



# **APPENDIX 7.3: SHADOW HABITAT REGULATIONS ASSESSMENT SCREENING REPORT**

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## Appendix 7.3

Cuadrilla Balcombe Ltd

# Shadow Habitat Regulations Assessment – Screening Report

Lower Stumble Exploration Site, Balcombe

857001

OCTOBER 2017

**RSK**



## RSK GENERAL NOTES

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**Project No.:** 857001

**Title:** Lower Stumble Exploration Site, Balcombe – Shadow Habitat Regulations Assessment and No Significant Effects Report

**Client:** Cuadrilla Balcombe Ltd

**Date:** October 2017

**Office:** Hemel Hempstead

**Status:** Final

This report has been prepared by a professional ecologist and review by an Associate Director. Both are members of the Chartered Institute of Ecology and Environmental Management (CIEEM). Names have been omitted from this report for confidentiality reasons but can be provided on request.

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK Environment Ltd.

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# 1 INTRODUCTION

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## 1.1 Purpose of this Report

This Habitat Regulations Assessment (HRA) screening assessment has been produced in relation to the proposed Lower Stumble Exploration Site near Balcombe in West Sussex (Figure 1). This assessment was required as the site is 8.9 km from Ashdown Forest Special Area of Conservation (SAC) and Special Protection Area (SPA) and considers potential effects of the proposed development on this internationally important site.

It is the competent authority's role (West Sussex County Council) to undertake a HRA if it is deemed necessary. This shadow HRA screening report has been prepared by Cuadrilla Balcombe Ltd ("the applicant") to provide the competent authority with the information they may require to conclude whether the proposed development would require an Appropriate Assessment (AA), in accordance with *The Conservation of Habitats and Species Regulations 2010*.

A desk study has been undertaken, together with a Preliminary Ecological Appraisal (PEA), to determine any potential impacts of the proposed development on the habitats and species listed as "primary reasons" or "qualifying features" for the SAC/SPA designation.

This report has been produced following European Commission guidance: *Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6 (3) and (4) of the Habitats Directive 92/43/EEC*.

## 1.2 Proposed Development

The Balcombe 2z hydrocarbon borehole ("the borehole") was drilled by Cuadrilla Balcombe Ltd ("Cuadrilla") in 2013 under planning permission WSCC/027/10/BA. However, the works were never completed due to time limits that were imposed on the works. Therefore Cuadrilla secured a temporary planning permission in 2014 (WSCC/005/14/BA) to recommence the works. Due to various issues, the 2014 planning permission has now expired therefore Cuadrilla are applying to West Sussex County Council for a new temporary planning permission. The description of the development is:

*".....Temporary permission for exploration and appraisal comprising the flow testing and monitoring of the existing hydrocarbon lateral borehole along with site security fencing, the provision of enclosed testing flare and site restoration...."*

Planning permission is now being sought for a six-month period and the proposed work involves three stages.

- Stage 1: Exploration well testing and operations;
- Stage 2: Plug and abandonment of the well; and
- Stage 3: Demobilisation and restoration of the site.

The proposed flow testing operations **do not include any hydraulic fracturing** and for the avoidance of doubt Cuadrilla can confirm that it is not proposing to hydraulically fracture this well in the future.

Further details regarding the stages listed above are provided in the Environmental Report (P661310 – Balcombe Environmental Report, September 2017).

### 1.3 Ecological context

The site extends to 0.73 ha and comprises a flat rectangular area of hard-standing with some ruderal vegetation. The 2z borehole is at the centre of the site which is surrounded by 2m high security fencing. The site was last tested in September 2013 and is located within an area of forestry usage which is currently being managed by the landowner, the Balcombe Estate.

The area immediately surrounding the works footprint comprises planted broadleaved and coniferous trees, scrub, grassland and hedgerows and was surveyed as part of this assessment. There are patches of ancient woodland (which form part of Lower Stumble Wood and Lower Beanham Wood) to the north and south of the survey area, a railway line to the east and London Road B0236 to the west.

Although the works footprint comprises solely hard-standing with some encroaching ruderal vegetation, it is surrounded by habitat which is suitable for a number of protected species including bats, birds and Badgers. There are also two small streams within adjacent woodland.

### 1.4 Structure of this report

The remainder of this report is structured as follows:

- *Section 2* describes the designated site;
- *Section 3* outlines the potential impacts on the designated site;
- *Section 4* describes mitigation;
- *Section 5* provides the conclusion;
- *Section 6* lists the references;
- *Section 7* presents the figures;
- *Appendix 1* and *2* provide designated site citations; and
- *Appendix 3* provides the HRA screening matrix

## 2 DESIGNATED SITE AND DESCRIPTION

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There is one statutory designated site of nature conservation importance 8.9 km from the proposed site – Ashdown Forest.

Ashdown Forest is located in the High Weald of East Sussex in south-east England, where valley mires, heath and damp woodland have developed on soils derived from Hastings Sands (Lower Cretaceous). Once a royal hunting forest, reduced grazing has resulted in the accelerated development of woodland and encroachment of *Pteridium aquilinum* (Bracken) over former heath. Nevertheless, some fine examples of heathland habitats remain, with humid or wet heath predominating, dominated by *Calluna vulgaris* (Heather), *Erica cinerea* (Bell Heather) and *Erica tetralix* (Cross-leaved Heath) in the dampest conditions.

Where drier heaths occur they are dominated by *Calluna vulgaris* (Heather) in association with *Ulex europaeus* (Gorse) and *Ulex minor* (Dwarf Gorse). Stream sides and mires add further variety, with *Sphagnum* mosses, *Eriophorum sp.* (Cottongrass species), *Narthecium ossifragum* (Bog Asphodel) and *Drosera rotundifolia* (Round-leaved Sundew) all characteristic plants. The woodlands are also varied, with *Betula sp.* (Birch species) typically establishing first over heath, followed by *Quercus robur* (Pedunculate Oak), *Salix sp.* (Willow species) and *Pinus sp.* (Pine species) in places, eventually forming dense and shaded areas with sparse ground flora. Breeding birds of heath, scrub and woodland are associated with the varied mosaic of their respective habitats, distributed over the higher slopes and valleys of the High Weald.

Together with the nearby Wealden Heaths SPA and Thames Basin Heath SPA, Ashdown Forest forms part of a complex of heathlands in southern England that support breeding bird populations of European importance.

### 2.1 Ashdown Forest SAC

Ashdown Forest is designated as an SAC because it supports occurrences of habitat types and species listed in *Annexes I and II* of the *Habitats Directive* that are considered important in a European context and meet the criteria in *Annex III* of the *Directive*. The qualifying features of Ashdown Forest SAC are listed in *Table 1* and the citation is provided in *Appendix 1*.

**Table 1. Qualifying features of the Ashdown Forest SAC**

Qualifying Habitats and Species <sup>1</sup>	Primary Reason for Site Selection?	EU Code <sup>2</sup>
Annex I habitat types		
Northern Atlantic wet heaths with <i>Erica tetralix</i> (Cross-leaved Heath)	Y	4010
European dry heaths	Y	4030
Annex II species		
Great Crested Newt	N	1166

## 2.2 Ashdown Forest SPA

The Ashdown Forest is designated as a SPA. The SPA forms part of a complex of heathlands in southern England that support breeding bird populations of European importance. It was classified in 2006 and covers 3,200 ha comprising lowland heathland and woodland. It has a different boundary to the SAC, but the two designations overlap. The qualifying features are listed in *Table 2* and the citation is provided in *Appendix 2*.

**Table 2. Qualifying features of the Ashdown Forest SPA**

Species	Notes
Breeding populations of <i>Annex I</i> species (under <i>Article 4.1</i> of the <i>EU Birds Directive</i> )	
Dartford Warbler ( <i>Sylvia undata</i> )	29 pairs representing at least 1.8% of the breeding population in Great Britain (Count as at 1994).
Nightjar ( <i>Caprimulgus europaeus</i> )	35 pairs representing at least 1.0% of the breeding population in Great Britain (Two year mean, 1991 & 1992).

## 2.3 Threats, pressures and activities with impacts on the site

The Joint Nature Conservation Committee (JNCC) lists the most important impacts and activities with a high effect on the site. These are provided in *Table 3* below.

<sup>1</sup> Taken from Joint Nature Conservation Committee website <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030080>

<sup>2</sup> European Commission (2007) Interpretation Manual of EU Habitats EUR27 July 2007, and Natura 200-Standard Data Form Explanatory Notes, Appendix C.



**Table 3. Threats and pressures on the Ashdown Forest SAC/SPA (JNCC, 2015)**

Ranking	Threats and pressures (code)	Description	Inside / outside / both
Negative impacts			
High	H04	Air-pollution, air-borne pollutants	Both
High	J02	Human induced changes in hydraulic conditions	Both
High	A02	Modification of cultivation practices	Inside
High	G01	Outdoor sports and leisure activities, recreational activities	Inside
Positive impacts			
High	A02	Modification of cultivation practices	Inside

This assessment deals with H04 and J02 only as the remaining threats are relevant to areas inside the SAC/SPA only.

## 3 POTENTIAL IMPACTS ON THE PROTECTED SITE

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A screening matrix for the proposed development is presented in *Appendix 3* of this report.

### 3.1 Direct Impacts

The Ashdown Forest SAC/SPA is primarily designated for its internationally important heathland habitats and breeding populations of rare birds and amphibians. The site is not within the boundaries of the Ashdown Forest; it is over 8 km from the designated site boundary. Therefore, no direct impacts on the qualifying features of the SAC/SPA will arise during the proposed borehole stimulation, testing and monitoring operations.

Great Crested Newts (GCN) are an *Annex II* species and are found within the SAC/SPA. Although the PEA found records of GCN from within 2 km of the site and suitable terrestrial habitat surrounding the works footprint, works will be restricted to unsuitable habitat (hard-standing) and there are no ponds (which could be suitable for Great Crested Newts) ecologically connected to the site (RSK, April 2017). Therefore this species is considered to be absent and will not be affected by the proposed development.

The PEA did not record any habitat suitable for Nightjar or Dartford Warbler within the works footprint or immediate surrounding habitat (RSK, April 2017). There are also no records of these species anywhere within 2 km of the site. Therefore the site cannot support the *Annex I* species that are listed as a primary reason for site selection of the SPA and these species will not be affected by the proposed development.

### 3.2 Indirect Impacts

Even in the absence of mitigation outlined below, significant indirect impacts on the SAC/SPA would be unlikely as the site is 8.9 km from the nearest part of the forest. The works are localised and temporary (estimated to take a maximum of six months to complete).

#### 3.2.1 Air pollution, air-borne pollutants

Given the distance (8.9 km) from the nearest part of the SAC/SPA, it is very unlikely that there will be any significant effects in relation to air quality.

Noise (construction and operational) has rapid distance decay and the forest will not be effected by noise disturbance.

#### 3.2.2 Changes in hydraulic conditions

There are streams within adjacent woodland which, although are a significant distance from the SAC/SPA, flow into larger waterbodies which are connected to the SAC/SPA. However, the part of the site that accommodates the borehole and any fuels/chemicals is underlain by impermeable membrane, which will collect all surface water. This will

then be directed to a cellar where it will be stored pending transportation by tanker to a waste water treatment facility. Therefore streams within adjacent woodland will be unaffected and there is no potential for contaminated water to reach the SAC/SPA.

### **3.2.3 In-combination effects**

Due to the localised nature and temporary duration (approximately 6 months) of the proposed works, and the distance from the SAC/SPA, no significant in-combination effects are anticipated.

## 4 CONCLUSION

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There are no habitats present within or close to the works footprint which could support qualifying features of the SAC/SPA. As none of the habitats or species listed as primary qualifying features will be affected by the proposed development it has been assessed that the proposed development will not result in any likely significant effects on the Natura 2000 site. The competent authority should now be in a position to confirm whether or not an Appropriate Assessment is required.

## 5 REFERENCES

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European Commission (2001) *Assessment of plans and projects significantly affecting Natura 2000 sites – methodological guidance on the provisions of Article 6 (3) of the Habitats Directive 92/43/EEC*

Joint Nature Conservation Committee (JNCC) (2015) Natura 2000 – Standard Data Form – Site UK0030080 Ashdown Forest

RSK (April 2017) 857001 – Lower Stumble Exploration Site, Balcombe – PEA report

RSK (September 2017) 857001 – Lower Stumble Exploration Site, Balcombe – Bat report

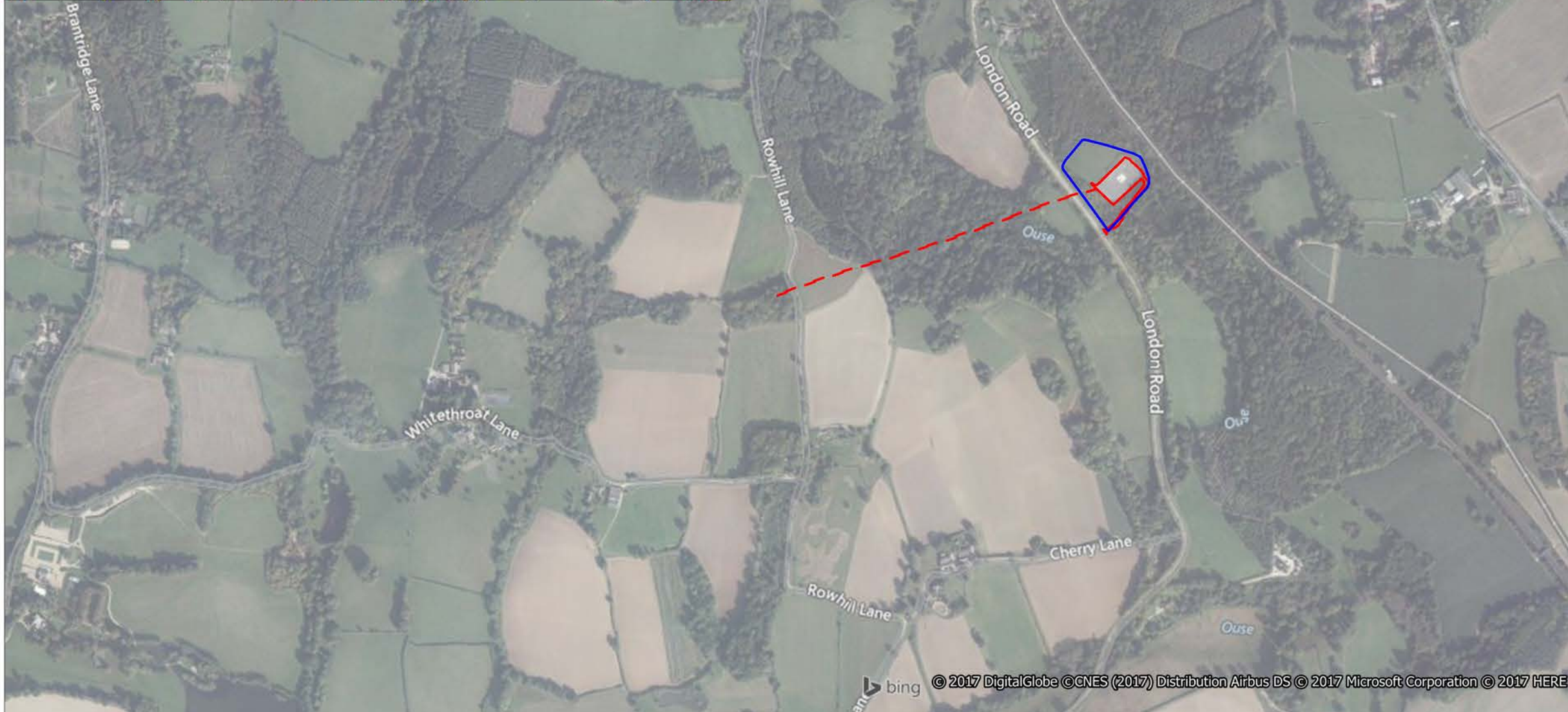
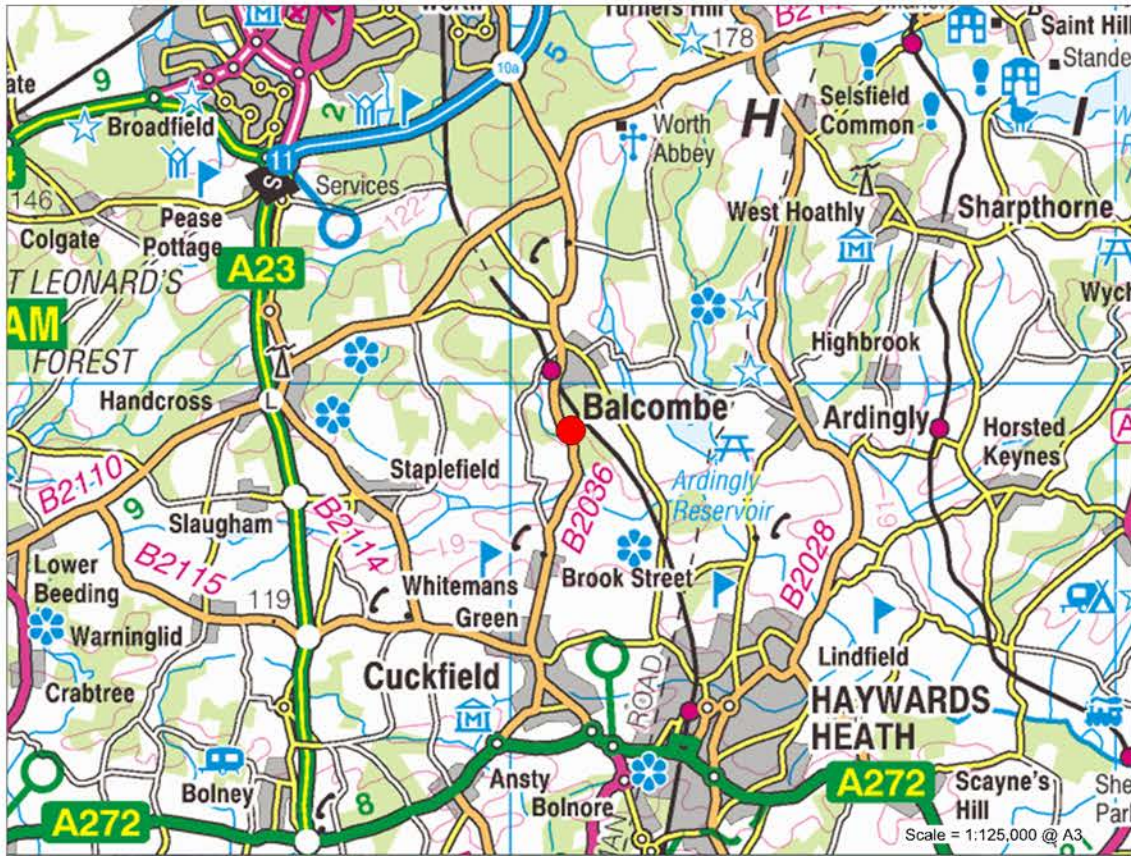
## 6 FIGURES

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Figure 1 – Site Boundary and Location

Figure 2 – Phase 1 Habitat Plan

Figure 3 – Proximity to Natura 2000 site



- Above ground work site boundary
- Below ground works site boundary
- Survey Area



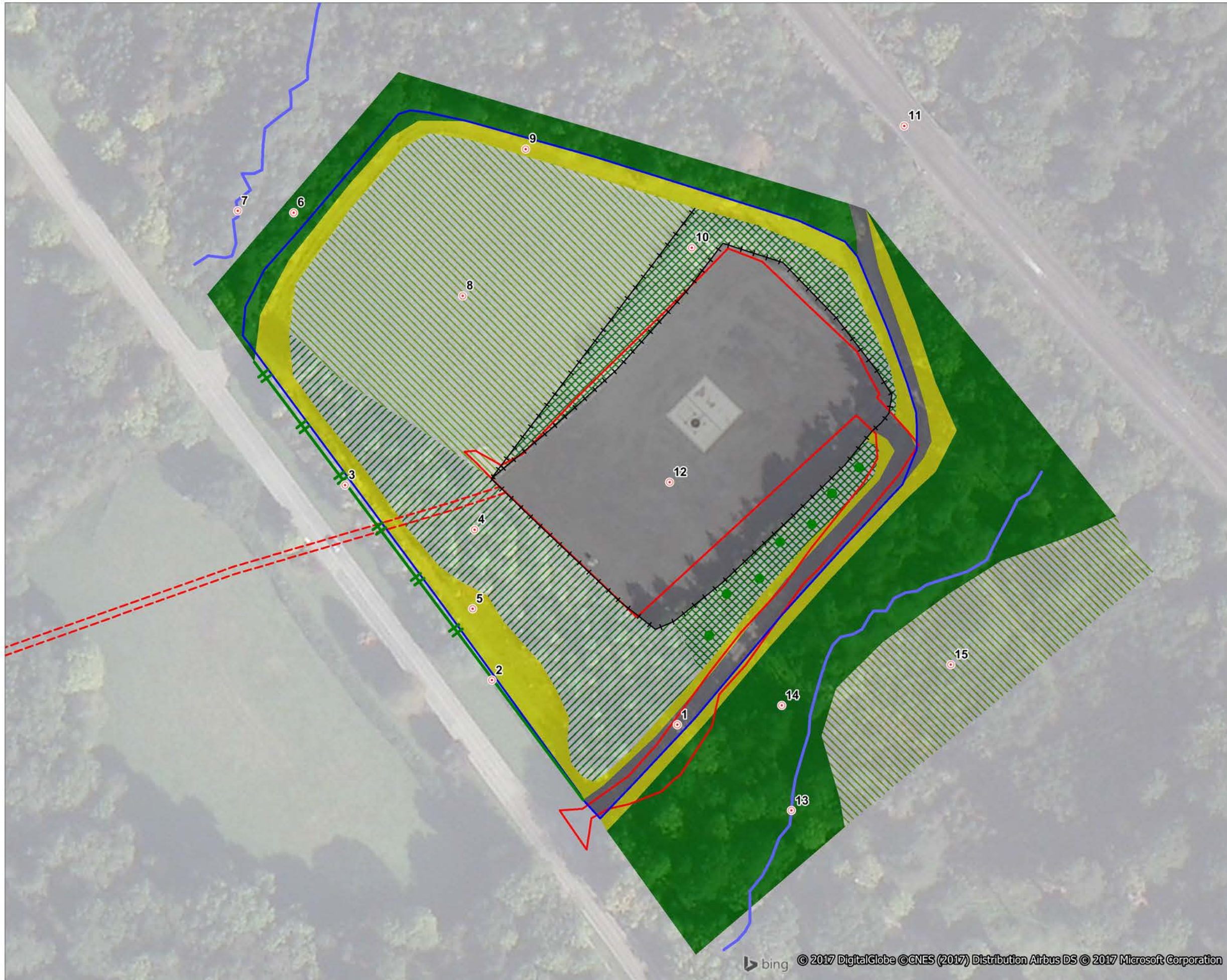
Rev	Date	Description
00	12.10.17	857001

**Balcombe 2z Hydrocarbon Well Testing**

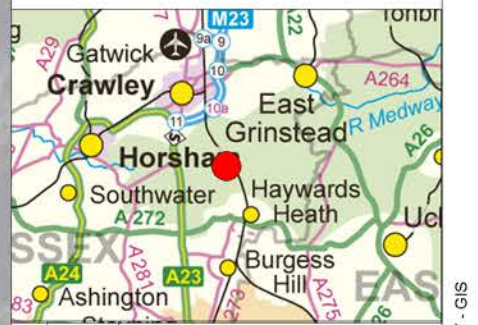
Figure 1  
Site Location Plan

0 300  
Metres  
Scale = 1:10,000 @ A3

REV 00



- Above ground work site boundary
- Below ground works site boundary
- Survey area
- Broad-leaved semi-natural woodland
- Broad-leaved plantation woodland
- Coniferous plantation woodland
- Dense / continuous scrub
- Scattered broad-leaved tree
- Running water
- Amenity grassland
- Hedge
- +++ Hedge with trees
- Fence
- Hardstanding
- Target note



Rev	Date	Description
00	12.10.17	857001

**Balcombe 2z Hydrocarbon Well Testing**

Figure 2  
Phase 1 Habitat Survey

0 30

metres

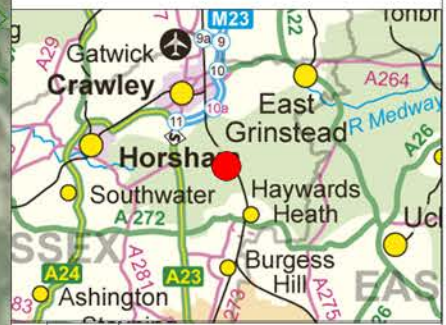
Scale = 1:1,000 @ A3

REV 00





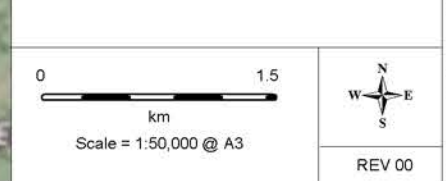
- Above ground work site boundary
- Below ground works site boundary
- Survey area
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)



Rev	Date	Description
00	12.10.17	857001

**Balcombe 2z Hydrocarbon Well Testing**

Figure 3  
Proximity to natura 2000 Site





# **APPENDIX 1**

## **ASHDOWN FOREST SAC CITATION**

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# NATURA 2000 – STANDARD DATA FORM

## **Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).**

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011](#) (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here  
[http://bd.eionet.europa.eu/activities/Natura\\_2000/reference\\_portal](http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal)

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:  
[http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the [SAC home page on the JNCC website](#). This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee  
25 January 2016.



# NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),  
Proposed Sites for Community Importance (pSCI),  
Sites of Community Importance (SCI) and  
for Special Areas of Conservation (SAC)

SITE UK0030080  
SITENAME Ashdown Forest

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- [2. SITE LOCATION](#)
- [3. ECOLOGICAL INFORMATION](#)
- [4. SITE DESCRIPTION](#)
- [5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES](#)
- [6. SITE MANAGEMENT](#)

## 1. SITE IDENTIFICATION

<b>1.1 Type</b> B	<b>1.2 Site code</b> UK0030080	<a href="#">Back to top</a>
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### 1.3 Site name

Ashdown Forest

<b>1.4 First Compilation date</b> 2001-03	<b>1.5 Update date</b> 2015-12
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### 1.6 Respondent:

**Name/Organisation:** Joint Nature Conservation Committee  
**Address:** Joint Nature Conservation Committee Monkstone House City Road Peterborough  
PE1 1JY  
**Email:**

**Date site proposed as SCI:** 2001-03  
**Date site confirmed as SCI:** 2004-12  
**Date site designated as SAC:** 2005-04

**National legal reference of SAC designation:**

Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010  
(<http://www.legislation.gov.uk/uksi/2010/490/contents/made>).

## 2. SITE LOCATION

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G	Code	Name	S	NP	T	Size		Unit	Cat.	D.qual.	A B C D		A B C		
						Min	Max				Pop.	Con.	Iso.	Glo.	
A	1166	<a href="#">Triturus cristatus</a>			p				C	DD	C	B	C	C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see [reference portal](#))
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

## 4. SITE DESCRIPTION

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### 4.1 General site character

Habitat class	% Cover
N08	60.0
N19	40.0
<b>Total Habitat Cover</b>	100

### Other Site Characteristics

1 Terrestrial: Soil & Geology: sandstone,acidic,clay,nutrient-poor 2 Terrestrial: Geomorphology and landscape: lowland

### 4.2 Quality and importance

Northern Atlantic wet heaths with *Erica tetralix* for which this is considered to be one of the best areas in the United Kingdom. European dry heaths for which this is considered to be one of the best areas in the United Kingdom. *Triturus cristatus* for which the area is considered to support a significant presence.

### 4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
H	H04		B
H	J02		B
H	A02		I
H	G01		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]
H	A02		I

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

#### 4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): <http://publications.naturalengland.org.uk/category/6490068894089216>

[http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)

<http://publications.naturalengland.org.uk/category/3212324>

#### 5. SITE PROTECTION STATUS (optional)

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##### 5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

#### 6. SITE MANAGEMENT

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##### 6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

##### 6.2 Management Plan(s):

An actual management plan does exist:

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No, but in preparation
<input checked="" type="checkbox"/>	No

##### 6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

## EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the [official European Union guidelines for the Standard Data Form](#). The relevant page is shown in the table below.

### 1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

### 3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

### 3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippophila rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57



CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

### 3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

### 3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

### 3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

### 3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

### 3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

### 3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

### 3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

### 3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

#### 4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Scree, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

#### 4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc.), trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

### 5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67



## **APPENDIX 2**

# **ASHDOWN FOREST SPA CITATION**

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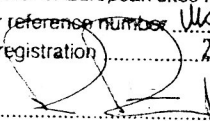
### ASHDOWN FOREST (EAST SUSSEX)

The Ashdown Forest proposed Special Protection Area (pSPA) is an extensive area of common land on mainly sandy soils between East Grinstead and Crowborough in East Sussex. It comprises a mosaic of wet and dry heath, valley bog and woodland, and supports several uncommon plants, a rich invertebrate fauna and nationally important numbers of breeding nightjar and Dartford warbler. The boundary of the pSPA is coincident with that of the Ashdown Forest Site of Special Scientific Interest.

The site qualifies for designation under Article 4.1 of the EU Birds Directive by regularly supporting nationally important breeding populations of two Annex 1 species. The site supports 35 pairs of nightjar *Caprimulgus europaeus* (1991-92 survey), representing 1.1% of the British population, and 20 pairs of Dartford warbler *Sylvia undata* (1994 survey), representing 2.1% of the British population. Other regularly occurring Annex 1 species include woodlark *Lullula arborea*, hen harrier *Circus cyaneus* and great grey shrike *Lanius excubitor*.

The diverse range of heathland and woodland habitats on the site supports an important assemblage of breeding species, some of which have declined in England over recent years. Notable species regularly breeding on the site include hobby *Falco subbuteo*, tree pipit *Anthus trivialis*, redstart *Phoenicurus phoenicurus*, stonechat *Saxicola torquata* and wood warbler *Phylloscopus sibilatrix*, in addition to nightjar and Dartford warbler.

SPA Citation  
ICC  
May 1994

This citation / map relates to a site entered in  
the Register of European sites for Great Britain  
Register reference number UK9012181  
Date of registration 25 AUG 1998  
Signed   
on behalf of the Secretary of State for the Environment

## APPENDIX 3 SCREENING MATRIX

<b>Project Name</b>	Lower Stumble Exploration Site, Balcombe
<b>Natura 2000 Site under Consideration</b>	The Ashdown Forest SAC/SPA
<i>Brief description of the project or plan</i>	Temporary permission is being sought for exploration and appraisal comprising the flow testing and monitoring of the existing hydrocarbon lateral borehole along with site security fencing, the provision of enclosed testing flare and site restoration.
<i>Brief description of the Natura 2000 site</i>	The Ashdown Forest SAC/SPA is primarily designated for its internationally important heathland habitats and breeding populations of rare birds and amphibians.
<b>Assessment Criteria</b>	
<i>Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site.</i>	H04 (air-pollution, air-borne pollutants) and J02 (human induced changes in hydraulic conditions)
<b>Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:</b>	
<i>Size and scale:</i>	Works are restricted to an existing area of hard-standing approximately 0.73 ha and the site is 8.9 km from the SAC/SPA.
<i>Land-take:</i>	None. Works are restricted to an existing area of hard-standing which was subject to the same works in 2013.
<i>Distance from the Natura 2000 site or key features of the site</i>	The site is 8.9 km from the Ashdown Forest SAC/SPA.
<i>Resource requirements (water abstraction etc.)</i>	None - no water abstraction is required.

<i>Emissions (disposal to land, water or air)</i>	None - during operation, emissions anticipated are not expected to have a significant impact on air quality of the SAC/SPA due to the distance from the site.  Air-bourne pollutants will not reach the SAC/SPA which is 8.9 km away.
<i>Excavation requirements</i>	None - works are restricted to an existing borehole which extends approximately 820 m vertically and 520 m laterally.
<i>Transportation requirements</i>	Entry into the site will be from the existing access to Lower Stumble Wood and the Balcombe Estate's forestry and farming activities from the B2036. As this access has previously been used for hydrocarbon exploration and given the temporary nature of the development proposed, it is not considered necessary at this stage to improve the access further. No access routes will run close to the SAC/SPA.
<i>Duration of construction, operation, decommissioning, etc</i>	No more than six months.
<i>Other</i>	-
<b>Describe any likely changes to the site arising as a result of:</b>	
<i>Reduction of habitat area:</i>	None
<i>Disturbance to key species</i>	None, there is no suitable habitat within the site.
<i>Habitat or species fragmentation</i>	None
<i>Reduction in species density</i>	None
<i>Changes in key indicators of conservation value (water quality etc.)</i>	None
<i>Climate change</i>	None
<b>Describe any likely impacts on the Natura 2000 site as a whole in terms of:</b>	



<p><i>interference with the key relationships that define the structure of the site</i></p>	<p>The SAC/SPA comprises a complex of heathland in southern England. There are no heathland habitats within or adjacent to the works footprint and the site is over 10 km away. Therefore no interference with key relationships that define the structure of the site is anticipated.</p>
<p><i>interference with key relationships that define the function of the site</i></p>	<p>The function of the SAC/SPA is the provision of habitat for breeding birds, as well as amphibians. There will be no interference with habitats or species during operation as works are restricted to an existing area of hard-standing which is unsuitable for protected species.</p>
<p><b>Provide indicators of significance as a result of the identification of effects set out above in terms of:</b></p>	
<p><i>Loss</i></p>	<p>N/A</p>
<p><i>Fragmentation</i></p>	<p>N/A</p>
<p><i>Disruption</i></p>	<p>N/A</p>
<p><i>Disturbance</i></p>	<p>N/A</p>
<p><i>Change to key elements of the site (e.g. water quality etc.).</i></p>	<p>N/A</p>
<p><i>Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.</i></p>	<p>N/A</p>