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# Chalgrove Neighbourhood Development Plan

## Habitats Regulations Assessment Screening

HRA Screening Report  
Prepared by LUC  
August 2018

**Project Title:** HRA of South Oxfordshire Local Plan and Neighbourhood Plans

**Client:** South Oxfordshire District Council

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# 1 Introduction

- 1.1 LUC has been commissioned by South Oxfordshire District Council to carry out a Habitats Regulations Assessment (HRA) of the Chalgrove Neighbourhood Development Plan 2018 to 2033 – Final version. This report presents the methodology and findings of the HRA screening stage, taking into account the proposed revisions to the Neighbourhood Plan, which are currently subject to public consultation.
- 1.2 This report was originally published in December 2017. However, a recent judgment from the Court of Justice of the European Union 'People over Wind, Peter Sweetman v Coillte Teoranta (Case C-323/17)' ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment, and should not be taken into account at the screening stage. The precise wording of the ruling is as follows:

*"Article 6(3) .....must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site."*
- 1.3 As a result of this judgment, it has been necessary to update the HRA screening of the Chalgrove Neighbourhood Plan to ensure that it complies with the ruling. This report presents the findings of the updated HRA screening.

## Background

- 1.4 The Chalgrove Neighbourhood Development Plan<sup>1</sup> (NDP) sets out policies and site allocations to guide future development within the village, to 2033. The NDP adds detail to the policies contained within the District-wide South Oxfordshire Local Plan and planning applications in Chalgrove will be considered against both plans, once they are adopted.
- 1.5 South Oxfordshire District Council (SODC) is producing a new Local Plan for the District<sup>2</sup> (the South Oxfordshire Local Plan 2011-2033 Publication Version, October 2017), which will replace its Local Plan 2011 and Core Strategy (2012). Once adopted, the Local Plan will set out policies and guidance for development of the district over the next 15 years (2018 to 2033, once published).
- 1.6 The HRA of the NDP considers whether the plan could have a significant effect on the integrity of important wildlife sites, either alone or in combination with other plans, including the South Oxfordshire Local Plan. The NDP allocates space for 200 dwellings, which has already been granted planning permission. The emerging Local Plan allocates a total of 248 homes in Chalgrove (Core Strategy + 15% growth). Therefore the HRA of both the current Core Strategy and emerging Local Plan have informed the HRA screening of the NDP, where applicable.
- 1.7 The Independent Examiner for the Neighbourhood Plan proposed that, due to the current uncertainty around the strategic allocation at Chalgrove Airfield, the NDP should return to the default position set out in the Local Plan for larger villages, which gives an allocation of 248 homes (232 of which were outstanding at the time of preparing the Publication Version of the Local Plan, October 2017). The Examiner further proposed that an allocation on site Chal 7 (Land East of Chalgrove), which has been given planning permission at appeal for up to 120 homes, is included in the Plan. This allocation, together with the land allocated at H1 option A for up to 200 homes and other completions/commitments, means that there are now 325 dwellings in

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<sup>1</sup> <http://www.southoxon.gov.uk/sites/default/files/Chalgrove%20Neighbourhood%20Development%20Plan.pdf>

<sup>2</sup> <http://www.southoxon.gov.uk/services-and-advice/planning-and-building/planning-policy/emerging-local-plan>

Chalgrove with planning permission or a resolution to grant according to the District Council's latest figures.

## The requirements to undertake HRA of development plans

- 1.8 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in July 2007 and updated in 2010<sup>3</sup> and again in 2012<sup>4</sup>. These updates were consolidated into the Conservation of Habitats and Species Regulations 2017<sup>5</sup>.
- 1.9 The HRA refers to the assessment of the potential effects of a development plan on one or more European Sites, including Special Protection Areas (SPAs) and Special Areas of Conservation (SACs):
  - SPAs are classified under the European Council Directive “on the conservation of wild birds” (79/409/EEC; ‘Birds Directive’) for the protection of wild birds and their habitats (including particularly rare and vulnerable species listed in Annex 1 of the Birds Directive, and migratory species);
  - SACs are designated under the Habitats Directive and target particular habitats (Annex 1) and/or species (Annex II) identified as being of European importance.
- 1.10 Currently, the Government also expects potential SPAs (pSPAs), possible SACs (pSACs) and Ramsar sites to be included within the assessment<sup>6</sup>. Ramsar sites support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention, 1971). Candidate SACs (cSACs) and Sites of Community Importance (SCIs), which are sites that have been adopted by the European Commission but not yet formally designated by the government, must also be considered.
- 1.11 For ease of reference during HRA, these designations are collectively referred to as European sites, despite Ramsar designations being at the wider international level.
- 1.12 The overall purpose of the HRA is to conclude whether or not a proposal or policy, or whole development plan would adversely affect the integrity of the site in question. This is judged in terms of the implications of the plan for a site’s ‘qualifying features’ (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on the precautionary principle. Where uncertainty or doubt remains, an adverse effect should be assumed.

## Stages of Habitats Regulations Assessment

- 1.13 **Table 1.1** below summarises the stages involved in carrying out a full HRA, based on various guidance documents<sup>7,8</sup>. This HRA presents the methodology and findings of Stage 1: Screening.

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<sup>3</sup> *The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007*. (Statutory Instrument 2007 No. 1843). From 1 April 2010, these were consolidated and replaced by the Conservation of Habitats and Species Regulations 2010 (SI No. 2010/490). Note that no substantive changes to existing policies or procedures have been made in the new version.

<sup>4</sup> *The Conservation of Habitats and Species (Amendment) Regulations 2012*. (Statutory Instrument 2012 No. 1927).

<sup>5</sup> *The Conservation of Habitats and Species Regulations 2017*. (Statutory Instrument No. 1012).

<sup>6</sup> Department of Communities and Local Government (July 2018) National Planning Policy Framework (para 176).

<sup>7</sup> *Planning for the Protection of European Sites. Guidance for Regional Spatial Strategies and Local Development Documents*. Department for Communities and Local Government (DCLG), August 2006.

<sup>8</sup> *The HRA Handbook*. David Tyldesley & Associates, a subscription based online guidance document: <https://www.dtapublications.co.uk/handbook/>

**Table 1.1 Stages in HRA**

Stage	Task	Outcome
Stage 1: Screening (the 'Significance Test')	Description of the plan. Identification of potential effects on European Sites. Assessing the effects on European Sites.	Where effects are unlikely, prepare a 'finding of no significant effect report'.  Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.
Stage 2: Appropriate Assessment (the 'Integrity Test')	Gather information (plan and European Sites). Impact prediction. Evaluation of impacts in view of conservation objectives.  Where impacts considered to affect qualifying features, identify alternative options.  Assess alternative options.  If no alternatives exist, define and evaluate mitigation measures where necessary.	Appropriate Assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be avoided through, firstly, avoidance, and secondly, mitigation including the mechanisms and timescale for these mitigation measures.  If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.
Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation	Identify and demonstrate 'imperative reasons of overriding public interest' (IROPI).  Demonstrate no alternatives exist.  Identify potential compensatory measures.	This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

1.14 In assessing the effects of the NDP in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017<sup>9</sup>, there are potentially two tests to be applied by the competent authority: a 'Significance Test', followed if necessary by an Appropriate Assessment, which will inform the 'Integrity Test'. The relevant sequence of questions is as follows:

- Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not –
- Step 2: Under Reg. 105(1)(a) consider whether the plan is likely to have a significant effect on the site, either alone or in combination with other plans or projects (the 'Significance Test'). [These two steps are undertaken as part of Stage 1: Screening shown in Table 1.1 above.] If Yes –
- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public. [This step is undertaken during Stage 2: Appropriate Assessment shown in Table 1.1 above.]
- Step 4: In accordance with Reg.105(4), but subject to Reg.107, give effect to the land use plan only after having ascertained that the plan will not adversely affect the integrity of the European site.

1.15 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the inclusion of mitigation measures designed to avoid, reduce or abate effects. The need to consider

<sup>9</sup> *The Conservation of Habitats and Species Regulations 2017*. (Statutory Instrument No. 1012).

alternatives could imply more onerous changes to a plan document. It is generally understood that so called 'imperative reasons of overriding public interest' (IROPI) are likely to be justified only very occasionally and would involve engagement with both the Government and European Commission.

- 1.16 The HRA should be undertaken by the 'competent authority' - in this case SODC, and LUC has been commissioned to do this on its behalf. The HRA also requires close working with Natural England as the statutory nature conservation body<sup>10</sup> in order to obtain the necessary information and agree the process, outcomes and any mitigation proposals. The Environment Agency, while not a statutory consultee for the HRA, is also in a strong position to provide advice and information throughout the process.

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<sup>10</sup> Regulation 5 of *The Conservation of Habitats and Species Regulations 2017*. (Statutory Instrument No. 1012).

## 2 Chalgrove Neighbourhood Development Plan

- 2.1 The Chalgrove Neighbourhood Development Plan 2018 to 2033 – Final version provides an overall vision and objectives, along with ten policies and a site allocation to guide development. The proposed revisions to the NDP include an additional site allocation, although this already has planning permission. The NDP also includes a number of supporting statements that indicate where the plan's objectives are met by District or National policies.
- 2.2 These are summarised below, along with an explanation of the aspects of the plan that are relevant to this HRA.

### Summary of the Neighbourhood Development Plan

- 2.3 The plan's vision states:
- "To preserve and enhance the look and feel of a village, our community spirit and our countryside whilst accommodating our identified housing and community needs."*
- 2.4 In order to achieve this vision, the plan outlines 11 core objectives under four themes:
- Village Character
    1. To enhance Chalgrove's strong sense of place, community and local identity;
    2. To ensure that new housing development is in character with the village;
  - Housing
    3. To identify development sites to meet the housing numbers allocated in the Local Plan;
    4. To provide existing and future residents with the opportunity to live in a decent home, while maximising those opportunities for people with local connections and providing a mix of housing to better meet local needs for smaller homes;
    5. To ensure that new development does not cause new, or exacerbate existing traffic, parking and road safety issues around the village;
    6. To maximise integration of the development allocation with the existing community;
    7. To ensure new development does not cause new, or exacerbate existing, risk of flooding and to seek to reduce the existing risk;
  - Community Assets, Services And Facilities
    8. To ensure that local services, recreational facilities and infrastructure are maintained and improved in proportion to population growth;
    9. To seek opportunities for landscape, recreational and ecological gain whilst minimising the environmental impact of new development;
    10. To ensure that heritage assets are protected and enhanced; and
  - Economy
    11. To enhance the prospects for local employment by supporting development of existing business parks for small businesses.
- 2.5 The plan outlines ten policies to achieve these objectives:
- Policy C1 - Development within the built-up area;

- Policy C2 - Design and Character;
  - Policy H1 - Housing Site Allocations;
  - Policy H2 - Dwelling Mix;
  - Policy H3 - Home-Working;
  - Policy H4 - Residential Parking;
  - Policy H5 - Walking and Cycling;
  - Policy CF1 - Community Infrastructure Levy;
  - Policy CF2 - Community Assets; and
  - Policy CF3 - Improvements to Community Assets.
- 2.6 The plan allocates one site for 200 dwellings under Policy H1A - Land to the west of Marley Lane and the proposed revisions include allocation of another site for 120 dwellings under Policy H1B – Land to the East of Chalgrove.
- 2.7 Where objectives do not have a commensurate policy, the plan also includes supporting statements. These have been produced to highlight concerns raised by the community of Chalgrove and relate to flooding, biodiversity, heritage, archaeology and business development.

## Number of homes assessed in this HRA

- 2.8 The Core Strategy identified that c.80<sup>11</sup> dwellings should be planned for in Chalgrove and the emerging Local Plan intends that larger villages such as Chalgrove will achieve 15% growth in new homes. The emerging Local Plan therefore allocates a total of 248 dwellings in Chalgrove.
- 2.9 The NDP allocates space for 200 dwellings at one site and the proposed revisions to the NDP include allocation of another site for 120 dwellings. These have already been granted planning permission under South Oxfordshire's current policies (the adopted Core Strategy).
- 2.10 Therefore, the NDP will not result in any additional 'new' homes over and above those with extant planning permission.

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<sup>11</sup> The Core Strategy allocated 1,154 homes across the larger villages. Later work on potential growth scenarios considered the Core Strategy's allocation to be 80 homes in Chalgrove. This was the figure assessed as 'Core Strategy growth' in the 2015 HRA <http://www.southoxon.gov.uk/sites/default/files/HRA%20phase%201%20report.pdf>

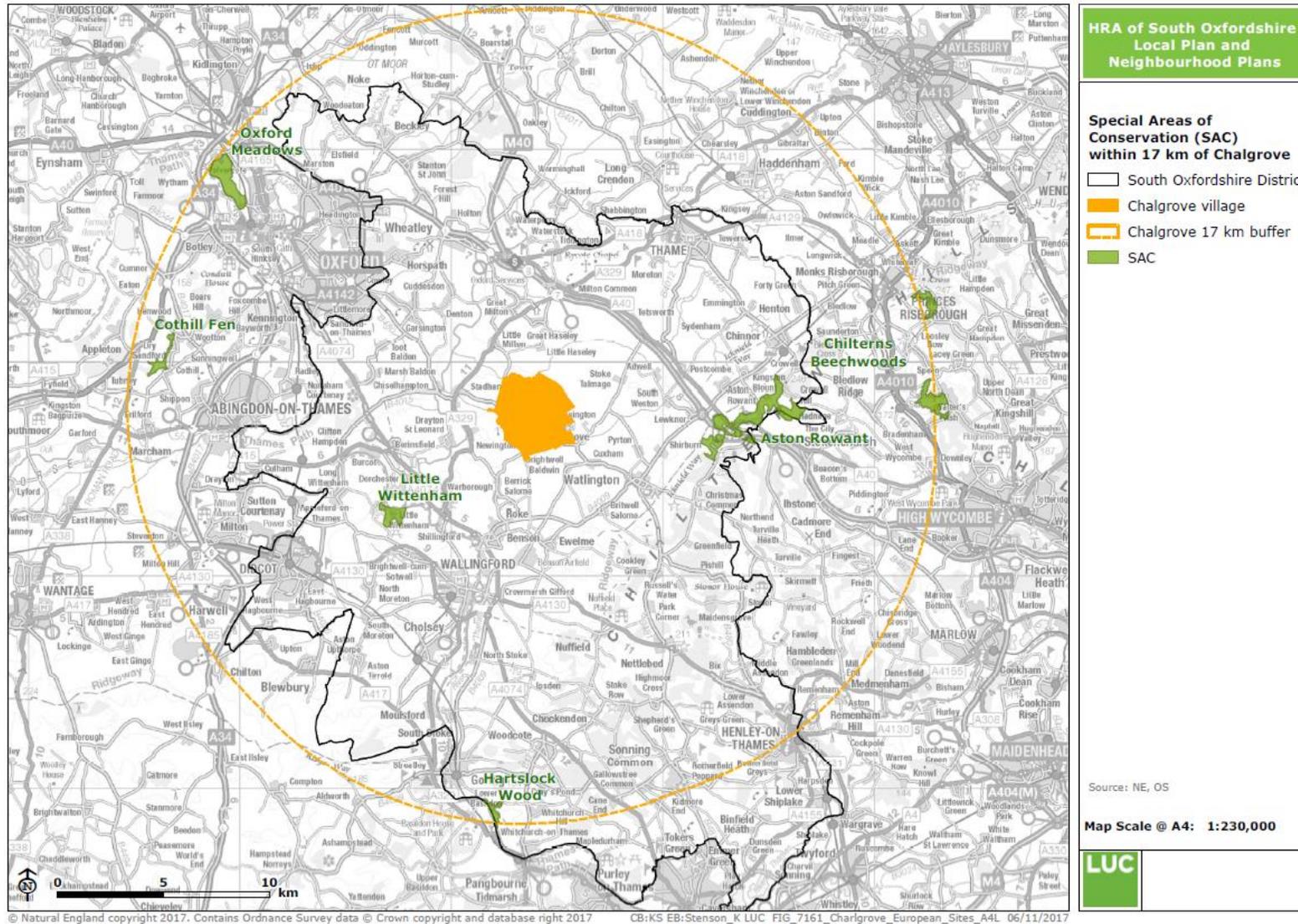
## 3 HRA Screening Methodology

- 3.1 HRA screening of the NDP has been undertaken in line with current available guidance and seeks to meet the requirements of the Habitats Regulations, and takes into account the ruling in the 'People over Wind' judgment. The tasks that have been undertaken during the screening stage of the HRA are described in detail below.

### European sites which may be affected by the Neighbourhood Development Plan

- 3.2 The HRA of the emerging Local Plan and the earlier Core Strategy have used a screening distance of 17km to identify European sites which could be affected by development from the plans. This distance has been subject to consultation with Natural England and reflects the average travel to work distance in the District. As such, the same screening distance has been applied in this HRA.
- 3.3 The following European sites lie wholly or partly within 17km of Chalgrove and have been included in the HRA:
- Cothill Fen SAC.
  - Oxford Meadows SAC.
  - Little Wittenham SAC.
  - Aston Rowant SAC.
  - Chilterns Beechwoods SAC.
  - Hartslock Wood SAC.
- 3.4 Detailed information about the location, qualifying features and vulnerabilities of the European sites included in the assessment is presented in **Appendix 1**. The locations of the European sites are mapped in **Figure 3.1**.

Figure 3.1: European sites within 17km of Chalgrove



## Assessment of 'likely significant effects' of the Neighbourhood Development Plan

- 3.5 As required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017<sup>12</sup> (the 'Habitats Regulations'), an assessment has been undertaken of the 'likely significant effects' of the NDP. A screening matrix has been prepared in order to identify which policies or site allocations would be likely to have a significant effect on European sites in and around Chalgrove, without taking mitigation into account. Within the matrix, consideration has been given to the potential for the development proposed to result in significant effects associated with:
- Physical loss of/damage to habitat.
  - Non-physical disturbance e.g. noise/vibration or light pollution.
  - Air pollution.
  - Increased recreation pressure.
  - Changes to hydrological regimes.
- 3.6 The determination of which likely significant effects to include in the HRA screening of the NDP is designed to be consistent with those included in the HRA screening being undertaken of the emerging Local Plan.
- 3.7 The detailed screening matrix can be found in **Appendix 2** of this report and the findings are described in more detail in **Chapter 4**.
- 3.8 A risk-based approach involving the application of the precautionary principle has been adopted in the assessment, such that a conclusion of 'no likely significant effect' has only been reached where it is considered very unlikely, based on current knowledge and the information available, that a proposal in the NDP would have a significant effect on the integrity of a European site.
- 3.9 A 'traffic light' approach has been used in the screening matrix to record the likely effects of the policies and site allocations on European sites and their qualifying habitats and species, using the colour categories shown below.

Red	There are likely to be significant effects (Appropriate Assessment required).
Amber	There may be likely significant effects, but this is currently uncertain (Appropriate Assessment required).
Green	There are unlikely to be significant effects (Appropriate Assessment <b>not</b> required).

### Interpretation of 'likely significant effect'

- 3.10 Relevant case law helps to interpret when effects should be considered as a likely significant effect, when carrying out HRA of a land use plan.
- 3.11 In the Waddenzee case<sup>13</sup>, the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 105 in the Habitats Regulations), including that:
- An effect should be considered 'likely', "*if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site*" (para 44);
  - An effect should be considered 'significant', "*if it undermines the conservation objectives*" (para 48); and

<sup>12</sup> SI No. 2017/1012

<sup>13</sup> ECJ Case C-127/02 "Waddenzee" Jan 2004.

- Where a plan or project has an effect on a site *"but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned"* (para 47).

3.12 A relevant opinion delivered to the Court of Justice of the European Union<sup>14</sup> commented that:

*"The requirement that an effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."*

3.13 This opinion (the 'Sweetman' case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered 'trivial' or *de minimis*; referring to such cases as those *"that have no appreciable effect on the site"*. In practice, such effects could be screened out as having no likely significant effect; they would be 'insignificant'.

## Screening assumptions and information used in reaching conclusions about likely significant effects

3.14 The screening stage of the HRA has taken the approach of screening each policy individually.

3.15 For some types of impacts, screening for likely significant effects has been determined on a proximity basis, using GIS data to determine the proximity of potential development locations to the European sites that are the subject of the assessment. However, there are many uncertainties associated with using set distances as there are very few standards available as a guide to how far impacts will travel. Therefore, during the screening stage a number of assumptions have been applied in relation to assessing the likely significant effects on European sites that may result from the Neighbourhood Development Plan, as explained below. These assumptions draw from the information gathered during the South Oxfordshire Local Plan HRA work.

### Physical loss of or damage to habitat

3.16 Any development resulting from the NDP will be located within Chalgrove. There are no European sites within the NDP area, therefore loss of habitat from within the boundaries of a European site can be ruled out in relation to all sites.

3.17 Loss of habitat from outside of the boundaries of a European site could still affect the integrity of that site if it occurs in an area used by the qualifying species of the site (e.g. for off-site breeding, foraging or roosting).

3.18 Two of the European sites included in the HRA have mobile species amongst their qualifying features that could travel outside of the site to make use of other areas of habitat:

- Chilterns Beechwoods SAC: stag beetle; and
- Little Wittenham SAC: great crested newt.

3.19 Where stag beetle is a qualifying feature of a site, the individuals may travel outside of the SAC boundary, although it is unlikely that they will travel far: it is generally only the male stag beetle that flies during the summer months, and the female beetle rarely flies.<sup>15</sup> The preferred habitat for stag beetles is old, established woodland, and the larvae feed on rotting tree matter.<sup>16</sup> As the beetle larvae take years to develop, they are vulnerable to tree clearance and the 'tidying up' of wood in parks and especially gardens.<sup>16</sup> Research<sup>17</sup> suggests that 2km may be an appropriate

<sup>14</sup> Advocate General's Opinion to CJEU in Case C-258/11 *Sweetman and others v An Bord Pleanála* 22nd Nov 2012.

<sup>15</sup> <https://www.royalparks.org.uk/parks/richmond-park/richmond-park-attractions/wildlife/stag-beetles>

<sup>16</sup> <http://www.arkive.org/stag-beetle/lucanus-cervus/>

<sup>17</sup> <http://onlinelibrary.wiley.com/doi/10.1111/j.1469-7998.2006.00282.x/abstract>

buffer inside which sites could be functionally connected, as this is the distance that males travel to females during the breeding season. Chilterns Beechwoods SAC lies well beyond 2km from Chalgrove, therefore potential loss of or damage to off-site habitats associated with Chilterns Beechwoods SAC can be screened out of further assessment.

- 3.20 Great crested newts will travel away from their breeding ponds, during the terrestrial phase of their lifecycle, but not large distances. 500 metres<sup>18</sup> from their breeding location is considered an appropriate buffer distance inside which great crested newts might be found. The site listing for Little Wittenham SAC<sup>19</sup> states that great crested newts have been found to range several hundred metres into the site's woodland blocks. Research has found that great crested newts at Little Wittenham SAC migrate within woodland and do not over-winter in the arable farmland<sup>20</sup>. All of the woodland within 500 metres of the ponds at Little Wittenham SAC is within the SAC boundary. Therefore potential loss of or damage to off-site habitats associated with Little Wittenham SAC can be screened out of further assessment.
- 3.21 **Likely significant effects arising from physical loss of or damage to European site habitats (on-site or off-site) can therefore be screened out of further assessment, for all sites.**

#### **Non-physical disturbance: noise, vibration and light pollution**

- 3.22 Noise and vibration effects, e.g. during the construction of new housing development, are most likely to disturb bird species and are thus a key consideration with respect to European sites where birds are the qualifying features, although such effects may also impact upon some mammals and fish species.
- 3.23 Using a precautionary approach, we have assumed that the effects of noise, vibration and light are most likely to be significant if development takes place within 500 metres of a European site with qualifying features sensitive to these disturbances, or known off-site breeding, foraging or roosting areas. None of the European sites are within 500 metres of Chalgrove.
- 3.24 **Therefore, likely significant effects in relation to noise, vibration and light pollution can be screened out of further assessment.**

#### **Air pollution**

- 3.25 Air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by any deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen availability that can then affect plant health, productivity and species composition.
- 3.26 In terms of vehicle traffic, nitrogen oxides (NO<sub>x</sub>, i.e. NO and NO<sub>2</sub>) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NO<sub>x</sub> can cause eutrophication of soils and water.
- 3.27 Based on the Highways Agency Design for Road and Bridges (DMRB) Manual Volume 11, Section 3, Part 1<sup>21</sup> (which was produced to provide advice regarding the design, assessment and operation of trunk roads (including motorways)), it is assumed that air pollution from roads is unlikely to be significant beyond 200m from the road itself. Where increases in traffic volumes are forecast, this 200m buffer needs to be applied to the relevant roads in order to make a judgement about the likely geographical extent of air pollution impacts.
- 3.28 The DMRB Guidance for the assessment of local air quality in relation to highways developments provides criteria that should be applied at the screening stage of an assessment of a plan or project, to ascertain whether there are likely to be significant impacts associated with routes or

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<sup>18</sup> <https://www.gov.uk/guidance/great-crested-newts-surveys-and-mitigation-for-development-projects>

<sup>19</sup> <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030184>

<sup>20</sup> [http://etheses.dur.ac.uk/6683/1/6683\\_3987.PDF](http://etheses.dur.ac.uk/6683/1/6683_3987.PDF)

<sup>21</sup> <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3/ha20707.pdf>

corridors. Based on the DMRB guidance, affected roads which should be assessed are those where:

- Daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more; or
- Heavy duty vehicle (HDV) flows will change by 200 AADT or more; or
- Daily average speed will change by 10 km/hr or more; or
- Peak hour speed will change by 20 km/hr or more; or
- Road alignment will change by 5 m or more.

- 3.29 It has been assumed that only those roads forming part of the primary road network (motorways and 'A' roads) might be likely to experience any significant increases in vehicle traffic as a result of development (i.e. greater than 1,000 AADT). As such, where a site is not within 200m of a motorway or 'A' road, likely significant effects from traffic-related air pollution can be ruled out.
- 3.30 The European sites within 17km of Chalgrove that are within 200m of strategic roads are Aston Rowant SAC (M40) and Oxford Meadows (A34, A40). Aston Rowant is located approximately 7.5km east and Oxford Meadows is approximately 16km northwest of Chalgrove. For Oxford Meadows SAC, physical changes to the aquatic environment, invasive aquatic species or changes to land management are the main threats or pressures, despite this site being situated close to Oxford and the roads that serve it. This site is therefore not considered to be particularly sensitive to air pollution.
- 3.31 The portion of Chilterns Beechwoods SAC that lies closest to Chalgrove (and is adjacent to Aston Rowant SAC) is not within 200m of a strategic road. None of the portions of Chilterns Beechwoods SAC that are within 200m of a strategic road are within 17km of Chalgrove.
- 3.32 **The potential for likely significant effects of air pollution in relation to Aston Rowant SAC cannot be ruled out and therefore need to be subject to further screening assessment.**

### Recreation

- 3.33 Recreation activities and human presence more generally can have an adverse effect on the integrity of a European site, for example as a result of disturbance of sensitive animal species, trampling of plant species or habitat erosion. Where development is likely to result in an increase in the local population, the potential for an increase in visitor numbers and the associated impacts at sensitive European sites has been considered.
- 3.34 We have assumed that all of the sites within the scope of the HRA have the potential to be vulnerable to recreation impacts such as erosion, trampling or species disturbance to some degree. Those European sites that are closest to, most accessible to, or most attractive to use by the residents of Chalgrove, are most likely to be affected by the NDP.
- 3.35 To identify the distance at which the NDP could have an impact on recreational pressure, we have used the same distance criteria as the new South Oxfordshire Local Plan HRA, as follows. The South Oxfordshire Open Space User Survey (2005) reported that 35% of people are prepared to travel for 15 minutes and 45% of people are prepared to travel by car to access natural and semi-natural greenspace<sup>22</sup>. Visitor surveys<sup>23</sup> at Little Wittenham SAC also identified that the majority of the visitors to the site live within 20 minutes driving time.
- 3.36 An alternative measure is to use the 'Zone of Influence' identified by the Thames Basin Heaths SPA Delivery Framework<sup>24</sup>. Whilst it is recognised that the other European sites scoped into this HRA have different designated features to Thames Basin Heaths SPA, the SPA Delivery Framework is primarily concerned with avoiding adverse recreational or urbanising effects from residential development and the buffer distances it defines are judged to provide a reasonable

<sup>22</sup> <http://www.southoxon.gov.uk/sites/default/files/Standards%20summary%20with%20justification.pdf>

<sup>23</sup> Earth Trust (2016) *Statement of Need for Improvements to the Earth Trust Centre*

<sup>24</sup> [http://www.waverley.gov.uk/downloads/file/3503/thames\\_basin\\_heaths\\_spa\\_delivery\\_framework\\_2009\\_-\\_thames\\_basin\\_heaths\\_joint\\_strategic\\_partnership\\_board](http://www.waverley.gov.uk/downloads/file/3503/thames_basin_heaths_spa_delivery_framework_2009_-_thames_basin_heaths_joint_strategic_partnership_board)

proxy for the distance from housing development within which likely significant recreational effects cannot be ruled out.

- 3.37 The Thames Basin Heaths SPA Delivery Framework advises that there is a presumption against development within 400m of the European site (assumed adverse effect on integrity unless site-specific Appropriate Assessment demonstrates otherwise), that avoidance measures are necessary in relation to all residential development within a Zone of Influence from 400 metres to 5km from the perimeter of the European site and that applications for large scale development (over 50 houses) between 5km and 7km from the edge of the European site should be assessed on a case by case basis. The potential for effects will depend upon the scale of development proposed and the features for which the site is designated; however, as a conservative estimate, it has been assumed that any development within 7km of a sensitive site could have impacts due to recreation.
- 3.38 Aston Rowant and Chilterns Beechwoods are located approximately 7.5km and 9km from Chalgrove and are a 20 minute drive from Chalgrove. Little Wittenham SAC lies c.7km and a 25 minute drive away. Hartslock Wood lies c.17km and a 30 minute drive away. Cothill Fen and Oxford Meadows are c.17km away and a c.30 minute drive.
- 3.39 Natural England's Site Improvement Plans record the threats and pressures relevant to each European site. Public access or disturbance are not identified as a current threat or pressure at the following sites, despite their lying close to large settlements:
- Aston Rowant SAC<sup>25</sup>: c.7km from Thame;
  - Hartslock Wood SAC<sup>26</sup>: <2km from Goring and Pangbourne;
  - Cothill Fen SAC<sup>27</sup>: c.2.5km from Abingdon; or
  - Oxford Meadows SAC<sup>28</sup>: in Oxford.
- 3.40 However, comments received on the South Oxfordshire Local Plan HRA in response to the Regulation 18 consultation, suggested that recreation impacts at Aston Rowant SAC and Cothill Fen SAC should be considered further. Subsequent discussions with Natural England officers provided reassurance that the sites are not particularly sensitive to increases in recreation pressure, for the following reasons:
- Cothill Fen SAC: The site is not generally promoted for public access and is unlikely to attract visitors from a long distance. Development very close to the site could generate visitors (e.g. dog walkers from within c.1km away), but as the site is very wet, visitors naturally follow the boardwalk paths. The site is mainly considered to be sensitive to changes in groundwater or hydrology, not recreation; and
  - Aston Rowant SAC: The site's qualifying features are considered to be fairly resilient to recreation pressure, with changes to habitat management more likely to be an issue. Access to the site can be effectively managed as there are two relatively small car parks and only two main footpaths; there are no plans to increase parking capacity or change the access management policy.
- 3.41 At Chilterns Beechwoods SAC, public access / disturbance is only identified as a threat or pressure in relation to the stag beetle population<sup>29</sup>. The portion of the SAC that supports the stag beetle population (Bisham Woods SSSI) is c.23km and a 35 minute drive away from Chalgrove.
- 3.42 Little Wittenham SAC has been identified as being sensitive to public access and disturbance<sup>30</sup>. Although Chalgrove lies beyond the 20 minutes driving distance in which most visitors to Little

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<sup>25</sup> Site Improvement Plan for Aston Rowant SAC: <http://publications.naturalengland.org.uk/publication/4960794580090880>

<sup>26</sup> Site Improvement Plan for Hartslock Wood SAC: <http://publications.naturalengland.org.uk/publication/4874314121740288>

<sup>27</sup> Site Improvement Plan for Cothill Fen SAC: <http://publications.naturalengland.org.uk/publication/6482436405854208>

<sup>28</sup> Site Improvement Plan for Oxford Meadows SAC: <http://publications.naturalengland.org.uk/publication/4942743310696448>

<sup>29</sup> <http://publications.naturalengland.org.uk/publication/6228755680854016>

<sup>30</sup> <http://publications.naturalengland.org.uk/publication/6567758347108352>

Wittenham SAC live, it is just within the 7km 'zone of influence' distance used in relation to the Thames Basin Heaths SPA. Therefore, as a precaution, it has been considered further.

- 3.43 **Potential likely significant effects of recreation cannot be ruled out in relation to Little Wittenham SAC and therefore need to be subject to further screening assessment, but likely significant effects can be screened out in relation to all other European sites.**

### Water quantity and quality

- 3.44 European sites at which aquatic or wetland environments support qualifying features have the potential to be affected by changes in water quantity or quality. The following sites close to Chalgrove have aquatic or wetland habitats:
- Cothill Fen SAC: has calcium-rich springwater-fed fens that have been identified as sensitive to water pollution and hydrological changes;
  - Little Wittenham SAC: its ponds support great crested newts, but changes to water quality or quantity have not been identified as an issue at this site (this site has therefore been screened out); and
  - Oxford Meadows SAC: lowland hay meadows, identified as sensitive to hydrological changes.
- 3.45 Sensitive European sites could be affected by changes in demand for water supply and disposal. However, these sites will not be affected as:
- They are not downstream of treatment works where South Oxfordshire's Water Cycle Strategy<sup>31</sup> has identified that growth could be limited by environmental capacity; and
  - The sites are not fed by groundwater and therefore will not be affected by abstraction.
- 3.46 **Potential water quality and hydrological likely significant effects have therefore been screened out of further assessment for all sites.**

### Identification of other plans and projects which may have 'in-combination' effects

- 3.47 Regulation 105 of the Habitats Regulations 2017 requires an Appropriate Assessment where "a land use plan is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site".
- 3.1 The first stage in identifying 'in-combination' effects involves identifying which other plans and projects in addition to the NDP may affect the European sites that were the focus of this assessment. Plans that are relevant to this assessment are those that increase the number of homes locally or significantly alter the flow of traffic through other means (for example major transport schemes).
- 3.2 Eight parishes in South Oxfordshire have made (adopted) neighbourhood plans. It is considered that these do not need to be taken into consideration in relation to in-combination effects because:
- Woodcote Neighbourhood Plan allocates a total number of homes that is below that allocated in the Core Strategy.
  - Thame Neighbourhood Plan, Sonning Common Neighbourhood Plan, and the Joint Henley and Harpsden Neighbourhood Development Plan all aim to meet the requirements for housing set by the Core Strategy.
  - Long Wittenham and Chinnor Neighbourhood Plans do not allocate a specific number of homes although the Long Wittenham Neighbourhood Plan considers that it could grow by c.5% (c.15

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<sup>31</sup> South Oxfordshire District Council – Water Cycle Study, Phase 1 & 2 Final Report, October 2017

homes) over the plan period, through minor development and the Chinnor Neighbourhood Plan supports small-scale infill development.

- The Brightwell-cum-Sotwell Neighbourhood Plan provides land that could accommodate c.60 homes a c.13% increase.
- The Dorchester on Thames Neighbourhood Plan does not allocate any housing sites and does not have a specific housing allocation in the Core Strategy, as it is classified as a small village.

- 3.3 The South Oxfordshire Core Strategy does not require small villages to allocate housing but suggests they should allow for infill development on sites of up to 0.2ha (c.5-6 homes). The Publication version of the Local Plan provides for a minimum of 500 new homes across all of the smaller villages, based on 5-10% growth. The Brightwell-cum-Sotwell plan allows for 13% growth, while Long Wittenham allows for 5%. Jointly, they are not considered likely to have in-combination effects over and above what is proposed in the Publication version of the Local Plan.
- 3.4 Residents voted for adoption of the Benson Parish Neighbourhood Plan and the Watlington Neighbourhood Plan in June 2018. The Watlington Neighbourhood Plan allocates slightly fewer homes than set out in the Publication version of the South Oxfordshire Local Plan.
- 3.5 The Benson Parish Neighbourhood Plan allocates more homes for the village than are set out in the Publication version of the South Oxfordshire Local Plan, as well as the Local Plan 2011 and Core Strategy 2012 and therefore has potential for in-combination effects on air pollution at Aston Rowant SAC and recreation at Little Wittenham SAC.
- 3.6 Abingdon, within Vale of White Horse District, lies c.7.5km from Little Wittenham SAC; therefore new homes allocated within the Vale of White Horse Local Plan 2031 could have in-combination recreation effects. However, the HRA of the emerging Vale of White Horse Local Plan 2031 (Part 2) identified no potential impacts related to recreation at Little Wittenham SAC and the HRA of the emerging South Oxfordshire Local Plan also identifies no in-combination effects between the South Oxfordshire and Vale of White Horse plans.
- 3.7 High Wycombe and Princes Risborough, both in Wycombe District, lie <10km from Aston Rowant SAC, therefore new homes allocated in the Wycombe Local Plan could have in-combination air pollution effects. The HRA<sup>32</sup> of the Wycombe District Local Plan<sup>33</sup> concluded that the Wycombe Local Plan will not lead to adverse effects on the integrity of European sites, alone or in combination, in relation to air pollution.
- 3.8 The South Oxfordshire Core Strategy and emerging new Local Plan have the potential for in-combination effects with the Chalgrove Neighbourhood Plan. The HRA reports for the Core Strategy and Publication version of the Local Plan have taken into account potential in-combination effects with other neighbouring authorities' plans.

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<sup>32</sup> Wycombe District Council (July 2018) *Wycombe District Local Plan Revised Habitats Regulations Assessment Report*

<sup>33</sup> Wycombe District Council (October 2017) *Wycombe District Local Plan Regulation 19 Publication Version*

## 4 HRA Screening Assessment

- 4.1 As described in **Chapter 3**, an initial screening assessment based on a set of screening assumptions has been carried out in order to identify the potential for likely significant effects of the NDP on nearby European sites. Based on those assumptions, the following potential likely significant effects were considered in the HRA screening:
- The effects of air pollution on Aston Rowant SAC.
  - The effects of recreation on Little Wittenham SAC.
- 4.2 The full screening matrix used for this assessment can be found in **Appendix 2** and the findings are summarised in the sections below. The full screening matrix demonstrates that significant effects are considered unlikely in relation to all policies and sites, therefore the effects of air pollution at Aston Rowant SAC and recreation at Little Wittenham SAC do not need to be considered further.
- 4.3 In summary, although the Chalgrove Neighbourhood Plan allocates development over and above that set out in the Core Strategy or Publication version of the Local Plan (assuming the Chalgrove Airfield site is to come forward), it does not allocate any additional sites that do not already have planning permission and therefore it is not capable of having any additional effects, either alone or in-combination with other plans or projects.

### Significant effects likely

- 4.4 **None of the policies or site allocations** in the NDP are considered **likely** to result in significant effects on the European sites within 17km of Chalgrove.

### Significant effects unlikely

- 4.5 Significant effects are considered **unlikely** in relation to **all of the NDP policies**, either because the policies will not result in new development or because the scale, nature or location of the development proposed will not have an effect on European sites.
- 4.6 The following policies are screened out because they will not result directly in development:
- Policy C2 – Design and Character;
  - Policy H2 – Dwelling Mix;
  - Policy H3 – Home Working;
  - Policy H4 – Residential Parking;
  - Policy H5 – Walking and Cycling;
  - Policy CF1 – Community Infrastructure Levy;
  - Policy CF2 – Community Assets; and
  - Policy CF3 – Improvements to Community Assets.
- 4.7 Policy H1 – Housing Site Allocation (and Policy H1A – Land West of Marley Lane) allocates a site for 200 dwellings, which could potentially result in air pollution or recreation effects. The proposed revisions to the NDP include an additional site allocation, Policy H1B, which allocates Land to the East of Chalgrove for 120 dwellings. However, development of these sites has

already been granted planning permission. Therefore the Chalgrove NDP does not result in any additional 'new' homes and in-combination effects do not need to be assessed further.

- 4.8 Policy C1 – Development Within the Built-Up Area will also result in development of a type that could increase population and therefore has the potential to cause air pollution and/or recreation effects, but is of a scale that is unlikely to result in likely significant effects.

### Significant effects uncertain

- 4.9 **None of the policies or site allocations** in the NDP is considered to result in **uncertain** significant effects on the European sites within 17km of Chalgrove.

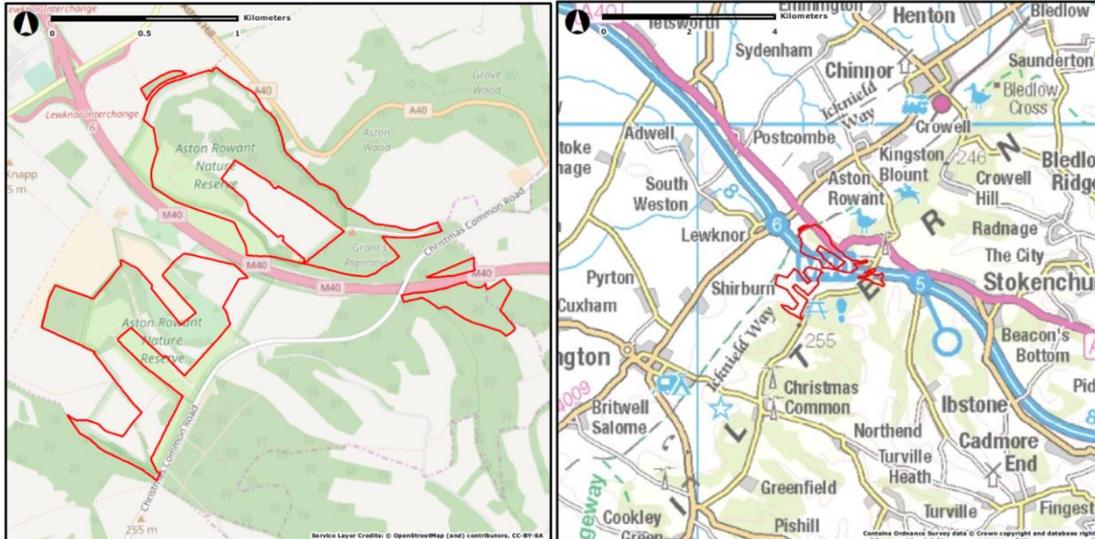
## 5 Conclusions

- 5.1 The HRA screening of the Chalgrove Neighbourhood Development Plan 2018 to 2033 – Final version has been undertaken in accordance with currently available guidance and based on a precautionary approach as required under the Habitats Regulations.
- 5.2 The HRA screening has concluded that likely significant effects on the integrity of European sites around Chalgrove from policies and site allocations in the NDP will not occur in relation to:
- Physical loss of or damage to habitat.
  - Non-physical disturbance: noise, vibration and light pollution.
  - Water quantity and quality.
  - Air pollution.
  - Recreation.
- 5.3 Policies H1A and H1B (put forward as a proposed revision) allocate 320 dwellings. Development of these sites has already been granted planning permission, therefore the Chalgrove NDP does not result in any additional 'new' homes and in-combination effects do not need to be assessed further.
- 5.4 In conclusion, the Chalgrove Neighbourhood Plan 2018 to 2033 – Final version will not give rise to likely significant effects on European sites, either alone or in-combination with other plans or projects, and Appropriate Assessment is therefore not required.**

LUC  
August 2018

# Appendix 1- European sites within 17km of Chalgrove

## 1. Aston Rowant Special Area of Conservation



### Site description

Aston Rowant is classified as SAC because it supports one of the largest remaining populations of juniper in lowland Britain. It is selected as an example of juniper formations on the chalk in the south east of England. At this site juniper is present as part of a mixed scrub community but also occurs as isolated bushes in chalk grassland. In common with most lowland populations of juniper, successful reproduction and survival of new generations of bushes is extremely rare and conservation is currently dependent upon significant levels of management intervention. The low level of reproductive success is the main threat to the feature at this site. Aston Rowant also supports *Asperulo-Fagetum* beech forests although this is not a primary reason for classification as SAC.

### Qualifying features

H5130	Juniper on heaths or calcareous grassland
H9130	Beech forests on neutral to rich soils
Site status* <sup>34</sup>	100% in favourable condition

### Special Area of Conservation objectives

1	Avoid the deterioration of the qualifying natural habitats and significant disturbance to them, ensuring the integrity of the site is maintained and makes a full contribution to achieving Favourable Conservation Status for the qualifying features on this site.
2	Subject to natural change, maintain or restore: <ul style="list-style-type: none"> <li>the extent and distribution of natural habitats, and habitats of protected species;</li> <li>the structure and function of habitats, and habitats of protected species</li> <li>the supporting processes on which protected species and their habits rely;</li> <li>the population of protected species; and</li> <li>the distribution of protected species within the site.</li> </ul>

### Site Improvement Plan<sup>35</sup>: pressures, threats and related development

The main pressures and threats to this site include an unsustainable on-site population, changes in species distribution, disease of juniper as well as the impacts of air pollution and the risks of atmospheric nitrogen deposition upon juniper. Additionally, conflicting conservation objectives threaten juniper and deer threaten beech. With regard to the types of development that may be brought forward in the Local Plan, air pollution could impact the site.

<sup>34</sup> Site status is an assessment by Natural England of the status of the SSSIs within the SAC

<sup>35</sup> Natural England - Site Improvement Plan: Aston Rowant (SIP007)

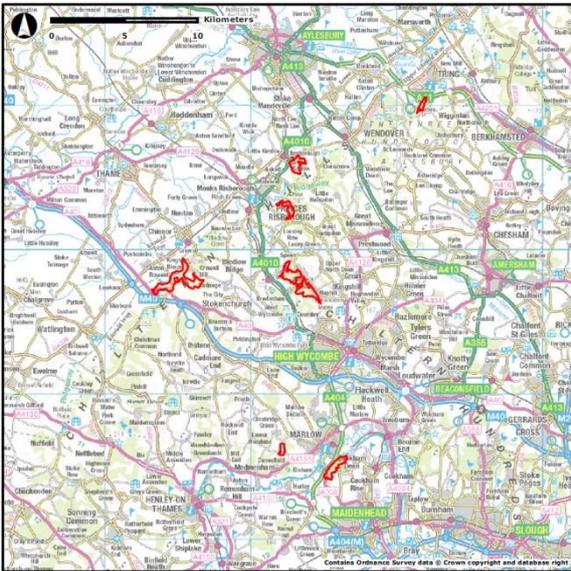
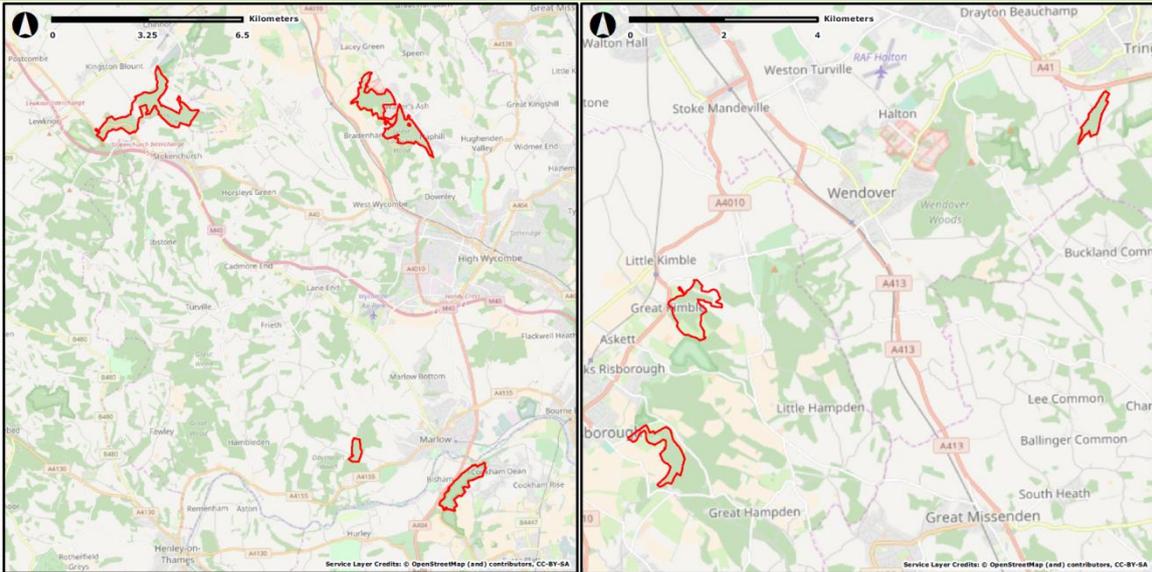
<http://publications.naturalengland.org.uk/publication/4960794580090880?category=6149691318206464>

## 1. Aston Rowant Special Area of Conservation

### Key environmental conditions supporting the site

1. Regular management to keep vegetation open and allow seedlings to establish
2. Prevention of rabbit grazing on seedlings
3. Minimal air pollution

## 2. Chilterns Beechwoods Special Area of Conservation



### Site description

The Chilterns Beechwoods SAC comprises nine separate sites scattered across the Chilterns. There are three features of interest: semi-natural grasslands and scrubland on chalk; *Asperulo-Fagetum* beech woodland (for which this is considered to be one of the best areas in the UK and lies in the centre of the habitat's UK range); and Stag beetle *Lucanus cervus*, for which the area is considered to support a significant presence. The rare coralroot *Cardamine bulbifera* is found in these woods.

### Qualifying features

H6210	Dry grasslands and scrublands on chalk or limestone
H9130	Beech forests on neutral to rich soils
S1083	Stag beetle
Site status*	100% in favourable condition

### Special Area of Conservation objectives

1	Avoid the deterioration of the qualifying natural habitats and significant disturbance to them, ensuring the integrity of the site is maintained and makes a full contribution to achieving Favourable Conservation Status for the qualifying features on this site.
2	Subject to natural change, maintain or restore: <ul style="list-style-type: none"> <li>the extent and distribution of natural habitats, and habitats of protected species;</li> <li>the structure and function of habitats, and habitats of protected species</li> <li>the supporting processes on which protected species and their habits rely;</li> <li>the population of protected species; and</li> <li>the distribution of protected species within the site.</li> </ul>

## 2. Chilterns Beechwoods Special Area of Conservation

### Site Improvement Plan<sup>36</sup>: pressures, threats and related development

The main pressures and threats to this site include the impacts of forestry and woodland management, disease, deer and the invasive species of grey squirrel upon beech. Additionally, the changes in species distribution of stag beetle as well as the impact of public access and disturbance upon stag beetle. Air pollution and the impact of atmospheric nitrogen deposition also threaten the dry grasslands, beech and stag beetle. With regard to the types of development that may be brought forward in the Local Plan, air pollution and visitor disturbance could impact the site.

### Key environmental conditions supporting the site

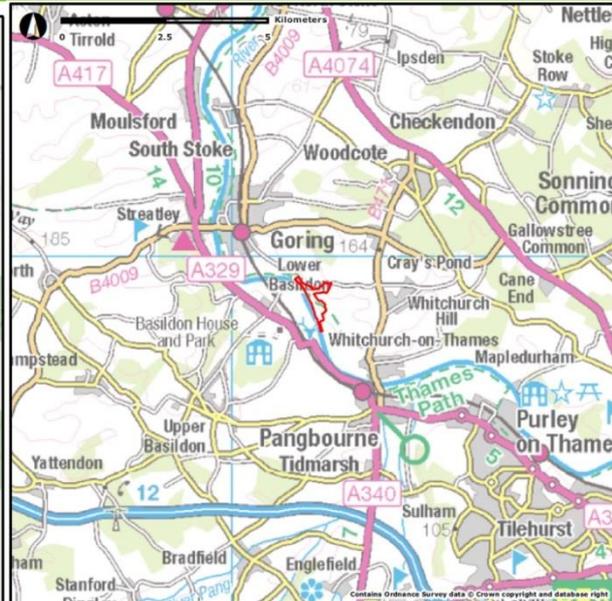
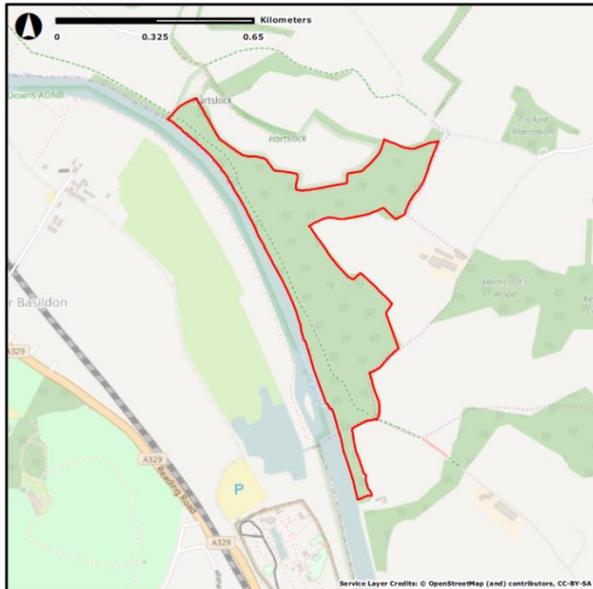
1. Minimal air pollution
2. Managed public access
3. Appropriate management of grasslands
4. Absence of direct fertilisation

\*Site status is an assessment by Natural England of the status of the Site of Special Scientific Interest within the SAC

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<sup>36</sup> Natural England - Site Improvement Plan: Chilterns Beechwoods (SIP045)  
<http://publications.naturalengland.org.uk/publication/6228755680854016?category=6149691318206464>

### 3. Hartslock Wood Special Area of Conservation



#### Site description

This site hosts the priority habitat type "orchid rich sites". The steep slopes of this site on the chalk of the Chilterns comprise a mosaic of chalk grassland, chalk scrub and broadleaved woodland. The chalk grassland mostly consists of a mosaic of shorter-turf NVC type CG2 *Festuca ovina*-*Avenula pratensis* grassland and taller CG3 *Bromus erectus* grassland. The site supports one of only three UK populations of monkey orchid *Orchis simia*, a nationally rare Red Data Book species. The bulk of this site lies on a steep slope above the River Thames. Recent storms and landslips have resulted in a diverse age-structure for the yew population. Open patches show a rich flora including local species such as southern wood-rush *Luzula forsteri*, wood barley *Hordelymus europaeus* and narrow-lipped helleborine *Epipactis leptochila*.

#### Qualifying features

H6210	Dry grasslands and scrublands on chalk or limestone
H91J0	Yew dominated woodland
Site status	100% in favourable condition

#### Special Area of Conservation objectives

1	Avoid the deterioration of the qualifying natural habitats and significant disturbance to them, ensuring the integrity of the site is maintained and makes a full contribution to achieving Favourable Conservation Status for the qualifying features on this site.
2	Subject to natural change, maintain or restore: <ul style="list-style-type: none"> <li>the extent and distribution of natural habitats, and habitats of protected species;</li> <li>the structure and function of habitats, and habitats of protected species</li> <li>the supporting processes on which protected species and their habits rely;</li> <li>the population of protected species; and</li> <li>the distribution of protected species within the site.</li> </ul>

#### Site Improvement Plan<sup>37</sup>: pressures, threats and related development

The main threat to this site is air pollution and the risk of atmospheric nitrogen deposition upon the dry grasslands and yew-dominated woodland. With regard to the types of development that may be brought forward in the Local Plan, air pollution could impact the site.

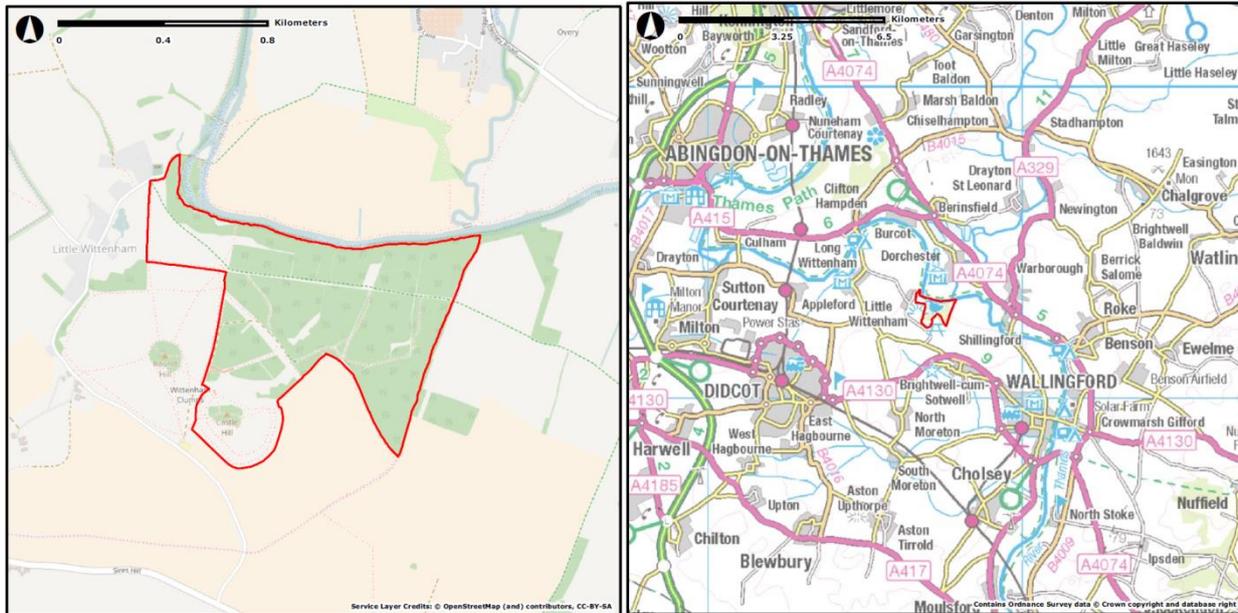
<sup>37</sup> Natural England - Site Improvement Plan: Hartslock Wood (SIP100)  
<http://publications.naturalengland.org.uk/publication/4874314121740288?category=6149691318206464>

### 3. Hartslock Wood Special Area of Conservation

#### Key environmental conditions supporting the site

1. Appropriate management of grazing
2. Minimal air pollution
3. Absence of direct fertilisation

#### 4. Little Wittenham Special Area of Conservation



#### Site description

One of the best-studied great crested newt sites in the UK, Little Wittenham comprises two main ponds set in a predominantly woodland context (broadleaved and conifer woodland is present). There are also areas of grassland, with sheep grazing and arable bordering the woodland to the south and west. The River Thames is just to the north of the site, and a hill fort to the south. Large numbers of great crested newts *Triturus cristatus* have been recorded in the two main ponds, and research has revealed that they range several hundred metres into the woodland blocks.

#### Qualifying features

S1166	Great crested newt
Site status	100% in favourable condition

#### Special Area of Conservation objectives

1	Avoid the deterioration of the qualifying natural habitats and significant disturbance to them, ensuring the integrity of the site is maintained and makes a full contribution to achieving Favourable Conservation Status for the qualifying features on this site.
2	Subject to natural change, maintain or restore: <ul style="list-style-type: none"> <li>the extent and distribution of natural habitats, and habitats of protected species;</li> <li>the structure and function of habitats, and habitats of protected species</li> <li>the supporting processes on which protected species and their habits rely;</li> <li>the population of protected species; and</li> <li>the distribution of protected species within the site.</li> </ul>

#### Site Improvement Plan<sup>38</sup>: pressures, threats and related development

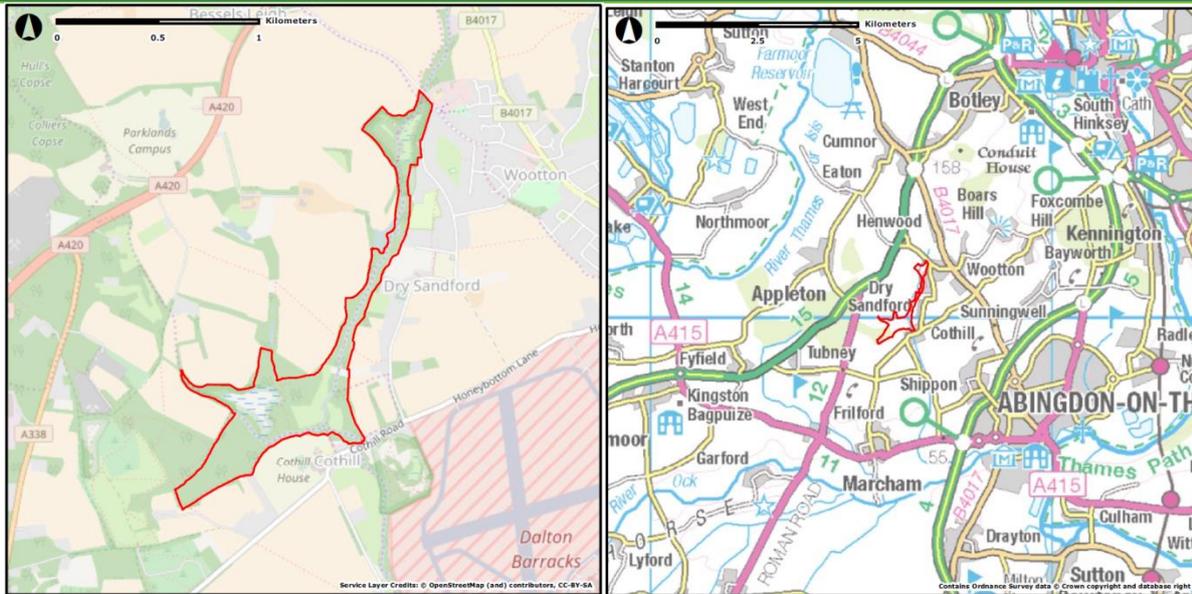
The main pressures and threats to this site include the impacts of public access and disturbance, and invasive fish species upon great crested newt. With regard to the types of development that may be brought forward in the Local Plan, visitor disturbance could impact the site.

#### Key environmental conditions supporting the site

- Suitable foraging and refuge habitat within 500 metres of the pond
- Relatively unpolluted water of neutral pH
- Some ponds deep enough to retain water throughout February to August at least one year in three

<sup>38</sup> Natural England - Site Improvement Plan: Little Wittenham (SIP122)  
<http://publications.naturalengland.org.uk/publication/6567758347108352?category=6149691318206464>

## 5. Cothill Fen Special Area of Conservation



### Site description

Cothill Fen is an exceptionally important site with an outstanding range of nationally rare habitats which support a large number of rare invertebrates and plants. The habitats consist of calcareous fen, calcareous grassland, woodland and scrub of varying degrees of wetness. The habitat supports over 330 species of vascular plant and over 120 nationally scarce or rare invertebrates, including the nationally rare Southern Damselfly (*Coenagrion mercuriale*).

### Qualifying features

H7230	Alkaline Fens; Calcium-rich springwater-fed fens
H91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ; Alder woodland on floodplains
Site status*	65% in favourable condition; 35% in unfavourable recovering condition

### Special Area of Conservation objectives

1	Avoid the deterioration of the qualifying natural habitats and significant disturbance to them, ensuring the integrity of the site is maintained and makes a full contribution to achieving Favourable Conservation Status for the qualifying features on this site.
2	Subject to natural change, maintain or restore: <ul style="list-style-type: none"> <li>the extent and distribution of natural habitats, and habitats of protected species;</li> <li>the structure and function of habitats, and habitats of protected species</li> <li>the supporting processes on which protected species and their habits rely;</li> <li>the population of protected species; and</li> <li>the distribution of protected species within the site.</li> </ul>

### Site Improvement Plan<sup>39</sup>: pressures, threats and related development

The main pressures and threats to this site include the impacts of water pollution and hydrological changes, as well as air pollution and the impact of atmospheric nitrogen deposition upon the calcium-rich spring water-fed fens.

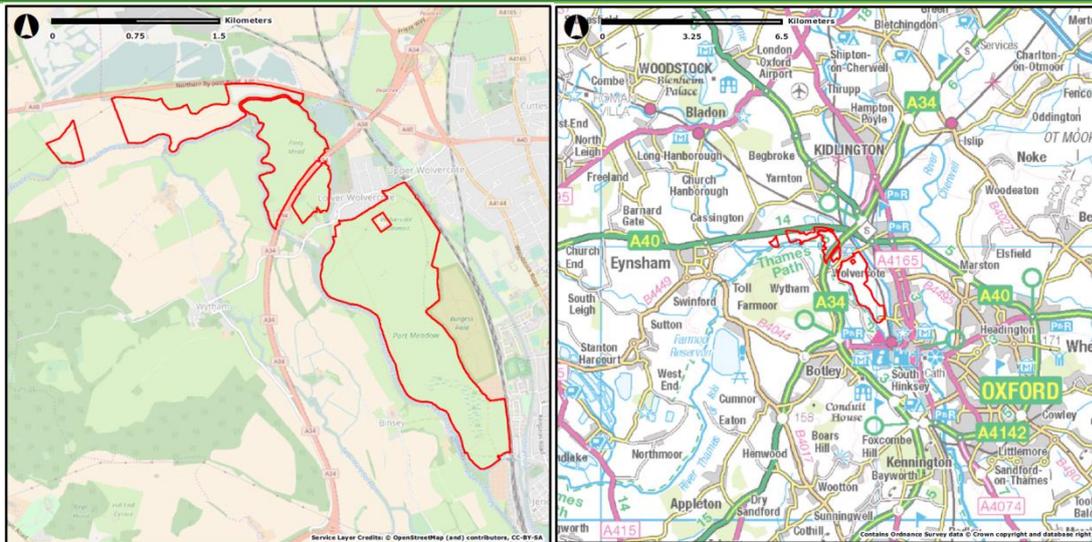
With regard to the types of development that may be brought forward in the Local Plan, air pollution, and water quality and quantity could impact the site.

### Key environmental conditions supporting the site

1. High water table
2. Calcareous base rich water supply

<sup>39</sup> Natural England - Site Improvement Plan: Cothill Fen (SIP047)  
<http://publications.naturalengland.org.uk/publication/6482436405854208?category=6149691318206464>

## 6. Oxford Meadows Special Area of Conservation



### Site description

Oxford Meadows is one of two SACs that represent lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*) in the Thames Valley. It includes vegetation communities that are perhaps unique in the world in reflecting the influence of long-term grazing and hay-cutting on lowland hay meadows. The site has benefited from the survival of traditional management, which has been undertaken for several centuries, and so exhibits good conservation of structure and function. The site is selected because Port Meadow is the larger of only two known sites in the UK for creeping marshwort *Apium repens*.

### Qualifying features

H6510	Lowland hay meadows
S1614	Apium repens; Creeping marshwort
Site status*	100% in favourable condition

### Special Area of Conservation objectives

1	Avoid the deterioration of the qualifying natural habitats and significant disturbance to them, ensuring the integrity of the site is maintained and makes a full contribution to achieving Favourable Conservation Status for the qualifying features on this site.
2	Subject to natural change, maintain or restore: <ul style="list-style-type: none"> <li>the extent and distribution of natural habitats, and habitats of protected species;</li> <li>the structure and function of habitats, and habitats of protected species</li> <li>the supporting processes on which protected species and their habits rely;</li> <li>the population of protected species; and</li> <li>the distribution of protected species within the site.</li> </ul>

### Site Improvement Plan<sup>40</sup>: pressures, threats and related development

The main pressures and threats to this site include the impacts of hydrological changes and the invasive species of *Crassula* upon creeping marshwort. With regard to the types of development that may be brought forward in the Local Plan, water quantity changes could impact the site.

### Key environmental conditions supporting the site

1. Maintenance of traditional hay cut
2. Maintenance of appropriate grazing regime
3. Minimal air pollution
4. Absence of direct fertilisation

<sup>40</sup> Natural England - Site Improvement Plan: Oxford Meadows (SIP163)  
<http://publications.naturalengland.org.uk/publication/4942743310696448?category=6149691318206464>

## 6. Oxford Meadows Special Area of Conservation

5. Balanced hydrological regime
6. Absence of excessive nutrient enrichment of floodwaters

\*Site status is an assessment by Natural England of the status of the SSSIs within the SAC

# Appendix 2– Screening matrix

The screening matrix below shows which types of effects on European sites could potentially result from each of the policies and sites allocated in the NDP. Where a site is not expected to have a particular type of effect, the relevant cell is shaded **green**. Where a site could potentially have a certain type of effect, this is shown in **orange**. The final column sets out the screening conclusions.

	Likely activities (operation) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected	Could the proposal have likely significant effects on European sites?
Policy C1 - Development Within the Built-up Area	Small-scale development e.g. residential	Air pollution Recreation	Aston Rowant SAC, Little Wittenham SAC	No – The policy allows allocated or small-scale development to be sited within the built-up area of the village. Allocated development is assessed in relation to Policy H1A and H1B. Any further development arising from this policy is expected to be small scale and unlikely to result in significant effects.
Policy C2 - Design and Character	None – this policy defines the design requirements for new development but will not result in new development.	n/a	n/a	No
Policy H1 - Housing Site Allocation and site allocations:  Policy H1A – Land to the west of Marley Lane (200 dwellings)  Proposed revision: Policy H1B – Land to the East of Chalgrove (120 dwellings)	Residential development  Increase in vehicle traffic  Increase in recreational pressure	Air pollution Recreation	Aston Rowant SAC, Little Wittenham SAC	No – These site allocations already have planning permission.
Policy H2 - Dwelling Mix	None – this policy defines the dwelling mix requirements for new residential development but will not itself result in new development.	n/a	n/a	No
Policy H3 - Home Working	None – this policy seeks to reduce the need for car travel by supporting home working and will not lead to an increase in traffic.	n/a	n/a	No

	<b>Likely activities (operation) to result as a consequence of the proposal</b>	<b>Likely effects if proposal implemented</b>	<b>European site(s) potentially affected</b>	<b>Could the proposal have likely significant effects on European sites?</b>
Policy H4 - Residential parking	None – this policy requires new residential development to provide parking but will not itself result in increased traffic, beyond that assessed in relation to new housing provision.	n/a	n/a	No
Policy H5 - Walking and Cycling	None - this policy requires new development to be connected to the footpath and cycle network	n/a	n/a	No
Policy CF1 - Community Infrastructure Levy	None - this policy indicates how Community Infrastructure Levy will be spent	n/a	n/a	No
Policy CF2 - Community Assets	None – this policy provides protection for designated Assets of Community Value, and will not result in new development.	n/a	n/a	No
Policy CF3 - Improvements to Community Assets	None - this policy supports proposals to improve the viability of designated Assets of Community Value and other established community uses.	n/a	n/a	No