogen deposition exceeds the site-
				relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site. This requires further investigation.  Public access and disturbance It is known that light pollution has an

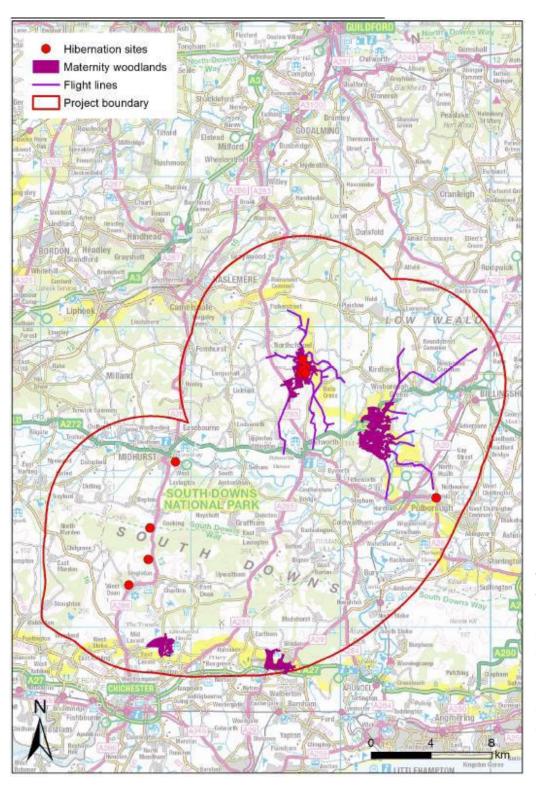


Site name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				impact on bat species. The investigation would seek to identify what light levels are presently and deduce whether they are having an impact on bat movements/roosting availability in and around the SAC areas.



# Appendix IV

## Barbastelle Maternity Woods Key Flightlines



Source: Bat Conservation
Trust 2015 Scoping study
for the West Sussex Bat
Project - Assessing current
evidence to recommend
conservation measures
important to barbastelle and
Bechstein's bats of
consequence in the project
area. A report to Natural
England.

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April 2020



