



9.8 HRSA



West Sussex County Council

A29 REALIGNMENT

Information to Inform Habitats Regulations
Screening





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APPENDICES

Appendix A - CJEU RULINGS

1. INTRODUCTION

- 1.1.1. West Sussex County Council (WSSCC) proposes to realign the existing A29 at Eastergate, Westergate and Barnham, hereafter referred to as the 'Project'. The realignment of the A29 is required to deliver the adopted allocation of the Barnham, Eastergate, Westergate (BEW) site during the Arun Local Plan period (2011-2031). The road realignment will be delivered in two phases due to different funding mechanisms.
- 1.1.2. Phase 1 (Northern Section) will comprise a single carriageway running from the A29 Fontwell Avenue, connecting to the B2233 Barnham Road. Phase 2 of the proposed A29 realignment, for land south of Barnham Road, is currently in the early stages of the design process and is likely to be subject to a separate planning application.
- 1.1.3. The realignment of the A29 is required to deliver the adopted allocation of the Barnham, Eastergate, Westergate (BEW) site during the Arun Local Plan period (2011-2031). The road realignment will be delivered in two phases due to different funding mechanisms.
- 1.1.4. Phase 1 (Northern Section) will comprise a single carriageway running from the A29 Fontwell Avenue, connecting to the B2233 Barnham Road. Phase 2 of the proposed A29 realignment, for land south of Barnham Road, is currently in the early stages of the design process and is likely to be subject to a separate planning application.
- 1.1.5. Under the requirements of the European Council Directive 92/43/EEC 'The Habitats Directive and the Council Directive 79/409/EEC 'The Wild Birds Directive' it is necessary to consider whether the proposed project may have significant effects upon areas of nature conservation importance designated/classified under the Directives. This requirement is translated into UK law through the Conservation of Habitats and Species Regulations 2017 ('The Habitat Regulations'). The Habitat Regulations place a duty upon 'Competent Authorities' to consider the potential for effects upon sites of European importance prior to granting consent for projects or plans. Should likely significant effects be identified by the initial screening process it is necessary to further consider the effects by way of an 'Appropriate Assessment'. Overall this process of assessment is known as Habitats Regulations Assessment (HRA) and further details of the applicable legislative context are summarised within Section 1.2 below.
- 1.1.6. This document provides information to enable the screening of the Project, covering the following four elements:
- determining whether the plan is directly connected with or necessary for the management of applicable sites (SAC, SPA, Ramsar);
 - describing the project/plan that may have the potential for significant effects upon applicable sites;
 - undertaking an initial scoping for potential direct and indirect impacts upon applicable sites; and
 - assessing the likely significance of any potential effects identified as resulting from these impacts, both alone and in-combination with other plans and projects.
- 1.1.7. A description of the Project and the designated sites identified are provided within Sections 3 and 4 respectively. Consideration of potential effects of the Project upon the designated sites and whether these are likely to be significant is provided within Section 5, including an assessment of potential in-combination effects.

1.2. HABITAT REGULATIONS ASSESSMENT CONTEXT

LEGISLATIVE CONTEXT

- 1.2.1. Article 6 (3) of the European Union Habitats Directive (1992, as amended, 'the Habitats Directive') sets out the need for 'Appropriate Assessment' of plans or projects which have potential to affect the integrity of a 'European site' (including Special Protection Area (SPA) and Special Area of Conservation (SAC) and candidate SAC (cSAC) sites such as those in proximity to the Project):
- *'Any plan or project likely to have a significant effect on a [European site], either individually or in combination with other plans or projects, shall undergo an Appropriate Assessment to determine its implications for the site. The competent authorities can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned'* (Article 6.3).
- 1.2.2. As the purpose of the Natura 2000 network (of European sites) is preservation of examples of species and habitats across Europe, rather than preservation of individual sites, Article 6 (4) allows for exceptional circumstances where negative effects may be permitted. This reads:
- *'In exceptional circumstances, a plan or project may still be allowed to go ahead, in spite of a negative assessment, provided there are no alternative solutions and the plan or project is considered to be of overriding public interest¹. In such cases the Member State must take appropriate compensatory measures to ensure that the overall coherence of the N2000 Network is protected.'* (Article 6.4).
- 1.2.3. The Habitats Directive is translated into UK law through the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'); Regulation 63 (1) states that 'A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which—
- (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and.*
- (b) is not directly connected with or necessary to the management of that site,*
- must make an Appropriate Assessment of the implications for that site in view of that site's conservation objective.'*

¹ An exact definition of 'imperative reasons of overriding public interest' is not provided, but EC guidance states 'It is reasonable to consider that the "imperative reasons of overriding public interest, including those of social and economic nature" refer to situations where plans or projects envisaged prove to be indispensable:

- within the framework of actions or policies aiming to protect fundamental values for the citizens' life (health, safety, environment);
- within the framework of fundamental policies for the State and the Society;
- within the framework of carrying out activities of economic or social nature, fulfilling specific obligations of public service.'

- 1.2.4. Like the Habitats Directive, the Habitat Regulations also make allowance for projects or plans to be completed if they satisfy 'imperative reasons of overriding public interest (IROPI)'². Regulations 64 and 68 relate to such situations.
- 1.2.5. There are a number of recent Court of Justice of the European Union's (CEJU) rulings which have been considered in this HRA and these are given Appendix A for information.

POLICY CONTEXT

- 1.2.6. It is a matter of Government policy (NPPF paragraph 118) that sites designated under the 1971 Ramsar Convention for their internationally important wetlands (commonly known as Ramsar sites) and potential SPAs (pSPA) are also considered in the same way as SACs, SPAs and cSACs.

1.3. STAGES OF HABITATS REGULATIONS ASSESSMENT

- 1.3.1. Guidance on the Habitats Directive (European Commission, 2000) sets out the step wise approach which should be followed to enable Competent Authorities to discharge their duties under the Habitats Directive and provides further clarity on the interpretation of Articles 6 (3) and 6 (4). The process used is usually summarised in four distinct stages of assessment.
- Stage 1: Screening: the process which identifies whether effects upon European sites (or Ramsar sites) are possible arising from a plan or project, either alone or in combination with other plans or projects and considers whether these effects are likely to be significant.
 - Stage 2: Appropriate Assessment: the detailed consideration of the effect on the integrity of the European or Ramsar site of the plan or project, either alone or in combination with other plans or projects, with respect to the site's conservation objectives and its structure and function.
 - Stage 3: Assessment of alternative solutions: the process which examines alternative ways of achieving the objectives of the plan or project that avoid adverse effects on the integrity of the European or Ramsar site.
 - Stage 4: Assessment where no alternative solutions exist and where adverse effects remain: an assessment of whether the development is necessary for IROPI and, if so, of the compensatory measures needed to maintain the overall coherence of the European or Ramsar site network.
- 1.3.2. This report presents information to enable the screening assessment required as part of Stage 1 of the HRA process, to establish whether or not the Project will have a likely significant effect upon European sites and Ramsar sites.
- 1.3.3. The precautionary principle is applied at all stages of the HRA process. In relation to screening this means that projects or plans where effects are considered likely and those where uncertainty exists as to whether effects are likely to be significant must be subject to the second stage of the HRA process, Appropriate Assessment.

² (a) reasons relating to human health, public safety or beneficial consequences of primary importance to the environment;
or;
(b) any other reasons which the competent authority, having due regard to the opinion of the European Commission, consider to be imperative reasons of overriding public interest.'

2. PROJECT DESCRIPTION

- 2.1.1. The Project would comprise a 30mph, 1.3km single carriageway highway with 3m wide cycleway and footway, 2.5m wide central island, four uncontrolled crossings, landscaping, potential noise barriers and other associated works.
- 2.1.2. It would tie into the A29 Fontwell Avenue to the north west and the B2233 Barnham Road to the south, with two new roundabouts. A third roundabout in the centre of the scheme would provide access to planned residential areas.
- 2.1.3. The Project footprint, as currently known is shown by the red line boundary in Figure 1. It would occupy an area of 11.4ha with an additional 4.1ha temporarily required for construction compounds and access.
- 2.1.4. Key features of the Project include:
- A three-arm roundabout at the western end at a new junction with the A29 Fontwell Avenue.
 - A three-arm roundabout in the centre of the scheme to provide future access to housing.
 - A three-arm roundabout at the southern end, at a new junction with the B2233 Barnham Road.
 - One uncontrolled pedestrian crossing with a 2.5m wide central island to enable users of the footpath to cross the carriageway.
 - Crossing points at the junctions to allow access by foot into the housing from surrounding areas.
 - A shared 3m wide footway and cycleway with landscaping on one side of the carriageway.
 - Potential noise mitigation to protect dwellings at Murrell Gardens, Chantry Mead and Ewens Gardens.
 - Potential street lighting at roundabout approaches.
 - Construction compounds are likely to be located north of the Fordingbridge Industrial Estate.
- 2.1.5. Land at Fleurie Nursery would be required for the construction of the roundabout on the southern B2233 Barnham Road. Temporary access may be provided to the nursery during construction.
- 2.1.6. Two two-storey residential dwellings, both of which are currently occupied, a shed and a corrugated metal barn used by a local business, all within Folly Foot Farm are proposed to be demolished. The front access to Folly House would be redesigned and landscaped.
- 2.1.7. The location and alignment for the Project is shown in Figure 1.
- 1.1.1. Details on the construction programme are not yet available in detail but this Screening assessment has taken into account works happening at any time and for any duration (a worst-case scenario) in lieu of this detail.

3. RELEVANT DESIGNATED SITES

- 3.1.1. As shown on Figure 2, three European or Ramsar sites lie within the potential zone of influence of the Project, these lie within 10km of the Project. These designated sites are:
- Solent and Dorset Coast Special Protection Area (SPA) (5.8km south)
 - Pagham Harbour Special Protection Area (SPA) and Ramsar Wetland (7.6km south west).
 - Duncton to Bignor Escarpment Special Area of Conservation (SAC) (7.7km north east).
- 3.1.2. The reasons for designation of these sites are summarised in Table 2 overleaf. Table 2 also summarises known vulnerabilities of these sites, collated from the Natura 2000 (European site) standard data forms (JNCC, 2016) and the Natural England Site Information Plans (various).
- 3.1.3. With regard for the qualifying features and information on vulnerability of the sites overleaf, the broad conservation objectives for the above designated sites are detailed in Table 1 below. Note that specific conservation objectives for Ramsar sites are not available.

Table 1 – Relevant European and Ramsar Site Conservation Objectives

Site Name	Conservation Objectives
Solent and Dorset Coast SPA	<p>To '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 Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> ▪ The extent and distribution of the habitats of the qualifying features ▪ The structure and function of the habitats of the qualifying features ▪ The supporting processes on which the habitats of the qualifying features rely ▪ The population of each of the qualifying features, and, ▪ The distribution of the qualifying features within the site.³
Pagham Harbour SPA	<p>To '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 Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> ▪ The extent and distribution of the habitats of the qualifying features ▪ The structure and function of the habitats of the qualifying features ▪ The supporting processes on which the habitats of the qualifying features rely ▪ The population of each of the qualifying features, and, ▪ The distribution of the qualifying features within the site.⁴

³ Natural England European Site Conservation Objectives for Solent and Dorset Coast pSPA (under consultation). Available online at: <http://publications.naturalengland.org.uk/publication/5294923917033472> [Accessed 28/11/19]

⁴ Natural England European Site Conservation Objectives for Pagham Harbour SPA (UK9012041). Available online at: <http://publications.naturalengland.org.uk/publication/6147434560356352> [Accessed 11/11/19]

Site Name	Conservation Objectives
Duncton to Bignor Escarpment SAC	<p>To '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;</p> <ul style="list-style-type: none"> ▪ The extent and distribution of qualifying natural habitats ▪ The structure and function (including typical species) of qualifying natural habitats, and ▪ The supporting processes on which the qualifying natural habitats rely⁵

3.1.4. The Habitats Directive provides further interpretation of the meaning of 'favourable conservation status' within Article 1 parts a, e and i as below:

'(a) conservation means a series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status as defined in (e) and (i)...

(e) conservation status of a natural habitat means the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species within the territory referred to in Article 2. The conservative status of a natural habitat will be taken as "favourable" when:

- *its natural range and areas it covers within that range are stable or increasing, and*
- *the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and*
- *the conservation status of its typical species is favourable as defined in (i);*

(i) conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2; The conservation status will be taken as "favourable" when:

- *population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and*
- *the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and*
- *there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis'.*

⁵ Natural England European Site Conservation Objectives for Duncton to Bignor Escarpment SAC (UK0030138), Available online at: <http://publications.naturalengland.org.uk/publication/6492790347268096> [Accessed 11/11/19]

Table 2 - Relevant European Sites or Ramsar Sites and known threats and pressures on these sites

Site Name	Site Size	Summary of reasons for designation summarised on Natura 2000 Standard Data Form (for European Sites) or Ramsar Information Sheet	Activities with greatest negative effect upon the site, as listed on Natura 2000 standard data forms (for European Sites) and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plans
Solent & Dorset Coast SPA	~255.2nm ²	<p>The site regularly supports more than 1% of the Great Britain breeding populations of three species listed in Annex I of the Birds Directive. Therefore, the site qualifies for SPA Classification in accordance with the UK SPA selection guidelines</p> <p>During the breeding season the site supports:</p> <ul style="list-style-type: none"> ▪ Sandwich tern, <i>Sterna sandvicensis</i>: 441 pairs representing 4% of the breeding population in Great Britain ▪ Common tern, <i>Sterna hirundo</i>; 492 pairs representing 5% of the breeding population in Great Britain ▪ Little tern, <i>Sternula albifrons</i>; 63 pairs representing 3% of the breeding population in Great Britain 	N/A (not yet produced)	N/A (not yet produced)
Pagham Harbour SPA	636.68ha	<p>Pagham Harbour is located on the South Coast of England in West Sussex. It is an estuarine basin that comprises an extensive central area of saltmarsh and intertidal mud-flats, surrounded by lagoons, shingle, open water, reed swamp and wet permanent grassland. The mud-flats are rich in invertebrates and algae and provide important feeding areas for birds. The lower saltmarsh is dominated by common cord-grass <i>Spartina anglica</i>, with patches of glasswort <i>Salicornia spp.</i></p> <p>During the breeding season the site supports;</p> <ul style="list-style-type: none"> ▪ Little Tern <i>Sterna albifrons</i> 12 pairs representing 0.5% of the breeding population in Great Britain (Count as at 1995). <p>Over winter the site supports;</p> <ul style="list-style-type: none"> ▪ Ruff <i>Philomachus pugnax</i> 160 individuals representing at least 22.9% of the wintering population in Great Britain. ▪ Pintail <i>Anas acuta</i> 628 individuals representing at least 1.0% of the wintering Northwestern Europe population (5-year peak mean 1991/2 - 1995/6). 	<i>'The majority of the site is a Local Nature Reserve managed by West Sussex County Council. Historical land drainage for agricultural purposes is being addressed through the Local Nature Reserve Management Plan and Management Agreements, while pollution from inadequate treatment of sewage discharges will be reviewed by the Environmental Agency [sic].'</i> ⁶	<ul style="list-style-type: none"> ▪ Physical modification ▪ Public access/ disturbance ▪ Water pollution ▪ Fisheries: Commercial, marine and estuarine ▪ Fisheries: Recreational marine and estuarine ▪ Change in land management⁷
Pagham Harbour Ramsar Wetland	636.68ha	The site qualifies under Ramsar criterion 6 – supporting species/populations occurring at levels of international importance of:	<i>'No factors reported'</i> ⁸	N/A ⁹

⁶ Natural England Standard Data Form Pagham Harbour SPA. Available online at: <http://publications.naturalengland.org.uk/publication/3143422> [Accessed 11/11/19]

⁷ Natural England Site Improvement Plan Pagham Harbour SPA. Available online: <http://publications.naturalengland.org.uk/publication/5799069091889152> [Accessed 11/11/19]

⁸ Natural England Information Sheet Pagham Harbour Ramsar. Available online at: <https://jncc.gov.uk/jncc-assets/RIS/UK11052.pdf> [Accessed 12/11/19]

⁹ Natural England Site Improvement Plan Pagham Harbour Ramsar. Available online at: <http://publications.naturalengland.org.uk/publication/5799069091889152> [Accessed 12/11/19]

Site Name	Site Size	Summary of reasons for designation summarised on Natura 2000 Standard Data Form (for European Sites) or Ramsar Information Sheet	Activities with greatest negative effect upon the site, as listed on Natura 2000 standard data forms (for European Sites) and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plans
		<ul style="list-style-type: none"> ▪ Dark-bellied brent goose <i>Branta bernicla bernicla</i>, 2512 individuals, representing an average of 1.1% of the population (5-year peak mean during winter 1998/9-2002/3). <p>The site also supports species/populations identified after designation for possible future consideration under criterion 6:</p> <ul style="list-style-type: none"> ▪ Black-tailed godwit <i>Limosa limosa islandica</i>, Iceland/W Europe 377 individuals, representing an average of 1% of the population (5-year peak mean during winter 1998/9- 2002/3). 		
Duncton to Bignor Escarpment SAC	211.84ha	<p>The site supports Annex I habitats that are a primary reason for selection:</p> <ul style="list-style-type: none"> ▪ <i>Asperulo-fagetum</i> beech forests. 	'No current issues affecting the [European Site] feature(s) have been identified on this site' ¹⁰	N/A ¹¹

¹⁰ Natural England Standard Data Form Duncton to Bignor Escarpment SAC. Available online at: <https://sac.jncc.gov.uk/site/UK0030138> [Accessed 11/11/19]

¹¹ Natural England Site Improvement Plan Duncton to Bignor Escarpment SAC. Available online at: <http://publications.naturalengland.org.uk/publication/5623422855938048> [Accessed 12/11/19]

4. SCREENING OF POTENTIAL EFFECTS

- 4.1.1. The Project is not directly connected with or necessary for the management of any of the European or Ramsar sites listed in Section 3.1.1. It has not been conceived solely to further the conservation of the site(s) and nor is it essential to the management of the site(s). Therefore, further consideration of the Project within the HRA process is required.

4.2. CONSIDERATION OF EFFECTS IN ISOLATION

- 4.2.1. Utilising the information included within Sections 2 and 3 the Project has been screened to identify whether potential effect pathways between the Project and the European or Ramsar sites are present which are likely to result in significant effects upon the designated sites.
- 4.2.2. The European and Ramsar sites' vulnerability information summarised in Table 2 has been used to assist in identifying potential impacts, and the consideration is summarised in Table 3.

Table 3 - Consideration of Effects by European or Ramsar Site

Designated Site	Potential Effect Pathway	Discussion	Likely Effect on Designated Site via Pathway?
Solent & Dorset Coast SPA	Direct effects (loss, physical modification etc)	The Project is separated from Solent & Dorset SPA (5.8km) including by the urban area of Bognor Regis. As such direct effects via any pathway are not likely to occur.	No
	Water pollution/ hydrological changes	The Project lies within the catchment of the Lidsey Rife. Lidsey Rife does drain into the sea within the potential European site ¹² , and as such is hydrologically linked, however, no changes to the hydrological regime of the catchment and water quality are anticipated as a result of the Project. The Project does not include changes in management of large areas of land and will be constructed in-line with published guidance (e.g. DMRB) which will prevent the risk of chronic or acute hydrological pollution as well as aiming for no net change in runoff rates.	No (though see Section 4.3 Potential In-Combination Effects)
	Other indirect effects (air pollution, recreational effects etc)	No other indirect effects such as recreation, noise or air pollution are likely to arise from the Project at levels which would affect the Solent & Dorset Coast SPA.	No
Pagham Harbour SPA	Direct effects (physical)	The Project location is situated approximately 7.6km from Pagham Harbour at the nearest point, separated by a predominantly rural landscape to the south west.	No

¹² Environment Catchment Data Explorer, Lidsey Rife. Available online: <https://environment.data.gov.uk/catchment-planning/WaterBody/GB107041012010> [Accessed 13/11/19]

Designated Site	Potential Effect Pathway	Discussion	Likely Effect on Designated Site via Pathway?
and Ramsar Wetland	modification, change in land management etc).	No direct land take, no fragmentation or other direct effect will therefore occur.	
	Disturbance (public access)	<p>The wetland birds for which the European and Ramsar site is designated are sensitive to disturbance, prone to taking flight when disturbed (e.g. by noise or visitors) causing energy loss and preventing effective feeding. This can lead to loss of condition and population decline, particularly for species such as dark-bellied brent goose overwintering at the site.</p> <p>The Project comprises a road scheme that will not in itself increase the population on the local area (and would not therefore in itself create more visitors to the European and Ramsar site). It may however enable the development of further housing provision in the planning process, thereby increasing recreation in-combination with new housing locally.</p> <p>This potentiality is discussed below in Section 4.3 Potential In-Combination Effects.</p> <p>The Project could create easier journeys for existing local residents to get to the south coast, thereby increasing visitor pressure. The journey reduction arising from this section of the A29 realignment (Phase 1) however will deliver limited benefits to north-south movement of visitors. The second phase which includes a new crossing over the railway at Woodgate would be likely to improve the flow of traffic more significantly (replacing a level crossing which currently causes congestion). This is also considered in Section 4.3 Potential In-Combination Effects.</p> <p>Furthermore, the main aim of the A29 realignment in terms of traffic flow is to benefit Bognor Regis to the south (see Arun Local Plan 2011-2031). Road links between the Project location/ Bognor Regis and Pagham Harbour are not likely to be significantly improved, thereby limiting the effect of increased visitor pressure arising from the Project.</p>	No (though see Section 4.3 Potential In-Combination Effects)
	Fisheries effects (commercial/ recreational)	<p>The Project is not likely to increase the effect of commercial fishing upon the European and Ramsar site.</p> <p>The likelihood of increased recreational fishing is also limited, based on the same arguments detailed above in respect of visitor pressure (no population increase and limited access improvements arising from the Project in itself).</p>	No

Designated Site	Potential Effect Pathway	Discussion	Likely Effect on Designated Site via Pathway?
		<p>Although there is some risk of an in-combination effect arising from increased recreational fishing (in-combination with other phases of the road scheme and surrounding housing development), this is considered unlikely to generate enough increase to cause a significant effect.</p>	
	Loss of supporting habitat	<p>Pagham Harbour is designated as a Ramsar wetland on account of supporting internationally important populations of over-wintering dark-bellied brent goose.</p> <p>During periods of bad weather this species makes use of grassland for grazing inland such as that which will be lost to the Project.</p> <p>Wintering bird surveys were undertaken for the Project which robustly confirmed absence of dark-bellied brent goose (WSP, 2019). As such no adverse effects on a qualifying feature of the Ramsar site are considered likely (nor by the same logic and survey data are impacts on other qualifying species likely).</p>	No
	Water pollution/ hydrological changes	<p>The Project is well separated from Pagham Harbour SPA/ Ramsar (7.6km) and lies entirely within the catchment of the Lidsey Rife which does not drain through Pagham Harbour¹³.</p> <p>The Project does not include changes in management of large areas of land and will be constructed in-line with published guidance (e.g. DMRB) which will prevent the risk of chronic or acute hydrological pollution as well as aiming for no net change in runoff rates.</p> <p>These two factors mean that adverse effects on Pagham Harbour SPA/ Ramsar are unlikely.</p>	No

¹³ Environment Catchment Data Explorer, Lidsey Rife. Available online: <https://environment.data.gov.uk/catchment-planning/WaterBody/GB107041012010> [Accessed 13/11/19]

Designated Site	Potential Effect Pathway	Discussion	Likely Effect on Designated Site via Pathway?
	Air quality effects (via traffic flow changes)	<p>Air quality effects are not listed as a pressure upon or threat to Pagham Harbour SPA/ Ramsar in the respective Natural England Information Sheet or Site Improvement Plans. Nevertheless, this potentiality has been considered in view of recent case law on the subject.</p> <p>The modelled affected road network for the Project ends over 5km from the designated site boundary at the nearest point, meaning effects are unlikely¹⁴.</p> <p>Furthermore, the sensitivity of the designated site to air quality effects is likely to be small. The Air Pollution Information System (APIS) states that for saltmarsh habitats (the dominant supporting habitat in Pagham Harbour) '<i>Overall N deposition is likely to be of low importance for these systems as the inputs are probably significantly below the large nutrient loadings from river and tidal inputs</i>'¹⁵. In respect of acid deposition, another air-quality related effect, APIS states that '<i>Effects are likely to be small as these habitats are inter-tidal and experience large influxes of nutrients</i>'¹⁶. Details on other pollutant pathways are available from APIS this time.</p> <p>Taking into account the separation distance and the low sensitivity of the site, it can be concluded that the Project in isolation would not adversely affect the European or Ramsar site via air quality changes (including nitrogen deposition or acid deposition).</p>	No

¹⁴ WSP (IN DRAFT) A29 Realignment Phase 1, Environmental Statement; Air Quality Chapter

¹⁵ APIS Nitrogen Deposition: Coastal Saltmarsh. Available online: <http://www.apis.ac.uk/node/968> [Accessed 15/11/19]

¹⁶ APIS Acid Deposition: Coastal Saltmarsh. Available online: <http://www.apis.ac.uk/acid-deposition-coastal-saltmarsh> [Accessed 15/11/19].

Designated Site	Potential Effect Pathway	Discussion	Likely Effect on Designated Site via Pathway?
Duncton to Bignor Escarpment SAC	Direct effects (loss, fragmentation)	<p>The Project location is situated approximately 7.7km from Duncton and Bignor Escarpment at the nearest point, separated by a fields and woodland parcels and up to 200m in vertical rise.</p> <p>No direct land take, no fragmentation or other direct effect will therefore occur.</p>	No
	Water pollution/ hydrological changes	<p>The European site is situated on a high escarpment between 100m and 200m above the altitude of the Project location, 7.6km to the north and upstream.</p> <p>Hydrological effects are therefore not likely to occur.</p>	No
	Air quality effects (via traffic flow changes)	<p>The habitats for which the European site is designated (beech and yew woodlands) are sensitive to air quality related impacts including acid deposition, sulphur dioxide, ammonia and nitrogen deposition¹⁷. Therefore, changes in traffic flows caused by the Project could adversely affect the site in this way.</p> <p>The modelled affected road network for the Project does not extend to Duncton to Bignor Escarpment though, rather it stops over 6km from the European site boundary at the nearest point, meaning effects are unlikely¹⁸.</p> <p>Nevertheless, there remains the potential for in-combination effects (see Section 4.3) when taking into consideration Phase 2 of the A29 realignment, and other housing schemes nearby for example. These could together increase traffic along the A285 (which runs adjacent to the designated site on its north-eastern edge), causing airbourne pollutant levels to rise and thereby compromise the qualifying woodland.</p>	<p>No</p> <p>(though see Section 4.3 Potential In-Combination Effects)</p>

¹⁷ APIS Habitat Pollutant Impacts Database: Broadleaved, Mixed and Yew Woodland

¹⁸ WSP (IN DRAFT) A29 Realignment Phase 1, Environmental Statement; Air Quality Chapter

Designated Site	Potential Effect Pathway	Discussion	Likely Effect on Designated Site via Pathway?
	Air quality effects (via traffic flow changes) incl. atmospheric nitrogen deposition.	<p>Air quality effects are not listed as a pressure upon or threat to Chichester and Langstone Harbours SPA/Ramsar specifically, in the respective Natural England Information Sheet or Site Improvement Plans. Nevertheless, this potentiality has been considered in view of recent case law/CJEU rulings on the subject.</p> <p>The modelled affected road network for the Project does not extend to Chichester and Langstone Harbours, rather it stops over 6km from the designated site boundary at the nearest point, meaning effects are unlikely¹⁹.</p> <p>The habitats present vary in their sensitivity to air quality changes, therefore some such as saltmarsh (one of the major habitats present) are likely to be tolerant of changes; Air Pollution Information System (APIS) states that for saltmarsh habitats (one of the main habitats present) <i>'Overall N deposition is likely to be of low importance for these systems as the inputs are probably significantly below the large nutrient loadings from river and tidal inputs'</i>²⁰. In respect of acid deposition, another air-quality related effect, APIS states that <i>'Effects are likely to be small as these habitats are inter-tidal and experience large influxes of nutrients'</i>²¹. Details on other pollutant pathways are not provided at this time.</p> <p>Other habitats such as dunes which have low nutrient loads can be affected adversely. APIS states for example that dunes, shingle and machair <i>'adapted to low levels of mineral N availability: increasing the availability of N will threaten the competitive balance between</i></p>	No (though see Section 4.3 Potential In-Combination Effects)

¹⁹ WSP (IN DRAFT) A29 Realignment Phase 1, Environmental Statement; Air Quality Chapter

²⁰ APIS Nitrogen Deposition: Coastal Saltmarsh. Available online: <http://www.apis.ac.uk/node/968> [Accessed 15/11/19]

²¹ APIS Acid Deposition: Coastal Saltmarsh. Available online: <http://www.apis.ac.uk/acid-deposition-coastal-saltmarsh> [Accessed 15/11/19].

Designated Site	Potential Effect Pathway	Discussion	Likely Effect on Designated Site via Pathway?
		<p><i>species leading to changes in composition and loss of habitat species constants</i>²², however the distance between the European and Ramsar site and the end of the ARN is large enough to mean effects are unlikely.</p> <p>Taking into account the separation distance and the varied sensitivity of the site, it can be concluded that the Project alone would not adversely affect the designated site via air quality changes (including nitrogen deposition or acid deposition).</p> <p>As some of the qualifying habitats are sensitive (sand dunes for example), the potentiality for in-combination effects should be considered (see Section 4.3).</p>	

²² APIS Nitrogen Deposition: Dunes, Shingle and Machair. Available online: <http://www.apis.ac.uk/node/972> [Accessed 15/11/19]

4.3. POTENTIAL IN-COMBINATION EFFECTS

- 4.3.1. As noted in Table 3, although effects of the Project alone upon European and Ramsar sites can be reasonably screened out, there remains the potential for it to contribute to in-combination effects alongside other developments locally, in particular with the second phase of the A29 alignment to the south.
- 4.3.2. The Project (Phase 1 (Northern Section)) will comprise a single carriageway running from the A29 Fontwell Avenue, connecting to the B2233 Barnham Road. Phase 2 of the proposed A29 realignment, for land south of Barnham Road, is currently in the early stages of the design process and is likely to be subject to a separate planning application.
- 4.3.3. Both phases form part of the Barnham, Eastergate and Westergate (BEW) Strategic Allocation as identified in the Arun Local Plan 2011-2031.
- 4.3.4. In addition, a number of other developments are ongoing locally. WSCC provided a list of developments that should be considered in combination with the Project when undertaking Environmental Impact Assessment (EIA) in their Scoping Opinion (WSCC, 2019). These have been reviewed and the most pertinent ones identified are the ones associated with the BEW Strategic Allocation.
- 4.3.5. The BEW allocation is summarised as:

'The BEW sites will collectively provide at least 2,300 dwellings over the Local Plan period and up to 3,000 in total. Development will preserve the separate identities of the villages so that the design of any development, open space and landscaping shall ensure continuity between the existing landscape setting and the villages. Housing shall be designed around a Linear Park which follows along the Lidsey Rife. A comprehensive strategy for surface water management will be developed in line with specific recommendations for this locality, in the Arun Strategic Surface Water Management Study.

A Community Hub will include a new, well connected local centre, with connections to Barnham Train Station, supporting and respecting the relationship with existing facilities within the Six Villages Area. Financial contributions will provide new retail, commercial and community facilities, together with a new Tier 7 library and healthcare to serve BEW and Fontwell.

A new A29 route will provide linkages between the A27 to the north and the A259 to the south with a new bridge over the railway to the east of the current Woodgate crossing. Provision of an East-West route north of the railway line will join the existing and new A29 route and continue eastwards towards Barnham railway station, providing maximised access for all modes of transport, with additional car parking to serve facilities in Barnham's centre, regular Bus services linking BEW with Bognor Regis, local facilities and employment and creation of a Westergate Link Cycle Scheme in addition to further cycle routes to/from Bognor Regis and linkages.'

- 4.3.6. The Arun Local plan was subject to an Appropriate Assessment in 2017 (Urban Edge Environmental Consulting, 2017) which included coverage of the BEW allocation site. This considered all relevant potential effect pathways (disturbance, supporting habitat, hydrology water pollution etc) upon Pagham Harbour SPA/ Ramsar and concluded that *'The Arun Local Plan (Proposed Modifications)*

can be considered compliant with the Habitats Regulations with regards to Arun Valley SPA/Ramsar, Pagham Harbour SPA/Ramsar and Solent and Dorset Coast pSPA'.

- 4.3.7. It is important to note that the Local Plan Appropriate Assessment takes into account mitigation, which is now not considered at screening stage following recent case law in 2018 (People Over Wind²³ see Appendix A). Detailed reading of the Local Plan however shows that the mitigation cited (namely '*a financial contribution towards a Strategic Access Management and Monitoring (SAMM) package and provide for accessible natural greenspace on site*') was not applicable to the BEW allocation site given the separation distance between it and Pagham Harbour SPA/Ramsar. As such this conclusion (of no significant effect) for the Project in combination with the BEW allocation remains robust.
- 4.3.8. The potential for in-combination effects upon most of the European or Ramsar sites via additional foul water discharge is also considered unlikely given that the Project and the BEW allocation are not hydrologically linked (separate catchment) and do not drain into Pagham Harbour.
- 4.3.9. The Project lies within the catchment of the Lidsey Rife. Lidsey Rife does drain into the sea within the Solent and Dorset Coast SPA, and as such is hydrologically linked. No changes to the hydrological regime of the catchment and water quality are anticipated as a result of the Project, however the in-combination effects of increased wastewater from the BEW allocation (which the road will enable) could result in polluting effects upon this potential European designation in the absence of mitigation.
- 4.3.10. The potential for in-combination effects through traffic-related air quality impacts are also unlikely upon any of the European and Ramsar sites in question. The modelled affected route network stops well short of all the designations when taking into account phase 1 and 2 of the A29 realignment²⁴ and is so distant that even the addition of the BEW allocation traffic would not extend it to affect the sites. Therefore adverse in-combination effects via this pathway are considered unlikely.

²³ Case C-323/17 People Over Wind, Peter Sweetman v Coillte Teoranta [2018] ECR I-244.

²⁴ WSP (IN DRAFT) A29 Realignment Phase 1, Environmental Statement; Air Quality Chapter

5. CONCLUSIONS

- 5.1.1. Four European or Ramsar sites lie within the potential zone of influence of the Project, these lie within 10km of the Project. These designated sites are:
- Solent and Dorset Coast Potential Special Protection Area (SPA) (5.8km south)
 - Pagham Harbour Special Protection Area (SPA) and Ramsar Wetland (7.6km south west)
 - Duncton to Bignor Escarpment Special Area of Conservation (SAC) (7.7km north east)
- 5.1.2. The Project alone is not considered likely to affect any of these designated sites. No in-combination effects with surrounding developments (namely the BEW allocation) are anticipated which are attributable to the project and therefore, no Appropriate Assessment of the Project is considered necessary.

6. REFERENCES

Project References

- Urban Edge Environmental Consulting (2017) Habitats Regulations Assessment for the Arun Local Plan: Supplementary Work, Stage 3 Report: Appropriate Assessment.
- West Sussex County Council (2019) A29 Realignment Phase 1, EIA Regulations Reg. 15 Scoping Opinion Request Response Letter, Ref. WB/19a.
- WSP (2019) A29 Realignment Wintering Bird Survey Report.

General References

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- DETR (1998) European Marine Sites in England & Wales: A guide to the Conservation (Natural Habitats &c.) Regulations 1994 and to the Preparation and Application of Management Schemes. Department of the Environment, Transport and the Regions: UK.
- European Commission (2000). Managing Natura 2000 Sites, the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.
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- Her Majesty's Stationary Office (2017). The Conservation of Habitats and Species Regulations 2017/490.
- HMSO (2007). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007, SI 2007/1842.
- Joint Nature Conservation Committee (JNCC) (2016). SAC and SPA Standard Data Forms and Ramsar Information Sheets.


7. FIGURES

Figure 1 - Site Location Plan

Figure 2 - Relevant European and Ramsar Sites Plan



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Key
 Phase 1 Alignment (Indicative)

Client	West Sussex County Council
	

Project	A29 Realignment		
Title	Site Location Plan		
Drawing No:	Figure 1	Drawn:	BW
Date:	December 2019	Checked:	LR
Scale:	40,000 @ A3	Approved:	HS



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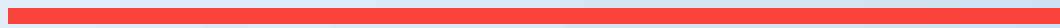
Key	
—	Phase 1 Alignment (Indicative)
 	10km Search Area
 	Special Area of Conservation
 	Special Protection Area
 	Ramsar Site - Wetland of International Importance

Client	West Sussex County Council	
Project	A29 Realignment	
Title	European Designated Sites within 10km of the Site	
Drawing No:	Figure 2	Drawn: BW
Date:	December 2019	Checked: LR
Scale:	80,000 @ A3	Approved: HS



Appendix A

CJEU RULINGS



The Council for Justice of the European Union rulings

A number of CJEU rulings are relevant to the HRA screening exercise and are noted below.

The Wealden Judgement

The Wealden Judgement²⁵, handed down in March 2017, has introduced additional complexities into the assessment process in relation to in-combination and cumulative effects.

Prior to this Judgement, air quality impacts on Habitats Sites were only considered alongside roads where the traffic growth associated with the individual Plan or Project being assessed exceeded specified screening criteria. These criteria were typically based on changes in vehicle movements and taken from the Design Manual for Roads and Bridges (DMRB, HA207/07²⁶), namely: increases of 1000 vehicles per day or 200 Heavy Goods Vehicles per day (as Annual Average Daily Traffic (AADT)).

The Wealden Judgement means that every single plan or project which, alone, is predicted to give rise to any increase in traffic or other air emission (however small) must be subjected to an in-combination assessment with other plans or projects (which would include those plans or projects with a similar tiny impact). However, the judgement did not rule out the application of thresholds in principal and this approach is normally taken as the basis of the assessment.

The judgement has led to a more detailed analysis of three key questions to discern which plans and project are those where a detailed “in combination” assessment is required in relation to changes in air quality²⁷:

1. Is your plan or project putting emissions into the air?;
2. If so, are those emissions at a level where they could actually be measured / perceived?; and,
3. If so, is there a realistic (rather than hypothetical) risk that those emissions, alone, will have an adverse effect on the ecology of a SAC / SPA?

A fuller justification will be required when applying the threshold approach.

People over Wind (The Sweetman Case)

The Court of Justice of the European Union’s (CJEU’s) decision in the matter of People Over Wind and Sweetman v Coillte Teoranta (C-323/17) (hereafter referred to as the ‘Sweetman Case’)²⁸, states that:

‘Article 6(3) must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an Appropriate Assessment of the implications, for a site concerned, of a

²⁵ Judgment in Wealden District Council v. Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority [2017] EWHC 351 (Admin) DATE: 21 Mar 2017.

²⁶ DMRB Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 1. Available at: <http://dmrb.net/ha/standards/dmrb/vol11/section3/ha20707.pdf> (Accessed 02/12/18).

²⁷ <https://www.freeths.co.uk/2017/04/25/environmental-bulletin-spring-2017/>

²⁸ Sweetman v. An Bord Pleanála, Case C-258/11, CJEU judgment 11 April 2013.

plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site.'

In the new judgement the CJEU concluded that mitigation measures could not be considered as part of the project, and thus that the screening stage of HRA should not take account of them. This will undoubtedly be tested further in the courts in coming months and years, but the key issue is whether the mitigation measures proposed can genuinely be considered as part of the project, in that they would happen in any case, irrespective of the Habitats site. If not, then they should be considered mitigation measures, and considered at the Appropriate Assessment stage of HRA.

This is an emerging issue for local authorities and means that, because of the potential for 'in-combination effects and the fact that HRA Screening should not take into account measures targeted at mitigating effects on Habitats Sites. Therefore, it is becoming increasingly commonplace for local authorities to conduct an Appropriate Assessment of all project, plans and planning applications (i.e. these are often no longer screened out, by way of an HRA Screening as has been the practise to date).

CJEU Ruling in the Netherlands nitrogen and agriculture cases c-293/17 and c-294/17

The final Court Judgement in relation to these two cases was handed down on the 7th November 2018. The judgement relates to the assessment of agricultural activities under the Habitats Regulations, but has potential implications for the assessment of changes in nitrogen (N) deposition in relation to air quality (as the air quality calculations draw upon N deposition rates from APIS²⁹ and guidance within the DMRB which assumes a 2% reduction in N deposition year on year).

Of particular relevance to the assessment of air quality effects on Habitats Sites, the Court of Justice of the European Union ruled that:

“An ‘appropriate assessment’ may only take into account the existence of Article 6(1) ‘conservation measures’, or Article 6(2) ‘preventive measures’, or specific measures adopted for a conservation programme, or ‘autonomous’ measures not in the programme, if the expected benefits of those measures **are certain** at the time of the assessment.

The Ruling makes clear that certainty and a thorough and in-depth examination of the scientific soundness is required that that there is no reasonable scientific doubt as to the absence of adverse effects of each plan or project on the integrity of the site concerned.

²⁹ Air Pollution Information System (APIS). Available at: <http://www.apis.ac.uk/> [Accessed 02/12/18]



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