

Habitat Regulation Assessment: Arundel Neighbourhood Plan Review

Likely Significant Effects and Appropriate Assessment

May 2019

Quality information

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1. Introduction

Scope of the Project

- 1.1 AECOM was appointed by Arundel Town Council to assist in undertaking a Habitats Regulations Assessment (HRA) of Arundel specific development sites and site allocations for the emerging Arundel Neighbourhood Plan Review. Arundel Council are in the process of a Neighbourhood Plan Review. This is for the purpose of informing Arun District Council of the potential effects on European sites and how they are being addressed in the Neighbourhood Plan Review, for that Council to take into account in their formal HRA.
- 1.2 The Arun District Local Plan 2011-2031 was subject to HRA prior to submission in March 2013 and later in February 2017 (post consultation and Local Plan policy modifications). That HRA examined several European sites including the Arun Valley SPA/ Ramsar, which is of relevance to Arundel. The primary conclusion of the HRA was a need to address the loss of supporting habitats within the whole of Arun.
- 1.3 The Local Plan 2013 and updated 2017 HRA has therefore already addressed the strategic effect of growth across Arun District 'in combination' with growth in other authority areas over the same time period. As such, these strategic issues do not require reinvestigating for Arundel's Neighbourhood Plan Review. However, because it was focussed on the overall quantum and broad distribution of growth the Local Plan HRA work was not able to scrutinise individual site allocations in Arundel. The objective of this particular HRA is to identify if any particular site allocations that have the potential to cause an adverse effect on the integrity of Natura 2000 or European designated sites (Special Areas of Conservation, SACs, Special Protection Areas, SPAs, and Ramsar sites designated under the Ramsar convention), either in isolation or in combination with other plans and projects, and to determine whether site-specific mitigation measures are required.

Legislation

- 1.4 The need for HRA is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by the Conservation of Habitats & Species Regulations 2017 (as amended). The ultimate aim of the Habitats Directive is to "*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*" (Habitats Directive, Article 2(2)). This aim relates primarily to habitats and species, and designated sites that have a significant role in delivering favourable conservation status. European sites (also called Natura 2000 sites) can be defined as actual or proposed/candidate Special Areas of Conservation (SAC) or Special Protection Areas (SPA). It is also Government policy for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to Natura 2000 sites.
- 1.5 The Habitats Directive applies the precautionary principle to protected areas. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. This is in contrast to the SEA Directive which does not prescribe how plan or programme proponents should respond to the findings of an environmental assessment; merely that the assessment findings (as documented in the 'environmental report') should be 'taken into account' during preparation of the plan or programme. In the case of the Habitats Directive, plans and projects may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.
- 1.6 All the European sites mentioned in this document are shown on the plan in Appendix A. In order to ascertain whether or not site integrity will be affected, a HRA should be undertaken of the plan or project in question.

Habitats Directive 1992

Article 6 (3) states that:

“Any plan of project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives.”

Conservation of Habitats and Species Regulations 2017 (as amended)

Regulation 63 states that:

“A competent authority, before deciding to ... give any consent for a plan or project which is likely to have a significant effect on a European site ... must make an appropriate assessment of the implications for the plan or project in view of that site’s conservation objectives... The competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site.”

Box 1: The legislative basis for HRA

- 1.7 Over the years, ‘Habitats Regulations Assessment’ (HRA) has come into wide currency to describe the overall process set out in the Habitats Regulations, from screening through to identification of IROPI. This has arisen in order to distinguish the overall process from the individual stage of “Appropriate Assessment”. Throughout this Report the term HRA is used for the overall process and restricts the use of Appropriate Assessment to the specific stage of that name.

2. Methodology

Introduction

- 2.1 This section sets out the approach and methodology for undertaking the HRA. HRA itself operates independently from the Planning Policy system, being a legal requirement of a discrete Statutory Instrument. Therefore, there is no direct relationship to the 'Test of Soundness'.
- 2.2 The HRA is being carried out in the absence of formal Government guidance. The Department for Communities and Local Government (DCLG) released a consultation paper on Appropriate Assessment (AA) of Plans in 2006¹. As yet, no further formal guidance has emerged. However, Court Judgements can be used to shape the approaches used.
- 2.3 The draft DCLG guidance² makes it clear that when implementing HRA of land-use plans, the AA should be undertaken at a level of detail that is appropriate and proportional to the level of detail provided within the plan itself: *"The comprehensiveness of the [Appropriate] assessment work undertaken should be proportionate to the geographical scope of the option and the nature and extent of any effects identified. An AA need not be done in any more detail, or using more resources, than is useful for its purpose. It would be inappropriate and impracticable to assess the effects [of a strategic land use plan] in the degree of detail that would normally be required for the Environmental Impact Assessment (EIA) of a project."* More recently, the Court of Appeal³ ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be 'achieved in practice' to avoid an adverse effect, then this would suffice. This ruling has since been applied to a planning permission (rather than a Local Plan)⁴. In this case the High Court ruled that for *'a multistage process, so long as there is sufficient information at any particular stage to enable the authority to be satisfied that the proposed mitigation can be achieved in practice it is not necessary for all matters concerning mitigation to be fully resolved before a decision maker is able to conclude that a development will satisfy the requirements of reg. 61 of the Habitats Regulations'*.
- 2.4 In other words, there is a tacit acceptance that HRA can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers.
- 2.5 **Figure 1** below outlines the stages of HRA according to current draft CLG guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no significant adverse effects remain.

¹ DCLG (was CLG) (2006) Planning for the Protection of European Sites, Consultation Paper

² Ibid

³ No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17th February 2015

⁴ High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015

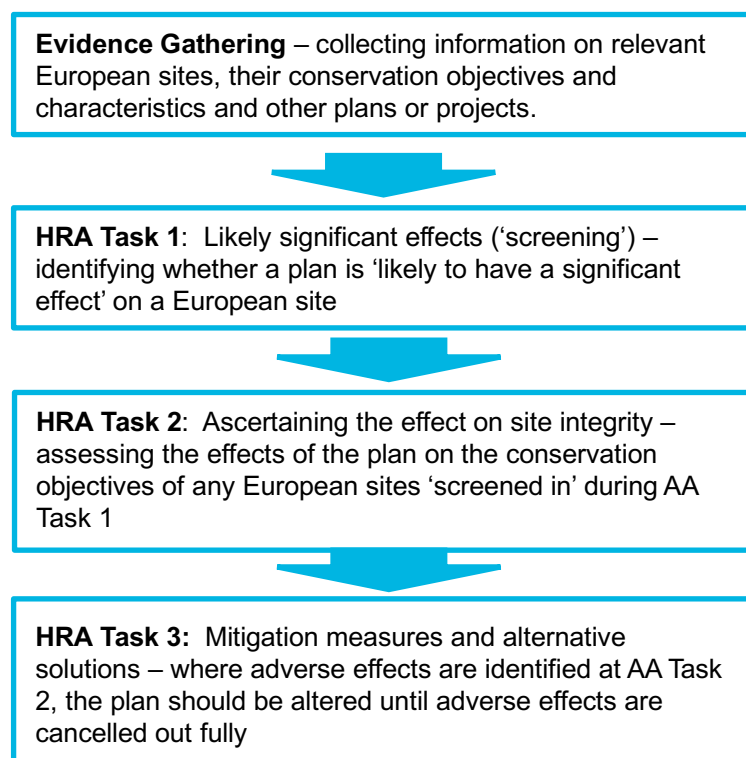


Figure 1: Four-Stage Approach to Habitats Regulations Assessment (Source: CLG, 2006)

Likely Significant Effects (LSE)

- 2.6 The first stage of any Habitats Regulations Assessment (HRA Task 1) is a Likely Significant Effect (LSE) test - essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:
- 2.7 *"Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"*
- 2.8 The objective is to 'screen out' those plans and projects that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism for an adverse interaction with European sites. The Likely Significant Effect test is the purpose of this HRA report.

HRA Task 2 – Appropriate Assessment (AA)

- 2.9 Where it is determined that a conclusion of 'no likely significant effect' cannot be drawn the analysis has proceeded to the next stage of HRA known as Appropriate Assessment. Case law has clarified that 'appropriate assessment' is not a technical term. In other words, there are no particular technical analyses, or level of technical analysis, that are classified by law as belonging to appropriate assessment rather than determination of likely significant effects.
- 2.10 One of the key considerations during appropriate assessment is whether there is available mitigation that would entirely/ appropriately address the potential effect. This reflects a recent decision by the European Court of Justice⁵ that concludes that measures intended to avoid or reduce the harmful effects of a proposed project on a European site cannot be taken into account at the Likely Significant Effects or 'screening' stage of HRA. In practice, the appropriate assessment takes any policies or allocations that could not be dismissed following the determination of Likely Significant Effects with a view to concluding whether there would actually be an adverse effect on integrity (in other words, disruption of the coherent structure and function of the European site(s)).

⁵ People Over Wind and Sweetman v Coillte Teoranta (C-323/17)
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HRA Task 3 – Avoidance and Mitigation

- 2.11 Where necessary, measures are recommended for incorporation into the Plan in order to avoid or mitigate adverse effects on European sites. There is considerable precedent concerning the level of detail that a plan needs to contain regarding mitigation. The implication of this precedent is that it is not necessary for all measures that will be deployed to be fully developed prior to adoption of the Plan, but the Plan must provide an adequate policy framework within which these measures can be delivered.
- 2.12 This fits with the advice of Advocate-General Kokott⁶ who commented that: *'It would ...hardly be proper to require a greater level of detail in preceding plans [rather than planning applications] or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated on one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure'*.
- 2.13 In evaluating significance, AECOM has relied on professional judgement as well as the results of previous stakeholder consultation regarding development impacts on the European sites considered within this assessment.
- 2.14 When discussing 'mitigation' for the proposed development sites, one is concerned primarily with the policy framework to enable the delivery of such mitigation rather than the details of the mitigation measures themselves since the Neighbourhood Plan document is a high-level policy document.

Confirming Other Plans and Projects that may act 'In combination'

- 2.15 The Conservation of Habitats and Species Regulations (2017, as amended) require that plans are not considered purely in isolation but 'in combination' with other projects and plans. That analysis has already been undertaken as part of the strategic HRA undertaken for Arun's Local Plan 2011-2031 and Strategic Approach for Pagham Harbour. However, since this time neighbouring Authorities have progressed their own strategic planning policy and other relevant plans have been produced. The most relevant are:
- Adopted Arun Local Plan (July 2018)⁷;
 - Ford Neighbourhood Plan (adopted)⁸;
 - Horsham District Planning Framework (adopted)⁹;
 - Horsham District Site Allocations Document (emerging)¹⁰;
 - Draft South Downs Local Plan (preferred approach)¹¹;
 - Habitat Regulations Assessment for the Arun District Local Plan (March 2018)¹²;
 - Improvement Programme for England's Natura 2000 Sites (IPENS)¹³; and
 - Arundel Neighbourhood Plan Review: Initial Site Assessments Report (July 2018)¹⁴.

⁶ Opinion of Advocate General Kokott, 9th June 2005, Case C-6/04. Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland, paragraph 49.

<http://curia.europa.eu/juris/document/document.jsf?docid=58359&doclang=EN>

⁷ <https://www.arun.gov.uk/adopted-local-plan> [Accessed: 17/09/2018]

⁸ <https://www.arun.gov.uk/ford-neighbourhood-development-plan> [Accessed: 17/09/2018]

⁹ https://www.horsham.gov.uk/_data/assets/pdf_file/0006/28563/Horsham-District-Planning-Framework-2015.pdf [Accessed: 17/09/2018]

¹⁰ <https://www.horsham.gov.uk/planningpolicy/planning-policy/site-specific-allocations-of-land> [Accessed: 17/09/2018]

¹¹ <https://www.southdowns.gov.uk/planning/national-park-local-plan/> [Accessed: 17/09/2018]

¹² <https://www.arun.gov.uk/download.cfm?doc=docm93jjm4n5767.pdf&ver=5468> [Accessed: 17/09/2018]

¹³ <https://www.gov.uk/government/publications/improvement-programme-for-englands-natura-2000-sites-ipens> [Accessed: 17/09/2018]

¹⁴ <https://www.arun.gov.uk/download.cfm?doc=docm93jjm4n3660.pdf&ver=3328> [Accessed: 17/09/2018]

3. Internationally Designated Sites within and around Arundel Parish

- 3.1 There are several internationally designated sites that lie within the South Downs. These are:
- Arun Valley SPA;
 - Arun Valley SAC; and
 - Arun Valley Ramsar site.
- 3.2 The location of these sites, sites and the associated impact risk zones, which straddle the planning authorities are shown on the plan in **Appendix A**.

Ecological context, conservation objectives and interest features of designated sites

- 3.3 The complex of European sites located within Arun Valley is collectively underpinned by the Arun Valley SPA/Ramsar. This large area consists of wet meadow on the floodplain of the River Arun between Pulborough and Amberley. The wet meadow and low-lying grazing marsh sit upon a variety of soil types including alluvial and peat soils. As such, there is a wide variety of ecological conditions in the water supply and therefore flora and fauna. The southern parts of Arun are fed by calcareous springs whereas towards the north is Greensand making the ground more acidic. There are varieties of grassland habitats supporting different vegetation specialists. These include drier grasslands with species such as meadow grasses, Crested Dog's-tail *Cynosurus cristatus* and Perennial Rye-grass *Lolium perenne*. Whereas within the wetter grassland areas species that dominate include rushes and sedges. The un-grazed fields within the Arun Valley have naturally developed into fen, scrub or woodland. In addition, the ditches and margins between grazing marsh fields support outstanding aquatic flora and invertebrate fauna.
- 3.4 This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting species /populations of European importance listed on Annex I of the directive including over wintering Bewick's Swan *Cygnus columbianus bewickii*. The Arun Valley supports a total of 115 individuals that represents around 1.6% of the overwintering population within Great Britain. The site also qualifies under Article 4.2 of the directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl including species such as Shoveler *Anas clypeata*, Teal *Anas crecca* and Wigeon *Anas Penelope*.

Arun Valley SPA

- 3.5 Arun Valley SPA site is designated for¹⁵:
- qualifying under article 4.1 of the Birds Directive (79/409/EEC),
 - It is used regularly by 1% or more of the UK's population of Bewick's swan; and
 - The site is used regularly in the non-breeding season by over 20,000 waterfowl.
- 3.6 This SPA is made up of three component SSSI sites including Waltham Brooks SSSI, Amberley Wild Brooks SSSI and Pulborough Brooks SSSI. The SPA therefore holds a series of habitat types including wet meadows, alluvial grazing marsh and former raised peat bog. These habitat types are of significant ornithological importance.

Conservation objectives

- 3.7 '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;
- The extent and distribution of the habitats of the qualifying features

¹⁵ JNCC (2001) SPA Description: Arun Valley (www.jncc.defra.gov.uk)

- *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.'*

Arun Valley SAC

3.8 Arun Valley SAC is designated for:

- Ramshorn snail *Anisus vorticulus*

3.9 The SAC supports a diversity of wetland habitats including standing and running water bodies, bogs, marshes, fens and humid grasslands. The Ramshorn snail occurs across a range of sites found throughout the south-east of England. However, Arun Valley supports a large population centre for this species within the whole of the UK.

Conservation Objectives

3.10 *'Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of the habitats of qualifying species*
- *The structure and function of the habitats of qualifying species*
- *The supporting processes on which the habitats of qualifying species rely*
- *The populations of qualifying species, and,*
- *The distribution of qualifying species within the site.'*

Arun Valley Ramsar

3.11 Arun Valley Ramsar site is designated for:

- Swollen spire snail *Pseudamnicola confusa* Frauenfeld;
- All five duckweed *Lemna* species;
- All five watercress *Rorippa* species; and
- Overwinter area supports over 20,000 waterfowl.

3.12 This site comprises an area of wet meadow and floodplain of the River Arun. The grasslands are subject to winter and occasional summer flooding. The site is divided by a network of ditches that support rich aquatic flora and invertebrate fauna.

Conservation Objectives

3.13 *'Seek agreement with relevant parties to find an appropriate funding mechanism to undertake the maintenance and deliver the management necessary to maintain the sites in accordance with the Water Level Management Plan (WLMP), when the Environment Agency (EA) administered Internal Drainage Board (IDB) is dissolved -including ditch management and maintenance of water structures where appropriate.'*

3.14 *'Maintain appropriate water levels and ditch management at Amberley Wildbrooks, in light of the proposed dissolution of the IDB, to ensure levels and habitat is optimal for Bewick's swan, water bird assemblage, Anisus vorticulus and aquatic plant assemblage.'*

3.15 *'Review Amberley Wild Brooks WLMP to ensure that long term management of water levels and ditches is maintained to ensure favourable conservation status is maintained.'*

3.16 *'Ensure water levels and associated structures are appropriately managed and maintained for SPA, SCI and supporting Ramsar species. This is linked to the action regarding the proposed dissolution of the EA-administered IDB. There is no WLMP for either Waltham or Pulborough Brooks. The most appropriate mechanism identified is delivery via the existing Management Plans for each site.'*

4. Likely Significant Effects

- 4.1 Arundel Town is a medieval settlement that is situated approximately 6km south of the Arun Valley SPA complex. As is mirrored throughout the whole of Arun, Arundel is situated upon floodplain and therefore supports a variety of wetland habitats. Of most significance to the Bewick's swan is wet meadows that are located close to the River Arun¹⁶.
- 4.2 Over winter the Arun Valley supports 115 Bewick's swans, representing approximately 1.6% of Britain's migratory population¹⁷. The Bewick's swan is a highly migratory bird species that spends summer in Russia. However, during the autumn months these swans migrate to northern Europe where they feed upon a diet of grasses, sedges and aquatic plants. The Arun Valley consists of mixed wet grasslands that provides optimal over wintering habitat for these species. In addition, much of the wider surrounding area of Arun consists of floodplain grazing marsh due to the periodic flooding of the River Arun; also supporting suitable over wintering grounds. The Bewick's swan has seen recent declines of 27% from 1995 to 2005¹⁸ with national trends indicating continual declines. Preservation of significant habitat for Bewick's swan, whether it occurs within or outside the SPA and Ramsar site boundary is therefore essential.
- 4.3 Much of Arundel is located within the Arun Valley SPA Impact Risk Zone as the parish supports good quality habitat patches for over wintering Bewick's swan; otherwise known as functionally-linked land. Within Arun Local Plan HRA (2017) two impact risk zones were identified (see Appendix A):
 - **Impact Risk Zone 1** – where development is likely to have adverse impact to over wintering foraging habitats of migrant bird species¹⁹. As such comprehensive ornithological studies must be conducted within proposed development sites before planning permission is granted.
 - **Impact Risk Zone 2** – this is a 500m buffer beyond zone 1 and is where functionally linked habitat is present and loss of such could therefore impact over wintering bird populations.

Table 1: Supporting text from the adopted Arun Local Plan 2011-2031 with regards to HRA requirements within the Arun District.

Reference	Supporting text
Arun Local Plan (adopted) 2011-2031	<i>'...impact risk zones for this SPA have been defined covering areas in the foraging distance of Bewick's Swans, which include wide areas falling inside the planning responsibility of this Local Plan (52). Loss of habitat within these impact risk zones, which is regularly used by foraging Bewick's Swans (i.e. Is functionally linked to the SPA), could have a significant effect on the SPA, and will need assessment under the Habitats Regulations at the project level.'</i>

Screening of Potential and Proposed Residential Site Allocations

- 4.4 The consideration of HRA matters began at the pre-site selection stage of the Plan. For completeness, Table 2 below is included to show the screening of 19 potential development sites that were considered for possible allocation for residential development. These development allocations were assessed with the use of aerial and roadside photography (Google Maps and Bing Maps) and online mapping (MAGIC²⁰). This screening informed the selection of sites alongside a Sustainability Appraisal and conformity with strategic policy. Table 3 screens the subsequent allocation policies (AR2 for Site 11; AR3 for Site 13; and AR4 for Site 17) and other policies of the submission plan.

¹⁶ Robinson et al (2004). Bewick's Swan *Cygnus columbianus bewickii* (Northwest Europe population) in Britain and Ireland 1960/61 – 1999/2000. *Waterbird Review Series*, The Wildfowl & Wetlands Trust/Joint Nature Conservation Committee, Slimbridge.

¹⁷ JNCC (2001) SPA Description: Arun Valley (www.jncc.defra.gov.uk)

¹⁸ Rees, E.C. & Beekman, J. Submitted. Bewick's Swan: a population in decline. British Birds.

¹⁹ <https://data.gov.uk/dataset/5ae2af0c-1363-4d40-9d1a-e5a1381449f8/ssi-impact-risk-zones> [Accessed: 20/09/2018]

²⁰ <https://magic.defra.gov.uk/MagicMap.aspx> [Accessed: 08/05/2019]

Table 2: Screening of *Potential* Arundel Neighbourhood Plan Review site allocations based on the Arun District HELAA and Updated HELA reports, Arundel Neighbourhood Plan Review Initial Site Assessments Report and associated Site Assessments Map.

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
Site 1 – Horses Field, Torton Hill Road	59	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.9km north Within Arun Valley SPA 'Impact Risk Zone 2' 	The existing land use of the site is of greenfield currently used as pastoral land. Much of the land is sloping and is prone to flooding. The site is currently designated as Local Green Space.	Likely significant effect Since this field is prone to flooding; the site has the potential to support wet grassland habitat. The site therefore has the potential to provide functionally linked habitat for the Bewick's swan. As such, this site will need to be subject to appropriate assessment if it is to be allocated.
Site 2 - Land Rear of Anne Howard Gardens	AB4 (Not identified in HELAA)	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.2km north Within Arun Valley SPA 'Impact Risk Zone 2' 	The existing land use of the site is of private gardens and football pitch connected to residential dwellings. The site has been proposed for housing development. However, due to the small size of the site and limited access it is not currently considered developable.	Likely significant effect This site is also prone to flooding due to the surrounding habitat consisting of wetland and watercress beds. These habitats and the adjacent site allocation have a high potential to support the Bewick's swan as this area is located within Impact Risk Zone 2 and contains functionally linked habitat to the Arun Valley SPA. As such, it is considered that in the absence of ornithological surveys and appropriate mitigation the development of this site may have significant effects to the over wintering population of

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
				Bewick's swan. As such, this site will need to be subject to appropriate assessment, if it is to be allocated.
Site 3 – Arundel Riding Stables	AR001	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.4km north Within Arun Valley SPA 'Impact Risk Zone 2' 	The existing land use of this site is of equestrian facilities and associated car parking. The existing land use is coming to end within the next 5 years after this time the site has been proposed for allocation of either housing or retail when made available.	<p>Likely significant effect</p> <p>This site is located just south of the surrounding wetland habitat described above. As such, this site also has the potential to support over wintering Bewick's swan. Again, in the absence of targeted ornithological surveys and appropriate mitigation the development of this site has the potential to have likely significant effects to the UK's Bewick's swan population. As such, this site will need to be subject to appropriate assessment, if it is to be allocated.</p>
Site 4 – The Causeway	AR003	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.4km north Within Arun Valley SPA 'Impact Risk Zone 2' 	The existing land use of the site is a floodplain to the River Arun and consists of wet grassland. The site has been proposed for the allocation of car parking facilities.	<p>Likely significant effect</p> <p>Since this site is prone to flooding and is directly adjacent to the River Arun the potential of the site to support suitable over wintering habitat for the Bewick's swan is high. It is therefore within catchment of the Impact Risk Zone 2 as the site support functionally linked</p>

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
				habitat. As such, this site will need to be subject to appropriate assessment, if it is to be allocated.
Site 5 – Mill Farm Barn	N/A	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.6km north Within Arun Valley SPA 'Impact Risk Zone 2' 	The existing land use of the site is for agriculture. The land is prone to flooding and therefore support floodplain grazing marsh. The proposals at this site allocation are for a nursery.	<p>Likely significant effect</p> <p>This development site lies within the floodplain of the River Arun and can be reasonably considered as functionally linked habitat for over wintering Bewick's swan. As such if development was to take place at this site there is the potential for habitat loss to have a likely significant effect to Britain's swan population. As such, this site will need to be subject to appropriate assessment, if it is to be allocated.</p>
Site 6 – Queens Lane	N/A	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.5km north Within Arun Valley SPA 'Impact Risk Zone 2' 	The existing land use of the site is of mixed industrial and residential units with on-site car parking facilities. The River Arun is located just to the north of the site whereas to the south are open pastoral fields bounded by a network of ditches.	<p>Likely significant effect</p> <p>The surrounding habitat of the site has the potential to provide good quality habitat for over wintering Bewick's swans. The site itself largely comprises of buildings, hardstanding and amenity gardens. All of which are not considered of value to the Bewick's swan. However, due to the surrounding</p>

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
				landscape of pastoral fields prone to flooding there is the risk that if development were to take place issues such as noise and human activity could disturb Bewick's swans using functional land adjacent the site. As such, this site will need to be subject to appropriate assessment, if it is to be allocated.
Site 7 – Land adjacent Fitzalan Road Allotments	Forms part of Site 56 Mill House Farm	<ul style="list-style-type: none"> • Arun Valley SPA/ Ramsar: 6.6km north • Within Arun Valley SPA 'Impact Risk Zone 2' 	<p>The existing land use of the site is of wet meadow and associated ditch system. The site has been proposed for consideration by Arundel council for the development of residential and retail units and alternative/ addition car parking facilities.</p>	<p>Likely significant effect</p> <p>This development site lies within the flood plain of the River Arun and is a Biodiversity Opportunity Area that includes a 500m buffer of SPA Impact Risk Zone. This consists of functionally linked habitat used by mobile species such as the Bewick's swan.</p> <p>The water meadows that encompass the whole of the site constitute potential over wintering foraging habitat for the Bewick's swan and can reasonably be considered functionally-linked to the Arun Valley SPA. As such it is considered that development at this site could have likely significant effects on over wintering populations of Bewick's swans, if they are</p>

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
				shown by surveys to regularly use the site. In relation to over wintering Bewick's swans there is the risk, in the absence of mitigation that construction works could disturb populations and would have adverse impacts to UK over wintering Bewick's swans. As such, this site will need to be subject to appropriate assessment, if it is to be allocated.
Site 8 – Land off Fitzalan Road	57	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.8km north Within Arun Valley SPA 'Impact Risk Zone 2' 	This site is located adjacent to site 8. The current land use is of agricultural land that is prone to seasonal flooding. The site also lies within a Biodiversity Opportunity Area as the site supports coastal and floodplain grazing marsh habitat. The site holds 1.6ha of land 1.28 ha is allocated for residential development.	Likely significant effect Since this allocated site supports floodplain grazing marsh, which is suitable foraging habitat for the Bewick's swan, the development of this site and associated loss of functionally linked habitat has the potential to significantly affect Britain's over wintering population without mitigation. As such, this site will need to be subject to appropriate assessment, if it is to be allocated.
Site 9 – Land off A27 Roundabout	58 Electronic Sub Station (Land North East of Ford Road)	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.8km north Within Arun Valley SSSI 'Impact Risk Zone 2' 	This site is located west of Arundel along the A27, in a Biodiversity Opportunity Area and is prone to flooding. Currently the site is used as a horse paddock. The	No likely significant effect This site is subject to serious flooding and to justify housing

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
			site has been allocated for possible mixed residential and holiday units.	<p>development proposals Flood Risk Assessments must be conducted.</p> <p>The use of the land as a horse paddock may render the site as too disturbed for roosting Bewick's swan due to the presence of horses and humans. Furthermore, as the site is bounded by trees, hedges, roads and residential areas the sites is fragmented from surrounding suitable habitat and therefore can be considered as unlikely to support Bewick's swan. This site can therefore be screened out due to no likely significant effects to the over wintering population of Bewick's swan.</p>
Site 10- Garage Site, Ford Road	65	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 7km north Within Arun Valley SSSI 'Impact Risk Zone 2' 	This site is located towards the south-west of Arundel town centre. The site is small with a total area of 0.15ha.	<p>No likely significant effect</p> <p>This site is very small in size and is bounded by dense trees and hedging. This site has limited potential to support good quality foraging habitat for Bewick's swan. In addition, the site is located close to residential dwellings and is therefore prone to human disturbance. As such, it is not considered to pose as a likely</p>

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
				significant effect to the over wintering population and can be screened out due to no likely significant effects to the over wintering population of Bewick's swan.
Site 11 – Land West of Ford Road	66 'Land South of Stewards Rise'	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 7.3km north Within Arun Valley SSSI 'Impact Risk Zone 2' 	This site is located towards the south-west of Arundel town. The site is large with a total of 12ha current land use that is dominated by agricultural land and scattering of mature trees. However, much of the land is sloping and only a maximum of 7.2ha is suitable for development. Approximately 60 (open market) dwellings are allocated to be developed at this site.	<p>Likely significant effect</p> <p>This is a large site within the Arun Ground Water Flood Risk V1 and 500m buffer of SPA Impact Risk Zone for over wintering species such as the Bewick's Swan. The current site is considered to be suitable foraging habitat and acts as functionally linked land for the Bewick's swans of the SPA. It is therefore possible that in the absence of further ornithological surveys and mitigation the loss of habitat provided by the site could impact upon over wintering bird populations. A likely significant effect is therefore concluded. As such, this site will need to be subject to appropriate assessment, if it is to be allocated.</p>

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
Site 12- Caste Stables, Arundel Castle	Site AR004	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 7.3km north Within Arun Valley SSSI 'Impact Risk Zone 1' 	This site is located towards the north of Arundel town. The current land use of the site is for employment purposes.	<p>No likely significant effect</p> <p>Within the site boundaries there is no viable over wintering foraging habitat for the Bewick's swan as it is largely hardstanding. As previously identified within the Arun Local Plan HRA (2017); the 7.3km distance is towards the edge of to the Bewick's swan's 10km foraging range. Moreover, this site is small with no suitable habitat for swans and is therefore considered to be of 'low risk'. In any case, this site can be screened out as there are no significant impact pathways present.</p>
Site 13 – Blastreat/ Greenhurst	AB10 (Greenhurst) and RU7 (Blastreat)	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.5km north Within Arun Valley SSSI 'Impact Risk Zone 2' 	This site is located towards the south of Arundel. The current land use of the site is of workshops. The proposals of this site are, at the time of writing, under planning consideration for the development of either 46 shelter accommodation units of 24 residential dwellings.	<p>No likely significant effect</p> <p>The site being of hardstanding does not support features suitable to the Bewick's Swan and it is therefore considered unlikely that this allocated site would have an impact to the over wintering population within the UK. The site is also in a disturbed environment being surrounded by residential dwellings, roads, parking facilities and associated gardens. This site can therefore</p>

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
				be screened out due to no likely significant effects to the overwintering population of Bewick's swan.
Site 14 – Land at Ford Road (Old Gas Works Site)	115	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.7km north Within Arun Valley SSSI 'Impact Risk Zone 2' 	This site is of brownfield with overgrown vegetation encompassing much of the former electrical substation and vacant town gas works.	<p>Likely significant effect</p> <p>This site has been allocated for residential units. The site consists of extensive overgrown scrub and immature trees. The site itself does not support suitable habitat for overwintering Bewick's Swan, however, there are adjacent habitats of floodplains that could be used by Bewick's Swan during the winter. In the absence of mitigation, it is possible that construction works could cause issues relation to disturbance due to the surrounding favourable grassland habitat. As such, this site will need to be subject to appropriate assessment, if it is to be allocated.</p>
Site 15 – Industrial Units on Fitzalan Road	RU6	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.4km north Within Arun Valley SSSI 'Impact Risk Zone 2' 	This site is located directly adjacent to the River Arun. The current land use of the site is mixed with one residential building, neglected gardens, small industrial workshops and offices. The site thus far is considered as 'developable' by Arundel council.	<p>No likely significant effect</p> <p>This site and surrounding habitat consist mainly of hardstanding and therefore does not support suitable habitat for the Bewick's swan. It is therefore considered unlikely</p>

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
				that the site will support over wintering birds and this site can be screened out from further assessment.
Site 16 – Crown Yard	N/A	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.3km north Within Arun Valley SSSI 'Impact Risk Zone 2' 	This site is a large car parking facility located in the centre of Arundel Town.	No likely significant effect This site is located within the centre of Arundel town and is surrounded by hardstanding and buildings. This site is unlikely to support over wintering Bewick's swan given its status as a car park and can therefore be screened out from further assessment.
Site 17 – Arundel Police Station	N/A	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.5km north Within Arun Valley SSSI 'Impact Risk Zone 2' 	This site is located towards the south of Arundel. The current land use of the site is a police station and associated car parking facilities. The site has been allocated for 12 residential dwellings.	No likely significant effect Since the site is of hardstanding and there are no supporting features suitable to the Bewick's Swan and it is therefore considered unlikely that this allocated site would have an impact to the over wintering population within the UK. The site is also in a disturbed environment being surrounded by residential dwellings, roads and parking facilities. This site can therefore be screened out due to no likely significant effects to the over wintering population of Bewick's swan.
Site 18 – Land at	AB3	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.1km 	The site consists of wooded/ vegetated	No likely significant effect

Site reference	Reference	Designated Site Locations	Brief Summary	Screening Outcome
Cemetery, London Road		<ul style="list-style-type: none"> north Within Arun Valley SSSI 'Impact Risk Zone 2' 	area to the south of the cemetery. The site backs onto the A284 and is located on the edge of the urban area.	Since much of this site is covered by woodland cover. There is limited supporting habitat for the Bewick's Swan. It is therefore considered unlikely that the site will support over wintering birds and this site can be screened out from further assessment.
Site 19 - Land Rear of Primary School, London Road	AB4	<ul style="list-style-type: none"> Arun Valley SPA/ Ramsar: 6.1km north Within Arun Valley SSSI 'Impact Risk Zone 2' 	The site is currently used as a private open space used as a football pitch located at the edge of residential areas.	No likely significant effect Since the site supports well-kept amenity grassland in conjunction with regular usage by residents and schools the site is considered too disturbed and unsuitable for over wintering Bewick's Swans. It is therefore unlikely that the site will support over wintering birds and this site can be screened out from further assessment.

Table 3. Policy screening of Arundel Council Neighbourhood Plan Review.

Policy	Description	Screening Outcome
Policy AR1 Arundel Built up Area Boundary	This policy updates the designated built up area boundary of Arundel. The Council have increased the 'built-up area boundary' to incorporate allocated housing development within Arundel.	No likely significant effect This policy extends the 'built-up area boundary' to include the residential areas that are just south of the River Arun. This area constitutes mostly brownfield, although does incorporate a large area of currently agricultural fields to the south east. Individual allocated sites are discussed in each relevant policy below.
Policy AR2 Land off Ford Road	This policy allocates 9.7ha of Land off Ford Road for	Likely significant effect

mixed residential, community facility and green infrastructure uses. Development allocations are as follows:

- A maximum of 4.5ha for residential uses;
- Approx. 90 residential dwellings comprising a mix of open market and affordable homes; and
- Community facilities to be agreed with the Town Council.

The site is currently used as an agricultural field; during high periods of rainfall there is the possibility that the site may support over wintering Bewick's Swan. This is due to a number of contributing factors, including:

- the proximity of the River Arun (347m east);
- the field having the potential to support functionally linked habitat;
- the site situated within the Arun Valley SSSI Impact Risk Zone 2; and
- the location of the Arun Valley SPA/ Ramsar 7.3km north

As such, there is possibility that residential development at this site could lead to likely significant effects. In the absence of mitigation, it is possible that impacts could arise from habitat loss and construction works may cause issues in relation to disturbance due to the surrounding favourable grassland habitat. It is concluded that, this site is subject to appropriate assessment.

Policy AR3 Land at Fitzalan Road ('Blastreat and Greenhurst')

This policy allocates 0.36ha of Land at Fitzalan Road for residential development. Development allocations are as follows:
Approx. 24 residential dwelling of mixed housing types.

No likely significant effect

This site is located towards the south of Arundel. The current land use of the site is of workshops. The site being of hardstanding does not support features suitable to the Bewick's Swan and it is therefore considered unlikely that this allocated site would have an impact to the over wintering population within the UK. The site is also in a disturbed environment being surrounded by residential dwellings, roads, parking facilities and associated gardens. This site can therefore be screened out due to no likely significant effects to the over wintering population of Bewick's swan.

Policy AR4 The Police Station, The Causeway	This policy reserves 1.0ha of Land at the Police Station for residential development. Development allocations are as follows: Approx. 12 dwellings of mixed housing types.	No likely significant effect The current land use of the site is a neighbourhood Police station and is therefore considered as brownfield. Since the land is of hardstanding there are no supporting features suitable to the Bewick's Swan and it is therefore considered unlikely that this allocated land would have an impact to the over wintering population within the UK. The site is also in a disturbed environment; surrounded by residential dwellings, roads and parking facilities. It can therefore be screened out due to no likely significant effects to the over wintering population of Bewick's swan.
Policy AR5 Swallow Brewery, Fitzalan Road	This policy describes the planning conditions for residential development to take place at Fitzalan Road (Policy AR3) to keep in line with the non-designated heritage asset of Swallow Brewery.	No likely significant effect This policy does not allocate sites for development rather this policy provides building guidance to keep in context with the historical heritage of the surrounding area. As such, this policy is not considered to lead to likely significant effects to the over wintering population of the Bewick's swan.
Policy AR6 Community Facilities	This policy provides planning conditions for the change of use in community facilities. This policy does not provide for any sites to be developed rather it ensures that proposals do not result in the loss of community space without good reason.	No likely significant effect This policy does not allocate sites for development and therefore does not result in a net loss of functionally linked habitat for the Bewick's swan. As such this policy is screened out from further discussion.
Policy AR7 Town Centre	This policy describes the planning conditions for shop frontages and addresses Arundel's aim of maintaining the towns role as a tourist and visitor destination.	No likely significant effect This policy does not allocate sites for development and as such will not result in the loss of functionally linked habitat. This policy can therefore be screened out from further discussion.
Policy AR8 Business Hubs	This policy describes the planning conditions for	No likely significant effect

	business space. This policy describes that development must not harm local residential amenity and that business development within the countryside is not deemed necessary.	This policy does not allocate sites for business development. As such there is no expected loss of functionally linked habitat for the Bewick's swan and is screened out from further discussion.
Policy AR9 Green Infrastructure Network	This policy describes the planning conditions that protect the green infrastructure network. The policy ensures that there is no loss of functionality to the green infrastructure within and around Arundel.	<p>No likely significant effect</p> <p>This policy safeguards the environment and is therefore not expected to pose as a likely significant effect to the over wintering populations of Bewick's swans. This policy can be screened out from further discussion.</p>
Policy AR10 Canada Gardens	Land north of Canada Gardens is to be designated as a Local Green Space.	<p>No likely significant effect</p> <p>This policy safeguards land that adjoins areas of residential development within the town. As such, this is a positive policy that is not expected to impact the over wintering population of Bewick's swans.</p>

5. Consideration of Effects ‘In Combination’

- 5.1 The Arun District Local Plan was subject to HRA in 2017. That HRA included a strategic assessment of supporting habitat loss with functional linking habitat to the SPA but screened out water issues and concluded that the Local Plan HRA has already addressed the strategic effect of growth across Arun District ‘in combination’ with growth in other authority areas (including Arundel Parish) over the same time period.

6. Conclusion of Screening

- 6.1 There were 19 possible development sites that were considered for allocation in the Neighbourhood Plan at the time the HRA screening was commenced. Ten of those sites could not be screened out on the basis of having no likely significant effect as they appeared from aerial photography and mapping to have the potential to support functionally-linked foraging and roosting habitat for the Bewick's swan population of Arun Valley SPA.
- 6.2 Following an assessment of sites in the Sustainability Appraisal of the Plan and local community consultation, only three of those sites are proposed to be allocated, namely Site 11 (Land off Ford Road) in Policy AR2, Site 13 (Blastreat/Greenhurst) in Policy AR3 (a modified version of a policy in the made Plan) and Site 17 (Police Station) in Policy AR4. The allocations in Policy AR3 and AR4 are among those sites that will not have a likely significant effect on Bewick's Swans or on the associated European Sites and can therefore be screened out. However, Policy AR2 (Land off Ford Road) is one of those sites that cannot be screened out for such effects and is therefore considered further for appropriate assessment.

7. Appropriate Assessment

Introduction

- 7.1 The law does not prescribe how an appropriate assessment should be undertaken or presented but the appropriate assessment must consider all impact pathways that have been screened in, whether they are due to policies alone or to impact pathways that arise in combination with other projects and plans. That analysis is the purpose of this section. The law does not require the 'alone' and 'in combination' effects to be examined separately provided all effects are discussed.
- 7.2 The HRA screening exercise undertaken in Chapter 4, Table 2 and Table 3 indicated several possible site allocations within the Arundel Parish that could lead to likely significant effects to Bewick's swans and European designated sites.
- 7.3 The appropriate assessment of the actual proposed site allocations and any mitigation measures outlined by Arundel Council's policies are illustrated within Table 4. At the screening stage a total of 9 sites were assessed with a screened out conclusion requiring no further assessment. A further 10 sites were assessed with a screened in conclusion. However, only one of these screened in sites (Policy AR2 Land off Ford Road) is intended for allocation in the Arundel Council's Neighbourhood Plan Review 2018-2031.

Table 4: Appropriate Assessment of the problematic site allocations outlined within Arundel's Neighbourhood Plan.

Site reference Appropriate Assessment

Policy AR2 Land off Ford Road	<p>This site was considered at the screening stage to pose as a likely significant effect to functionally linked habitat. Based upon aerial/roadside photography and online mapping the site is within proximity to the River Arun and a large area of associated floodplain habitat that would be suited to over wintering Bewick's Swans. In addition, the site lies within the Arun Valley SSSI Impact Risk Zone 2, with the Arun Valley SPA/ Ramsar: 7.3km north. Due to the distance from the SPA and Ramsar site, the risk is therefore not high, but impact does exist.</p> <p>It is important to note that, at this stage detailed proposals are not available, and no provisions of species records, or wintering bird surveys have been obtained/undertaken for the site. Environmental Gain Ltd have, however, reported that part of the site has the potential to support foraging habitat for over wintering Bewick's Swan (notably coinciding with that part of the site that lies outside the proposed smaller developable area). Although, the area that was observed to provide the best foraging habitats is land adjoining Ford Road, at the time of the ecological appraisal no swans were observed on site and it was concluded that it was not in occupation by the species: "<i>we consider that the only area within the proposed allocation area that provides potential foraging habitat for this species is the small area at the east of the site adjoining Ford Road (i.e. located outside of the development site boundary). Further survey work could be undertaken to definitively establish presence or absence of Bewick's swan onsite, however any survey works would only show a representative snap shot over a relatively short time period (Davies, 2018)²¹.</i>" This ecology survey was prepared for the landowner to inform the site's development masterplan and by default the suitability of this site allocation within the Plan. At this level, no additional technical analysis can be undertaken therefore mitigation measures are required to avoid adverse impacts to Bewick's swans and by default European Site integrity. It is required that to define judgment and therefore produce the appropriate ecological mitigation for future development proposals; species data and assessment should be sought through the following pathways:</p>
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²¹ Davies, M (Environmental Gain Ltd). 2018. Letter to Guy Dixon. *Land at Tortington, Arundel: Response to Statements within the HRA for Arundel Neighbourhood Plan Review*. 20 December 2018. See Appendix B.

1. The supporting use of historical Bewick's swan species records to be obtained from Biological recording centres; and
2. At least 2 years of bird surveys in the correct season (October to March) and a detailed desk study.

In addition to the mitigation and the steps outlined above it is noted that Policy AR1 proposes a Built-Up Area Boundary that matches the developable area proposed in the illustrative masterplan for the site allocation. The developable area avoids the area likely to be of greatest value to Bewick's swan, but this should be verified in the evidence provided in support of a planning application. This is in line with Advocate-General Kokott's advice regarding HRA in multi-stage planning processes and is also in accordance with the approach being taken elsewhere in the Arun District. The appropriate assessment of the Neighbourhood Plan therefore focusses on ensuring that the plan provides an adequate policy framework to ensure that no adverse effects on integrity could actually arise through a net loss of functionally-linked land around Arun Valley SPA and Ramsar site.

Land off Ford Road is recognised in the Neighbourhood Plan as being of potential importance to over wintering populations of Bewick's Swans. This is reflected within the planning restrictions for the site set out in policy: *'a biodiversity strategy [must be] prepared and approved by the local planning authority to incorporate measures that ensure no net loss of effective foraging and roosting habitat for the Bewick's Swan population of the Arun Valley Special Protection Area in accordance with Local Plan Policies and deliver a net gain in general biodiversity value, where possible'*. This policy ensures that investigations are undertaken by the applicant to confirm whether Bewick's swan use the site and, if so, that adequate mitigation is established before, during and after development thereby preventing the net loss of functionally linked habitat. As well as addressing loss of functionally-linked land it may also be necessary for the developer to implement measures to ensure no disturbance to Bewick's Swans during construction while they are roosting and foraging on and/or near the site. If necessary, this could involve avoiding disturbing construction works during the winter period.

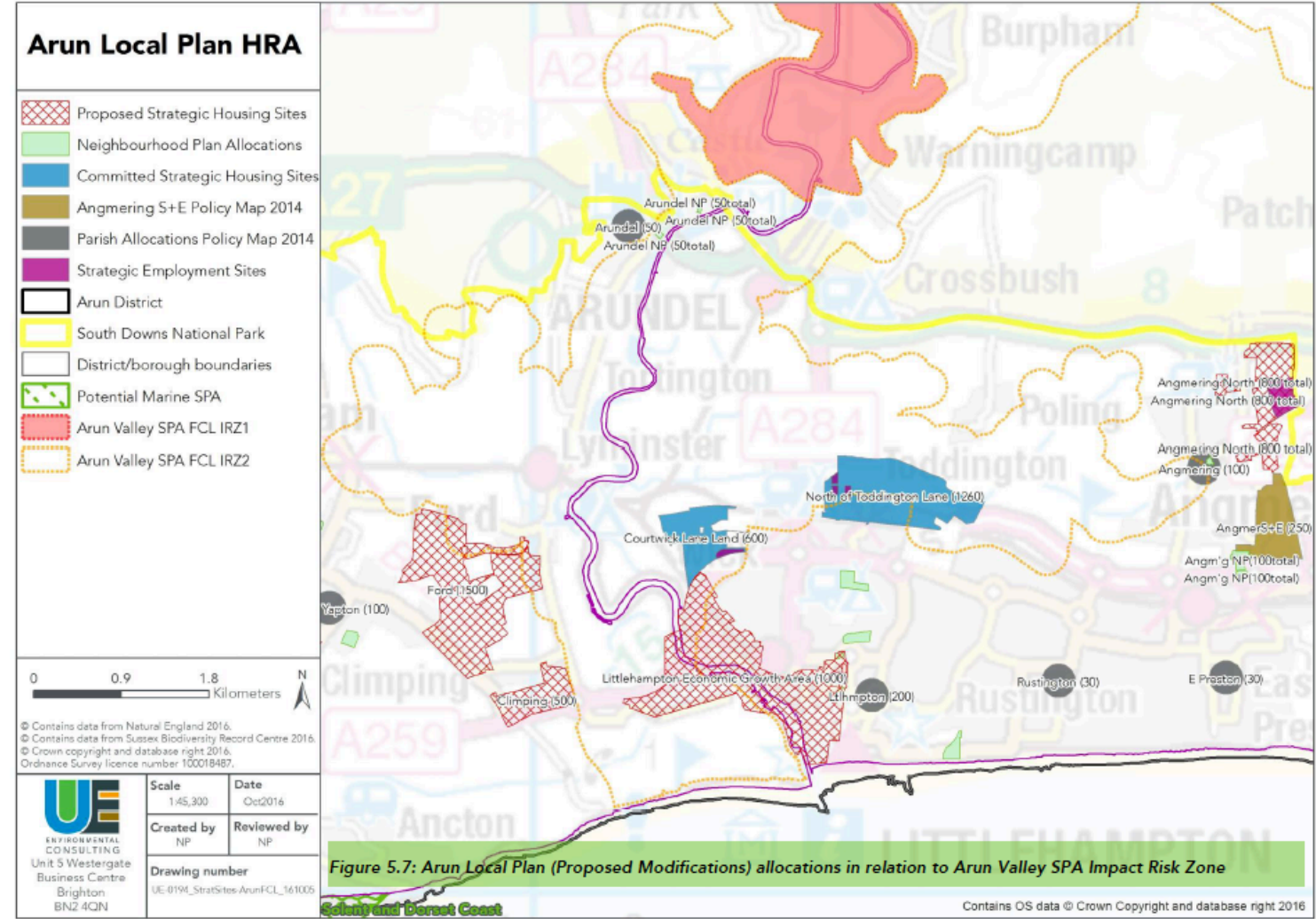
Natural England have confirmed in correspondence with the Neighbourhood Plan group that they consider the restrictions imposed on this site in the Neighbourhood Plan Review will ensure no adverse effects on integrity of the Arun Valley SPA and Ramsar site will result, either alone or in combination with other projects and plans.

Given the policy framework provided in the Neighbourhood Plan it can therefore be concluded that due to the high level of safeguarding described within Policy AR2 that development at Ford Road is not expected to pose an adverse effect on the integrity of the Arun Valley SPA/Ramsar site through its over wintering population of Bewick's Swans. This will also ensure that no effect arises either individually or 'in combination' with other projects and plans.

8. Conclusion

- 8.1 It is concluded that for the only site allocated in the Arundel Neighbourhood Plan Review that poses a risk of likely significant effects (i.e. Policy AR2), there are appropriate safeguarding policies in place to ensure no adverse effect will occur on the integrity of the Arun Valley SPA/Ramsar site and its over wintering populations of Bewick's Swans.

Appendix A: Location of European Designated Sites & Impact Risk Zones



Source: Habitat Regulations Assessment for the Arun Local Plan Stage 3 Report: Appropriate Assessment, February 2017, Urban Edge for Arun District Council

Appendix B: Environmental Gain Ltd Letter



Guy Dixon
Director - Planning
Savills
74 High Street
Sevenoaks
TN13 1JR

Our Ref eg17809 002

Date 20 December 2018

Dear Guy,

Land at Tortington, Arundel: Response to Statements within the HRA for Arundel Neighbourhood Plan Review

As per our conversation you have asked Engain to make comment on statements contained within the Habitats Regulation Assessment (HRA) undertaken in association with the Arundel Neighbourhood Plan Review. With specific regard to the potential for Bewick's swans (*Cygnus columbianus bewickii*) to forage on Land off Ford Road where we have previously provided ecological works. You have also asked us to provide comment on the suitability of the planning policies that are proposed within the Arundel Neighbourhood Plan Review that seek to protect the site's use by this species.

Summary of the HRA

The HRA states at point 2.9:

This document identifies the specific locations of the drafted site allocations within Arundel and the likely significant effects development may have to Arun Valley SPA/Ramsar, with particular emphasis on habitat loss of the over wintering Bewick's swan.

The HRA identifies that the proposed allocated site is within an area it defines as Impact Risk Zone 2, this is defined at point 4.2 as:

Impact Risk Zone 2 - this is a 500m buffer beyond zone 1 and is where functionally linked habitat is present and could impact over wintering bird populations. Only in certain circumstances where developments are likely to cause net loss in function links should ornithological surveys be conducted.

On this basis of the proposed allocated site's location within impact risk zone 2 the HRA concludes at point 6.1 that the site is one of:



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Our Ref eg17809 002
Date 20/12/2018

Eleven possible development sites which cannot be dismissed (screened out on the basis of providing no likely significant impact) since they appear from aerial photography and mapping to support potential functionally-linked foraging and roosting habitat for the Bewick's swan population of the Arun Valley SPA.

As a result of this the HRA states at point 6.2 that:

If any of the eleven sites listed below are included within the draft Neighbourhood Plan it will be necessary to undertake an Appropriate Assessment of the Neighbourhood Plan. The Appropriate Assessment will investigate whether there is existing wintering bird survey data for the site which adequately confirms no use by Bewick's Swans. In the absence of such data it will then make recommendations for a) obtaining such data for any planning application through at least 2 years of winter surveys and b) ensuring there is policy wording within the NP that will ensure any loss functionally linked land is mitigated by the provision of (or enhancement) of replacement habitat.

Summary of Engain's Works

To date Engain has not undertaken any over wintering bird survey work at the site however a summary of the findings of our ecological appraisal work is provided below.

The open fields are of limited value for birds, and their value is heavily dependent on the agricultural management regime. Winter stubble in the arable field could provide good winter habitat for birds if it is left over winter and not cropped or ploughed under. The floodplain meadow fields within the blue line area (outside of the proposed allocated site) may also be used by wintering wildfowl and waders. Their value as breeding areas for common waterfowl also depends heavily on their agricultural management and the timing of cropping.

The site supports a range of habitats, some of which are ecologically valuable and have a high potential to support rare and protected animal species. These include:

- Rare bats including Bechstein's and barbastelle;
- dormice;
- amphibians and reptiles;
- birds;
- invertebrates

Within the red line boundary, the site's most important features and the places most likely to be used by these species are the boundary hedges and mature trees. The open fields are of limited value. The floodplain meadows and ditches within the blue line area are not of the quality found in the nearby designated sites, but they are potentially valuable for birds and invertebrates.

A summary of the area surveyed by Engain during 2017 is provided within the figure below. It is important to note that the area considered for allocation is smaller than the entire area surveyed by Engain with no development proposed within the area referred to as the blue line area above.

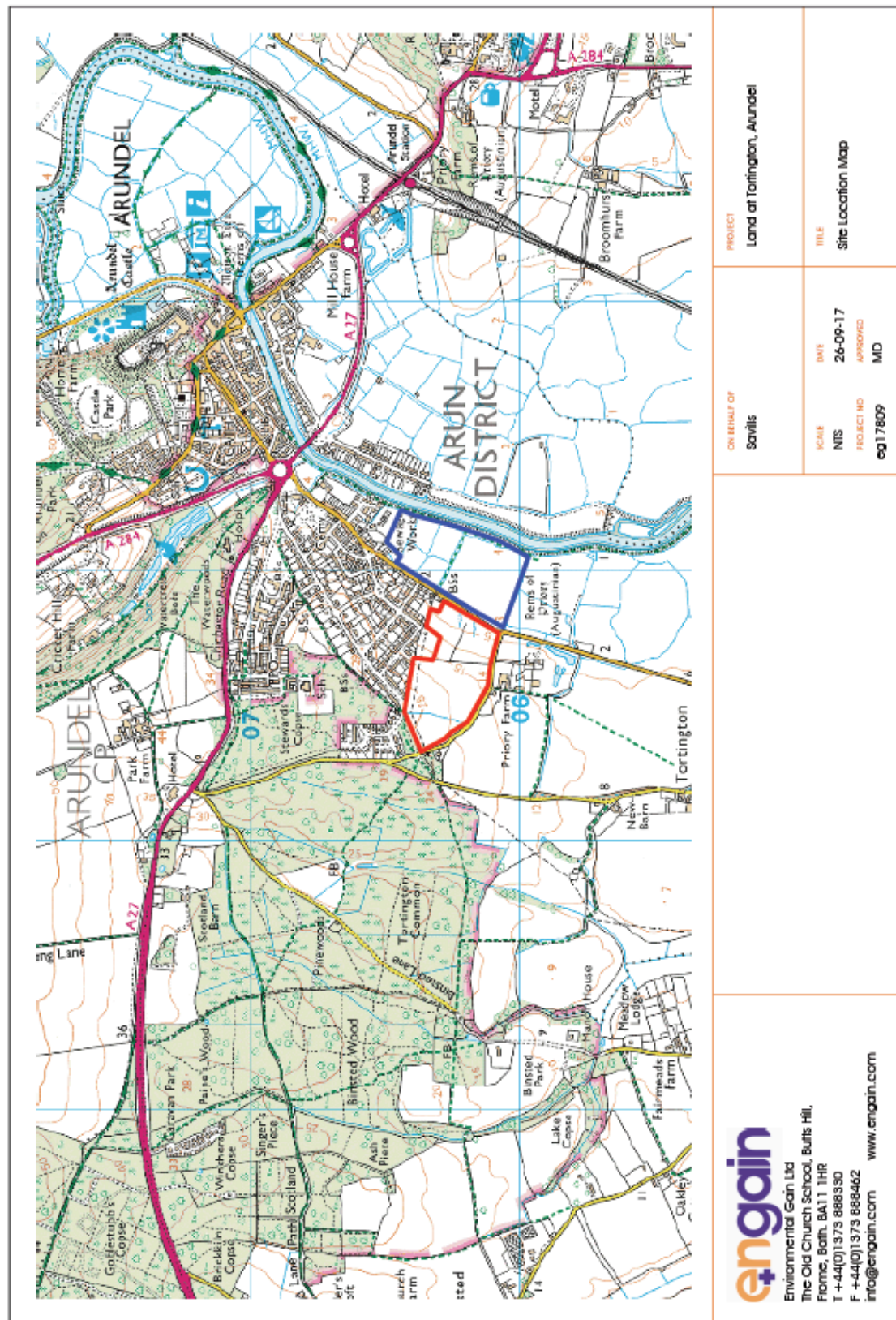


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Our Ref eg17809 002
Date 20/12/2018

Summary of Bewick's Swan Behaviour and Habitat Requirements

The main European wintering grounds for this species are in lowland areas of northern Europe, from Denmark, through the Low Countries to northern France, Britain and Ireland. In Britain, the species has a southerly distribution during the winter, with by far the largest concentrations in eastern England, especially the Nene and Ouse Washes. Smaller flocks occur in western England with relatively small numbers in Wales. This species shows a high level of winter site fidelity in the UK (Rees 1897). Furthermore movements between sites within a given winter are infrequent (Rees & Bacon 1996), although such movements can occur, especially in response to severe weather conditions.

With specific regard to this species behaviour during winter Bewick's swans winter on shallow freshwater lakes, marshes or slow-moving rivers near or adjacent to extensive grasslands liable to flooding (Rees *et al.* 1997b; Rees 1990). In recent decades this species has been recorded increasingly foraging on agricultural land, especially waste root crops, grain stubbles and winter cereals (MacMillan 1969; Merne 1972; Owen & Cadbury 1975; Rees *et al.* 1997b). In general, they feed by day and return to wetland areas to roost overnight. They are highly gregarious and often occur in flocks of several hundreds.

Assessment of the Site's Potential to be used by Bewick's Swan

With regard to the potential for the allocated site to provide over wintering foraging opportunities for Bewick's swans the following points as identified above are key:

- The site has only been classified as functionally linked habitat, not ideal overwinter foraging habitat;
- The site appears to only have been classified based on analysis of aerial photography; and
- No optimum overwinter foraging habitat was identified during Engain's previous site work.

Furthermore you have provided incidental observations from the farm manager who is currently responsible for the site who claims to have never observed Bewick's swans using the site over the last 20 years. Although not exhaustive evidence this is key information given this species preference to feed on only a small number of sites in large numbers.

Given the above points there is a case to be made that if the site does provide potential foraging opportunities for Bewick's swan, that it is currently not been utilised by this species. We consider that the only area within the proposed allocation area that provides potential foraging habitat for this species is the small area at the east of the site adjoining Ford Road. This area is recognised within Local Plan Policy ENV DM3 as a Biodiversity Opportunity Area. This policy provides protection for this area and as such it will be necessary at the detailed design stage to make provision for the retention and protection of this area.

Further survey work could be undertaken to definitively establish presence or absence of Bewick's swan onsite, however any survey works would only show a representative snap shot over a relatively short time period.



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Assessment of the Arundel Neighbourhood Plan Review 2018-2036 Pre-Submission Plan,
November 2018

This document contains Policy AR2 Housing Site Allocations which, states that development proposals will be supported provided that they provide a number of key requirements. An entire subsection is provided for Land Off Ford Road and point e appears to have been proposed to specifically address any potential loss of foraging habitat for foraging Bewick's swans. Stating that any application on this site will only be supported if:

A biodiversity strategy is prepared and approved by the local planning authority to incorporate measures that ensure no net loss of effective foraging and roosting habitat for the Bewick Swan population of the Arun Valley Special Protected Area in accordance with Local Plan Policy ENV DM1 and deliver a net gain in general biodiversity value, where possible on site.

If this policy is carried forward and implemented when a planning application is eventually brought forward then it is our view that this would adequately provide protection against the loss of any potential Bewick's swan foraging habitat as a result of the development of this site. This policy in tandem with Policy ENV DM3 of the Local Plan will ensure that any Bewick's swan foraging habitat present onsite is retained and enhanced where possible. It is our view that the existing Biodiversity Opportunity area can be incorporated into any future development scheme onsite and if necessary offsite land can be enhanced to mitigate any small losses.

Yours sincerely,

For and on behalf of Environmental Gain Ltd.



Matt Davies
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