

**Brighton & Hove Core Strategy
Development Plan Document**

Proposed Submission

**Appropriate Assessment
(Habitats Regulations Assessment Report)**

January 2010 updated report



**Brighton & Hove
City Council**

Brighton & Hove Local Development Framework

Appropriate Assessment for the Proposed Submission Core Strategy Development Plan Document (February 2010)

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I. Introduction

- I.1. Article 6 of Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive) requires an Appropriate Assessment (AA) to be undertaken to assess the impacts of a plan or project against the conservation objectives of a European Site and to ascertain whether it would adversely affect the integrity of that site. Where significant negative effects are identified, alternative options should be examined to avoid any potential damaging effects, unless there are 'imperative reasons of overriding interest', in which case suitable compensatory measures are required.
- I.2. Article 6(3) of the European Habitats Directive also states: *"the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public"*.
- I.3. European sites consist of Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Offshore Marine Sites (OMS) (there are no OMS designated at present).
- I.4. Schedule I of the Conservation (Natural Habitats, &c) (Amendment) (England and Wales) Regulations 2006 (Habitats Regulations) inserts a new Part IVA into the Conservation (Habitats, &c.) Regulations 1994 and transposes into English

law the requirement to carry out AA for land use plans. AA therefore applies to both Development Plan Documents (DPDs) and Supplementary Planning Documents (SPDs).

1.5. In August 2006 the Department for Communities and Local Government (DCLG) published draft guidance titled 'Planning for the Protection of European Sites: Appropriate Assessment - Guidance For Regional Spatial Strategies and Local Development Documents'. The draft guidance is a step towards establishing a national methodology for applying AA. In August 2007 the RSPB published '*The Appropriate Assessment of Spatial Plans in England: a guide to why, when and how to do it.*' which is also a helpful clarification of procedure. This report takes full account of this guidance and of the reports of previously completed AAs in the South East.

1.6. European and national guidance on AA promotes a process of up to four stages:

1. Screening.

An initial determination of whether the plan is likely to have a significant effect on European sites.

2. The AA itself.

If significant effects cannot be ruled out at the screening stage, a more detailed determination of whether, in view of the site's conservation objectives, the plan in itself, or in combination with other plans or projects, could have an adverse effect on the site integrity.

3. Assessment of alternative solutions

Where significant effects cannot be ruled out, alternatives are assessed.

4. Assessment where there are no alternative solutions and where adverse impacts remain

1.7. This report describes Stage 1 of this process. It describes and assesses:

- The European sites that could be affected by the Brighton & Hove Proposed Submission Core Strategy, including the qualifying features of those sites, their conservation objectives and the key environmental conditions to support their integrity;

- An assessment of all possible impacts on the sites arising from the Core Strategy;
- An explanation of the impacts that can be screened out and why it has been concluded that it is not necessary to complete a full AA.

1.8. An earlier version of this report has been subject to consultation with Natural England. Recommendations contained within their response (see Appendix A) have been incorporated into this latest draft. The changes to this report since the Natural England response are:

- the possible release of land within the urban fringe for residential development in the period post 2020.
- a new approach to developing a Park and Ride strategy, involving the identification of a number of smaller park and ride sites near or adjacent to strategic road corridors approaching the city, including the A270 Old Shoreham Road, A259 coast road, A23 London Road and A270 Lewes Road. These sites are included to provide greater choice for people to access the city centre and the recently approved South Downs National Park. The locations of the proposed park and ride sites are not defined in the Core Strategy but they will be identified in the future Development Policies and Site Allocations DPD.

2. Screening

European sites

2.1. Table 1 lists the European sites which have boundaries within 20 km of the administrative boundary of Brighton and Hove (see also Map 1). The 20 km buffer zone is very comprehensive and greater than has been chosen by other AAs in the South-East. Only Castle Hill SAC is within the administrative boundary of Brighton & Hove City Council.

Table 1: European sites within 20 km of Brighton and Hove

Name	OS Grid Ref.	Designation	Reason for designation	Closest distance (straight line) from Brighton & Hove boundary (km)
Castle Hill	TQ372066	SAC	Chalk grassland with a mosaic of calcareous semi-natural dry grassland communities. Important assemblage of rare and scarce species inc. early spider orchid (one of the largest colonies in the UK), early gentian and burnt orchid.	within boundary
Lewes Downs	TQ441093	SAC	Chalk grassland with CG2 <i>Festuca ovina</i> – <i>Avenula pratensis</i> and CG3 <i>Bromus erectus</i> calcareous grasslands. - important assemblage of rare and scarce orchids.	6
Ashdown Forest	TQ451306	SAC & SPA	One of the largest single continuous blocks of lowland heath (both dry and wet heath) in South East England. Population of great crested newt (SAC). Nationally important breeding populations of nightjar and Dartford warbler (SPA).	19.5
Arun Valley	TQ 033142	SPA	Internationally important wintering population of tundra swan	20

The Preferred Options document

2.2. The Proposed Submission Core Strategy Development Plan Document for Brighton & Hove covers the period 2006-2026 and includes 13 Development/Special Area policies and 18 citywide policies. The key aims of the document include the delivery of:

- 11,400 net additional dwellings
- 20,000sqm of office floor space (additional to that already committed)

- Optimising development on brownfield sites throughout the existing built-up area of the city but possibly some managed land release for housing on the urban fringe in the period post 2020
- the identification of a number of smaller park and ride sites near or adjacent to strategic road corridors approaching the city,
- Directing significant development to seven broad areas of the city where it is possible to make full use of public transport/ public transport interchanges and where identified capacity exists to accommodate further development. These key broad areas are identified for place-shaping and development to bring about sustainable communities
- Promotion of some major developments, including redevelopment of the Brighton Centre and delivery of the King Alfred development of importance to the city and the region.
- Improved coordination of policy and strategies across the city.

The potential environmental impacts of each of these policies on European Sites are assessed in Table 2

Table 2: Core Strategy preferred options and their potential environmental effects on European Sites (options with potential for positive effects are highlighted green)

Policy	Summary description	Potential environmental impacts of relevance to this AA
DA 1 – Brighton Centre and Churchill Square Area	New state of the art convention facility (25,000sqm). Extension of the Churchill Square shopping centre (approx. 20,000sqm in total). Minimum necessary additional movements by car traffic Improve pedestrian and cycle access	Increased resource use – water, hydrocarbons Increased traffic volumes Air pollution
DA 2 - Brighton Marina, Gas Works and Black Rock Area	Development of Brighton Marina as a sustainable mixed use district of the city; enhanced transport infrastructure; improved pedestrian and cycle access; good mix of housing (an additional 2,000 residential units) which reflects housing needs. In addition to the additional housing the following amounts of additional development are detailed: 5,000sqm retail (A1-A5); 4,000sqm industrial (B1-B2); 3,500sqm leisure; a community building within the Marina; a health facility within or near the Marina; primary school or increase in school places within or near the Marina.	Increased resource use – water, hydrocarbons. Increased traffic volumes Air pollution Increased recreational pressure.

DA 3 - Lewes Road Area	Sustainable redevelopment and expansion of the University campuses including accommodation for students; improved bus, cycle and pedestrian routes; open space improvements; an additional 445 residential units; employment led development comprising 18,600 sqm employment floorspace and 200 residential units at Preston Barracks; new Community Stadium (22,374 seat); city academy at Falmer High; community building at Bevendean.	Increased resource use – water, hydrocarbons. Increased traffic volumes Air pollution Increased recreational pressure.
DA4 - New England Quarter and London Road Area	Revitalise the London Road retail area and create a major new business quarter (20,000 sq m office floor space post 2016); create a green gateway to the city at Preston Road West; minimum of 875 residential units; improvements in vocational training and further education as an extension to the Academic Corridor; GP surgery.	Increased resource use – water, hydrocarbons. Increased traffic volumes Air pollution Increased recreational pressure.
DA5 - Eastern Road and Edward Street Area	Improvements to the public realm and townscape; additional school places; additional high quality office space; minimum of 205 residential units; enlargement of Royal Sussex County Hospital (additional 30,000sqm hospital floorspace); a multi practice GP's surgery and community building.	Increased resource use – water, hydrocarbons. Moderate increase in traffic volumes Air pollution Possible increase in recreational pressure.
DA6 - Hove Station Area	Positive employment-led mixed-use regeneration of under-used land and buildings, improving the walking and cycling network in the wider area	Increased resource use – water, hydrocarbons. Moderate increase in traffic volumes Air pollution
DA7 - Shoreham Harbour Area	Long-term regeneration of Shoreham Port/South Portslade to create a highly sustainable neighbourhood with new homes, retail and leisure facilities, community facilities, improved sustainable transport and road links	Increased resource use – water, hydrocarbons. Increased traffic volumes Air pollution Increased recreational pressure.
SA1 – The Seafront	On-going regeneration, in an integrated and coordinated manner, to support the retail, leisure, recreation and cultural role of the seafront, new leisure provision at King Alfred.	Possible improvements to water effluent; potential for increased traffic volumes and air pollution

SA2 Central Brighton	Reinforce central Brighton's role as a vibrant, thriving regional centre for shopping, tourism, cultural and commercial facilities; significant new retail development; improved public realm and community safety.	Potential for increased traffic volumes and air pollution
SA3 – Valley Gardens	Regenerate the Valley Gardens to reduce the adverse impact of vehicular traffic and create a continuous green boulevard.	Possible reduction in recreational pressure on downland sites
SA4 - Urban Fringe	Protection and enhancement of the urban fringe; promotion of sustainable transport; improved access to the countryside. Land release within the urban fringe for residential development will be considered on a 'contingency only' basis in the period post 2020 (should monitoring indicate projected shortfalls against the strategic housing requirement). Urban fringe is defined as 'land between the built up area boundary and the intended South Downs National Park boundary'. There is no such land within 2km of a European Site.	Possible increase in recreational pressure to downland sites. Increased resource use – water, hydrocarbons. Increased traffic volumes Air pollution
SA5 – The South Downs	Maintain and protect the open chalk downland, in the proposed National Park boundary; enhancing access by sustainable transport	Possible increase in recreational pressure to downland sites
SA6 Sustainable Neighbourhoods	Contribute to creating and maintaining sustainable neighbourhoods and reduce inequalities between neighbourhoods by: focusing new development in local shopping centres and parades; maintaining a good balance and mix of uses in local centres; improving quality of public services; improving open space and public realm and promote sustainable community safety; improving sustainable access; improving communities facilities and choice of housing; improving environmental sustainability of new and existing buildings; securing good quality employment and training opportunities; help to reduce health inequalities and promote healthier lifestyles and encourage neighbourhood arts and culture projects.	Possible reduction in recreational pressure on downland sites; potential for reduced resource use – water, hydrocarbons.

CP1 – Sustainable Buildings	Promote the best possible standards of sustainable building design, construction, management and decommissioning in new and existing developments.	Possible reduction in recreational pressure on downland sites; potential for reduced resource use – water, hydrocarbons.
CP2 – Urban Design	Raise the standard of architecture and design in the city	none
CP3- Public Streets and Spaces	Quality, legibility and accessibility of the city’s public urban realm will be improved in a comprehensive manner	none
CP4 Healthy City	Support and promote healthier lifestyles and reduce health inequalities	none
CP5 - Biodiversity	Develop programmes and strategies which aim to conserve and enhance biodiversity including a ‘green network’	Possible reduction in recreational pressure on downland sites;
CP6 Open Space	Safeguard, enhance, and promote access to Brighton & Hove’s green/open spaces,	Possible reduction in recreational pressure on downland sites;
CP7 Sports Provision	To facilitate the council’s aspiration to become a Sporting City and to increase participation in sport and physical activity.	
CP8 Sustainable Transport	Contribute to creating an integrated sustainable transport system that will accommodate new development, improve accessibility, promote walking, cycling and public transport use, and contribute to a safer, cleaner, quieter city. providing park and ride sites on the key strategic corridors to offer greater choice for people to access the city centre and the recently approved South Downs National Park. Locations will be identified in the Development Policies and Site Allocations DPD. Although the precise locations have not been defined, there is an undertaking that ‘Park and ride locations will not have a significant adverse impact on a site of European Nature Conservation Importance.’	Increased resource use – hydrocarbons. Increased traffic volumes Air pollution Increased recreational pressure.
CP9 Infrastructure and Developer Contributions	Provision of social and physical infrastructure	None directly
CPI0 Managing Flood Risk	Reduce flood risk	None
CPI I Housing Delivery	New housing development in order to help provide people with a wide choice of decent quality housing - 567 new homes annually to 2026.	Increased resource use – water, hydrocarbons. Increased traffic volumes

		Air pollution Increased recreational pressure.
CPI2 Affordable Housing	Plan wide target of 230 units of affordable housing per annum to 2026	Increased resource use – water, hydrocarbons. Increased traffic volumes Air pollution Increased recreational pressure.
CPI3 - Housing Density	Higher housing densities permitted, where it meets defined criteria with a net density of at least 50 dwellings per hectare.	None directly
CPI4 Provision for Gypsies, Travellers and Travelling Showpeople	Provision will be made to meet the local need for gypsy and traveller caravan pitches in accordance with the South-East Plan	None
CPI5 Retail Provision	Current hierarchy of shopping centres will be maintained and enhanced	None
CPI6 Planning for Sustainable Economic Development	Safeguarding and ensuring a supply of employment sites and premises; 20,000 sqm of new office floor space at New England Quarter (see DA4)	Increased resource use – water, hydrocarbons. Increased traffic volumes Air pollution
CP 17 Culture, Tourism and Heritage	Maintain and enhance the historic environment and culture of the city to the benefit of residents and visitors.	None
CPI8 New Hotel/ Guest House Accommodation	Management of proposals for new major hotel facilities	Increased resource use – water, hydrocarbons. Increased traffic volumes Air pollution Increased recreational pressure

Likely Environmental Impacts

2.3. The possible environmental impacts of the Core Strategy on European Sites can be summarised as being in the form of:

- Increased recreational pressure on green spaces and the countryside including the possibility of increased visits to the European sites.

- Increased traffic, leading to increased air pollution, which could affect species that are sensitive to air quality.
- Increased resource use, including minerals, water and fuel. Increased water abstraction could affect water levels at the European sites.

In Combination Effects

2.4. The AA for the South East Plan identifies a number of existing environmental trends at the regional scale. These need to be considered where relevant to the potential environmental impacts identified in 2.3 (above) on the European Sites listed in Table I because of their potential to have ‘in combination’ effects:

- **Water supply:** Most of the wetland sites in the South-East are affected by existing abstraction rates. The AA to the South East Plan is unable to conclude that the Plan is unlikely to have a significant impact on the integrity of some European Sites, including Arun Valley, without a number of ‘strong measures’ being put in place to improve water efficiency and reduce demand. Increased demand associated with new housing and other development is likely to exacerbate any water abstraction effects on European Sites.
- **Worsening air quality due to traffic growth and increased fossil fuel consumption.** Ashdown Forest, Castle Hill and the Lewes Downs are listed in the AA for the South East Plan as being European Sites known to have depositions of air pollutants which exceed their critical load. Elevated levels of oxides of Nitrogen, Ammonia, Sulphur Dioxide and low-level Ozone are of particular concern. Motor vehicles are key contributors of these pollutants (see AA to the South East Plan, Table 8).
- **More recreational pressure as a consequence of increased population.** The AA to the South East Plan lists a number of potential effects associated with recreation, including disturbance to wildlife, management difficulties and erosion. Ashdown Forest, Arun Valley and Lewes Downs are listed as being European Sites where it cannot be concluded that there will be no adverse effect due to increased recreational pressure associated with developments (see AA to the South East Plan, Table 10).

2.5. All the impacts described above are related to the effects of housing and other development. Table 3 shows the housing allocations in the South East Plan for the Local Authorities containing the European Sites listed in Table 1 and those in the vicinity of Brighton & Hove, that could lead to an ‘in combination’ effect with the Brighton & Hove Core Strategy. Table 3 does not take account of proximity to a European Site and is therefore only a crude assessment of relative impact. Nevertheless it indicates that up to 12% of any impact on the European sites in Table 1 due to new housing could be attributable to Brighton & Hove.

Table 3: Housing close to Brighton & Hove that could lead to ‘in combination’ impacts with the Brighton & Hove Core Strategy

Local Authority	House construction in South East Plan to 2026	Percent of total (to nearest whole number)
Adur	2,100	2
Arun	11,300	12
Brighton & Hove	11,400	12
Chichester	9,600	11
Crawley	7,500	8
Horsham	13,000	14
Lewes	4,400	5
Mid Sussex	17,100	19
Worthing	4,000	4
Wealden	11,000	12
Total	91,400	

Screening Table

2.6. Table 4 summarises the screening of the potential direct and in combination effects of the Brighton & Hove Core Strategy on the European Sites identified in Table 1.

Table 4: Screening of the potential effects of the Brighton & Hove Core Strategy on European Sites

Site	Qualifying features	Key environmental conditions to support site integrity	Possible impacts arising from Core Strategy	Is there a risk of a significant effect?	Possible 'in combination' impacts.	Risk of significant 'in combination' effects?
Arun Valley	<ul style="list-style-type: none"> - Used by more than 1% of GB's population of Annex I species Bewick's swan (<i>Cygnus columbianus bewickii</i>). - Internationally important wintering population of 20,000+ waterfowl. - The neutral wet grassland ditches support rich aquatic flora and fauna. - 7 Red Data Book threatened species, one of which is endangered; plus 4 rare and 4 nationally scarce plant species. 	<p>Sympathetic management of lowland wet grassland /grazing marsh (including water level management).</p>	<p>None – dependent on local factors</p>	no	none	no
		<p>Maintenance of hydrological regime, including winter flooding</p>	<p>Development of 11,000 new homes in Brighton & Hove will increase demand for water. But Brighton & Hove is not in the Arun Valley water catchment</p>	no	<p>none – the Catchment Abstraction Management Strategy (CAMS) for The Arun and Western Streams does not address the Brighton & Hove area which is in a separate catchment</p>	no
Ashdown Forest (SAC & SPA)	<ul style="list-style-type: none"> - European dry heaths 	<p>Only approx. 19% of the SAC is grazed. Spread of scrub and bracken is a major threat. Air pollution (nitrogen deposition) can</p>	<p>None: Potential air pollution emissions from housing and additional traffic</p>	no	<p>Development of additional houses and other development in surrounding local</p>	<p>No – see discussion</p>

		exacerbate scrub encroachment	related to the new housing and employment sites, but site is 19+km from boundary of Brighton & Hove		authorities could increase traffic levels.	
	Northern Atlantic wet heaths with <i>Erica tetralix</i>	Long-term drying out of the site may take place, due to borehole extraction and transpiration from increase in vegetation cover.	None: Brighton & Hove outside hydrological regime of Ashdown Forest	No	Development of additional houses and other development in surrounding local authorities could increase water demand on the site, but there will be no contribution from Brighton & Hove	No
	- Great Crested Newt	Suitable foraging and refuge habitat within 500m of the pond; unpolluted water; grazing management to prevent succession;	None	No	Local issues not significantly affected by development in Brighton & Hove	No
	- Nationally important breeding populations of nightjar and Dartford Warbler	Low recreational disturbance of birds	New housing in Brighton & Hove will not significantly effect traffic levels and recreational pressure on Ashdown Forest, some 19 km away	No	Ashdown Forest has a wide recreational catchment area. The increased housing proposed for neighbouring local authorities could increase recreational	No

			(see discussion)		pressure. However development in Brighton & Hove will have a negligible effect (see discussion)	
Lewes Downs	Chalk grassland with CG2 <i>Festuca ovina</i> – <i>Avenula pratensis</i> and CG3 <i>Bromus erectus</i> calcareous grasslands. - important assemblage of rare and scarce orchids. The colony of burnt orchid is one of the largest in the UK	The grassland habitats depend upon grazing by sheep and cattle. Gradual scrub and coarse grass invasion can be indicative of nutrient (Nitrogen) enrichment or inadequate grazing. Where arable land meets the SSSI boundary, leaching and spray-drift are potential threats. Recreational pressure is not regarded by the JNCC as a threat to the site. Lewes Downs is managed as a national Nature Reserve and therefore increased recreation, if it did become an issue, could be managed accordingly	Potential air pollution emissions from additional traffic related to new housing could increase Nitrogen deposition rates but the impact of Brighton & Hove development is not considered significant Local management issue None	No (see discussion) No No	Development of additional houses and other development in surrounding local authorities could increase deposition of Nitrogen and other pollutants but the contribution of Brighton & Hove is not thought to be significant (see discussion) None None	No No No
Castle Hill	This chalk grassland consists of a mosaic of calcareous semi-natural	Continued conservation grazing by sheep and cattle. Encroachment by scrub is prevented by cutting and	Potential air pollution emissions from housing and	No	Development of additional houses and other development in	No

	dry grasslands. Castle Hill's important assemblage of rare and scarce species includes early spider-orchid <i>Ophrys sphegodes</i> and burnt orchid <i>Orchis ustulata</i> . The colony of early spider-orchid is one of the largest in the UK.	grazing animals. The issue of concern relates to gradual coarse grass invasion. This can be indicative of nutrient (Nitrogen) enrichment or inadequate grazing.	additional traffic related to new housing and employment could increase Nitrogen deposition rates but the impact of Brighton & Hove development is not considered significant	No	surrounding local authorities could increase deposition of Nitrogen and other pollutants but the contribution of Brighton & Hove is not significant (see discussion)	
	<u>Early gentian</u> <i>Gentianella anglica</i>	The site is surrounded by arable land, so leaching and spray-drift are potential threats.	None	No	None	No
		Recreational pressure is not recorded as a threat to the site. Castle Hill is managed as a national Nature Reserve and therefore increased recreation, if it did become an issue, could be managed accordingly	None	No	None	No

3. Discussion of Potential Effects

Air Pollution

3.1. Air pollution arising from policies in the Core Strategy which result in increased road traffic and other sources is a potential impact at all the European sites listed in Table 1, except the Arun Valley. Air pollution can have a range of impacts:

- Sulphur, nitrates, nitrogen oxides and nitric acid can acidify soils. They are primarily caused by power stations, industrial boilers, motor vehicles and domestic heating.
- Nitrogen oxides and ammonia promote nutrient enrichment. This promotes some competitive plant species over slower-growing, low nutrient demanding species, which tend to be the rarer species.
- Ground-level ozone, released from car engines, damages plants and can alter plant communities.

3.2. Table 5 summarises existing air quality problems at the European Sites under consideration. Ozone levels exceed critical levels at all sites. Acid deposition at Ashdown Forest and the Arun Valley also exceeds critical levels.

Table 5: Air quality at selected European sites

site	habitat	pollutant, measurement	critical level / range	deposition
Ashdown Forest	lowland heathland	N deposition (dry heath), kg N/ha/yr	10-20	16.8 deposition is within critical load range
		N deposition (wet heath), kg N/ha/yr	10-25	16.8 deposition is within critical load range
		ozone, ppb hours	3000	5015 deposition exceeds critical load
		acid deposition, keq/ha/yr	0.10	1.5 deposition exceeds critical load range
		Ammonia µg/m	8	0.9 deposition is below critical load
		Sulphur Dioxide µg/m ³	20	2.9 deposition is below critical load

Castle Hill	Sub-atlantic semi-dry calcareous grassland:	N deposition (calcareous grassland), kg N/ha/yr	15-25	21.0 deposition is within critical load range
		Nitrogen Oxides $\mu\text{g NO}_x$ (as NO_2) m^{-3}	30	23.6 deposition is below critical load
		ozone, ppb hours	3000	5186 deposition exceeds critical load
		acid deposition keq/ha/yr	4.00	1.77 deposition is below critical load
		Ammonia $\mu\text{g}/\text{m}$	8	1.9 deposition is below critical load
		Sulphur Dioxide $\mu\text{g}/\text{m}^3$	20	2.8 deposition is below critical load
Lewes Downs	Sub-atlantic semi-dry calcareous grassland:	N deposition (calcareous grassland), kg N/ha/yr	15-25	17.4 deposition is within critical load range
		Nitrogen Oxides $\mu\text{g NO}_x$ (as NO_2) m^{-3}	30	22.5 deposition is below critical load
		ozone, ppb hours	3000	5088 deposition exceeds critical load
		acid deposition keq/ha/yr	4.00	1.52 deposition is below critical load
		Ammonia $\mu\text{g}/\text{m}$	8	1.4 deposition is below critical load
		Sulphur Dioxide $\mu\text{g}/\text{m}^3$	20	3.1 deposition is below critical load
Arun Valley	Grazing marsh	N deposition (Low and medium altitude hay meadows), kg N/ha/yr	20-30	17.5 deposition is below critical load range
		Nitrogen Oxides $\mu\text{g NO}_x$ (as NO_2) m^{-3}	30	19.6 deposition is below critical load
		ozone, ppb hours	3000	4905 deposition exceeds critical load
		acid deposition keq/ha/yr	0.16	1.51 deposition exceeds critical load
		Ammonia $\mu\text{g}/\text{m}$	8	1.4 deposition is below critical load

		Sulphur Dioxide $\mu\text{g}/\text{m}^3$	20	2.5 deposition is below critical load

Note: Based on information provided by the Air Pollution Information System (www.apis.ac.uk).

Air pollution trends.

3.3. Air pollution in the UK has generally fallen since the 1970s, due to improved emissions standards and technological improvements. Sulphur Dioxide and nitrous oxide levels in the South East are expected to continue to decline to 2010. However over the longer term pollution levels are likely to rise again due to increasing traffic, despite factoring in further improved emissions standards and technological improvements. Declining air quality could become a particular problem at Ashdown Forest because of predicted increases in traffic on the A22¹.

3.4. Potentially the existing and possible future air pollution problems at all the sites could be increased by the development proposed in the Core Strategy. However, AAs elsewhere (e.g. Horsham) have shown that it is impossible to clearly show a link between development proposed in a particular area and air quality levels at the European Sites. Furthermore paragraph 7.5.6 of the AA to the SE Plan states:

“Low-level ozone is a particular problem in that it cannot be practically assessed or avoided at anything less than a national scale, due to the complex nature of its relationship to increases in traffic, housing, etc. and its trans-national character.”

3.5. In 2006 the then English Nature (now Natural England) wrote to Runnymede Borough Council, in response to their concern that any development in Runnymede could significantly affect European sites through air pollution². English Nature’s response suggests that AAs at the local level should focus on local air pollution impacts:

“The LDF-CS can only be concerned with locally emitted and short range locally acting pollutants. In terms of pollution from vehicular emissions the concentrations decline exponentially from the road edge. Though it varies with a range of

¹ See AA to the South East Plan, paragraph 7.4.1

² See AA to South-east Plan, paragraph 7.5.1

factors and from pollutant to pollutant the concentrations of pollutants from roads can be said to have localised impacts up to 200m from the road side. Therefore for the LDF-CS effects of vehicular atmospheric emissions should be considered if the roads on which the vehicles travel are closer than 200m from the Natura 2000 site.”

It therefore seems reasonable to conclude, with the information available at this stage of Core Strategy development, that there is no significant effect of increased development in Brighton and Hove on air pollution within the European sites listed in Table 1 (Castle Hill is at least 400m from the nearest road). This includes taking account of the possibility of land release within the urban fringe for residential development because ‘urban fringe’ is defined in the Core Strategy as ‘land between the built up area boundary and the intended South Downs National Park boundary’. There is no such land in Brighton and Hove within 2km of a European Site. Similarly, with regard to the park and ride sites described in policy CP8, the Core Strategy includes an undertaking that ‘Park and ride locations will not have a significant adverse impact on a site of European Nature Conservation Importance.’

Recreational Pressure

3.6. **Castle Hill SAC** is within the boundary of Brighton and Hove and therefore, of the European sites listed in Table 1, perhaps the most prone to increases in recreational pressure resulting from the Brighton & Hove Core Strategy. However Natural England consider that there is no evidence of an adverse effect on the interest features of the SAC due to recreational pressure³. According to Natural England, visitor numbers to Castle Hill have remained steady at around 3,500 per year since 1991, despite the introduction of open access legislation in 2000 and a policy of open access. The entire SAC is a National Nature Reserve, owned by the local authority, and therefore should recreational pressure become an issue in future, mechanisms could be put in place to manage visitor numbers.

3.7. **Ashdown Forest SPA** is vulnerable to recreational pressure because of the risk of reducing the breeding success of Nightjar and Dartford Warbler, which are ground nesting birds and the qualifying features of the SPA. However Ashdown Forest is over 19 km from the boundary of Brighton and Hove and studies have shown an exponential drop in visitor numbers (by car) with distance from similar heathland sites. For example research by English Nature (now Natural England) found that half the people accessing a range of heathland sites across Dorset in 2006 lived within 3.7

³ E-mail from Natural England dated 28th September 2007. See Appendix B

km of the site⁴. Even when parking at the heathland site is provided, the report found that the typical distance people drove to a Dorset heathland was about 4km and only 5% of people travelled further than 10km. Similarly, planning guidance designed to mitigate for the effects of recreational pressure on the Thames Basin Heaths SPA reports that 75% of visitors who regularly drive to heathland sites travel less than 5 kilometres. Consequently the planning guidance only requires mitigation for the potential effects of development within 5km of the SPA⁵.

3.8. Research from other heathland sites in the South East therefore suggests that a very small proportion of the visitors to Ashdown Forest are from Brighton & Hove. However according to the AA of the Horsham Core Strategy, Ashdown Forest has a larger visitor catchment area than the Thames Basin Heaths. A tourist survey of Ashdown Forest carried out in summer 2004⁶ found that, of 218 visitors surveyed, 72% were day visitors from outside the forest area. However the number of these visitors that came from the Brighton & Hove area was still very small (single figures). The Horsham AA concludes that any recreational effects on Ashdown Forest can be screened out, even though Horsham is closer than Brighton & Hove to the SPA and will accommodate a larger amount of new housing (see Table 2). This suggests that the new housing proposed by the Brighton & Hove Core Strategy is also unlikely to have a significant impact on Ashdown Forest, and with the information available at this stage of Core Strategy development, that it can therefore be screened out.

4. Summary and Conclusions

4.1. The Brighton & Hove Proposed Submission Core Strategy details areas with new housing and other development which could have an impact on European sites in the vicinity. However most of this new development will be focused on specific growth areas within the existing built-up area and although some development on the urban fringe has not been ruled out, there will be no encroachment onto land within 2km of a European Site. Similarly the park and ride

⁴ Visitor Access Patterns on the Dorset Heathlands. English Nature Research Report No. 683

⁵ THAMES BASIN HEATHS SPECIAL PROTECTION AREA: MITIGATION STANDARDS FOR RESIDENTIAL DEVELOPMENT (Draft). English Nature 26 May 2006.

⁶ Tourism South East Research Services. 2004. Ashdown Forest visitor monitoring survey 2004. Report commissioned by Wealden District Council and the Ashdown Forest Tourism Forum.

sites will be located on the strategic road corridors approaching the city and beyond the distance where localised air pollution or recreational impacts might effect a European Site.

- 4.2. The possible impacts of the Core Strategy on European Sites amount to water abstraction, air pollution and recreational pressure. Of these:
- Water abstraction would not have a significant effect on any European site because there are no such sites which are vulnerable to water abstraction within the water catchment area of Brighton and Hove.
 - Despite policies which promote travel choice and minimise air pollution, it is still possible that air pollution may worsen as a result of the Core Strategy. However localised air pollution of this nature would not have a significant effect on any European site, according to Natural England advice.
 - Recreational pressure on downland in the vicinity of Brighton & Hove may increase as a consequence of the Brighton & Hove Core Strategy. However only one of the European sites assessed is vulnerable to recreational pressure (Ashdown Forest) and studies elsewhere have shown that this site is far enough away from Brighton & Hove to safely conclude that there would be no significant recreational impact on it as a result of the Brighton & Hove Core Strategy.
- 4.3. With the information available at this stage of Core Strategy development, all the possible impacts of the Brighton & Hove Core Strategy on European sites have been discounted at the screening stage of this AA. It is therefore concluded that no change to the Core Strategy is required at this stage.
- 4.4. Brighton & Hove City Council includes the Castle Hill Special Area of Conservation, and a number of other European or Ramsar wildlife sites are located in the wider area. The Core Strategy has been assessed under the provisions of the Habitat Regulations to ensure that it will not have an adverse effect on any European or Ramsar wildlife site and this assessment has been recorded. The Core Strategy does not support any project proposal where it cannot be demonstrated that the development would not have an adverse effect on the integrity of any European or Ramsar site. Any subsequent plan following this Core Strategy will similarly adhere to the requirements of the Habitat Regulations.

Appendix A. Statutory consultee comments and response

Natural England were consulted on an earlier version of this report. Subsequent to their consultation response, the council published the 'core strategy amendments paper' (June 2009). The changes introduced by this paper and included within the Proposed Submission Core Strategy of relevance to this report have been the possible release of land within the urban fringe for residential development in the period post 2020 and the inclusion of park and ride sites on the key strategic corridors into the city. Their responses to both consultations are detailed below:

Consultee	Summary of comment on draft AA report	How comment was taken on board in this report
Natural England 4 th April 2008	The Core Strategy document is still developing - sites should not be screened out until the final record of the Habitats Regulations Assessment is produced at the submission stage.	Conclusions qualified to refer only to the current stage of the Core Strategy. Commitment to a review of the Habitats Regulations Assessment at the submission stage
	Ashdown Forest Visitor Monitoring Survey should be clearly referenced in the document	Full reference included as footnote 7
	Include in the appendix a summary of the relevant sections of the Ashdown Forest Visitor Monitoring Survey, and the information Natural England provided on access and recreation for Castle Hill SAC.	Information from Natural England on Castle Hill included in Appendix B
	Include the following explanatory paragraph: The Brighton & Hove City Council includes the Castle Hill Special Area of Conservation, and a number of other European or Ramsar wildlife sites are located in the wider area. The Core Strategy has been assessed under the provisions of the Habitat Regulations to ensure	Paragraph included at 4.4

	that it will not have an adverse effect on any European or Ramsar wildlife site and this assessment has been recorded. The Core Strategy does not support any project proposal where it cannot be demonstrated that the development would not have an adverse effect on the integrity of any European or Ramsar site. Any subsequent plan following this Core Strategy will similarly adhere to the requirements of the Habitat Regulations.	
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Transcript of letter from Natural England dated 24th February 2010 (relating to the January 2010 updated report):

Dear Matthew

Brighton & Hove LDF – Core Strategy Appropriate Assessment

Thank you for consulting Natural England on the above document.

Natural England concurs with the conclusion of the report, that the Brighton & Hove Core Strategy is unlikely to have a significant effect on the Natura 2000 sites assessed.

Please do not hesitate to contact me should you have any queries.

Yours sincerely



Jo Clarke
Environmental Planning Adviser
Government Team

Jo.clarke@naturalengland.org.uk

Tel: 0300060 4060

Mob: 07901513218

Transcript of a letter from Natural England dated 4th April 2008:

Dear Matthew,

Habitats Regulations Assessment of the Refreshed Preferred Options of the Council's Core Strategy

Thank you for consulting Natural England on the above document.

Natural England concurs with the conclusion of the report, that the Brighton & Hove Core Strategy is unlikely to have a significant effect on the Natura 2000 sites assessed. The current Core Strategy document is still developing and in order to progress to a final assessment, Natural England advises that sites should not be screened out until the final record of the HRA is produced at the submission stage.

We confirm that the approach to the Assessment is satisfactory. However we would advise that the Ashdown Forest Visitor Monitoring Survey is clearly referenced in the document, as it is referred to in the text. It would also be advisable for clarity, to include in the appendix a summary of the relevant sections of the survey, and the information Natural England provided on access and recreation for Castle Hill SAC.

The assessment of plans under the provisions of the Habitats Regulations should ensure that the plan itself does not lead to any adverse effect on any European or international wildlife site, and also that any future plan or project that stems from the plan similarly does not have an adverse effect. It is therefore advised that, the submission draft of the Core Strategy should include an explanatory paragraph as follows:

The Brighton & Hove City Council includes the Castle Hill Special Area of Conservation, and a number of other European or Ramsar wildlife sites are located in the wider area. The Core Strategy has been assessed under the provisions of the Habitat Regulations to ensure that it will not have an adverse effect on any European or Ramsar wildlife site and this assessment as been recorded. The Core Strategy does not support any project proposal where it cannot be demonstrated that the development would not have an adverse effect on the integrity of any European or Ramsar site. Any subsequent plan following this Core Strategy will similarly adhere to the requirements of the Habitat Regulations.

With the addition of the above suggestions and amendments Natural England hopes to be able to agree to the final HRA and its conclusions, and that the final HRA will be able to demonstrate that any adverse effects on the integrity of neighbouring sites have been avoided, both alone and in-combination.

I hope these comments are useful to you. Please do not hesitate to contact me if you wish to discuss any point in further detail or have any queries.

Yours sincerely

A handwritten signature in cursive script, appearing to read 'J Field', written in dark ink.

Jayne Field

Environmental Planning Advisor

Direct Dial: 01273 407937

e-mail: jayne.field@naturalengland.org.uk

Appendix B: Transcript of an e-mail from Natural England dated 28th September 2007

Matthew,

Please see attachments & below for info for AA of Castle Hill- this should give you some decent baseline data. Malcolm says that he has not seen any significant increase in visitor numbers in the last 5 years - just the nature of the visitors - ie- bike riders, and his assessment is that there is no evidence of an adverse effect on the interest features of the SAC.

Regards,

Jayne

From: Emery, Malcolm (NE)

Sent: 28 September 2007 11:26

To: Field, Jayne (NE)

Subject: RE: Appropriate Assessment: Brighton & Hove LDF Core Strategy

Visitor numbers are ~3,500 per annum; a very rough estimate. We have had no proper surveys of visitor numbers, but I have not perceived any obvious changes since 1991, nor did the establishment of Open Access show any obvious increases in foot traffic. There has however, been a steady increase in the number of mountain bikes using the bridleways over this time. In case it is relevant, I have attached a draft Access management plan for the Reserve. This was written by myself and the then Access officer, Jenny Bowen, with elements of appropriate assessment principles in it, but its main focus/flavour was on assessing what we needed to do to ensure we were not preventing access without good justification. As far as I am aware, although it does not have the statutory status of, say, the SSSI citation, it reflects Natural England's current position regarding access to the NNR CRoW access land. We have also made the non - CRoW land on the Reserve open to access on

foot. This will be so until the next review of CROW access areas. NNR
leaflet also attached.

Cheers

Malcolm