

Information for Habitat Regulations Assessment of Updated Scheme

DREW SMITH

GROUP



Land to North of Summer Lane Pagham

December 2020 Rev. A

**LAND TO THE NORTH OF SUMMER LANE, PAGHAM
INFORMATION FOR HABITAT REGULATIONS ASSESSMENT
OF UPDATED SCHEME**

DECEMBER 2020

1.0	INTRODUCTION	1
1.1	Background	1
1.2	Amendments to the Permitted Scheme	2
1.3	Relevant Legislation and Policy	2
1.4	European Sites	4
1.5	Screening of Potential Adverse Effects	6
1.6	Structure of Report	6
2.0	RELEVANT LEGISLATION, GUIDANCE AND CASE LAW	5
2.1	European & National Legislation	5
2.2	Guidance & Case Law	6
2.3	Summary of the Habitat Regulation Process	7
3.0	BACKGROUND INFORMATION	8
3.1	Introduction	8
3.2	European Sites Adjacent to the Application Site	8
3.3	Background Information on the Site and In-combination Plans and Projects	9
3.4	Use of the Holiday Park Site by Leaseholders	19
4.0	SCREENING STAGE: LIKELY SIGNIFICANT EFFECTS	15
4.1	Introduction	15
4.2	Consideration of Pathways to Likely Significant Effect Alone or In-combination	15
5.0	APPROPRIATE ASSESSMENT ON SITE INTEGRITY	18
5.1	Introduction	18
5.2	Impact Assessment: Pathways	18
5.3	Impact Assessment: Avoidance & Mitigation Measures	19
5.4	European Sites Conservation Objectives	21
5.5	Delivery	23
6.0	RESIDUAL IMPACTS & CONCLUSIONS	23
7.0	REFERENCES	24

**LAND TO THE NORTH OF SUMMER LANE, PAGHAM
INFORMATION FOR HABITATS REGULATIONS ASSESSMENT
OF UPDATED SCHEME**

DECEMBER 2020

1.0 INTRODUCTION

1.1 Background

- 1.1.1 Aluco Ecology Ltd was commissioned by Drew Smith to provide information for a Habitat Regulations Assessment (including information for an Appropriate Assessment where necessary) for an updated scheme at Land to the North of Summer Lane, Pagham.
- 1.1.2 The Site has planning permission for 90 dwellings and associated open space, including an area of public open space south of Summer Lane. An updated Planning Application has been submitted to increase the density of the development from 90 dwellings to 105 dwellings. This report details the information necessary for the Competent Authority (Arun District Council) under the Habitat Regulations 2017 to undertake a Habitat Regulations Assessment of the updated scheme.
- 1.1.3 Natural England as the Statutory Consultee has responded to the updated Application (on 27 November 2020) with a request that the amended scheme is considered through the Habitat Regulations Assessment process given recent case law on the procedure and application of the Habitats Directive 92/43/EC. Notwithstanding this Natural England also made the comments to Arun District Council on the details of potential mitigation:

“Since this application will result in a net increase in residential accommodation, impacts to the coastal Special Protection Area(s) and Ramsar Site(s) may result from increased recreational disturbance. Your authority has measures in place to manage these potential impacts through the agreed strategic solution which we consider to be ecologically sound. Subject to the appropriate financial contribution being secured, Natural England is satisfied that the proposal will mitigate against the potential recreational impacts of the development on the site(s).”

1.2 Amendments to the Permitted Scheme

- 1.2.1 **Figures 1 & 2** shows the detailed Masterplan as approved (**Figure 1**) and with the location of changes to re-plan for an additional 15 units (**Figure 2**).
- 1.2.2 The additional 15 units will sit within the existing developed footprint of the western parcel and no additional green field space from the permitted scheme will be directly impacted. The existing planning permission includes reserved matters permission and is under construction.
- 1.2.3 The permitted scheme for 90 dwellings was subject to a Habitat Regulations Assessment as part of the planning process (see Ecology Solutions, 2015). As a result of this assessment a package of avoidance/mitigation measures were put in place to ensure that the development did not have a significant adverse effect on the integrity of the European Sites under consideration. This included additional open space provision (and associated measures), as well as contributions to the protection of the coastal designated sites at Pagham Harbour. This package was agreed through the planning process by the statutory consultees and Arun District Council.
- 1.2.4 The proposed update Application is not directly connected with or necessary to the management of any designated European Site.



Figure 1: Approved Detailed Site Layout (90 Units)



Figure 2: Amended Application Changes in Approved Layout (90 to 105 Units)

2.0 RELEVANT LEGISLATION, GUIDANCE AND CASE LAW

2.1 European & National Legislation

2.1.1 The Habitats Directive 1992/43/EC and Wild Birds Directive 1979/409/EEC were implemented by the European Union as a pan European initiative to commit Member States to designate and protect wildlife sites that fell within the criteria adopted, and that these sites would represent a network of the most important and representative wildlife areas in the European Union. The sites are known collectively as Natura 2000/Sites of Community Importance. Under the Wild Birds Directive Member States are required to designate Special Protection Areas (SPAs) for species of bird and their habitats considered of importance. Under the Habitats Directive Member States are required to designate Special Areas of Conservation (SAC) for all other species and habitats considered to be of importance. The Habitats Directive also outlines provisions in Section 6.3-6.4 on the protection of these sites (and SPAs) from Plans and Projects by Member States.

2.1.2 In the UK, these Directives are implemented into national legislation through the Conservation of Habitats & Species Regulations 2017 (the 'Habitat Regulations') and the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended). This sets out the tests that a plan or project should go through in order to ascertain whether it would have a material impact on the designated features of a European Site. By policy the UK Government also considers sites designated under the International Convention on the Protection of Wetlands Especially as Waterfowl Habitat (the Ramsar Convention, 1971) should be protected by this procedure. In this document 'European Site' is used to refer to potential and designated SPA/SAC/marine SACs and Ramsar sites collectively (updated National Planning Policy Framework, 2019).

2.1.3 The relevant tests for Plans and Projects are set out in **Regulation 63** onwards of the Habitat Regulations. Regulation 63 states that:

“(1) 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 of the plan or project for that site in view of that site's conservation objectives.

(2) A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required....”

2.1.4 With regard to a Planning Application the Competent Authority would be the Local Planning Authority, in this case Arun District Council. The Competent Authority is required to consider the potential for impacts and adverse effects on any European Site prior to granting permission for the project to proceed.

2.2 Guidance & Case Law

2.2.1 A large body of guidance has been considered in undertaking the following assessments in this report. This includes the following UK and European guidance:

- The National Planning Policy Framework (Revised 2019) provides guidance on implementation of the tests within Regulation 63 onwards of the Habitat Regulations;
- Circular 06/05 and Guidance from the Ministry of Housing, Communities & Local Government published on the 22 July 2019 (Gov.UK, 2019) provides further Government advice on implementation of the tests;
- PINS NOTE 05/2018 provides advice from the Planning Inspectorate on the implications of the People over Wind, *Peter Sweetman v Coillte Teoranta* case (Planning Inspectorate, 2018);
- Managing Natura 2000 (European Commission, 2018) provides technical advice on the principles within 6.3 & 6.4 of the Habitats Directive;
- Communication for the Commission on the Precautionary Principle (European Commission, 2017) provides guidance on the use of the Precautionary Principle in European Union law;

2.2.2 The process of Habitat Regulations Assessment has been considered by the UK courts and the European Court of Justice (ECJ). The following cases are of most relevance when undertaking a Habitat Regulations Assessment:

- Case C-127/02 of the ECJ – The “Waddenzee” Judgement (2002). This case considered the trigger for Appropriate Assessment and that it should be determined on a precautionary basis using objective scientific information;
- Hart DC v Secretary of State for Communities and Local Government (2008) – The “Dilly Lane” Judgement of the UK High Court. Where avoidance and mitigation measures were put forward as integral parts of a plan/project, that were deliverable, and secured those measures could be considered at the ‘Likely Significant Effects’ screening stage of the HRA;
- Case C-323/17 of the ECJ – The “People Over Wind” Judgement (2017). Here the ECJ concluded, contrary to previous guidance (for example from the High Court at Dilly Lane), that it was not appropriate to take account of avoidance and mitigation measures at the ‘Likely Significant Effects’ screening stage of the HRA;
- Case C-461/17 of the ECJ – The “Holohan” Ruling. This case considers that non listed habitats/species should be considered in an Appropriate Assessment if they are necessary to the conservation of the listed habitats/species.

2.2.3 The UK is no longer part of the European Union. However guidance from the UK Government continues to follow the protocols set out by the ECJ and as a precaution, the assessments in this report consider all relevant case law as well as UK Government guidance.

2.3 Summary of the Habitat Regulations Process

2.3.1 The process set out below will be followed by this assessment:

Stage 1: Evidence Gathering: At this stage relevant information on European Sites, their conservation objectives, and consideration of other plans and projects for the ‘in-combination’ element of the assessment.

Stage 2: Screening for Likely Significant Effects: This stage considers whether a plan or project is likely to have a significant effect on a European Site either alone or in-combination with other plans and projects. The UK Government (Gov.UK, 2019) advises that ‘features that are integral to the design or physical characteristics of the project that is being assessed, for example, the layout, timing and location of a scheme, may be considered at the screening stage.’

Stage 3: Appropriate Assessment: At this stage the assessment will consider the effect on the integrity of the European Site of the effects of the plan or project on the European Site’s Conservation Objectives. This assessment is undertaken for all sites ‘screened in’ during the stage 2 screening process above. At this stage mitigation measures and alternatives should be fully considered.

Where a conclusion to the assessment is that there is an adverse effect on the integrity of a European Site, and there are no alternatives, then a plan or project can only proceed following further assessment under Regulation 64 of the Habitats Regulations taking into account imperative reasons of over-riding public interest.

2.3.2 The remainder of the report considers the stages above for the updated scheme at Land to the North of Summer Lane, Pagham.

3.0 BACKGROUND INFORMATION

3.1 Introduction

- 3.1.1 The section sets out further background information considered in the Likely Significant Effect and Appropriate Assessment stages of the HRA.

3.2 Information on European Sites Considered at the Screening Stage

- 3.2.1 **Table 1** below details the European Sites within 20km of the Application site. This includes links to the Standard Data Forms and/or citations for these sites, which provides details on why the sites are designated. It also provides links to the sites Conservation Objectives, which are important in determining effects from plans or projects on European Sites through the HRA process.

Table 1: European Sites within 20km

European Site	Distance from Project (closest points)	Links to European Site Conservation Objectives used in the HRA
Pagham Harbour SPA , Ramsar	880m	Conservation Objectives 2019
Solent and Dorset Coast SPA (pSPA Consultation)	1.06km	Conservation Objectives 2020
Chichester & Langstone Harbours SPA , Ramsar & Solent Maritime SAC	6.70km	Chichester & Langstone Harbour SPA Conservation Objectives 2019 ; Solent Maritime Conservation Objectives 2018
Kingley Vale SAC	13.06km	Conservation Objectives 2018/19
Singleton & Cocking Tunnels SAC	15.42km	Conservation Objectives 2018/19
Duncton to Bignor Escarpment SAC	16.84km	Conservation Objectives 2018/19
South Wight Maritime SAC	19.37km	Conservation Objectives 2018
Arun Valley SPA , Ramsar , SAC	19.78km	Conservation Objectives: SPA 2019 , SAC 2018

Nb. The hyperlinks in the table above are available via www.jncc.gov.uk for Standard Data Forms/citations and www.publications.naturalengland.org.uk for Conservation Objectives

- 3.2.2 A summary of threats and pressures to the above European Sites is provided in **Table 2** below. This has been based on the Conservation Objectives and associated documentation such as Site Improvement Plans.

Table 2: European Sites Summary of Threats & Pressures

European Site(s)	Threat & Pressures
Coastal Designated sites (Pagham Harbour, Chichester & Langstone Harbour, Solent & Dorset Coasts, Solent Maritime, South Wight Maritime)	• Public access & disturbance • Fisheries: Commercial marine and estuarine • Water pollution and hydrological changes • Changes in species distributions and non-native species risk • loss or impacts on supporting habitat to Annex 1 bird species • Climate change • Changes to site conditions including physical modification, or land management. • Air pollution: Risk of atmospheric nitrogen deposition • Extraction: Non-living resources, resource use • Fisheries: commercial activities and recreational activities
Designated Annex 1 habitats and rare Bat European Sites at Kingley Vale, Singleton & Cocking Tunnels, Duncton to Bignor Escarpment, Arun Valley and Arun Valley SPA.	• Inappropriate water levels, management of watercourses, and water pollution • Habitat connectivity • Habitat fragmentation • Public access / disturbance • Air pollution: Risk of atmospheric nitrogen deposition

3.3 Background Information on the Site and In-combination Plans and Projects

HRA for Land North of Summer Lane Approved Scheme 90 Units

- 3.3.1 The development with planning permission at Land North of Summer Lane was subject to a Habitat Regulations Assessment (Ecology Solutions, 2015). This considered the 90 unit scheme and provided a Likely Significant Effects assessment taking into account avoidance measures through open space provision at the site, as well as a contribution to emerging coastal mitigation projects at Pagham Harbour. This was undertaken having regard to emerging Local Plan guidance and through consultation on measures likely to be required to ensure that development proposals do not have a significant adverse effect on European Sites.
- 3.3.2 The existing HRA submitted for the approved scheme screened out impacts on all European Sites apart from Pagham Harbour SPA and Ramsar sites (Ecology Solutions, 2015). It also considered which impacts should be assessed in this case through the HRA process. These were (Ecology Solutions, 2015 at Section 5.7.3):

“Potential pathways for significant effects are considered to be limited to the following:

- *Disturbance effects (dog walking, walking);*
- *Hydrological impacts;*
- *Loss of supporting habitat for qualifying bird interest features of the SPA/Ramsar site, or disturbance to such species using supporting habitat.”*

- 3.3.3 Mitigation/Avoidance measures were outlined, taking a precautionary stance, and involved two key elements summarised below (based on information in Ecology Solutions, 2015 at Section 6.6):

(1) ‘on site’ provision for recreation activities including dog walking. This details the open space provision on site including open space within the development and associated Sustainable Urban Drainage Scheme (SUDS) area 0.95ha, and open space provision immediately south of Lane on the southern edge of the development area of 1.62ha. This is larger than the Local Authority commitments of 0.85ha of open space. As part of this further commitments were made relating to provision of over 1km walk possible on footpaths around the development, design of open space to include informal areas and dog walking opportunities, suitable funded management and option for the Parish Council to be gifted the area south of Summer Lane, signage to the open spaces and interpretation at the entrance highlighting footpaths and walks possible, and an information pack on sensitivities to the SPA/Ramsar site to all new residents of the development.

(2) financial contributions to a package of measures aimed at alleviating existing and future pressures from visitor numbers at the SPA/Ramsar itself. The report recommended a contribution likely to be between £800-£900 per unit to contribute towards coastal mitigation including provision of a part time year round warden, signage, education and interpretation, and monitoring of effectiveness.

3.3.4 After considering ‘in-combination’ effects the HRA concluded (at Section 6.26)

“...that in light of the avoidance and mitigation measures which form an integral part of the application, Ecology Solutions conclude that the proposals would not be likely to give rise to a significant effect on the SPA/Ramsar site when the Development Proposals are considered either alone or in combination with other plans or projects.”

Arun District Council Local Plan 2011-2031

3.3.5 The Arun District Local Plan (2011-2031 adopted July 2018) provides a specific policies (ENV DM1 & DM2) on European Sites. This policy is based on legislation outlined above and evidence gathered during the plan process including a Habitat Regulations Assessment, with Appropriate Assessment of the Local Plan (see UEEC, 2017 & 2017a).

3.3.6 ENV DM2 of the Local Plan sets out mitigation and avoidance measures principles for development at Pagham Harbour. It is reproduced below:

Policy ENV DM2

Pagham Harbour

- a. Within Zone A (0-400m from the boundary) as identified on the Policies Maps, development will only be permitted in exceptional circumstances where the developer is able to demonstrate there will be no detrimental effects on Pagham Harbour, including non-native species and the water environment. Regard shall also be had to tests 1-4 as set out in Policy DM1 (Designated Sites of Biodiversity or Geological Importance).
- b. Within Zone B (0-5km) for all new residential development and development which is likely to have an impact on Pagham Harbour will be required to:
 - i. Make developer contributions towards the agreed strategic approach to access management at Pagham Harbour.
 - ii. create easily accessible new green spaces for recreation within or adjacent to the development site. These shall be capable of accommodating the predicted increases in demand for local walking, including dog walking. Good pedestrian links shall be provided between housing areas and new and existing green space in order to discourage car use.
- c. Major developments (as defined in the GDPO 1995 as amended⁽⁶¹⁾) taking place outside Zone B and close to its boundary will be considered on a case by case basis to determine any potential effects on Pagham Harbour, and the need for any avoidance or mitigation measures.

Box 1: Arun District Council Local Plan Policy on Pagham Harbour (Arun Local Plan 2011-2031 at Chapter 17 Natural Environment)

- 3.3.7 The HRA Appropriate Assessment (UEEC, 2017 & 2017a) considers the proposals for at least 20,000 new homes and other associated development proposed through the plan period, and potential for impacts on the European Sites within and adjacent to Arun District. Key strategic development within the District that is most relevant to Pagham Harbour sites are S1: Pagham South with an allocation of 400 dwellings, S2: Pagham North with an allocation of 800 dwellings and S3: West of Bersted with an allocation of 2500 dwellings. Other development was also taken into account (for example numbers for Pagham were given as 100, Aldwick 30, Bognor Regis 300, Bersted 50) and the total development was considered to equate to 4205 dwellings within 5km of Pagham Harbour.
- 3.3.8 As part of the assessment process the Arun Local Plan HRA process screened in the two groups of European Sites; the Arun Valley SPA and Ramsar, and Pagham Harbour SPA/Ramsar (and adjacent marine component of Solent and Dorset Coast SPA). It went on to consider potential pathways for impacts to the European Sites and address those impacts, considering mitigation and avoidance measures. The following impact pathways were identified:

- Disturbance;
- Invasive non-native species;
- Impact on supporting habitats;
- Water Resources and Abstraction;
- Water Pollution;

3.3.9 The conclusions of the Appropriate Assessment of the policies in the Local Plan were (UEEC, 2017 at para 8.1.2):

“In summary, the assessment of the ALP (Proposed Modifications) finds that:

- ▶ Taking account of incorporated mitigation measures, it can be concluded that there will be no adverse effect on the integrity of Pagham Harbour SPA/Ramsar or Solent and Dorset Coast pSPA as a result of disturbance, either alone or in combination with other plans and projects;*
- ▶ Taking account of incorporated mitigation measures, it can be concluded that there will be no adverse effect on the integrity of Pagham Harbour SPA/Ramsar as a result of invasive non-native species, either alone or in combination with other plans and projects;*
- ▶ Taking account of incorporated mitigation measures, it can be concluded that there will be no adverse effect on the integrity of Arun Valley SPA/Ramsar or Pagham Harbour SPA/Ramsar as a result of impacts on supporting habitats, either alone or in combination with other plans and projects;*
- ▶ It can be concluded that there will be no adverse effect on the integrity of Pagham Harbour SPA/Ramsar as a result of water abstraction, either alone or in combination with other plans and projects;*
- ▶ Taking account of incorporated mitigation measures, it can be concluded that there will be no adverse effect on the integrity of Pagham Harbour SPA/Ramsar as a result of water pollution, either alone or in combination with other plans and projects; and*
- ▶ It can be concluded that there will be no adverse effect on the integrity of Pagham Harbour SPA/Ramsar or Solent and Dorset Coast pSPA as a result of land-take, noise, vibration and shortened view lines, either alone or in combination with other plans and projects. “*

3.3.10 This conclusion was reached by taking into account mitigation and avoidance measures developed with consultees and using the evidence base on the impact pathways. This included provision of Policy ENV DM2 (see **Box 1**) that details the requirements for mitigation from residential development impacts on the coastal European Sites. The contributions to the coastal package of measures was discussed as being an equivalent Strategic Access Management and Monitoring (SAMM) Package and a framework and tariff based system for collecting contributions to the SAMM package was to be set up. At the time of the publication of the report the Tariff was set at £1275 per net additional dwelling but that this may be reduced following modifications to the Local Plan with additional development within 5km of the European Sites.

3.3.11 Water pollution and water demand was also considered through the HRA. Water demand was considered to not have a likely significant effect from planned growth in the District (having reference to Portsmouth Water’s Water Resource Management Plan HRA and Southern Water’s WRMP). With regards to water pollution, the HRA considered however that it was

not possible to rule out a Likely Significant Effect in-combination as result of additional 779 dwellings during the plan period connecting to the Pagham Waste-water Treatment Works (WwTW). However, with commitments from Southern Water and developers through planning applications, measures can be put in place to ensure capacity is retained in the WwTW network (Pagham or alternative WwTW), and this can be achieved through investment works in the system and transfer to alternative WwTW where the available headroom at Pagham WwTW is likely to be exceeded by new development in the catchment. Such counteracting measures were devised in consultation with Natural England, and the HRA concluded that they are likely to be effective in cancelling out the impact on the integrity of Pagham Harbour European Sites.

- 3.3.12 Invasive non-native species impacts was also assessed through the HRA, with no adverse impacts on the integrity of the European Sites at Pagham Harbour noted on account of policies that restrict development at 400m or closer to the European Sites (see **Box 1** Policy ENV DM2).

Land to the South of Summer Lane ‘South Pagham’

- 3.3.13 Policy SD1: South Pagham for strategic development of at least 400 dwellings has been subject to an Outline Planning Application, and permission was granted by Arun District Council in 2018. This development Application provided a package of measures to address Policy ENV DM2 of the Local Plan and address impacts on the European Sites. It also provided information for a HRA (Ecology Solutions, 2018). Arun District Council also carried out its own HRA for the scheme (EPR, 2018).
- 3.3.14 Following consultation a package of mitigation measures were outlined as part of the Application, which included the two stage mitigation measures outlined in ENV DM2 for ‘on site’ provision of recreational opportunities (c5.36ha of open space and 0.74ha of formal sports provision = 5.2ha of informal recreational activities of which 3.92ha will be semi-natural green space) and off site contributions to a SAMM package. The HRAs also considered the potential impact from the Application Site providing supporting habitat to Dark-bellied Brent Goose *Branta bernicula* and as a precautionary approach a further package of Brent Goose supporting habitat mitigation and a Brent Goose Mitigation Plan was set out. This included 18.5ha of farmland closer to the European Sites where measures will be implemented to include a reduction in bird scaring measures, and of which 5ha will be permanent habitat managed for Brent Geese (Ecology Solutions, 2018 & EPR, 2018). The package of measures was agreed by Natural England and Outline Planning Consent was granted in 2018.
- 3.3.15 Consideration of water quality and potential for impacts to the foul sewerage network at Pagham Waste Treatment Works concluded that appropriate phasing will ensure that capacity of the network is not exceeded and therefore there will be no adverse effect (EPR, 2018).

Chichester District Council Local Plan 2014-2029

- 3.3.16 Parts of Chichester District lie within 5km of Pagham Harbour European Sites. The Chichester Local Plan provides for an increase in development of 450 dwellings within 3.5km of the European Sites (3.5km is used instead of 5km on the basis of survey data evidence). A HRA of the Chichester Local Plan Review has been carried out (AECOM, 2018). This reviewed Local Plan policy from the evidence base and Policy DM30 is relevant to Pagham Harbour. Within the 3.5km zone projects will be assessed under Regulation 63 of the Habitat Regulations and where necessary appropriate avoidance and/or mitigation measures will be required to ensure development does not adversely affect the integrity of the European Sites. Appropriate avoidance and mitigation measures are (at Section 6.34 & 6.35 of AECOM, 2018):

“...a) a contribution towards the appropriate management of the Pagham Harbour Local Nature Reserve in accordance with the LNR Management Plan;

b) a developer provided package of measures associated with the proposed development designed to avoid any significant effect on the SPA; or

c) a combination of measures in (a) and (b) above.

....Furthermore, the policy states that appropriate mitigation must be agreed with Natural England and also be in place prior to the proposed development taking place.”

- 3.3.17 Other impact pathways were considered including coastal squeeze, atmospheric pollution, water quality (including nutrient loads) and loss of functionally linked supporting habitat for birds. The conclusions of the HRA are that with appropriate measures in Local Plan policy amendments where necessary, the Plan can mitigate or avoid any impacts from these pathways.

Other In-combination Considerations

- 3.3.18 Local Authorities across the Solent area have made commitments in planning policy to support the principles of Solent Disturbance and Mitigation Project (see www.solentems.org.uk). This includes the Solent Waders and Brent Goose Strategy (<https://solentwbgs.wordpress.com/>). The Solent & Dorset Coasts SPA extends to Purbeck Local Authority area, and Dorset Council and the relevant Local Authorities are in the process of updating Local & Neighbourhood Plans. These Plans have existing HRA assessments in place (see www.dorsetcouncil.gov.uk), and update planning policy will be developed in consultation with Statutory Consultees, to continue to ensure that measures protecting the coastal European Sites are included.

4.0 SCREENING STAGE: LIKELY SIGNIFICANT EFFECTS

4.1 Introduction

4.1.1 The assessment of Likely Significant Effects alone or in-combination considers the whether the amendment to opening time proposals are likely to have a significant effect on the features of the European & Ramsar Sites and their conservation objectives. This assessment stage is a screening stage to allow detailed consideration of effects on the integrity of European Sites at the Appropriate Assessment stage for all European Sites and pathways to potential impact 'screened in' by the assessment.

4.1.2 The screening process considers the legislation and background information outlined in the previous sections to provide a Likely Significant Effect assessment for all relevant European Sites.

4.2 Consideration of Pathways to Likely Significant Effect Alone or In-combination

4.2.1 The following pathways set out below and in **Table 3** below have been considered in the assessment process. This is based on the threats and pressures (summarised in **Table 2** above) and Conservation Objectives for the European Sites (linked in **Table 1** above). It also takes into account the scheme proposals and site characteristics.

4.2.2 At the screening stage, and considering the background information and evidence base, a number of the European Sites within 20km and those further than 20km of the development can be excluded at the screening stage on the basis that they are of sufficient distance away from the proposed development Site to create impact pathways. These are set out in **Table 3** and considered screened out of the process. This is consistent with the original HRA assessment for the scheme (Ecology Solutions, 2015), the Arun District Council HRA assessment (UE Environmental Consulting, 2017, 2017a) and the Chichester District Council HRA assessment (AECOM, 2018), and on the basis that there have been no material changes in baseline information to alter this conclusion, they are still considered valid in screening out certain European Sites and pathways.

4.2.3 In terms of screened in/out pathways for impacts relating to the coastal European Sites, this is based on the following evidence:

4.2.4 **(1) Loss of Habitat** – there will be no direct land take of European Site habitat.

4.2.5 **(2) Disturbance** – visitor survey work that has been analysed in HRAs for Arun District and Chichester District Local Plans and general research on impacts of urbanisation including disturbance through the Solent Disturbance and Mitigation Project (see www.solentems.org.uk) shows that increasing housing within certain distances to European Sites is likely to have a significant effect on the SPA when these increases are considered in-combination. The update scheme at Land to the North of Summer Lane will see an increase in density of development by 15 dwellings, therefore there is a corresponding in-combination effect potential for new residents to visit the European Sites at Pagham Harbour and

contribute to disturbance impacts and further assessment is required at the Appropriate Assessment stage.

- 4.2.6 **(3) Supporting Habitat Impacts** – The original HRA for the site, that was agreed by Natural England as the statutory consultee and Arun District Council, considered the potential for impacts of on supporting habitat for designated features (primarily Brent Geese). The conclusions of the HRA report stated: *“The Development Proposals do not include any land which could be classed as important supporting habitat for the SPA/Ramsar site ...the Development Proposals would not be likely to adversely affect the continued use of habitat both within and outside the SSSI/SPA/Ramsar site by Dark-bellied Brent Geese. By way of summary conclusion, it is considered that the Development proposals would not be likely to result in a significant adverse effect on Dark Bellied Brent Geese (or any other qualifying features) through impacts on supporting habitat.”* (Ecology Solutions, 2015 at paras 5.7.42-44). There has been no additional data noted since this assessment that alters the assessment and conclusions from the original HRA assessment (see data from UEEC, 2017; EPR, 2018).
- 4.2.7 **(4) Water Quality** –The concern for the proposed update scheme is whether the additional 15 units will result in capacity issues at the Pagham Waste-water Treatment Works (WwTW). HRA assessments for Arun District and Chichester District have both considered the potential for impacts on hydrology on the European Sites. In the screening conclusion for the Arun HRA, potential for in-combination impacts on capacity issues at Pagham WwTW was flagged (UEEC, 2017). On this basis further assessment of capacity of Pagham WwTW should be considered at the Appropriate Assessment stage. With regard to potential changes in surface water run off and the increases in impermeable area from the additional 15 units, the update scheme maintains the proposed flow restriction rate as the Approved 90 unit scheme, so that there is no net increase in discharge rates to the approved scheme; in addition, the Sustainable Urban Drainage Strategy (SUDS) remains as approved, and is a distance from the European Sites; so there is no likely significant effect in relation to surface water.
- 4.2.8 **(5) Air pollution** – The potential for indirect impacts from an increase in 15 units on site has been considered in-combination with other development proposals around the SPA and having regard to the Arun and Chichester District’s HRAs for Local Plans the levels of nitrogen deposition on the European Sites are below the most stringent critical loads. Both Local Plan HRAs do not find Likely Significant Effects of the plan period in-combination impacts from development proposals. There is no likely significant effect predicted.
- 4.2.9 **(6) Coastal Squeeze** – The updated scheme does not provide any impacts within 400m of the SPA and is at its closest point around 800m from the European Sites. Therefore no coastal squeeze impacts such as rising sea levels are predicted. Development in both District Councils preserves the 400m principle for no development that could impact the European Sites. There is no likely significant effect predicted.
- 4.2.10 **(7) Invasive non-native species** – Given the updated scheme is outside of the 400m zone, no impact is considered likely on the European Sites, and no likely significant effect alone or in-combination.

Table 3: Likely Significant Effects Alone and In-combination Summary

European Site	Pathway	Likely Significant Effect?	
		Alone	In-combination
Pagham Harbour SPA/Ramsar	1) Loss of Habitat	1) No	1) No
	2) Disturbance	2) No	2) Yes
	3) Supporting Habitat Impacts	3) No	3) No
Solent to Dorset Coasts SPA	4) Water Quality	4) No	4) Yes
	5) Air Pollution	5) No	5) No
	6) Coastal Squeeze	6) No	6) No
	7) Invasive Non-native Species	7) No	7) No
Chichester & Langstone Harbours SPA, Ramsar & Solent Maritime SAC	All pathways	No LSE alone or in-combination	
Kingley Vale SAC			
Singleton & Cocking Tunnels SAC			
Duncton to Bignor Escarpment SAC			
South Wight Maritime SAC			
Arun Valley SPA, Ramsar, SAC			

5.0 APPROPRIATE ASSESSMENT ON SITE INTEGRITY

5.1 Introduction

5.1.1 Where Likely Significant Effects are suggested by an assessment either alone or in-combination with other plans or projects, the Competent Authority has to undertake an Appropriate Assessment of the project. At this stage certain mitigation and avoidance measures can be taken into account. The assessment below provides information relevant to Arun District Council's Appropriate Assessment for the updated planning application for an increase in 15 units at Land to the North of Summer Lane, Pagham.

5.1.2 The screening assessment at Section 4 has determined that the proposed update planning application has potential to contribute to a likely significant effect in-combination with other plans & projects on the coastal European Sites (Pagham Harbour SPA/Ramsar and Solent and Dorset Coasts SPA). Two impact pathways have been identified:

- Disturbance impacts on the European Sites from an increase in residential development within 5km of Pagham Harbour;
- Water pollution impacts on the European Sites from potential capacity at the Pagham Waste-water Treatment Works (WwTW) and local network.

5.1.3 These impacts are detailed below and further assessment and mitigation/avoidance measures are outlined.

5.2 Impact Assessment: Pathways

Disturbance

5.2.1 A growing body of research has demonstrated that population growth and urbanisation adjacent to coastal European Sites can have significant adverse impacts on the integrity of these sites, particularly the cumulative effect of population increases across a district or local area leading to disturbance to features of the European Sites. For example, research within the Solent region through the Solent Disturbance and Mitigation Project (see www.solentems.org.uk) has provided quantified evidence of increasing impacts on the relevant European Sites at the Solent coastline.

5.2.2 This is particularly relevant to internationally important bird populations and disturbance through recreational activities around the coast line (for example; walking, dog walking, sailing, bait diggers). Impacts associated with disturbance leads to reduced feeding time and additional flights in birds and corresponding effects on survival rates.

5.2.3 The Arun Local Plan HRA and Chichester Local Plan review HRA has considered two recent visitor survey reports for Pagham Harbour in 2006 and 2012 (Atkins, 2007 & Cruickshanks & Lily, 2012) that were undertaken to understand potential disturbance impacts in the European Sites. Both were undertaken using agreed methodologies to establish distance travelled by visitors to the European Sites. The data was used to inform the Local Plan policy on Pagham Harbour (ENV DM2). The analysis that 62% of visitors travelled from within

5km, was used to set avoidance and mitigation zone around Pagham Harbour at this level. (Visitor survey data analysis and evaluation within the HRA for the Local Plan – UEEC, 2017, 2017a). Therefore, additional residential development within 5km of Pagham Harbour in the Arun District area is likely in-combination to have a significant disturbance effect on the European Sites. A similar exercise within Chichester District showed that a buffer zone of 3.5km should be considered for residential development in the District (AECOM, 2018).

- 5.2.4 With at least 4180 dwellings proposed within 5km of the Pagham European Sites in Arun District, and 450 dwellings within 3.5km in Chichester District, as well as any additional non-plan development potential, without mitigation there is likely to be corresponding increases in visitor numbers to the Pagham Harbour European Sites, with a corresponding disturbance impact likely to undermine the integrity of the sites. This was considered without avoidance or mitigation measures to be a high risk in the HRA for the Local Plan.

Water Pollution

- 5.2.5 Water pollution from toxic contamination (for example nitrates, phosphorus and other nutrients), sedimentation and erosion can have significant adverse impacts on estuarine habitats in the European Sites. Environment Agency data for Pagham Harbour under the Water Framework Directive is that the microalgae status for the harbour is borderline.
- 5.2.6 In relation to impacts from Pagham WwTW, increases in nitrogen load from post treatment discharge has potential to have adverse impacts where the system is overloaded from too much demand. The Arun District Local Plan HRA (UEEC, 2017 & 2017a) states that the potential for impact is likely to be a relatively minor impact on site integrity as the WwTW contributes around 6% of the total nitrogen load. Sidlesham Sewage Treatment Works contributes 19% and 50% is from offshore waters, with the remainder from riverine diffuse sources.

5.3 Impact Assessment: Avoidance & Mitigation Measures

Disturbance

- 5.3.1 Arun District Local Plan provides a policy ENV DM2 (see **Box 1** above), which sets out the mechanisms by which new development can avoid and mitigate adverse impacts on the coastal European sites at Pagham Harbour. This policy was being drafted whilst the approved scheme for 90 units was under consultation. As such, through consultation, mitigation for that scheme (as set out in the Ecology Solutions, 2015 report) considered the two-prong approach to avoidance/mitigation measures.
- 5.3.2 The first prong included provision of additional open space habitats on site, with informal open space, walking routes on footpaths of more than 1km. The following commitments were made (see Ecology Solutions, 2015):
- Open Space south of Summer Lane to the existing open space habitat at the Village Hall. This comprises 1.62ha, and is in addition to the SUDS open space around the approved development;

- The open space south of Summer Lane will be planted to have an open and natural feel and is subject to management prescriptions to maintain this;
- The open space is above that level required by the Local Authority (which was 0.85ha for the 90 unit scheme);
- A circular walk of 0.8ha on the open space south of Summer Lane and links provided to the open space forming the SUDS and boundaries to the development north of Summer Lane, allowing over 1km of walking routes;
- Gifting of open space south of Summer Lane to the Parish Council as part of the S106;
- Interpretation board sign posting open space attributes and walks at the entrance, as well as information on impacts to Pagham Harbour;
- An information pack to new residents on impacts at Pagham Harbour and new open space walks available locally that do not impact the European Sites;
- To make available the open space to new residents ahead of occupation.

5.3.2 As well as the open space provision on site, a commitment was made to an emerging Strategic Access Management and Monitoring (SAMM) Package to provide funding for projects including provision of a year round warden, signage and interpretation/education and monitoring of effectiveness. The HRA for the approved scheme suggested a financial contribution of around £800-£900 per dwelling. However the agreed cost in the S106 for the approved scheme is set at £1275 per dwelling, which is in line with the Council policy at the time.

5.3.3 The update scheme will see an increase in units to 105 (15 additional units). How this ties in in relation to the existing approved scheme can be seen in **Figures 2 & 3** above. The additional units will be provided by way of an increase in density on the western development parcel, so there will be no impact to the open spaces referred to in the approved Application HRA report (ie the SUDS open space and the open space south of Summer Lane).

5.3.4 The additional dwellings will result in an increase in requirement for open space provision by Arun District Council by 864.2m². The total requirement for 105 units is therefore 0.94ha. The Approved scheme with Reserved Matters Provision will provide a total of 2.34ha of open space (0.63ha around the SUDS and development area) and 1.72ha in the open space south of the site. The open space provision is therefore still greater than Arun District Council requirements for standard open space provision in new developments. This was considered key requirement to Natural England during correspondence to the original HRA for the approved scheme (Ecology Solutions, 2015 at para 6.6). In addition the open space is directly adjacent to existing semi-formal open space around the Village Hall that is c0.45ha.

5.3.5 Looking at likely occupancy population levels the 105 unit scheme will if taking the 2011 Census data for household sizes (2.18 people in the Arun District) result in an increase in population of c229 people. Taking Natural England SANGS modelling development from the Thames Basin Heaths where a metric of 8ha per 1000 people was considered suitable mitigation for open space provision, an additional 229 people will result in a requirement for 1.83ha of open space. This measure is not stated as a requirement for mitigation measures

around Pagham Harbour, but can be shown as a useful comparison of the level of open space the scheme is committing to.

- 5.3.6 On this basis the existing avoidance/mitigation of newly created open space proposed ‘on-site’ will be sufficient to ensure that there are no adverse effects on the integrity of the European Sites.
- 5.3.7 In addition to the open space provided around the scheme, the update Application will continue to be tied into avoidance/mitigation measure commitments from the approved scheme relating to the open space provision and management.
- 5.3.8 In-combination assessment has been considered across Arun District through the Local Plan HRA, but of particular relevance locally is strategic policy SD1 for South Pagham, where a development of at least 400 dwellings has been allocated. This development allocation has more recently been subject to an Outline Planning Application, with Planning Permission granted in 2018 for 400 units. The open space areas for the Land to the North of Summer Lane scheme is directly adjacent to the South Pagham site, and the South Pagham planning application contains commitments to open space, including informal open space (c5.36ha of open space and 0.74ha of formal sports provision = 5.2ha of informal recreational activities of which 3.92ha will be semi-natural green space). This open space links with the proposals for Land to the North of Summer Lane so that there is a comprehensive local network of new alternative open space habitats for recreation in this part of Pagham. Further details of this are summarised and linked in Section 3 above.
- 5.3.9 In terms of the second prong, the update scheme will see an increase in an additional 15 units on site. Where this is not mitigated through the Council’s policy ENV DM2 for impacts on Pagham Harbour European Sites, there is potential for an in-combination impact. However, this can be avoided/mitigated through commitment for the additional 15 dwellings to also contribute to the SAMMS package at the current agreed rates through the same measures as the approved scheme (S106). Where all relevant development within 5km of the European Sites (and also having regard to similar policies across Chichester, Solent and Dorset) is required to meet these contributions, there should be no in-combination impacts from the proposals.

Water Pollution

- 5.3.10 A memorandum of agreement between Southern Water (who have responsibility for waste water treatment in Arun District and who operate Pagham WwTW) and Arun District Council at the Local Plan examination in public determined that in-combination impacts from an increase in demand to the Pagham WwTW (and/or re-routing to other WwTW in the network) will be matched by a phased upgrading programme of the foul sewage network locally. This is to be delivered by Southern Water and phased development within the Plan period through Planning Conditions.
- 5.3.11 Confirmation Southern Water has the capacity to ensure no significant impacts on the European Sites is required, but significant impacts are unlikely given the number of additional units and Local Plan commitments in place. A suitably worded condition to ensure that the

additional units can only be connected to the foul network where Southern Water have the capacity to ensure no significant impacts on the European Sites from overloading of the scheme at Pagham WwTW, will provide committed avoidance/mitigation to ensure that the increase in units does not have an adverse impact on the integrity of the European Sites.

5.4 European Sites Conservation Objectives

5.4.1 The published conservation objectives for the European Sites at Pagham Harbour and Solent and Dorset Coasts SPA are:

“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*
- *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.”*

5.4.2 The qualifying features for Pagham Harbour are no-breeding: Dark-bellied Brent Goose, Ruff, breeding: Common Tern, Little Tern. The Solent and Dorset Coasts features are breeding: Sandwich Tern, Common Tern, Little Tern. The Ramsar qualifying features include Dark-bellied Brent Goose and Black-tailed Godwit as occurring at levels of international importance (and further waterfowl numbers recorded as being of notable at a national level). Links provided at **Table 1** above provide citations to the full range of habitats and features of all the European Sites that are considered in the assessment.

5.4.3 Having regard to the update scheme proposals, the potential impact pathways and review of existing avoidance/mitigation measures it is concluded that the update scheme proposal to increase site density by 15 units will not have an adverse effect on the integrity of the site having regard to the European Sites conservation objectives for qualifying features, as set out above and in Section 3 so long as the avoidance/mitigation measures set out are implemented. This assessment is considered in-combination with other development within Arun District, Chichester District and across the Solent to Dorset, where Local Plan policies are also subject to similar avoidance/mitigation measures in Local Plans to avoid and reduce the impacts on the European Sites. A summary is provided in **Table 4** below based on Natural England guidance.

Table 4: Summary of Natural England Checklist on Conservation Objectives

Has the Assessment shown:	Y/N
The area of annex I habitats (or habitats of qualifying features) will not be reduced?	Yes
There will be no direct effect on the population of the species for which the site was designated or classified?	Yes
There will be no indirect effects on the populations of species for which the site was designated or classified due to loss or degradation of their habitat (quantity/quality)?	Yes
There will be no changes to the composition of the habitats for which the site was designated (eg reduction in species structure, abundance or diversity that comprises the habitat over time)?	Yes
There will be no interruption or degradation of the physical, chemical or biological processes that support habitats and species for which the site was designated or classified?	Yes

5.5 Delivery

- 5.5.1 Delivery mechanisms are already set out through Local Plan Policy ENV DM2 on Pagham Harbour. The permitted scheme already contains relevant provisions in the planning permission and Section 106 document to ensure that the avoidance/mitigation package is implemented. The additional 15 units will require to make the necessary contribution to the Pagham SAMMS Package, and this can be added to the existing contribution. Avoidance of capacity issues at Pagham WwTW can be met through ensuring that suitable provision from Southern Water that the capacity exists prior connection and use of the sewage network by the additional units.

6.0 RESIDUAL IMPACTS & CONCLUSIONS

- 6.1 The information for a HRA of the update scheme at Land to the North of Summer Lane has considered the potential impact pathways on designated European Sites and provided information to undertake the tests set out in the Habitat Regulations. A Likely Significant Effect in-combination with other plans and projects was determined for two impact pathways on the coastal designated sites at Pagham Harbour SPA/Ramsar, including the marine element of the Solent and Dorset Coasts SPA. These pathways were disturbance impacts to European Site features, and potential impacts on water quality from foul sewage treatment and disposal.
- 6.2 Information for an Appropriate Assessment has provided further examination of the additional impact of another 15 dwellings and increase in density of the approved scheme at Land to the North of Summer Lane would have on the European Sites. This concluded that a set of avoidance/mitigation measures can be implemented in order to ensure that there would not be an adverse effect on the integrity of the European Sites, having regard to their conservation objectives and qualifying features.
- 6.3 The mechanisms for delivery of these measures are discussed in the Arun District Local Plan and commitment is made for relevant development within 5km of Pagham Harbour European Sites through policy ENV DM2. Adherence to this policy through provision of the above mentioned avoidance/mitigation (part is already approved through the existing scheme for 90 units) will ensure that there are no residual impacts on the European Sites and the proposals can be considered compliant with the Habitat Regulations.

7.0 REFERENCES

AECOM (2018) Habitat Regulations Assessment: Chichester Local Plan Review, Chichester District Council

Atkins (2007): Proposed Mixed-use Development on Land North of Bognor Regis: Potential Impact on Pagham Harbour

Cruickshanks, K & Lily, D (2012) Pagham Harbour Visitor Surveys

Ecology Solutions (2015) Land Off Summer Lane Pagham, Information to enable a Habitats Regulations Assessment of the impacts on the Pagham Harbour Ramsar/Special Protection Area pursuant to Regulation 61 of The Conservation of Habitats and Species Regulations 2010

Ecology Solutions (2018) Pagham South Updated Information to enable a Habitat Regulations Assessment of the impacts on the Pagham Harbour Ramsar/Special Protection Area [pursuant to Regulation 63 of The Conservation of Habitats and Species Regulations 2017]

EPR (2018) P/140/16/OUT – Land South of Summer Lane & West of Pagham Road, Pagham. Habitat Regulations Assessment Prepared on behalf of Arun District Council

European Commission (2017) Science for Environment Policy. The precautionary principle: decision-making under uncertainty

European Commission (2018) Managing Natura 2000 sites. The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC

Gov.UK (2019) Guidance: Appropriate assessment. Guidance on the use of Habitats Regulations Assessment (<https://www.gov.uk/guidance/appropriate-assessment>) Accessed Dec 2020

PINS NOTE 05/2018 (2018) Consideration of avoidance and reduction measures in Habitats Regulations Assessment: People over Wind, Peter Sweetman v Coillte Teoranta

Stillman et al (2012) ‘Solent Disturbance and Mitigation Project Phase II. Predicting the Impact of Disturbance on Overwintering Birds in the Solent’.

UEEC (2017) Habitats Regulations Assessment for the Arun Local Plan: Supplementary Work. Stage 3 Report: Appropriate Assessment

UEEC (2017a) Technical Note. HRA for the Arun Local Plan. Screening of final proposed modifications. December 2017

Report Author: Gareth Knass LLb (hons) MSc MCIEEM
Report Review: Anthony Blunden MSc CEnv MCIEEM