

# Habitats Regulations Assessment: Chichester District Council Local Plan Review – Issues and Evidence Base

Chichester District Council

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## Quality information

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## Introduction

### Background to the Project

AECOM has been appointed by Chichester District Council to assist in undertaking a Habitats Regulations Assessment (HRA) of the Local Plan Review, which is being undertaken to reflect new data and changing circumstances since preparation of the existing Local Plan 2014-2029, which was adopted in July 2015. As part of the Review, the Council intends to extend the Plan period to 2034. The objectives of the assessment are to:

- Identify any aspects of the Local Plan Review that would cause an adverse effect on the integrity of Natura 2000 sites, otherwise known as European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and, as a matter of Government policy, Ramsar sites), either in isolation or in combination with other plans and projects; and
- To advise on appropriate policy mechanisms for delivering mitigation where such effects were identified.

### Legislation

The need for Habitats Regulations Assessment is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by the Conservation of Habitats and Species Regulations 2010. The ultimate aim of the 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 to habitats and species, not the European sites themselves, although the sites have a significant role in delivering favourable conservation status.

The Habitats Directive applies the precautionary principle to European sites. 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. Plans and projects with predicted adverse impacts on European sites 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.

In order to ascertain whether or not site integrity will be affected, a Habitats Regulations Assessment should be undertaken of the plan or project in question:

#### Box 1: The legislative basis for Habitats Regulations Assessment

##### **Habitats Directive 1992**

Article 6 (3) states that:

*“Any plan or 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 2010 (as amended)**

The Regulations state 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 ... shall make an appropriate assessment of the implications for the site in view of that sites conservation objectives... The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site”.*

Over the years the phrase ‘Habitats Regulations Assessment’ has come into wide currency to describe the overall process set out in the Conservation of Habitats and Species Regulations from screening through to IROPI. This has arisen in order to distinguish the process from the individual stage described in the law as an ‘appropriate assessment’ (AA). Throughout this report we use the term Habitats Regulations Assessment for the overall process.

## Scope of the Project

The HRA will:

- review the work undertaken to date by the Council and update it as necessary;
- produce an ‘issues and evidence base’ document;
- produce a HRA report of Preferred Approach; and
- update the HRA for the Submission Local Plan Review and to take account of any changes to the Local Plan Review required following consultation.

Firstly, we have reviewed the existing work undertaken for the Council. This has involved refreshing the conclusions of the HRA of the adopted Local Plan and the basis for screening out of any potential effects on European sites at that time. This process has also identified updates or the need to investigate new information relating to pathways of impact that may occur, such as air quality, water resource availability and water quality effects on European sites.

There is no pre-defined guidance that dictates the physical scope of a HRA of a Local Plan. Therefore, in considering the physical scope of the assessment, we are guided primarily by the identified impact pathways rather than by arbitrary ‘zones’. Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites within the Local Plan area boundary; and
- Other sites shown to be linked to development within the boundary through a known ‘pathway’.

As the Adopted Local Plan has already been subject to HRA, the scope of the HRA of the Local Plan Review has utilised this as a starting point.

Briefly defined, pathways are routes by which a change in activity within the Local Plan area can lead to an effect upon a European site. In terms of the second category of European site listed above, guidance from the former Department of Communities and Local Government states that the HRA should be ‘*proportionate to the geographical scope of the [plan policy]*’ and that ‘*an AA need not be done in any more detail, or using more resources, than is useful for its purpose*’ (CLG, 2006, p.6). More recently, the Court of Appeal<sup>1</sup> ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be ‘*achieved in practice*’ to satisfy that the proposed development would have no adverse effect, then this would suffice. This ruling has since been applied to a planning permission (rather than a Local Plan document)<sup>2</sup>. 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 the Habitats Regulations*’.

The following European sites lie (at least partly) within Chichester District:

- Chichester and Langstone Harbours SPA and Ramsar sites;
- Pagham Harbour SPA and Ramsar sites; and
- Solent Maritime SAC.

The following European sites lie within Chichester District, but outside of the area covered by the Local Plan Review as they are within the South Downs National Park. Although the South Downs National Park has its own

<sup>1</sup> No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17<sup>th</sup> February 2015

<sup>2</sup> High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015

planning policies, these European sites are considered as there are pathways of impact that may link development within Chichester to these sites:

- Ebernoe Common SAC;
- The Mens SAC; and
- Duncton to Bignor Escarpment SAC.

The following European sites lie outside Chichester District but are considered as there are pathways of impact that may link development within Chichester to these sites:

- Woolmer Forest SAC/Wealden Heaths Phase 2 SPA (screened out at the time of the development of the adopted Local Plan in consultation with Natural England<sup>3</sup> on the basis that traffic on the A3 will be increased by less than 10% as a consequence of development proposed within the Chichester adopted Local Plan);

The following European sites lie outside of Chichester District and while subject to HRA screening at the time of the adopted Local Plan, were screened out at that stage, and are not considered likely to require screening as part of the Local Plan Review (as no new or heightened Pathways of Impact are considered relevant):

- Arun Valley SAC, SPA & Ramsar sites.

## HRA of Adopted Local Plan – Summary of Conclusions

Clearly, the HRA of the adopted Local Plan provides the starting point for the HRA of the Local Plan Review. The HRA of the adopted Local Plan assessed the following Pathways of Impact on European sites:

- Urbanisation, recreational pressure, reduced air quality, reduced water quality as a result of constraints to waste water treatment capacity, coastal squeeze and loss of supporting habitats on the Chichester and Langstone Harbours SPA and Ramsar sites and Solent Maritime SAC;
- Urbanisation, recreational pressure, coastal squeeze and loss of supporting habitats on the Pagham Harbour SPA and Ramsar sites;
- Reduced air quality and potential disruption to bat flight lines on Ebernoe Common SAC and The Mens SAC; and
- Reduced air quality on Duncton to Bignor Escarpment.

In all cases, the policy framework was found to be robust in leading to a conclusion of no likely significant effects of the adopted Local Plan on European sites.

The HRA of the subsequent Site Allocation DPD determined mitigation for the following Pathways of Impact relating to specific site allocations and related policies on European sites:

- Recreational pressure, and loss of supporting habitats on the Chichester and Langstone Harbours SPA and Ramsar sites;
- Recreational pressure on the Pagham Harbour SPA and Ramsar sites;
- Disruption of bat flight lines on Ebernoe Common SAC and The Mens SAC; and
- Recreational pressure on Woolmer Forest SAC/Wealden Heaths Phase 2 SPA.

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<sup>3</sup> Louise Bardsley as communicated to Chichester District Council. Although this was agreed in relation to South East Plan housing figures, the Council has set a housing target in line with the South East Plan and therefore this agreement will still apply.

## Pathways of Impact

### Introduction

In carrying out an HRA it is important to determine the various ways in which land use plans can impact on European sites by following the pathways along which development can be connected with European sites, in some cases many kilometres distant. Briefly defined, pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site.

### Urbanisation

This impact is closely related to recreational pressure, in that they both result from increased populations within close proximity to sensitive sites. Urbanisation is considered separately as the detail of the impacts is distinct from the trampling, disturbance and dog-fouling that results specifically from recreational activity. The list of urbanisation impacts can be extensive, but core impacts can be singled out:

- Increased fly-tipping - Rubbish tipping is unsightly but the principle adverse ecological effect of tipping is the introduction of invasive non-native species with garden waste. Non-native species can in some situations, lead to negative interactions with habitats or species for which European sites may be designated. Garden waste results in the introduction of invasive non-native species precisely because it is the 'troublesome and over-exuberant' garden plants that are typically thrown out<sup>4</sup>. Non-native species may also be introduced deliberately or may be bird-sown from local gardens.
- Cat predation - A survey performed in 1997 indicated that nine million British cats brought home 92 million prey items over a five-month period<sup>5</sup>. A large proportion of domestic cats are found in urban situations, and increasing urbanisation is likely to lead to increased cat predation. SPAs within Waverley Borough are partly designated for populations of Dartford warbler (*Sylvia undata*). A study in Dorset<sup>6</sup> has shown that 16% of fledglings were predated by cats within two to four weeks of leaving the nest. It has been shown that 60% of forays by cats are over a distance of less than 400m<sup>7</sup>, and that the mean distance of hunting excursions is 371m from home<sup>8</sup>.

#### Issues

In undertaking the HRA of the Local Plan Review, we will consider any policies that could lead to promotion of new development within close proximity to European sites. The relevant European sites are Chichester and Langstone Harbours SPA and Ramsar sites and Pagham Harbour SPA and Ramsar sites. The HRA will review existing Management Plans relating to these sites and recent outputs from PUSH.

### Recreational pressure and disturbance

Recreational use of a European site has the potential to:

- Prevent appropriate management or exacerbate existing management difficulties;
- Cause damage through erosion and fragmentation;
- Cause eutrophication as a result of dog fouling; and
- Cause disturbance to sensitive species, particularly ground-nesting birds and wintering wildfowl.

Concern regarding the effects of disturbance on birds stems from the fact that they are expending energy unnecessarily and the time they spend responding to disturbance is time that is not spent feeding<sup>9</sup>. Disturbance therefore risks increasing energetic output while reducing energetic input, which can adversely affect the 'condition' and ultimately survival of the birds. In addition, displacement of birds from one feeding site to others

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<sup>4</sup> Gilbert, O. & Bevan, D. 1997. The effect of urbanisation on ancient woodlands. *British Wildlife* 8: 213-218.

<sup>5</sup> Woods, M. et al. 2003. Predation of wildlife by domestic cats *Felis catus* in Great Britain. *Mammal Review* 33, 2 174-188

<sup>6</sup> Murison, G. (2007). The impact of human disturbance, urbanisation and habitat type on a Dartford warbler *Sylvia undata* population. PhD Thesis, University of East Anglia.

<sup>7</sup> Barratt, D.G. (1997). Home range size, habitat utilisation and movement patterns of suburban and farm cats *Felis catus*. *Ecography* 20 271-280.

<sup>8</sup> Turner, D.C. & Meister, O. (1988). Hunting behaviour of the domestic cat. In: *The Domestic Cat: The Biology of Its Behaviour*. Ed. Turner, D.C. and Bateson, P. Cambridge University Press.

<sup>9</sup> Riddington, R. et al. 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279

can increase the pressure on the resources available within the remaining sites, as they have to sustain a greater number of birds<sup>10</sup>.

The factors that influence a species response to a disturbance are numerous, but the three key factors are species sensitivity, proximity of disturbance sources and timing/duration of the potentially disturbing activity.

Chichester & Langstone Harbours SPA and Ramsar, and Pagham Harbour SPA and Ramsar lie within Chichester adopted Local Plan area. Medmerry Managed Realignment scheme (mitigation for habitat loss associated with the Solent European sites) is located in close proximity to Pagham Harbour SPA/ Ramsar site. Once habitats have become fully established, it is expected that the site will support features for which the site can be designated and incorporated into Pagham Harbour SPA/ Ramsar site. As such, the entire Pagham Harbour site, including the Medmerry extension will be subject to the same strategic level mitigation as afforded to the other Solent European sites (even though it is located geographically in close proximity to Pagham Harbour SPA/ Ramsar sites). There are also several SPA and Ramsar designations beyond the area covered by the Chichester adopted Local Plan that residents may choose to visit, both within the wider District and beyond. All are sensitive ecologically through disturbance to the species for which the SPAs and Ramsar sites are designated.

Chichester & Langstone Harbours SPA and Ramsar and Pagham Harbour SPA and Ramsar - Key Existing Policy Text Within the adopted Local Plan:

The following extracts of policy text in the adopted Local Plan provide key avoidance and mitigation approaches that enabled a conclusion of no likely significant effects during HRA of the adopted Local Plan.

- Policy 15 (West of Chichester Strategic Development Location):

*'Taking into account the site-specific requirements, proposals for the site should...be planned with special regard to the need to mitigate potential impacts of recreational disturbance on the Chichester Harbour SAC/SPA/Ramsar, including contributing to any strategic management issues'*

- Policy 20 (Southbourne Strategic Development):

*'Take a comprehensive approach to the provision and design of open space and green infrastructure, taking account of the needs of the parish, and with special regard to the need to mitigate potential impacts of recreational disturbance on the Chichester Harbour SAC/SPA/Ramsar'*

- Policy 23 (Selsey Strategic Development):

*'A comprehensive approach should be taken to the provision and design of open space and green infrastructure, taking account of the needs of the parish, and with special regard to the need to mitigate potential impacts of recreational disturbance on the Pagham Harbour SPA/Ramsar and the Medmerry Realignment'*

- Policy 24 (East Wittering & Bracklesham Strategic Development):

*'Take a comprehensive approach to the provision and design of open space and green infrastructure, taking account of the needs of the parish, and with special regard to the need to mitigate potential impacts of recreational disturbance on the Chichester Harbour SAC/SPA/Ramsar and the Medmerry Realignment'*

- Policy 30 (Built Tourist and Leisure Development):

Tourist facilities should be *'... located so as to minimise impact on the natural and historic environment, including that of visitors or users of the facility, particularly avoiding increasing recreational pressures on Chichester Harbour AONB and Pagham Harbour and other designated sites.'*

- Policy 50 (Development and Disturbance of Birds in Chichester and Langstone Harbours Special Protection Area):

*'It is Natural England's advice that all net increases in residential development within the 5.6km 'Zone of Influence' are likely to have a significant effect on the Chichester and Langstone Harbours SPA and will need to be subject to the provisions of regulation 61 of the Conservation of Habitats and Species Regulations 2010. In the absence of appropriate avoidance and/or mitigation measures that will enable the planning authority to ascertain that the development would not adversely affect the integrity of the SPA, planning permission will not be granted because the tests for derogations in regulation 62 are unlikely to be met. Furthermore, such development would not have the benefit of the presumption in favour of sustainable development in the National Planning Policy Framework. Net increases in residential development, which incorporates appropriate*

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<sup>10</sup> Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72

avoidance/mitigation measures, which would avoid any likelihood of a significant effect on the SPA, will not require an 'appropriate assessment'. Appropriate avoidance/mitigation measures will comprise:

- a) a contribution in accordance with the joint mitigation strategy outlined in Phase III of the Solent Disturbance and Mitigation Project; or
- 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.

– Policy 51 (Development and Disturbance of Birds in Pagham Harbour Special Protection Area):

*'Net increases in residential development within the 3.5km 'Zone of Influence' are likely to have a significant effect on Pagham Harbour SPA and will need to be subject to the provisions of Regulation 61 of the Conservation of Habitats and Species Regulations 2010. In the absence of appropriate avoidance and/or mitigation measures that will enable the planning authority to ascertain that the development would not adversely affect the integrity of the SPA, planning permission will not be granted because the tests for derogations in regulation 62 are unlikely to be met. Furthermore, such development would not have the benefit of the presumption in favour of sustainable development in the National Planning Policy Framework. Net increases in residential development, which incorporates appropriate avoidance/mitigation measures, which would avoid any likelihood of a significant effect. Appropriate avoidance/mitigation measures will comprise:*

- 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.

The supporting text for Policy 50 and Policy 51 states that:

*'For Chichester and Langstone Harbours SPA Natural England advise that a likely significant effect from all new housing around the Solent in combination cannot be ruled out and therefore new housing developments will need to provide for a package of avoidance and mitigation measures. In the medium to long term this is likely to be provided through a Solent-wide joint project to which developments will contribute through S106 agreements and /or CIL.*

*Until such time as that joint project is able to accept payment, the Council will not accept financial payments for avoidance and mitigation measures unless they are based on specific identified measures as set out in an S106 agreement and can demonstrate that it is going to be both effective and deliverable. Nor will it commit itself to providing or managing avoidance or mitigation proposals, although this may occur once a co-ordinated package of measures arising from the Solent Disturbance and Mitigation Project is agreed.*

*For Pagham Harbour SPA, an impact from recreational disturbance is also considered to be likely under the precautionary principle, given the similarity of the habitat to the Solent SPAs. At Pagham there is also the issue of potential disturbance in summer to ground nesting birds. Evidence from visitor surveys suggests that the majority of visitors to Pagham Harbour who are resident within Chichester District come from within 3.5km of the site. Within this 'zone of influence' net increase in residential development should provide for mitigation measures to avoid any impact or be subject to an 'appropriate assessment' under Regulation 61 of the Habitats Regulations 2010 to show that any impact (either alone or in-combination with other developments) is not significant.*

*For all net increases in residential development within the zones of influence, avoidance measures will be required. This may include access management of the harbours for example, increased wardening and the creation/enhancement of green infrastructure to improve local access in less sensitive areas and provide a similar quality experience to that found at the Harbours'*

#### Baseline Information

The Solent Forum undertook a project to examine bird disturbance and possible mitigation in the Solent area. A Phase I report has outlined the existing visitor data for the Solent, canvassed expert opinion on recreational impacts on birds, and assessed current available data on relevant species. Phase II of the Solent Disturbance

and Mitigation Project<sup>11</sup> identified that survival rates for curlew and a variety of other bird species were predicted to decrease under any increase in visitor rates.

Phase III of the Solent Disturbance and Mitigation Project<sup>12</sup> has assessed associated mitigation measures on the number of people visiting the Solent, and the associated impact on the survival rates of shorebirds. They consider that appropriate measures could include a delivery officer, wardening team and coastal dog project, followed by work on reviews and codes of conduct. A series of site specific and more local projects could then follow, to be phased with development.

The Solent Recreation Mitigation Partnership's Interim Solent Mitigation Strategy (December 2014)<sup>13</sup> has recommended several approaches to mitigate potential recreational impacts on the Solent European sites. The principles underpinning the mitigation are:

- managing the coast for the benefit of both wildlife and the public;
- all development which creates net additional dwellings within 5.6 kilometres of the Solent SPAs is likely to have a significant effect on the SPAs and requires mitigation;
- provision of that mitigation through the preparation of a long term strategy on a sub-regional basis;
- mitigation funding from developer contributions secured by partner local authorities;
- a phased approach to strategy implementation;
- ongoing monitoring and regular reviews of the strategy.

The interim measures to be implemented under these principles are:

- a team of rangers who will work on the ground to reduce disturbance by influencing the behaviour of visitors;
- initiatives to encourage responsible dog walking and encourage dog owners to go to less sensitive parts of the coast;
- a monitoring scheme to track the implementation of mitigation measures and to assess their effectiveness;
- a project officer who will coordinate and help implement the mitigation measures, undertake monitoring and prepare the definitive mitigation strategy;
- a financial contribution towards a pilot project to test the effectiveness of providing alternative recreation opportunities.

In assessing the Chichester Local Plan Review we will consider the mitigation approaches already developed and the ongoing work of the Solent Forum and advise on relevant mitigation approaches as required.

The Solent Recreation Mitigation Partnership does not cover Pagham Harbour SPA and Ramsar, but the HRA of the Local Plan Review will be informed by the existing Pagham Harbour Recreation Management Strategy (2013-2018)<sup>14</sup>.

### Issues

The Chichester Local Plan Review will extend the adopted Local Plan period by five years and will include additional housing delivery beyond the existing adopted Local Plan. At this stage, numbers and locations of new development cannot be confirmed, but it is understood that it is likely to include delivery of at least a further 3,500 new dwellings over the existing 7,388 that the adopted Local Plan committed to between 2012 and 2029.

Therefore the quantum and location of new development included within the Local Plan Review is considered likely to form the focus of the HRA process. The existing policy framework will be assessed against levels of growth and any baseline information or strategic approaches developed since the adoption of the Local Plan in order to determine whether any further mitigation is required to address issues of recreational pressure and disturbance on European sites.

It is possible that the Chichester Local Plan Review could allocate development within 5km of the Wealden Heaths Phase 2 SPA. Local Plans for other local authorities (for example the East Hampshire Joint Core Strategy), developed in agreement with Natural England have treated new housing developments within 5km of

<sup>11</sup> Stillman, R. A., West, A. D., Clarke, R. T. & Liley, D. (2012) Solent Disturbance and Mitigation Project Phase II: Predicting the impact of human disturbance on overwintering birds in the Solent. Report to the Solent Forum

<sup>12</sup> Liley, D. & Tyldesley, D. (2013). Solent Disturbance and Mitigation Project: Phase III. Towards an Avoidance and Mitigation Strategy. Unpublished report. Footprint Ecology/David Tyldesley & Associates

<sup>13</sup> <http://www.push.gov.uk/env-srmp-interim-mitigation-strategy.pdf>

<sup>14</sup> [https://www.rspb.org.uk/Images/pagham\\_harbour\\_management\\_plan\\_tcm9-358467.pdf](https://www.rspb.org.uk/Images/pagham_harbour_management_plan_tcm9-358467.pdf)

the SPA on a case-by-case basis in determining whether mitigation is required, with the decision as to the need for mitigation being based upon consideration of the scale of development and its proximity to the SPA.

The Local Plan Review HRA will take this approach into consideration.

## Loss of functionally linked land

European sites are designated on the basis of key habitats and species. The latter are often mobile beyond the designated site boundary and it is possible that development in the wider area may have an impact on the species populations for which the European sites are designated.

### Pagham Harbour SPA and Ramsar - Key Recommendations Within HRA of the adopted Local Plan

The following recommendation was made in undertaking the HRA of the adopted Local Plan.

Regarding loss of supporting habitats it was recommended that *“in development of the Site Allocation DPD or Neighbourhood Plan for Selsey and Sidlesham Parishes, the relevant council should consider whether potential sites conflict with any areas that constitute supporting habitat for the SPA/Ramsar site and identify requirements for subsequent planning applications to undertake supporting studies where necessary. If supporting habitat were to be lost to any development, then it would be necessary to determine (a) how significant it was (i.e. whether it was regularly used by more than 1% of the population of qualifying bird species and (b) to provide alternative habitat to replace it in an location that was reasonably close to the SPA/Ramsar site.”*

### Baseline

Chichester & Langstone Harbours SPA and Ramsar sites and Pagham Harbour SPA & Ramsar sites are notified partly for their over-wintering populations of Brent geese. However, studies<sup>15</sup> have identified that many feeding sites for this species around the Solent fall outside of the statutory nature conservation site boundaries. The majority of Brent goose feeding sites are amenity/recreation grasslands with little intrinsic nature conservation interest, and therefore are vulnerable to loss or damage from development. This also applies to some high tide wader roosts in the Solent.

At the time of the production of the adopted Local Plan, the Council added the Solent Waders and Brent Goose Strategy to the evidence base for both the Green Infrastructure Policy and for the Biodiversity policy and highlighted that individual Neighbourhood Plans will consider potential impacts on high-tide foraging/roosting habitat and set requirements for individual planning applications that seek to deliver their housing requirements once those sites are determined.

At present, Hampshire Wildlife Trust is understood to be in the process of updating their Brent goose and wader study. In the meantime, as the Local Plan Review progresses, we will assess policies in light of the existing strategy and the approaches taken by the Council to accord with it.

### Issues

The Chichester Local Plan Review will extend the adopted Local Plan period by five years and will include additional housing delivery beyond the existing adopted Local Plan. At this stage, numbers and locations of new development cannot be confirmed, but it is understood that it is likely to include delivery of at least a further 3,500 new dwellings over the existing 7,388 that the adopted Local Plan committed to between 2012 and 2029.

Therefore the quantum and location of new development included within the Local Plan Review is considered likely to form the focus of the HRA process. The existing policy framework will be assessed against levels of growth and any baseline information or strategic approaches developed since the adoption of the Local Plan in order to determine whether any further mitigation is required to address issues of loss of supporting habitats on European sites.

## Increased water demand

### Baseline

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<sup>15</sup> Solent Waders and Brent Goose Strategy. Solent Waders and Brent Goose Strategy Steering Group (2010).

Within the area covered by the Local Plan Review, Portsmouth Water supplies Chichester, East Wittering, Southbourne, Tangmere and Selsey via their Chichester and Bognor Regis resources zone. Portsmouth Water has confirmed that overall water demand is not increasing despite increased populations and they do not intend to apply for additional licences.

South East Water supplies the north of the district from their RZ5 resources zone. Under the company Water Resource Management Plan (2015-40) RZ5 supply will be maintained by leakage reduction and efficiency improvements, with a regional transfer scheme from Clanfield (Portsmouth Water) to Tilmore due to commence producing yields in 2040.

Ensuring an adequate future water supply is a matter for the water company in consultation with the Environment Agency and the Regulator. However, local authorities can play an important role through incorporating Local Plan policies that indicate how new development will need to maximise water efficiency measures and minimise demands on water resources.

In appraising the evolving Local Plan Review we will take account of increases in levels of development proposed and that there can be adequate confidence that this can be accommodated without likely significant effects on European sites.

### Issues

The Chichester Local Plan Review will extend the adopted Local Plan period by five years and will include additional housing delivery beyond the existing adopted Local Plan. At this stage, numbers and locations of new development cannot be confirmed, but it is understood that it is likely to include delivery of at least a further 3,500 new dwellings over the existing 7,388 that the adopted Local Plan committed to between 2012 and 2029.

Therefore the quantum and location of new development included within the Local Plan Review is considered likely to form the focus of the HRA process. The existing policy framework will be assessed against levels of growth and any baseline information or strategic approaches developed since the adoption of the Local Plan in order to determine whether any further mitigation is required to address issues of water resources on European sites.

## Impacts on water quality

The quality of the water that feeds European sites is an important determinant of the nature of their habitats and the species they support. Poor water quality can have a range of environmental impacts. Sewage and industrial effluent discharges can contribute to increased nutrients on European sites leading to unfavourable conditions. In addition, diffuse pollution, partly from urban run-off has been identified during an Environment Agency Review of Consents process, as being a major factor in causing unfavourable condition of European sites.

For sewage treatment works close to capacity, further development may increase the risk of effluent escape into aquatic environments. In many urban areas, sewage treatment and surface water drainage systems are combined, and therefore a predicted increase in flood and storm events could increase pollution risk.

### Chichester & Langstone Harbours SPA and Ramsar - Key Existing Policy Text Within the adopted Local Plan:

The following policy text in the adopted Local Plan provide key avoidance and mitigation approaches that enabled a conclusion of no likely significant effects during HRA of the adopted Local Plan.

- Policy 12 (Water Management in the Apuldram Wastewater Treatment Catchment):

*'Proposals for development in the catchment should be able to demonstrate no adverse impact on the water quality of Chichester Harbour. All proposals for new development in the catchment should conform to the following water management measures:*

*No surface water from new development shall be discharged to the public foul or combined sewer system; and*

*Where appropriate development should contribute to the delivery of identified actions to deliver infiltration reduction across the catchment.*

*Planning permission will be granted for development where the provision of water infrastructure is not considered detrimental to the water environment, including existing abstractions, river flows, water quality, fisheries, amenity and nature conservation'.*

- Policy 18 (Tangmere Strategic Development Location):

*‘Development will be dependent on the provision of infrastructure for adequate wastewater conveyance and treatment to meet strict environmental standards.’*

### Baseline

At the time of the development of the adopted Local Plan, the Apuldram WwTW that discharges to the head of Chichester Harbour had a finite environmental permit limit. The discharge was already treated to exceptionally tight nitrogen levels, established under the Habitats Directive Review of Consents process. There is not considered to be further capacity to treat water at Apuldram.

A Wastewater Treatment Study commissioned by Chichester District Council identified that an upgrade to Tangmere WwTW is the preferred solution to accommodate growth in the constrained parts of the Local Plan area. The solution to upgrade Tangmere WwTW to provide expanded capacity could enable strategic growth in the south of the Local Plan area.

The HRA of the Local Plan Review will explore the implications for further development on the existing and future capacity of the waste water treatment network.

### Issues

The Chichester Local Plan Review will extend the adopted Local Plan period by five years and will include additional housing delivery beyond the existing adopted Local Plan. At this stage, numbers and locations of new development cannot be confirmed, but it is understood that it is likely to include delivery of at least a further 3,500 new dwellings over the existing 7,388 that the adopted Local Plan committed to between 2012 and 2029.

Therefore the quantum and location of new development included within the Local Plan Review is considered likely to form the focus of the HRA process. The existing policy framework will be assessed against levels of growth and any baseline information or strategic approaches developed since the adoption of the Local Plan in order to determine whether any further mitigation is required to address issues of water quality on European sites.

## Atmospheric pollution

The HRA of the adopted Local Plan considered the potential for effects of reduced air quality on Chichester and Langstone Harbours SPA and Ramsar sites; Ebernoe Common SAC; The Mens SAC; and Duncton to Bignor Escarpment SAC.

### Key Existing Policy Text Within the adopted Local Plan:

The following extracts of policy text in the adopted Local Plan provide key avoidance and mitigation approaches that enabled a conclusion of no likely significant effects during HRA of the adopted Local Plan.

- Policy 8 (Transport and Accessibility):

*‘Ensuring that new development is well located and designed to minimise the need for travel, encourages the use of sustainable modes of travel as an alternative to the private car, and provides or contributes towards necessary transport infrastructure, including through travel plans;*

*Working with relevant providers to improve accessibility to key services and facilities and to ensure that new facilities are readily accessible by sustainable modes of travel;*

*Planning to achieve timely delivery of transport infrastructure needed to support new housing, employment and other development identified in this Plan.*

*Integrated transport measures will be developed to mitigate the impact of planned development on the highways network, promote more sustainable travel patterns and encourage increased use of sustainable modes of travel, such as public transport, cycling and walking. This will include:*

*A coordinated package of improvements to junctions on the A27 Chichester Bypass, that will increase road capacity, reduce traffic congestion [reduced congestion leads to increased traffic flow and improved air quality], improve safety, and improve access to Chichester city from surrounding areas;*

*Targeted investment to improve local transport infrastructure, focusing on delivery of improved and better integrated bus and train services, and improved pedestrian and cycling networks; and Measures to promote behavioural change in travel choices, such as easy-to-use journey planning tools, skills training and promotional activities. Travel plans will be developed as a means of coordinating these measures’.*

- Policy 10 (Chichester City Development Principles):

*‘Support and promote improved access to the city and sustainable modes of travel in accordance with the transport strategy for the city’*

- Policy 13 (Chichester City Transport Strategy):

*‘Initiatives to promote behavioural change in travel choices, including travel plans, easy-to-use journey planning tools, skills training and promotional activities;*

*Reviewing car parking provision, including encouraging use of peripheral car parks to reduce traffic in city centre and giving consideration to the introduction of parking restrictions along some arterial routes to improve traffic circulation (particularly for buses);*

*Introducing bus lanes and bus priority measures along key routes (including the A259 Bognor Road approaching its junction with the A27);*

*Exploring potential options to provide an improved bus / rail interchange;*

*Delivering strategic cycle routes linking the city centre, residential areas and key facilities, including proposed areas of new housing, employment and greenspace within and close to the city;*

*Improvements to the pedestrian network within and around the city, including proposed areas of new development and greenspace; and*

*Exploring potential options for reducing traffic congestion and improving safety at key junctions in the city, including the Northgate Gyratory, Southgate Gyratory and the junctions on Westhampnett Road’.*

- Policy 14 (Development at Chichester City North):

*‘New development, facilities and infrastructure improvements will be brought forward at Chichester City North that support and contribute to...transport proposals that fully consider the movement and access implications of development locally and across the city’*

- Policy 15 (West of Chichester Strategic Development Location):

*‘Make provision for regular bus services linking the site with Chichester city centre, and new and improved cycle and pedestrian routes linking the site with the city, Fishbourne and the South Downs National Park’.* Policies for other housing locations contain similar requirements.

- Policy 39 (Transport, Accessibility and Parking):

*‘Planning permission will be granted for development where it can be demonstrated that all the following criteria have been considered...including...’located and designed to minimise additional traffic generation and movement, and should not create or add to problems of safety, congestion, air pollution, or other damage to the environment... [and] ... encourages development that can be accessed by sustainable modes of transport, in part, through the creation of links between new development and existing pedestrian, cycle and public transport networks’.*

## Baseline

There are several main roads situated within 200m of SACs, SPAs and Ramsar sites within Chichester District. As part of the Local Plan Review, Chichester District Council will be undertaking transport modelling to determine the pattern of traffic distribution that is likely to arise as a result of new development.

Until recently, the first important step was to determine whether the Local Plan growth is likely to result in a change in flows of more than 1000 Annual Average Daily Traffic (AADT) movements on this stretch of road compared to the future baseline without the Local Plan, as the Design Manual for Roads and Bridges method specifically scopes out impacts if the change in flows is less than 1000 AADT. However, a recent High Court

judgement in respect of effects of transport generated air quality changes on Ashdown Forest SAC<sup>16</sup> means that the 1000 AADT figure is no longer likely to be sufficiently precautionary in case of challenge.

As part of the development of an evidence base to inform the HRA, transport modelling on the following roads is considered to be important:

- A283 north of Petworth (passes Ebernoe Common SAC);
- A272 east of Petworth (passes The Mens SAC);
- A285 south of Duncton (passes Duncton to Bignor Escarpment SAC); and
- A259 west of Chichester (passes Solent protected sites).

Although B-roads pass within 200m of Pagham Harbour SPA and Ramsar site, and Kingley Vale SAC, the SPA/Ramsar are not considered to be vulnerable to changes in air quality, whilst only a very small proportion of the latter SAC lies within 200m of the road, and moreover comprises a steeply rising escarpment, which would reduce the potentially affected proportion of the SAC still further.

The transport modelling will need to determine changes in traffic movements in terms of 24hr AADT movements on the roads in question, along with average vehicle speeds and percentage heavy duty vehicles.

Traffic movements on these roads need to be compared for the levels and distribution of housing being proposed in Chichester through the Local Plan process against a baseline that should be housing levels that would be projected without Local Plan Review allocations.

Effectively there should be three scenarios:

1. Baseline (start year)
2. 'Do Minimum' – predicted transport movements based on background levels of growth projected at final year of Local Plan period without Local Plan Review growth
3. 'Do Something' - predicted transport movements based on levels of growth projected at final year of Local Plan period WITH Local Plan Review growth

Option 3 may require several model runs if there are several growth scenarios to assess.

Subsequent air quality modelling calculations would examine levels of NO<sub>x</sub>, nitrogen deposition, and acid deposition.

The Site-Relevant Critical Load function on the UK Air Pollution Information System identifies the appropriate minimum rate of nitrogen deposition and acid deposition to utilise as the 'critical load' for habitats within European designated sites. The critical level for NO<sub>x</sub> concentrations is nationally set at 30 µg m<sup>-3</sup> and is not habitat specific.

## Issues

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Therefore the quantum and location of new development included within the Local Plan Review is considered likely to form the focus of the HRA process.

The HRA of the Local Plan Review will need to provide sufficient evidence to conclude no likely significant effect as a result of deteriorating air quality on European sites both within and outside the District (where sensitive and linked by major roads).

If air quality modelling were to identify likely significant effects on European sites, and indicate a need for mitigation then four broad types of mitigation measure would be investigated:

- Behavioural measures and modal shift - reducing the amount of traffic overall;

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<sup>16</sup> <http://www.bailii.org/ew/cases/EWHC/Admin/2017/351.html>

- Traffic management - modifying traffic behaviour to control where emissions are generated;
- Emissions reduction at source - reducing the emissions level per vehicle; and
- Roadside barriers - reducing the impact on the public of emissions.

Where cross-boundary effects are identified then collaborative working is a key element of delivering successful mitigation, supported by monitoring which forms an essential factor when dealing with an issue such as air quality which has a high degree of uncertainty, since it enables the effectiveness of air quality improvement measures to be evaluated and amended over the Local Plan Review period.

## Disturbance of bat flight lines

### Key Recommendations Within HRA of the Adopted Local Plan

Regarding disruption to bat flight lines it was recommended that “*in development of the Site Allocation DPD or Neighbourhood Plan any development proposals at these two settlements (Kirdford and Plaistow & Ifold) will have to ensure that hedgerows, tree-belts and other linear habitats are retained, or that a bat survey is undertaken to determine their use by bats associated with Ebernoe Common SAC before they are removed or broken*”;

### Baseline

The HRA of the adopted Local Plan considered the potential for likely significant effects of policies on flightlines of bat species for which Ebernoe Common SAC and The Mens SAC are designated.

The evidence base relating to movements of bats from these SACs will be reviewed and updated policies in the Local Plan Review will be assessed in accordance with the most up to date baseline information.

### Issues

The Chichester Local Plan Review will extend the adopted Local Plan period by five years and will include additional housing delivery beyond the existing adopted Local Plan. At this stage, numbers and locations of new development cannot be confirmed, but it is understood that it is likely to include delivery of at least a further 3,500 new dwellings over the existing 7,388 that the adopted Local Plan committed to between 2012 and 2029.

Therefore the quantum and location of new development included within the Local Plan Review is considered likely to form the focus of the HRA process.

## Coastal Squeeze

Rising sea levels can be expected to cause intertidal habitats (principally saltmarsh and mudflats) to migrate landwards. However, in built-up areas, such landward retreat is often rendered impossible due the presence of the sea wall and other flood defences.

In addition, development frequently takes place immediately behind the sea wall, so that the flood defences cannot be moved landwards to accommodate managed retreat of threatened habitats. The net result of this is that the quantity of saltmarsh and mudflat adjacent to built-up areas will progressively decrease as sea levels rise. This process is known as ‘coastal squeeze’. In areas where sediment availability is reduced, the ‘squeeze’ also includes an increasingly steep beach profile and foreshortening of the seaward zones.

### Baseline

The North Solent Shoreline Management Plan units for Chichester and Langstone Harbours indicate that there will be a combination of ‘Hold the Line’, ‘Managed Realignment’ and ‘Adaptive Management’. An HRA of the plan<sup>17</sup> indicated that ‘Hold the Line’ will have no effect on habitats behind the defences, whilst Managed Realignment is likely to “*have a significant detrimental effect resulting in loss of designated terrestrial habitats including coastal grazing marsh, saline lagoons and grasslands.*” Managed Realignment is proposed in the short term for part of Chichester Harbour. Although Hold the Line is the preferred approach for the majority of the shoreline, the SMP notes that further studies on Chichester and Langstone Harbours may lead to revision of this for significant lengths of shoreline in the inner harbours.

<sup>17</sup> [http://www.northsolentsmp.co.uk/media/adobe/o/2/Appendix\\_J\\_-\\_Appropriate\\_Assessment\\_\(draft\).pdf](http://www.northsolentsmp.co.uk/media/adobe/o/2/Appendix_J_-_Appropriate_Assessment_(draft).pdf)

The South Downs Shoreline Management Plan (SMP) for areas fronting Pagham Harbour identifies a mix of Hold the Line and Managed Realignment strategies. The SMP states that Managed Realignment approach is being adopted to maintain the integrity of the Harbour with its nature conservation value as a primary consideration.

### Issues

The Chichester Local Plan Review will extend the adopted Local Plan period by five years and will include additional housing delivery over the existing adopted Local Plan. At this stage, numbers and locations of new development cannot be confirmed, but it is understood that it is likely to include delivery of at least a further 3,500 new dwellings over the existing 7,388 that the adopted Local Plan committed to between 2012 and 2029.

Therefore the quantum and location of new development included within the Local Plan Review is considered likely to form the focus of the HRA process.

In order to conclude that development in the Local Plan area would not lead to a significant adverse effect as a result of coastal squeeze, it will be necessary to conclude that the Local Plan Review would not require the SMP (or resulting Coastal Strategy) policies for the frontage to be altered and would not be situated in such a position as to require new defences in currently undefended parts of the coastline or locate development in areas planned for managed realignment in the SMP or the Environment Agency Regional Habitat Creation Programme.

## Other Plans and Projects That May Act in Combination

It is a requirement of the Regulations that the impacts of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European site(s) in question.

It is neither practical nor necessary to assess the 'in combination' effects of the Local Plan Review within the context of all other plans and projects within this area of England. For the purposes of this assessment we have determined that, due to the nature of the identified impacts, the key other plans and projects with potential for in combination likely significant effects are those that can result in recreational pressure, loss of supporting habitats, reduced air quality, reduced water quality, coastal squeeze, or increased demand for water resources.

For the purpose of this assessment, the following documents will be considered in combination with the Local Plan Review:

- Local Plans/ Core Strategies and Neighbourhood Plans for surrounding local authorities and any relevant HRAs;
- West Sussex Local Transport Plan 3;
- Management Plans for European sites and overlapping designations ( National Parks, Areas of Outstanding Natural Beauty, Local Nature Reserves);
- Environment Agency abstraction licencing strategies;
- Environment Agency, Southern Water and Chichester District Council position statements on waste-water treatment works;
- Stage 3 and (as appropriate) 4 of the Environment Agency's Review of Consents process for the European sites covered in this assessment (where available);
- Chichester District Council Air Quality Management Plan;
- Relevant work undertaken by the Partnership for Urban South Hampshire (PUSH) authorities;
- Relevant Shoreline Management Plans and associated strategies;
- Portsmouth Water and South East Water's Water Resources Management Plans 2015-40; and
- Any large individual developments that may require consideration in combination with the Local Plan Review.

When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation i.e. to ensure that those projects or plans which in themselves have minor impacts are not simply dismissed on that basis, but are evaluated for any cumulative contribution they may make to an overall significant effect. In practice, in combination assessment is therefore of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential.

## Next Steps

Once the Council has developed a Preferred Approach document for the Local Plan Review, this will be subject to HRA taking into account the Pathways of Impact and sources of evidence discussed in this 'Issues and Baseline Evidence' paper.

