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Watlington Neighbourhood Development Plan

Habitats Regulations Assessment Screening

HRA Screening Report
Prepared by LUC
October 2017

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

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Contents

1	Introduction	1
	Background	1
	The requirements to undertake HRA of development plans	1
	Stages of Habitats Regulations Assessment	2
2	Watlington Neighbourhood Plan	4
	Summary of the Neighbourhood Plan	4
	Number of homes assessed in this HRA	5
3	HRA Screening Methodology	6
	European sites which may be affected by the Neighbourhood Plan	6
	Assessment of 'likely significant effects' of the Neighbourhood Plan	8
	Interpretation of 'likely significant effect'	8
	Mitigation provided by the Neighbourhood Plan	9
	Screening assumptions and information used in reaching conclusions about likely significant effects	9
	Identification of other plans and projects which may have 'in-combination' effects	13
4	HRA Screening Assessment	15
	Significant effects likely	15
	Significant effects unlikely	15
	Significant effects uncertain	16
5	Conclusions	19
	Appendix 1 - European sites within 17km of Watlington	21
	Appendix 2 - Screening matrix for the Neighbourhood Plan	29
Tables		
	Table 1.1 Stages in HRA	2
Figures		
	Figure 3.1: European sites within 17km of Watlington	7

1 Introduction

- 1.1 LUC has been commissioned by South Oxfordshire District Council to carry out a Habitats Regulations Assessment (HRA) of the Watlington Draft Neighbourhood Development (August 2017). This report presents the methodology and findings of the initial HRA screening stage.

Background

- 1.2 The draft Watlington Neighbourhood Development Plan¹ sets out policies and site allocations to guide future development within the town, to 2033. The Neighbourhood Plan adds detail to the policies contained within the district-wide South Oxfordshire Local Plan and planning applications in Watlington would be considered against both plans.
- 1.3 South Oxfordshire District Council (SODC) is producing a new Local Plan for the district (the Local Plan Second Preferred Options², March 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).
- 1.4 The HRA of the Watlington Neighbourhood Plan 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 scale of development allowed for in the Watlington Neighbourhood Plan exceeds that allocated within the Local Plan 2011 and Core Strategy 2012 but meets, as a minimum, the allocation set out in the emerging new South Oxfordshire Local Plan and the HRA of those plans has informed the HRA screening of the Watlington Neighbourhood Plan, where applicable.

The requirements to undertake HRA of development plans

- 1.1 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 2010³ and again in 2012⁴.
- 1.2 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.
- 1.3 Currently, the Government also expects potential SPAs (pSPAs), candidate SACs (cSACs) and Ramsar sites to be included within the assessment⁵.

¹ <http://www.watlingtonnp.org.uk/Watlington-Neighbourhood-Plan/Default.aspx>

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

³ The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007. HMSO 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.

⁴ The Conservation of Habitats and Species (Amendment) Regulations 2012. Statutory Instrument 2012 No. 1927.

- 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).

1.4 For ease of reference during HRA, these three designations are collectively referred to as European sites, despite Ramsar designations being at the wider international level.

1.5 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 1 habitats, Annex 11 species, and Annex 1 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

1.6 **Table 1.1** below summarises the stages involved in carrying out a full HRA, based on various guidance documents^{6,7}. This HRA presents the methodology and findings of Stage 1: Screening.

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 (taking into account potential mitigation provided by other policies in the plan).	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.

1.7 In assessing the effects of the Neighbourhood Plan in accordance with Regulation 102 of the Conservation of Habitats and Species Regulations 2010, there are potentially two tests to be

⁵ Department of Communities and Local Government (March 2012) National Planning Policy Framework (para 118).

⁶ *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.

⁷ *The HRA Handbook.* David Tyldesley & Associates, a subscription based online guidance document: <https://www.dtapublications.co.uk/handbook/>

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. 102(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not –
- Step 2: Under Reg. 102(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. 102(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. 102(2) to consult Natural England, and optional under Reg. 102(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.102(4), but subject to Reg.103, give effect to the land use plan only after having ascertained that the plan will not adversely affect the integrity of the European site.

1.8 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 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.

1.9 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 body⁸ 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.

⁸ Regulation 5 of *The Conservation of Habitats and Species Regulations 2010*. HMSO Statutory Instrument 2010 No. 490.

2 Watlington Neighbourhood Plan

- 2.1 The Watlington Neighbourhood Plan provides an overall vision and objectives, along with nine policies and site allocations to guide development. These are summarised below, along with an explanation of the aspects of the plan that are relevant to this HRA.

Summary of the Neighbourhood Plan

- 2.2 The plan's vision states:

"In 2033, Watlington will be a small, thriving Chilterns town, adapted to the reality of change in South Oxfordshire. New housing will have been added to the current built form, in a sensitive and inter-connected manner, providing a balanced mix for the range of people who have chosen to make their home in Watlington. A re-aligned route for the B4009 from the Pyrton crossroads to the Britwell Road will mitigate traffic congestion and air pollution in the town centre. The area around the Town Hall will be attractive and accessible and create an environment where retail businesses thrive. The local economy will be strong and more people will be able to work closer to home making full use of the town as a "service centre". The natural and historic environment will be conserved and from the vantage point of Watlington Hill, the town will retain its compact appearance in the landscape. The town will retain its strong sense of community and friendliness and will be a place where people enjoy coming to live."

- 2.3 In order to achieve this vision, the plan outlines six core objectives:

- CO1. Protect and enhance the special features of Watlington;
- CO2. Resolve traffic issues;
- CO3. Conserve and enhance the natural environment;
- CO4. Make good provision for new and existing residents;
- CO5. Help the local economy to grow; and
- CO6. Ensure that local infrastructure is in place to meet the needs of a growing population.

- 2.4 The plan outlines nine policies to achieve these objectives:

- Policy P1. Protect and enhance the character of Watlington and the historic setting of the town;
- Policy P2. Transport;
- Policy P3. Conserve and enhance the natural environment;
- Policy P4. Green spaces;
- Policy P5. New housing development;
- Policy P6. Enhance Watlington as a service centre;
- Policy P7. Employment;
- Policy P8. Physical and social infrastructure; and
- Policy P9. Proposals for use of the Community Infrastructure Levy (CIL).

- 2.5 The plan allocates three sites to provide for a minimum of approximately 238 dwellings. The development quantum of each site is as follows:
- **Site A - Land between Britwell Road and Cuxham Road** - Residential development for approximately 140 dwellings and a small number of workshops and/or offices for small businesses or start ups
 - **Site B - Land Off Cuxham Road and Willow Close** - Residential development for approximately 38-60 dwellings
 - **Site C - Land off Pyrton Lane**- Residential development for approximately 60 dwellings

Number of homes assessed in this HRA

- 2.6 The Watlington Neighbourhood Plan allocates space for a minimum of 238 and indicative numbers for each site suggest provision for 260. In addition, it permits small scale residential developments of up to five dwellings.
- 2.7 The HRA also considers the potential for effects arising from the Neighbourhood Plan in combination with other proposals. South Oxfordshire's adopted Core Strategy allocated 79⁹ homes in Watlington. However, the emerging new Local Plan intends that larger villages such as Watlington will achieve 15% growth in new homes. The emerging new Local Plan therefore allocates 238 homes in Watlington.
- 2.8 The number of new homes arising from the Neighbourhood Plan is therefore 159-181 homes above that assessed in the Core Strategy. The Neighbourhood Plan also exceeds the Local Plan allocation by c.22 homes.

⁹ 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 79 homes in Watlington. 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>

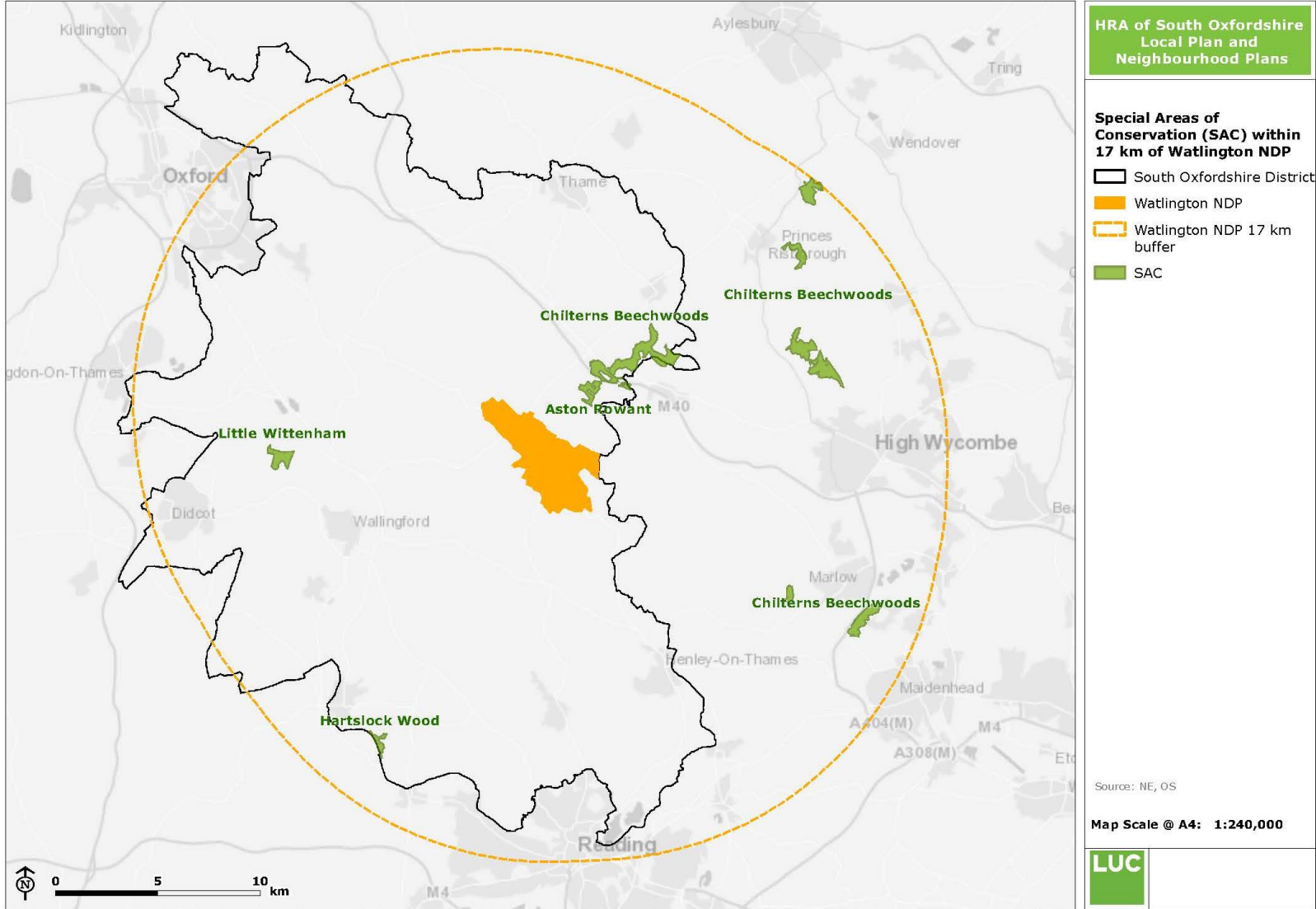
3 HRA Screening Methodology

- 3.1 HRA Screening of the Neighbourhood Plan has been undertaken in line with current available guidance and seeks to meet the requirements of the Habitats Regulations. 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 Plan

- 3.2 The HRA of the emerging new South Oxfordshire 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 Watlington and have been included in the HRA:
- Little Wittenham SAC;
 - Aston Rowant SAC;
 - Chilterns Beechwoods SAC; and
 - 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 Watlington



Assessment of 'likely significant effects' of the Neighbourhood Plan

- 3.5 As required under Regulation 102 of the Conservation of Habitats and Species Regulations 2010¹⁰ (the 'Habitats Regulations'), an assessment has been undertaken of the 'likely significant effects' of the Neighbourhood Plan. 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 Watlington, without taking mitigation into account. Within the matrix, consideration has been given to the potential for the development proposed at each site 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; and
 - Changes to hydrological regimes.
- 3.6 The determination of which effects to include in the HRA screening of the Watlington Neighbourhood Plan is designed to be consistent with those included in the HRA screening being undertaken of the emerging new 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**, where the potential to mitigate the possible significant effects identified is also explained.
- 3.8 This approach allows for consideration to be given to the cumulative effects of the site allocations as well as simply focussing on each site individually.
- 3.9 A risk-based approach involving the application of the precautionary principle has been adopted in the assessment, such that a conclusion of 'no 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 Neighbourhood Plan would have a significant effect on the integrity of a European site.
- 3.10 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 significant effects, but this is currently uncertain (Appropriate Assessment required).
Green	There are unlikely to be significant effects (Appropriate Assessment not required).

Interpretation of 'likely significant effect'

- 3.11 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.
- 3.12 In the Waddenzee case¹¹, the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), including that:

¹⁰ SI No. 2010/490

¹¹ ECJ Case C-127/02 "Waddenzee" Jan 2004.

- 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
- 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).

3.13 A relevant opinion delivered to the Court of Justice of the European Union¹² 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."

3.14 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'.

Mitigation provided by the Neighbourhood Plan

- 3.15 Some of the potential effects identified could be mitigated through the implementation of policies within the Neighbourhood Plan itself. These include policies that require the provision of green spaces, which could help to mitigate potential effects associated with increased recreational pressure elsewhere, and policies aimed at reducing the impacts of car travel, which could help to mitigate potential effects associated with air pollution.
- 3.16 This potential mitigation has been taken into consideration during the screening process and has influenced the screening assumptions set out below and the screening conclusions (see **Chapter 4**). Where it has been possible to conclude that there would be no likely significant effects taking into account mitigation, then there is no need to carry out Appropriate Assessment.

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

- 3.17 The screening stage of the HRA has taken the approach of screening each policy and site allocation individually.
- 3.18 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 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

- 3.19 Any development resulting from the Neighbourhood Plan will be located within Watlington. There are no European sites within the Neighbourhood Plan area, therefore loss of habitat from within the boundaries of a European site can be ruled out in relation to all sites.

¹² Advocate General's Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanala 22nd Nov 2012.

- 3.20 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).
- 3.21 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.
- 3.22 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.¹³ The preferred habitat for stag beetles is old, established woodland, and the larvae feed on rotting tree matter.¹⁶ 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.¹⁴ Research¹⁵ suggests that 2km may be an appropriate 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 Watlington, therefore potential loss of or damage to off-site habitats associated with Chilterns Beechwoods SAC can be screened out of further assessment.
- 3.23 Great crested newts will travel away from their breeding ponds, during the terrestrial phase of their lifecycle, but not large distances. 500 metres¹⁶ from their breeding location is considered an appropriate buffer distance inside which great crested newts might be found. The site listing for Little Wittenham SAC¹⁷ 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 farmland¹⁸. 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.
- 3.24 **The 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

- 3.25 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.
- 3.26 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 Watlington.
- 3.27 **Therefore, effects in relation to noise, vibration and light pollution can be screened out of further assessment.**

Air pollution

- 3.28 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

¹³ <https://www.royalparks.org.uk/parks/richmond-park/richmond-park-attractions/wildlife/stag-beetles>

¹⁴ <http://www.arkive.org/stag-beetle/lucanus-cervus/>

¹⁵ <http://onlinelibrary.wiley.com/doi/10.1111/j.1469-7998.2006.00282.x/abstract>

¹⁶ <https://www.gov.uk/guidance/great-crested-newts-surveys-and-mitigation-for-development-projects>

¹⁷ <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030184>

¹⁸ http://etheses.dur.ac.uk/6683/1/6683_3987.PDF

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.

- 3.29 In terms of vehicle traffic, nitrogen oxides (NO_x, i.e. NO and NO₂) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NO_x can cause eutrophication of soils and water.
- 3.30 Based on the Highways Agency Design for Road and Bridges (DMRB) Manual Volume 11, Section 3, Part 1¹⁹ (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.
- 3.31 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 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.
- 3.32 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 were ruled out.
- 3.33 The European sites within 17km of Watlington that are within 200m of strategic roads are Aston Rowant SAC (M40) and Chilterns Beechwoods SAC (A404, A4010). Aston Rowant is located approximately 2.2km north and Chilterns Beechwoods is located approximately 3.7km northeast of Watlington.
- 3.34 Note that the portion of Chilterns Beechwoods SAC that lies closest to Watlington (and is adjacent to Aston Rowant SAC) is not within 200m of a strategic road. The portions of the SAC that are within 17km of Watlington that are adjacent to strategic roads are next to the A4010 between High Wycombe and Princes Risborough, c.11km from Watlington, and the portion adjacent to the A404 south of Marlow and c.13.9km from Watlington.
- 3.35 **The potential effects of air pollution have therefore been screened in in relation to Aston Rowant SAC and Chilterns Beechwoods SAC.**

Recreation

- 3.36 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.
- 3.37 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 the residents of Watlington, are most likely to be affected by the Neighbourhood Plan.

¹⁹ <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3/ha20707.pdf>

- 3.38 To identify the distance at which the Neighbourhood Plan 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 greenspace²⁰. Visitor surveys²¹ at Little Wittenham SAC also identified that the majority of the visitors to the site live within 20 minutes driving time.
- 3.39 An alternative measure is to use the 'Zone of Influence' identified by the Thames Basin Heaths SPA Delivery Framework²². 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 proxy for the distance from housing development within which likely significant recreational effects cannot be ruled out.
- 3.40 The Framework advises that there is 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.
- 3.41 Little Wittenham SAC lies c.9.4km and a 25 minute drive away from Watlington. Hartslock Wood lies c.13.4km and a 30 minute drive away from Watlington. Aston Rowant and Chilterns Beechwoods are located approximately 2.2km and 3.7km from Watlington and are a 10 minute drive away.
- 3.42 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 them lying close to large settlements:
- Aston Rowant SAC²³: c.7km from Thame; and
 - Hartslock Wood SAC²⁴: <2km from Goring and Pangbourne.
- 3.43 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 should be considered further. This work has not yet concluded, therefore as a precaution and because Aston Rowant SAC lies close to Watlington, recreation pressure will be considered in relation to the Watlington Neighbourhood Plan.
- 3.44 At Chilterns Beechwoods SAC, public access / disturbance is only identified as a threat or pressure in relation to the stag beetle population. The portion of the SAC that supports the stag beetle population (Bisham Woods SSSI) is 13.9km and a 35 minute drive away from Watlington.
- 3.45 Due to their distance from Watlington and taking into account the sensitivity of the sites and their qualifying features, it is considered that Little Wittenham, Hartslock Wood SAC and Chilterns Beechwoods SAC are not likely to be significantly affected by recreational pressure as a result of development at Watlington, either alone or in combination with other plans.
- 3.46 **The effects of recreation are therefore screened in in relation to Ashton Rowant SAC, but screened out in relation to all other European sites.**

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

²¹ Earth Trust (2016) *Statement of Need for Improvements to the Earth Trust Centre*

²² http://www.waverley.gov.uk/downloads/file/3503/thames_basin_heaths_spa_delivery_framework_2009_-_thames_basin_heaths_joint_strategic_partnership_board

²³ Site Improvement Plan for Aston Rowant SAC: <http://publications.naturalengland.org.uk/publication/4960794580090880>

²⁴ Site Improvement Plan for Hartslock Wood SAC: <http://publications.naturalengland.org.uk/publication/4874314121740288>

Water quantity and quality

- 3.47 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 only European site close to Watlington with aquatic or wetland habitats is 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 site²⁵; this site has therefore been screened out.
- 3.48 **Potential water quality and hydrological effects have therefore been screened out of further assessment for all sites.**

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

- 3.49 Regulation 102 of the Amended Habitats Regulations 2010 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".
- 3.50 The first stage in identifying 'in-combination' effects involves identifying which other plans and projects in addition to the Watlington Neighbourhood Plan 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).
- 3.51 Only four parishes in South Oxfordshire have adopted neighbourhood plans. However, 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; and
 - 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.
- 3.52 In addition, two neighbourhood plans for villages close to Watlington are likely to be adopted ahead of the Watlington Neighbourhood Plan:
- Long Wittenham Neighbourhood Plan, which allocates no specific number of homes but considers that it could grow by c.5% (c.15 homes) over the plan period, through minor development; and
 - Brightwell-cum-Sotwell Neighbourhood Plan, which provides land that could accommodate c.60 homes (a c.13% increase).
- 3.53 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 emerging 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 emerging Local Plan.
- 3.54 The Benson Parish Neighbourhood Plan is currently being prepared. This allocates more homes for the village than are set out in the emerging new South Oxfordshire Local Plan, as well as the Local Plan 2011 and Core Strategy 2012. Consideration will be made of this with regard to the assessment of in-combination air pollution effects. The Benson Plan is not expected to impact upon recreation pressure at Aston Rowant SAC.

²⁵ Site Improvement Plan for Little Wittenham SAC <http://publications.naturalengland.org.uk/publication/6567758347108352>

- 3.55 High Wycombe and Princes Risborough, both in Wycombe district, lie <10km from Aston Rowant SAC and <4km from Chilterns Beechwoods SAC (the portion close to the A4010), therefore new homes allocated in the Wycombe Local Plan could have in-combination air pollution effects. The HRA of the emerging Wycombe District Local Plan has not yet been completed. It is therefore not possible to conclude on the basis of previous work whether air pollution effects due to the combination of the South Oxfordshire, Wycombe and Watlington plans are likely.
- 3.56 The South Oxfordshire Core Strategy and emerging new Local Plan have the potential for in-combination effects with the Watlington Neighbourhood Plan. The HRA reports for the Core Strategy and Local Plan have taken into account potential in-combination effects with other neighbouring authorities' plans. Additional development proposed at Watlington, i.e. the quantum of development that is over and above that allocated in the Core Strategy or Local Plan (see paragraphs 2.6-2.8), has therefore been considered with reference to in-combination effects identified in the HRAs of the Core Strategy and the Local Plan.

4 HRA Screening Assessment

- 4.1 As described in **Chapter 3**, a screening assessment has been carried out in order to identify the likely significant effects of the Neighbourhood Plan on nearby European sites. The full screening matrix used for this assessment can be found in **Appendix 2** and the findings are summarised in the sections below.
- 4.2 This HRA report has taken the approach of screening each policy individually. In reality, however, the Neighbourhood Plan policies will combine to deliver the overall scale of development within the town and the in-combination effects of the policies together have therefore been taken into consideration where relevant.

Significant effects likely

- 4.3 **None of the policies or site allocations** in the Neighbourhood Plan is considered **likely** to result in significant effects on the European sites within 17km of Watlington.

Significant effects unlikely

- 4.4 Significant effects are considered **unlikely** in relation to **most of the Neighbourhood Plan 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. In some cases the policies also provide mitigation for the effects of other policies in the plan.
- 4.5 The following policies are screened out because they will not result directly in development:
- Policy P1. Protect and enhance the character of Watlington and the historic setting of the town;
 - Policy P2. Transport;
 - Policy P3. Conserve and enhance the natural environment;
 - Policy P4. Green Spaces;
 - Policy P6. Enhance Watlington as a service centre; and
 - Policy P9. Proposals for use of the Community Infrastructure Levy (CIL).
- 4.6 The following policies will result in development of a type that could increase traffic and therefore have the potential to cause air pollution effects, but are of a scale that is unlikely to result in significant air pollution effects:
- Policy P7. Employment; and
 - Policy P8. Physical and social infrastructure.
- 4.7 Of the policies listed above, the following also provide mitigation for effects arising from other policies in the plan:
- Policy P2. Transport: requires developments to demonstrate that they will not have significant impacts on the transport network and will minimise air pollution, and could therefore minimise air pollution effects;
 - Policy P4. Green Spaces: requires new developments to provide green space, and could therefore minimise recreational pressure effects; and

- Policy P8. Physical and social infrastructure: encourages development to contribute to improved pedestrian and cycle safety, as well as increase and improve pedestrian and cycle routes, and could therefore minimise air pollution effects.

Significant effects uncertain

- 4.8 For some of the Neighbourhood Plan policies it was concluded that there **may** be a significant effect on one or more European sites, **although this is uncertain**. Therefore, in line with the precautionary approach being applied in the HRA, until significant effects can be ruled out they are identified as likely significant effects.

Air pollution effects

- 4.9 The policies and site allocations identified as having uncertain effects on Aston Rowant SAC and Chilterns Beechwoods SAC, due to increased traffic and air pollution, are those that will result in new homes and employment development:
- Policy P5. New housing development (small scale development of up to five homes);
 - Site A - Land between Britwell Road and Cuxham Road - c.140 homes and a small number of workshops and/or offices for small businesses or start ups;
 - Site B - Land Off Cuxham Road and Willow Close - c.38-60 homes; and
 - Site C - Land off Pyrton Lane - c.60 homes.
- 4.10 Of the policies listed above, the following also provides mitigation for effects arising from its implementation:
- Site A - Land between Britwell Road and Cuxham Road: provides for suitable traffic calming measures on Britwell Road and Cuxham Road as agreed with OCC, and could therefore minimise increases in air pollution.
- 4.11 Data on commuting by car²⁶ indicates that people living in Watlington travel to a number of locations for work, with Henley-on-Thames receiving a slightly higher proportion than other locations. Very few journeys would require use of the A404 or A4010 in the direction of Chilterns Beechwoods SAC. Although a small proportion of journeys are likely to involve the M40 (for example those in the direction of London), which would pass Aston Rowant SAC, the overall quantum of development proposed at Watlington would not increase traffic flows by more than 1000 AADT on the M40.
- 4.12 Travel to Watlington for work comes from a spread of locations, with a slightly higher proportion of trips from Benson, Newington and Chinnor. Very few journeys are made to Watlington from the direction of roads adjacent to Chilterns Beechwoods SAC or Aston Rowant SAC.
- 4.13 Watlington Neighbourhood Plan alone is therefore unlikely to significantly increase traffic, and therefore air pollution, adjacent to sensitive European sites.**
- 4.14 The Neighbourhood Plan does, however, have the potential to have impacts on air pollution in combination with other plans.
- 4.15 The HRA of the Core Strategy²⁷ found that development arising from the Core Strategy as a whole would not have an air pollution effect on Aston Rowant SAC or Chilterns Beechwoods SAC, either alone or in combination with other plans. The small proportion of additional traffic that would pass the sites due to the Watlington Neighbourhood Plan is not considered likely to lead to a significant increase in traffic flows, over and above that produced by the Core Strategy, which is the current district-wide plan. The HRA of the emerging new Local Plan, however, has not yet concluded as the district-wide traffic model is not yet available.

²⁶ UCL's DataShine Commute: <http://commute.datashine.org.uk>

²⁷ http://www.southoxon.gov.uk/sites/default/files/Appropriate%20Assessment_2.pdf

- 4.16 It is worth noting that recent case law, known as the Wealden judgement²⁸, has revised the method by which Natural England expects to see in-combination air pollution effects assessed. The implication of the judgement is that, where the road traffic effects of other plans or projects are known or can be reasonably estimated (including those of adopted plans or consented projects), then these should be included in road traffic modelling by the local authority whose local plan or project is being assessed. The screening criteria of 1,000 AADT should then be applied to the traffic flows of the plans in combination.
- 4.17 If the traffic data shows that the emerging new Local Plan, either alone or in combination with other plans (including Watlington Neighbourhood Plan and expected growth in neighbouring districts including Wycombe), will increase traffic flows adjacent to sensitive sites by more than 1,000 AADT, then an assessment of air quality and the effects on the sites' qualifying features will be undertaken as part of the Appropriate Assessment of the emerging new Local Plan.
- 4.18 South Oxfordshire District Council is the competent authority for the HRAs of both the Local Plan and the Watlington Neighbourhood Plan, which are effectively proceeding in parallel. The air pollution effects of the Local Plan in combination with the Watlington Neighbourhood Plan will therefore be assessed as part of the Local Plan HRA work, which is more appropriate than assessing the whole district's traffic contribution from the perspective of the Neighbourhood Plan HRA, if the traffic data indicates that it is needed. It is expected that the HRA of the emerging new Local Plan will have fully assessed the wider in-combination effects of air pollution, including with Watlington Neighbourhood Plan, before the Neighbourhood Plan is subject to examination.
- 4.19 The findings of this work will feed into the HRA of the Watlington Neighbourhood Plan as soon as it is available. However, until that point in time, in line with the precautionary principle, it is not possible to screen out likely significant effects of air pollution on Aston Rowant SAC or Chilterns Beechwoods SAC in-combination with other plans or projects and therefore conclude this HRA work. Once the Appropriate Assessment of the Local Plan has been progressed further, the Neighbourhood Plan will be finalised to include reference to the assessment of effects arising from the combination of the Local Plan, Watlington Neighbourhood Plan, and any other relevant plans.**

Recreation effects

- 4.20 The policies identified as having uncertain effects on Aston Rowant SAC, due to increased visitor numbers, are those that will result in new homes:
- Policy P5. New housing development (small scale development of up to five homes);
 - Site A - Land between Britwell Road and Cuxham Road - c.140 homes;
 - Site B - Land Off Cuxham Road and Willow Close - c.38-60 homes; and
 - Site C - Land off Pyrton Lane - c.60 homes.
- 4.21 South Oxfordshire is expected to have an average household size of 2.18²⁹ by 2026 (close to the end of the plan period). Therefore, the 238-260 new homes that these policies provide for could result in a local population increase of c.518-556. There are currently approximately 35,708³⁰ people living within 7km of Aston Rowant SAC, based on 2011 Census data, therefore for the increase in population due to the Neighbourhood Plan represents an increase of c.1.5%.
- 4.22 In addition, mitigation contained within Watlington Neighbourhood Plan policy will encourage local residents to use make use of local sites for some recreation activities and therefore reduce the number of trips to Aston Rowant SAC from Watlington:
- Policy P4. Green Spaces: requires new developments to provide green space, and could therefore minimise recreational pressure effects.

²⁸ Wealden District Council v. (1) Secretary of State for Communities and Local Government; (2) Lewes District Council; (3) South Downs National Park Authority and Natural England

³⁰ Based on 2011 census data for Lower Super Output Areas in South Oxfordshire that are 7km from Aston Rowant SAC; calculated using GIS

- 4.23 **Watlington Neighbourhood Plan alone is therefore not expected to have a significant effect on visitor numbers at Aston Rowant SAC.**
- 4.24 The Neighbourhood Plan could, however, increase recreational pressure in combination with other plans.
- 4.25 Although Aston Rowant SAC is not recorded in Natural England's Site Improvement Plan as being sensitive to recreation, comments received on the South Oxfordshire Local Plan HRA in response to the Regulation 18 consultation suggested that recreation impacts at Aston Rowant SAC should be considered further. As this work has not yet concluded, it is not possible to rule out potential in-combination effects at this stage.
- 4.26 As with the potential in-combination air pollution effects, the effects of the Local Plan in combination with the Watlington Neighbourhood Plan will be assessed as part of the Local Plan HRA work. It is expected that the HRA of the emerging new Local Plan will have fully assessed the wider in-combination effects of recreational pressure, including with Watlington Neighbourhood Plan, before the Neighbourhood Plan is subject to examination.
- 4.27 The findings of the Local Plan HRA work will feed into the HRA of the Watlington Neighbourhood Plan as soon as it is available. However, until that point in time, in line with the precautionary principle, **it is not possible to screen out likely significant effects of recreational pressure on Aston Rowant SAC in-combination with other plans or projects and therefore conclude this HRA work. Once the Appropriate Assessment of the Local Plan has been progressed further, the Neighbourhood Plan will be finalised to include reference to the assessment of effects arising from the combination of the Local Plan, Watlington Neighbourhood Plan, and any other relevant plans.**

5 Conclusions

- 5.1 The HRA screening of the Watlington Draft Neighbourhood Development Plan (August 2017) 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 South Oxfordshire from policies and site allocations in the Local Plan will not occur in relation to:
- Physical loss of or damage to habitat;
 - Non-physical disturbance: noise, vibration and light pollution; or
 - Water quantity and quality.
- 5.3 In addition, none of the policies or site allocations in the Neighbourhood Plan is considered *likely* to result in significant effects on the European sites within 17km of Watlington, due to air pollution or recreation pressure.
- 5.4 Four policies and site allocations that would result in new homes were identified as having *uncertain* effects on Aston Rowant SAC due to increased visitor numbers, and uncertain effects on Aston Rowant SAC and Chilterns Beechwoods SAC due to increased traffic and air pollution:
- Policy P5. New housing development (small scale development of up to five homes);
 - Site A - Land between Britwell Road and Cuxham Road - c.140 homes and a small number of workshops and/or offices for small businesses or start ups;
 - Site B - Land Off Cuxham Road and Willow Close - c.38-60 homes; and
 - Site C - Land off Pyrton Lane - c.60 homes.
- 5.5 Data on commuting by car³¹ indicates that people living in Watlington travel to a number of locations for work, with Henley-on-Thames receiving a slightly higher proportion than other locations. Very few journeys would require use of the A404 or A4010 in the direction of Chilterns Beechwoods SAC. Although a small proportion of journeys are likely to involve the M40 (for example those in the direction of London), which would pass Aston Rowant SAC, the overall quantum of development proposed at Watlington would not increase traffic flows by more than 1000 AADT on the M40.
- 5.6 Travel to Watlington for work comes from a spread of locations, with a slightly higher proportion of trips from Benson, Newington and Chinnor. Very few journeys are made to Watlington from the direction of roads adjacent to Chilterns Beechwoods SAC or Aston Rowant SAC. Watlington Neighbourhood Plan alone is therefore unlikely to significantly increase traffic, and therefore air pollution, adjacent to sensitive European sites. The Neighbourhood Plan does, however, have the potential to have impacts on air pollution in combination with other plans.
- 5.7 The increase in population within 7km of Aston Rowant SAC that would be due to the Neighbourhood Plan would be c.1.5%. The plan is therefore not expected to significantly increase visitor numbers to Aston Rowant SAC, alone.
- 5.8 Although Aston Rowant SAC is not recorded in Natural England's Site Improvement Plan as being sensitive to recreation, comments received on the South Oxfordshire Local Plan HRA in response to the Regulation 18 consultation suggested that recreation impacts at Aston Rowant SAC should be considered further. As this work has not yet concluded, it is not possible to rule out potential in-combination effects at this stage.

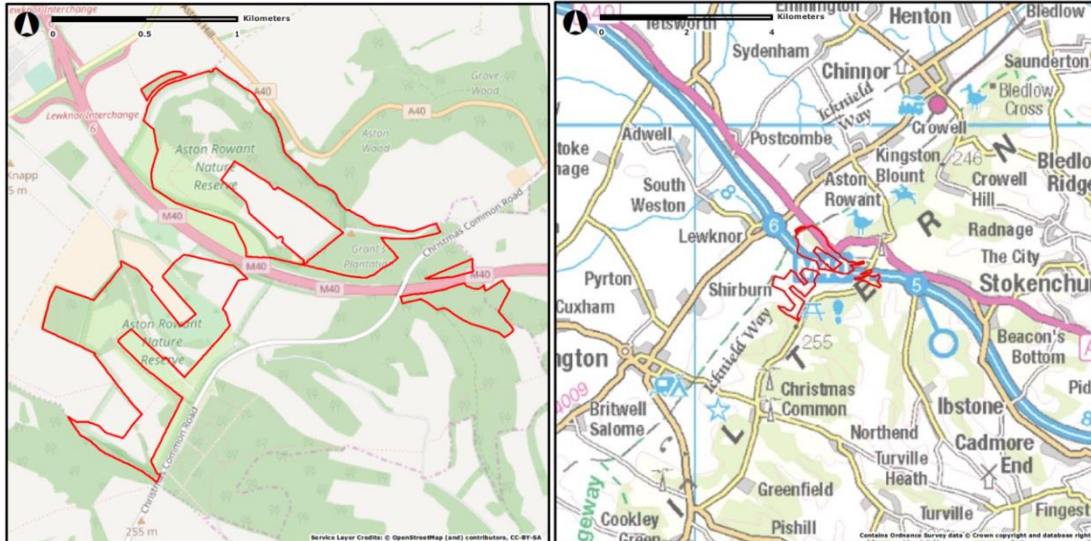
³¹ UCL's DataShine Commute: <http://commute.datashine.org.uk>

- 5.9 South Oxfordshire District Council is the competent authority for the HRAs of both the Local Plan and the Watlington Neighbourhood Plan, which are effectively proceeding in parallel. The air pollution and recreation effects of the Local Plan in combination with the Watlington Neighbourhood Plan will therefore be assessed as part of the Local Plan HRA work. It is expected that the HRA of the emerging new Local Plan will have fully assessed the wider in-combination effects of air pollution and recreation, including with Watlington Neighbourhood Plan, before the Neighbourhood Plan is subject to examination.
- 5.10 The findings of this work will feed into the HRA of the Watlington Neighbourhood Plan as soon as it is available. However, until that point in time, in line with the precautionary principle, it is not possible to screen out likely significant effects of air pollution or recreation effects at Aston Rowant SAC or air pollution effects at Chilterns Beechwoods SAC in-combination with other plans or projects and therefore conclude this HRA work. Once the Appropriate Assessment of the Local Plan has been progressed further, the Neighbourhood Plan will be finalised to include reference to the conclusions of the assessment of effects arising from the combination of the Local Plan, Watlington Neighbourhood Plan, and any other relevant plans or projects.

LUC
August 2017

Appendix 1- European sites within 17km of Watlington

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* ³²	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"> the extent and distribution of natural habitats, and habitats of protected species; the structure and function of habitats, and habitats of protected species the supporting processes on which protected species and their habits rely; the population of protected species; and the distribution of protected species within the site.

Site Improvement Plan³³: 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.

³² Site status is an assessment by Natural England of the status of the SSSIs within the SAC

³³ Natural England - Site Improvement Plan: Aston Rowant (SIP007)

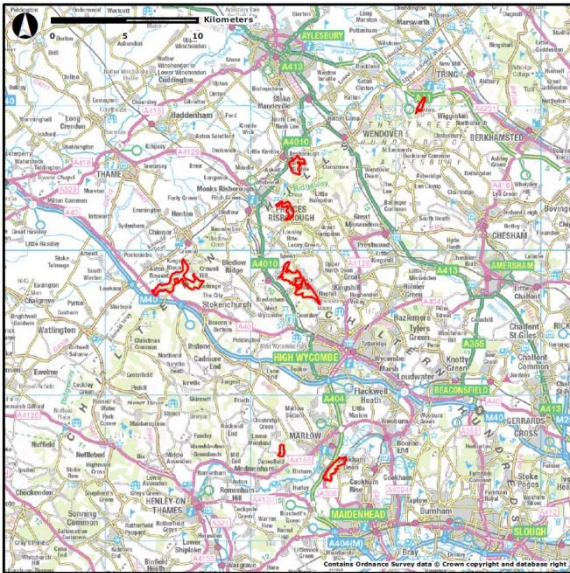
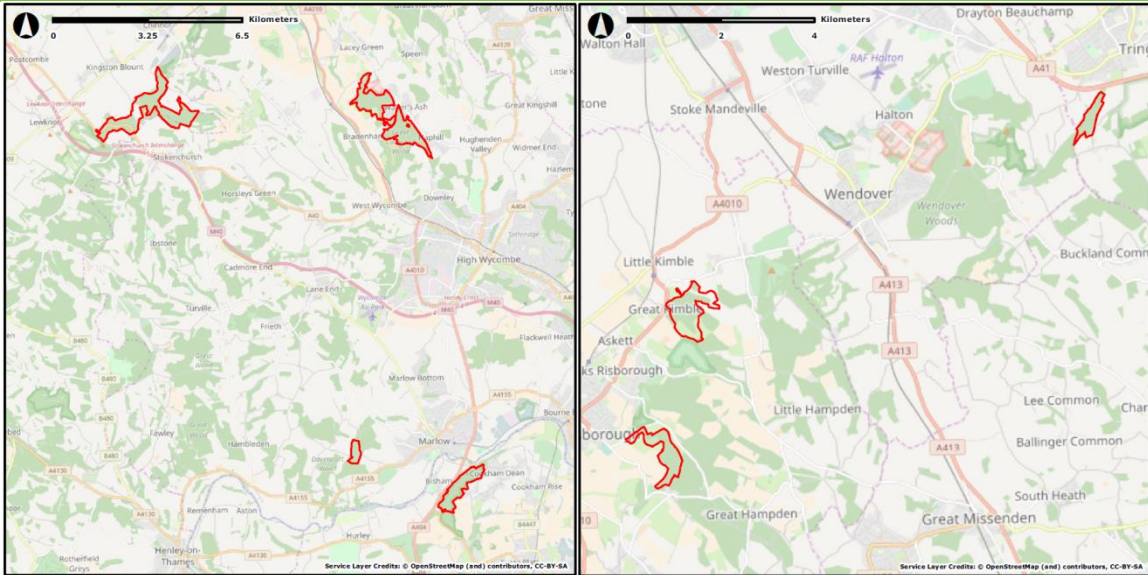
<http://publications.naturalengland.org.uk/publication/4960794580090880?category=6149691318206464>

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"> the extent and distribution of natural habitats, and habitats of protected species; the structure and function of habitats, and habitats of protected species the supporting processes on which protected species and their habits rely; the population of protected species; and the distribution of protected species within the site.

2. Chilterns Beechwoods Special Area of Conservation

Site Improvement Plan³⁴: 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.

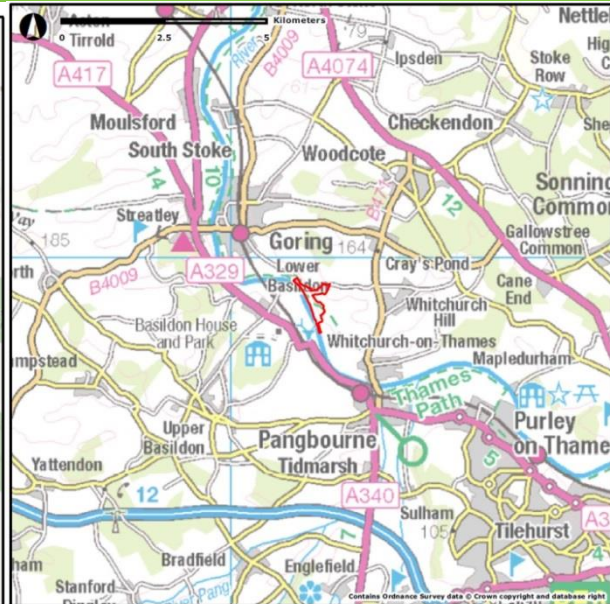
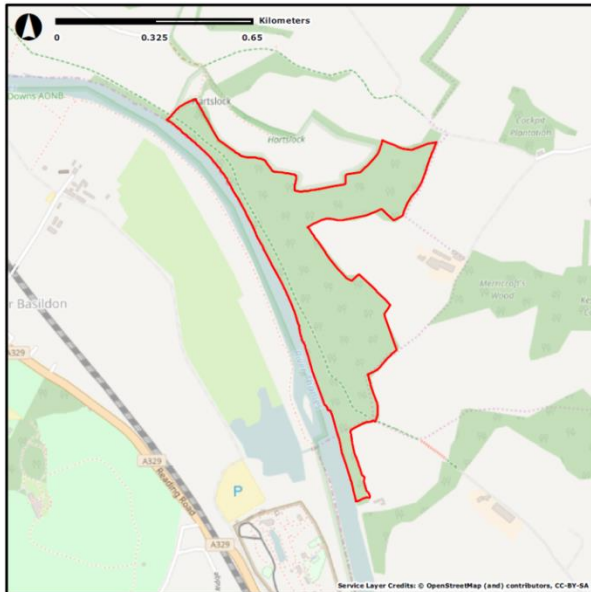
Key environmental conditions supporting the site

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

³⁴ 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"> • the extent and distribution of natural habitats, and habitats of protected species; • the structure and function of habitats, and habitats of protected species • the supporting processes on which protected species and their habits rely; • the population of protected species; and • the distribution of protected species within the site.

Site Improvement Plan³⁵: 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.

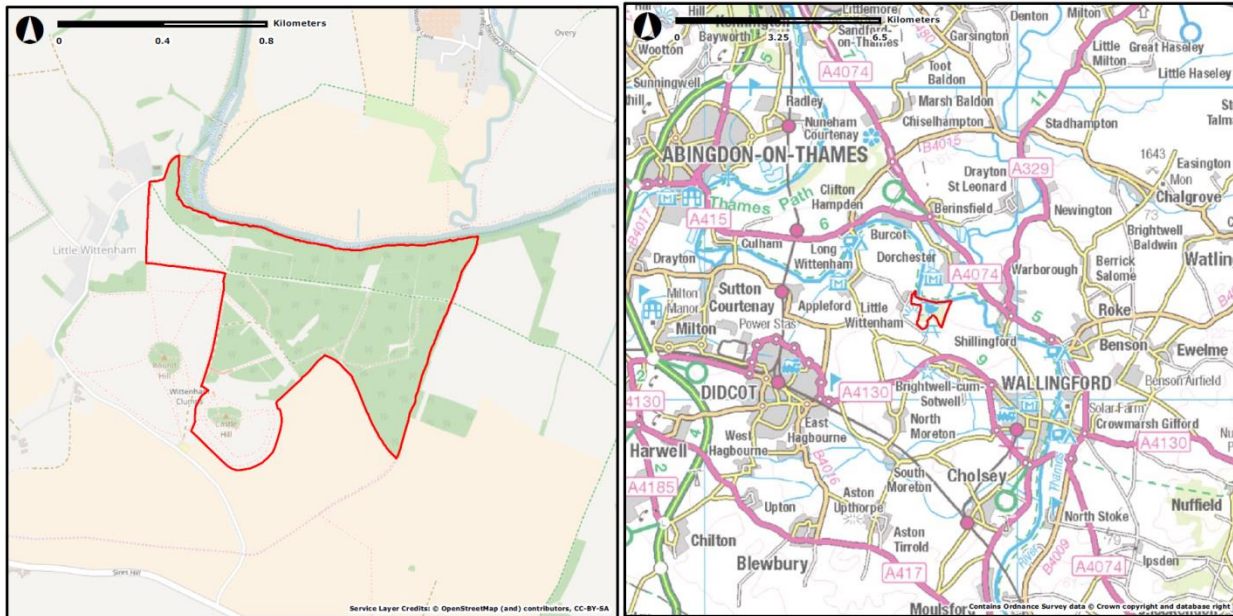
³⁵ Natural England - Site Improvement Plan: Hartslock Wood (SIP100)
<http://publications.naturalengland.org.uk/publication/4874314121740288?category=6149691318206464>

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"> the extent and distribution of natural habitats, and habitats of protected species; the structure and function of habitats, and habitats of protected species the supporting processes on which protected species and their habits rely; the population of protected species; and the distribution of protected species within the site.

Site Improvement Plan³⁶: 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

³⁶ Natural England - Site Improvement Plan: Little Wittenham (SIP122)
<http://publications.naturalengland.org.uk/publication/6567758347108352?category=6149691318206464>

Appendix 2– Screening matrix for the Neighbourhood Plan

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 Local Plan. 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, taking into account mitigation provided by other policies in the Local Plan (or other plans and strategies) as explained in **Chapters 3 and 4**, and shown in the fifth column.

	Likely activities (operation) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the proposal have likely significant effects on European sites (taking mitigation into account)?
Policies					
Policy P1. Protect and enhance the character of Watlington and the historic setting of the town	None – this policy provides protection for landscape character, heritage features and their setting, and will not result in new development.	n/a	n/a	n/a	No
Policy P2. Transport	None - this policy provides for safeguarding of land for a re-aligned B4009 and measures to reduce transport impacts, but will not itself result in new development.	n/a	n/a	Policy P2 states that, where developments may have significant impacts on the transport network, it must be demonstrated that they will not have significant impacts on the transport network and will minimise air pollution. This would provide some mitigation for air pollution impacts.	No
Policy P3. Conserve and enhance the natural environment	None – this policy provides protection for landscape character, natural features, biodiversity and flood risk.	n/a	n/a		No
Policy P4. Green Spaces	None – this policy projects green spaces and requires new development to provide green space on	n/a	n/a	Policy P4 requires new developments to provide green space and could therefore	No

	Likely activities (operation) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the proposal have likely significant effects on European sites (taking mitigation into account)?
	sites of 10 or more new houses			contribute to a reduction in the use of European sites for recreation.	
Policy P5. New housing development	Residential development Increase in vehicle traffic Increase in recreation pressure	Disturbance from recreation Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	None	Uncertain: air pollution and recreation This policy permits developments of five houses or less. The scale of development is therefore unlikely to generate significant increases in recreational pressure or air pollution alone, but could contribute to increases in-combination with other policies.
Policy P6. Enhance Watlington as a service centre	None – this policy defines the requirements for town centre development but will not itself result in new development.	n/a	n/a	n/a	No
Policy P7. Employment	Employment development Increase in vehicle traffic	Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	None	Unlikely: air pollution This policy indicates new development would be of a scale appropriate Watlington. Therefore, it is assumed such development would be unlikely to generate significant trips from outside the local area.
Policy P8. Physical and social infrastructure	Community facilities Increase in vehicle traffic Transport infrastructure	Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	Policy P8 encourages development to contribute to improved pedestrian and cycle safety, as well as increase and improve pedestrian	Unlikely: air pollution This policy indicates that new infrastructure is to provide for the expected increase in population at Watlington, and therefore will be to serve the population of the

	Likely activities (operation) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the proposal have likely significant effects on European sites (taking mitigation into account)?
				and cycle routes. This could increase cycling and walking rates and reduce air pollution associated with private car use.	town itself. This type of development will change the distribution of traffic within the town itself but will not generate significant trips from outside the local area.
Policy P9. Proposals for use of the Community Infrastructure Levy (CIL)	None – this policy defines proposal for the use of the Community Infrastructure Levy but will not itself result in new development.	n/a	n/a	n/a	No
Site allocations					
Site A - Land between Britwell Road and Cuxham Road (Approx. 140 dwellings, and a small number of workshops and/or offices for small businesses or start ups)	Residential development Employment development Increase in vehicle traffic Increase in recreation pressure	Disturbance from recreation Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	Site Allocation Site A provides for suitable traffic calming measures on Britwell Road and Cuxham Road as agreed with OCC. Therefore, this could reduce traffic and its associated air pollution effects. Policy P2 requires developments such as this to demonstrated that it will not have significant impacts on the transport network and will minimise air pollution. Policy P4 requires developments such as this to provides green spaces which could therefore contribute to	Uncertain: air pollution and recreation This policy will result in approximately 140 new homes in the town. This is likely to relate to an increase in population and therefore result in an increase in traffic flows on roads in and around the village. 140 homes is unlikely to exceed the screening threshold of 1000 AADT adjacent to sensitive sites, on its own, but could in combination with other policies or plans. Owing to the close proximity of Watlington to Aston Rowant SAC, new residential development has the potential to increase visitor numbers at the site and cause disturbance from recreation.

	Likely activities (operation) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the proposal have likely significant effects on European sites (taking mitigation into account)?
				a reduction in the use of European sites for recreation.	
Site B - Land Off Cuxham Road and Willow Close (Approx. 38-60 dwellings)	Residential development Increase in vehicle traffic Increase in recreation pressure	Disturbance from recreation Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	Policy P2 requires developments such as this to demonstrated that it will not have significant impacts on the transport network and will minimise air pollution. Policy P4 requires developments such as this to provides green spaces which could therefore contribute to a reduction in the use of European sites for recreation.	Uncertain: air pollution and recreation This policy will result in approximately 38-60 new homes in the town. This is likely to relate to an increase in population and therefore result in an increase in traffic flows on roads in and around the village. 38-60 homes is unlikely to exceed the screening threshold of 1000 AADT adjacent to sensitive sites, on its own, but could in combination with other policies or plans. Owing to the close proximity of Watlington to Aston Rowant SAC, new residential development has the potential to increase visitor numbers at the site and cause disturbance from recreation.
Site C - Land off Pyrton Lane (Approx. 60 dwellings)	Residential development Increase in vehicle traffic Increase in recreation pressure	Disturbance from recreation Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	Policy P2 requires developments such as this to demonstrated that it will not have significant impacts on the transport network and will minimise air pollution. Policy P4 requires developments such as this to provides green spaces which could	Uncertain: air pollution and recreation This policy will result in approximately 60 new homes in the town. This is likely to relate to an increase in population and therefore result in an increase in traffic flows on roads in and around the village. 60 homes is unlikely to exceed the screening threshold of 1000 AADT adjacent to sensitive sites, on its own, but

	Likely activities (operation) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the proposal have likely significant effects on European sites (taking mitigation into account)?
				therefore contribute to a reduction in the use of European sites for recreation.	could in combination with other policies or plans. Owing to the close proximity of Watlington to Aston Rowant SAC, new residential development has the potential to increase visitor numbers at the site and cause disturbance from recreation.