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Benson Neighbourhood Plan

Habitats Regulations Assessment Screening

HRA Screening Report
Prepared by LUC
December 2017



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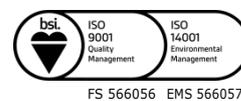
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1 Introduction

- 1.1 LUC has been commissioned by South Oxfordshire District Council to carry out a Habitats Regulations Assessment (HRA) of the Benson Neighbourhood Plan Pre-Submission Plan (March 2017). This report presents the methodology and findings of the initial HRA screening stage.

Background

- 1.2 Benson Neighbourhood Plan¹ sets out policies and site allocations to guide future development within the village, to 2032. The Neighbourhood Plan adds detail to the policies contained within the district-wide South Oxfordshire Local Plan and planning applications in Benson would be considered against both plans.
- 1.3 South Oxfordshire District Council (SODC) is producing a new Local Plan for the district (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).
- 1.4 The HRA of the Benson 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 Benson Neighbourhood Plan exceeds the allocations for the village that are set out in the Local Plan 2011 and Core Strategy 2012. The emerging new South Oxfordshire Local Plan does not allocate any additional development in Benson as it recognises that commitments and completions in Benson already exceed the 15% growth expected in the larger villages. The HRA of those plans has informed the HRA screening of the Benson 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 2010² and again in 2012³.
- 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 assessment⁴.

¹ <http://www.bensonplan.org/wp-content/uploads/2017/03/Benson-Pre-Submission-Plan-1.pdf>

² 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.

³ The Conservation of Habitats and Species (Amendment) Regulations 2012. Statutory Instrument 2012 No. 1927.

⁴ Department of Communities and Local Government (March 2012) National Planning Policy Framework (para 118).

- 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^{5,6}. 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 applied by the competent authority: a 'Significance Test', followed if necessary by an Appropriate

⁵ *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.

⁶ *The HRA Handbook.* David Tyldesley & Associates, a subscription based online guidance document: <https://www.dtapublications.co.uk/handbook/>

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 body⁷ 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.

⁷ Regulation 5 of *The Conservation of Habitats and Species Regulations 2010*. HMSO Statutory Instrument 2010 No. 490.

2 Benson Neighbourhood Plan

- 2.1 The Benson Neighbourhood Plan provides an overall vision and objectives for the plan, along with 33 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:

'Benson will accommodate the level of growth required to meet our local housing needs, while respecting its history and protecting its rural setting beneath the Chiltern Hills and alongside the River Thames. Our Neighbourhood Plan will encourage a modern, thriving and self-confident village centre, together with the facilities and infrastructure necessary to meet the economic, social and environmental needs of the community. As part of this, the planning process will promote sensitive development that integrates well with the rest of the village and design standards that ensure Benson retains its distinctive character.'

- 2.3 In order to achieve this vision, the plan outlines 12 objectives:

- Provide sufficient housing to meet local needs;
- Cater for growth in a manner that maintains the distinct and separate character of the village;
- Cater for growth in a manner which respects Benson's setting in the rural landscape and its close association with the River Thames;
- Ensure that Benson has a modern, vibrant village centre;
- Ensure there are adequate facilities to serve our growing local population;
- Ensure the sustainability of economic activity in the Neighbourhood Plan area;
- Safeguard and enhance existing green infrastructure and secure the provision of additional green space connected to the wider countryside;
- Ensure that new development is sited, planned and executed in a way that takes account of climate change and other changes in the natural environment;
- Ensure that new development contributes towards the free and safe flow of traffic and does not worsen road conditions in the village;
- Ensure that new development contributes towards the free and safe flow of traffic and has a minimum impact on the existing highway infrastructure
- Encourage walking and cycling to get around the village by providing a network of safe pedestrian and cyclist routes, in particular to the centre.
- Encourage sustainable modes of transport by all means available.

- 2.4 The plan outlines a number of policies to achieve these objectives. These policies cover the following topic areas:

- Land use;
- Conservation and heritage;
- Design;
- Infrastructure;
- Community facilities; and

- Environment.

2.5 The plan allocates five⁸ sites to provide for a total of approximately 571 dwellings. The development quantum of each site is as follows:

- **NP2 Land to the north of Littleworth Road (BEN1)** - Residential development for approximately 241 dwellings
- **NP3 Land off Hale Road (BEN2)** – Residential development for approximately 80 dwellings
- **NP4 Land north and north east of Sands Way (BEN3)** – Residential development for approximately 110 dwellings
- **NP5 Land north of The Sands (B4009) (BEN4)** – Residential development for approximately 140 dwellings

Number of homes assessed in this HRA

- 2.6 The Benson Neighbourhood Plan allocates space for c.571 new homes in the village; this is the number of homes that has been considered in the assessment of the plan alone in this HRA.
- 2.7 The HRA also considers the potential for effects arising from the Neighbourhood Plan in combination with other proposals such as planning applications. **Table 2.1** summarises the number of homes that could come forward at each of the allocated sites.

Table 2.1 Potential number of new homes in Benson

Allocated site	Homes allocated in the pre-submission Neighbourhood Plan	Current planning applications and appeals for additional homes (applications not yet determined)	Homes already permitted
BEN1 north (Policy NP2)	241	0	241
BEN1 south	0	0	187
BEN2 (Policy NP3)	80	0	0
BEN3 (Policy NP4)	110	240 (across both BEN3 & BEN4)	0
BEN4 (Policy NP5)	140		0
BEN5	0	120	0
BEN6	0	0	0
BEN7 (Policy NP6 – withdrawn)	0		0
Total	571	360	428

- 2.8 The emerging Local Plan requires that larger villages such as Benson should achieve 15% growth in new homes above the dwelling stock recorded in the 2011 census plus historic growth requirements from the Core Strategy. At Benson 15% growth based on the 2011 census is 258 additional dwellings plus 125 dwellings carried forward from the Core Strategy, resulting in a requirement of 383 additional dwellings over the plan period from 2011 to 2033.
- 2.9 The pre-submission neighbourhood plan proposes a total of 571 dwellings. Of these, 241 dwellings have resolution for planning permission at BEN1 (northern section). The Neighbourhood Plan therefore exceeds the 15% growth requirement by 188 dwellings.
- 2.10 In addition to the dwellings proposed in the pre-submission Neighbourhood Plan, there have been further planning permissions for new dwellings and completions of new dwellings since 2011. On 5 September 2017, using best available data, there had been 17 additional dwellings built since 2011, with commitments for a further 498 dwellings. These 498 include permission for 241

⁸ NP6 Land south of St Helen's Avenue (BEN7) was previously allocated for up to 25 dwellings, but this is no longer the case.

dwellings proposed to be allocated on BEN1 (northern section) and permission for 187 on BEN1 (southern section/ phase 1). In the event that all of the Neighbourhood Plan allocations are completed along with other commitments, there would be growth in Benson of 845 dwellings over the period 2011 to 2033 plus any additional 'windfall' development over this period (571 to be allocated plus 17 completions, plus 498 commitments, minus 241 double counting⁹).

- 2.11 Therefore, this HRA considers the additional c.571 new homes proposed by the Neighbourhood Plan, as well as the potential in-combination effects of these with the 274 additional completed and committed homes.

⁹ Double counting of housing that is both allocated in the Neighbourhood Plan and already completed / committed

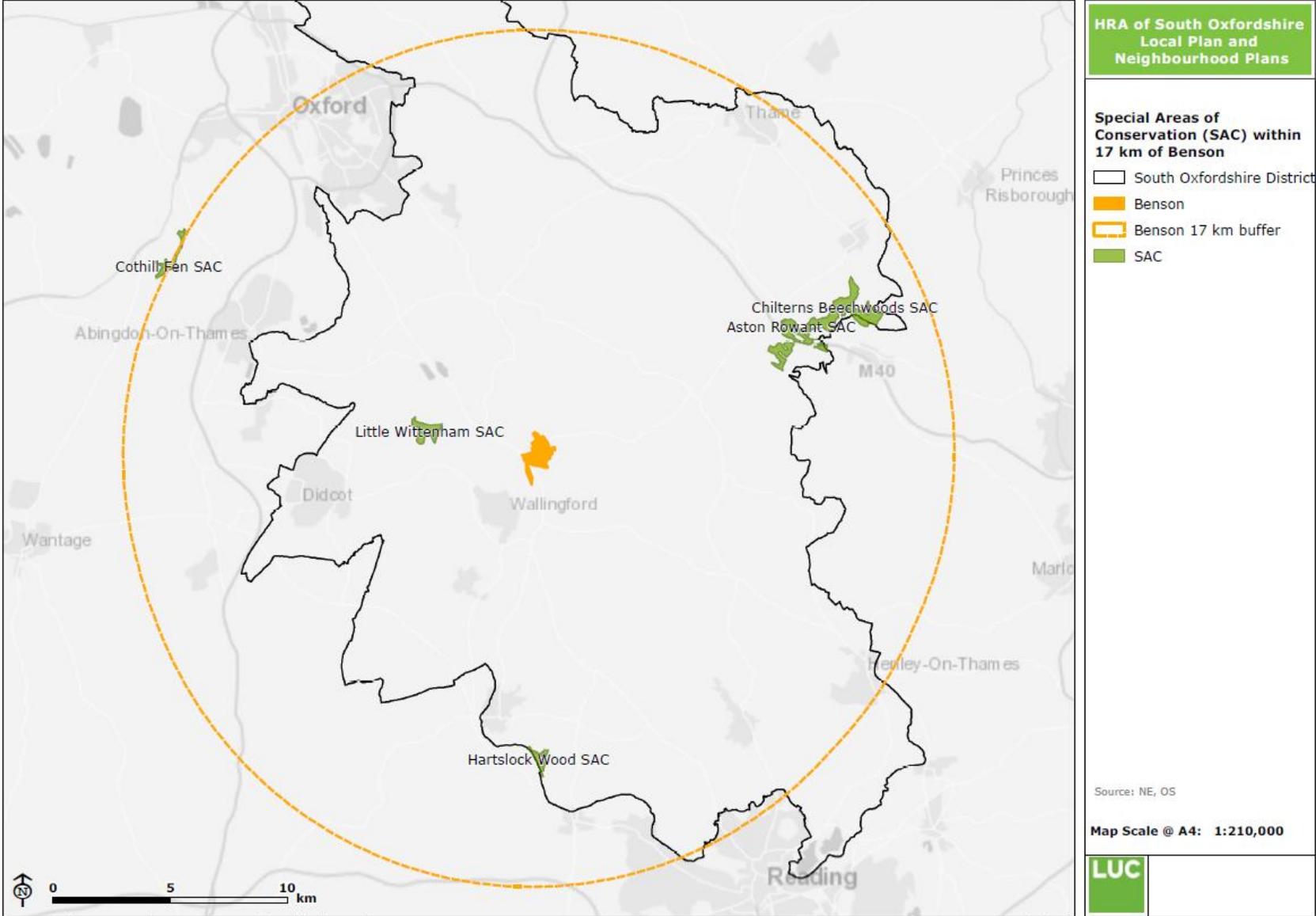
3 HRA Screening Methodology

- 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 Benson 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 Benson



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 Benson, 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 Benson 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:
- 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);

¹⁰ SI No. 2010/490

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

- 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.

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 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 Benson. 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.

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).

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

- 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 Benson, 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 Benson.
- 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 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.

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

- 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 Benson that are within 200m of strategic roads are Aston Rowant SAC (M40) and Chilterns Beechwoods SAC (A404, A4010), both of which lie greater than 11km to the northeast of Benson.
- 3.34 Note that the portion of Chilterns Beechwoods SAC that lies closest to Benson (and is adjacent to Aston Rowant SAC) is not within 200m of a strategic road. The portion adjacent to the A404 is south of Marlow and c.24km from Benson, and the portion adjacent to the A4010 is between High Wycombe and Princes Risborough, c.20km from Benson.
- 3.35 **At this stage, the potential effects of air pollution have 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 Benson are most likely to be affected by the Neighbourhood Plan.
- 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

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

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 400 m 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.4km from Benson and is a 15 minute drive away. Aston Rowant SAC, Chilterns Beechwoods SAC, and Hartslock Wood SAC all lie c.11-13km and c.20 minutes' drive away from Benson.
- 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 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 24km from Benson and 30 minutes' drive away.
- 3.44 Due to their distance from Benson and taking into account the sensitivity of the sites and their qualifying features, it is considered that Aston Rowant SAC, Hartslock Wood SAC and Chilterns Beechwoods SAC are not likely to be significantly affected by recreational pressure as a result of development at Benson, either alone or in combination with other plans.
- 3.45 Public access or disturbance is, however, identified as a threat to the great crested newt population at Little Wittenham SAC²⁵ and, given its relatively close proximity to Benson, likely significant effects from recreation cannot be ruled out.
- 3.46 **The effects of recreation are therefore screened in in relation to Little Wittenham SAC, but screened out in relation to all other European sites.**

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 Benson with aquatic or wetland habitats is Little Wittenham SAC. Its ponds support great crested

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>

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

newts, but changes to water quality or quantity have not been identified as an issue at this site²⁶; 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 Benson 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 Seven parishes in South Oxfordshire have made (adopted) neighbourhood plans.
- 3.52 Six of 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.
 - 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 homes) over the plan period, through minor development and the Chinnor Neighbourhood Plan supports small-scale infill development.
- 3.53 The Brightwell-cum-Sotwell Neighbourhood Plan provides land that could accommodate c.60 homes a c.13% increase.
- 3.54 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.
- 3.55 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.
- 3.56 Similarly, 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

²⁶ Site Improvement Plan for Little Wittenham SAC <http://publications.naturalengland.org.uk/publication/6567758347108352>

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 Benson plans are likely.

- 3.57 The South Oxfordshire Core Strategy and emerging new Local Plan have the potential for in-combination effects with the Benson 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 Benson, i.e. the quantum of development that is over and above that allocated in the Core Strategy or Local Plan (see paragraphs 2.5-2.9), 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 village 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 Benson.

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:
- BEN NP1: Strategic Approach;
 - BEN NP7: Conservation and Heritage;
 - BEN NP8: Design;
 - BEN NP9: Traffic Flow & Pinch points;
 - BEN NP10: Parking;
 - BEN NP11: Sustainable Transport, Accessibility, Public Transport;
 - BEN NP12: Pedestrians & Cyclists;
 - BEN NP13: Environmental Transport;
 - BEN NP18: Assets of Community Value;
 - BEN NP19: Doctor's Surgery;
 - BEN NP20: Phone and Broadband Provision (1);
 - BEN NP22: Allotments;
 - BEN NP23: Outdoor Recreation (1);
 - BEN NP24: Outdoor Recreation (2);
 - BEN NP25: Protecting Existing Green Space;
 - BEN NP26: Creating New Green Spaces;
 - BEN NP27: Biodiversity - Nature in Benson (1);
 - BEN NP28: Biodiversity - Nature in Benson (2);

- BEN NP29: Biodiversity - Nature in Benson (3);
 - BEN NP30: Biodiversity - Nature in Benson (4);
 - BEN NP32: Important Views;
 - BEN NP33: Flood Risk Management (1); and
 - BEN NP34: Flood Risk Management (2).
- 4.6 The following policies will result in development of a type that will not increase traffic or have the potential to cause recreational pressure:
- BEN NP19: Phone and Broadband Provision (2).
- 4.7 The following policies will result in development of a type that could increase traffic and therefore have the potential to increase in traffic, but are of a scale that is unlikely to result in significant air pollution effects:
- BEN NP6: Land to the south of St Helen's Avenue (BEN7);
 - BEN NP14: Local Infrastructure Facilities;
 - BEN NP15: Benson Library;
 - BEN NP16: Village Centre (1); and
 - BEN NP17: Village Centre (2).
- 4.8 Of the policies listed above, the following also provide mitigation for effects arising from other policies in the plan:
- BEN NP11: Sustainable Transport, Accessibility, Public Transport: provides for improved access to public transport and could therefore reduce the air pollution impact associated with any increase in traffic;
 - BEN NP12: Pedestrians & Cyclists: provides for improved walking and cycling facilities and could therefore reduce the air pollution impact associated with any increase in traffic;
 - BEN NP13: Environmental Transport: encourages the use of electric vehicles and bicycles and could therefore reduce increases in vehicle emissions; and
 - BEN NP26: Creating New Green Spaces: requires new developments to provide green space and could therefore reduce the pressure on European sites associated with recreational use by new residents.

Significant effects uncertain

- 4.9 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

- 4.10 The policies 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:
- BEN NP2: Land to the north of Littleworth Road (site allocation BEN 1) - c.241 homes;
 - BEN NP3: Land off Hale Road (site allocation BEN 2) - c.80 homes;
 - BEN NP4: Land North and North East of Sands Way (site allocation BEN 3) - c.110 homes; and
 - BEN NP5: Land North of The Sands (B4009) (site allocation BEN 4) - c.140 homes.

4.11 Data on commuting by car²⁷ indicates that a large proportion of people living in Benson travel to Wallingford for work, with destinations to the northwest and west also jointly accounting for a large proportion of trips to work. Very few journeys to work involve trips that would require use of the M40, A404 or A4010 in the direction of Aston Rowant SAC or Chilterns Beechwoods SAC. Travel to Benson for work again largely comes from the northwest, west or southwest, with a higher proportion of trips from Didcot, Wallingford, Cholsey, Berinsfield and Newington. Very few journeys are made to Benson from the direction of Aston Rowant SAC or Chilterns Beechwoods SAC.

4.12 Benson Neighbourhood Plan alone is therefore unlikely to significantly increase traffic, and therefore air pollution, adjacent to sensitive European sites.

4.13 The Neighbourhood Plan does, however, have the potential to have impacts on air pollution in combination with other plans.

4.14 The HRA of the Core Strategy²⁸ 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 Benson 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.

4.15 The HRA of the emerging Local Plan has considered the potential in-combination effects of local growth on the Natura 2000 network through increasing traffic related air pollution, and also took account of the development identified in this neighbourhood plan. The HRA has concluded that the in-combination effects of growth would not result in any likely significant effects on Chiltern Beechwoods SAC, however it was not possible to screen out effects upon Aston Rowant SAC.

4.1 An air quality model confirmed that while the in-combination effects of growth would result in increased NO_x concentrations across part of the SAC, these would not result in any N deposition on the SAC. The potential ecological effects of the predicted NO_x concentrations were also considered, however the HRA concluded that they were unlikely to result in an effect on the qualifying features, based on long-term trends and past monitoring at the SAC.

4.2 It was therefore concluded that the Local Plan would not have any adverse effects on the Natura 2000 network of sites, either alone or in combination with other plans and projects, and it is possible to rely on that assessment to reach the same conclusion for this neighbourhood plan without the need to carry out a further appropriate assessment.

4.3 The Benson Neighbourhood Plan would not result in an adverse effect on the Aston Rowant SAC, and no appropriate assessment is required.

Recreation effects

4.4 The policies identified as having uncertain effects on Little Wittenham SAC, due to increased visitor numbers, are those that will result in new homes:

- BEN NP2: Land to the north of Littleworth Road (site allocation BEN1) - c.241 homes;
- BEN NP3: Land off Hale Road (site allocation BEN2) - c.80 homes;
- BEN NP4: Land North and North East of Sands Way (site allocation BEN 3) - c.110 homes; and
- BEN NP5: Land North of The Sands (B4009) (site allocation BEN4) - c.140 homes.

4.5 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 571 new homes that these policies could result in a local population increase of c.1,250 (or c.1,800 including completed / committed development in Benson). Little Wittenham SAC currently receives c.150,000 visits each year³⁰ and has

²⁷ UCL's DataShine Commute: <http://commute.datashine.org.uk>

²⁸ http://www.southoxon.gov.uk/sites/default/files/Appropriate%20Assessment_2.pdf

²⁹ <http://www.whitehorsedc.gov.uk/sites/default/files/Oxfordshire%20Population%20Forecasts%20to%202026.pdf>

³⁰ Earth Trust (2016) *Statement of Need for Improvements to the Earth Trust Centre*

approximately 62,564³¹ people living within 7km of the site, based on 2011 Census data. The Earth Trust, which manages Little Wittenham, is planning for an increase in visits of 36% by 2030 and Natural England has raised no objection to proposals³² that plan to accommodate these additional visitors.

- 4.6 571 homes at Benson would represent a local population increase of c.2% (c.3% with completed / committed Benson development); therefore none of these four policies either alone or in combination, or the Neighbourhood Plan as a whole, is likely to have a significant effect on Little Wittenham SAC due to recreation pressure. The small increase in total homes in Benson over what was assessed in the Core Strategy HRA also means that the Neighbourhood Plan will not have a significant in-combination effect with the Core Strategy.
- 4.7 Benson Neighbourhood Plan in combination with planning applications for additional development in Benson and the emerging new Local Plan has the potential for more significant increases in visitors to Little Wittenham SAC. The emerging new Local Plan is expected to result in an increase in visits to the site of c.32% alone and c.50% in combination with already-committed developments, over the plan period. However, Natural England is of the view³³ that the site's qualifying feature, its great crested newt population, is not particularly sensitive to disturbance from recreation. As the Earth Trust is actively managing the site to reduce the visitor pressure on the SAC, the expected increase in visitor numbers is not expected to have a significant effect on Little Wittenham SAC.
- 4.8 In addition, mitigation contained within Benson Neighbourhood Plan policies will encourage local residents to use make use of local sites for some recreation activities and therefore reduce the number of trips to Little Wittenham SAC from Benson:
- BEN NP26: requires new development to provide green space, in line with South Oxfordshire District Council standards;
 - BEN NP2: includes open space, allotments, youth facilities, a skate park and fitness trail, and 5ha of nature reserve, alongside c.241 homes;
 - BEN NP3: provides open space and allotments alongside c.80 homes;
 - BEN NP4: provides open space and allotments alongside c.110 homes; and
 - BEN NP5: provides open space and allotments alongside c.140 homes.
- 4.9 **Benson Neighbourhood Plan is not expected to have a likely significant effect on Little Wittenham SAC due to recreational pressure; therefore Appropriate Assessment will not be required.**

³¹ Based on 2011 census data for Lower Super Output Areas in South Oxfordshire that are 7km from Little Wittenham SAC; calculated using GIS

³² Natural England response dated 5th December 2016:

<http://www.southoxon.gov.uk/ccm/support/Main.jsp?MODULE=ApplicationDetails&REF=P16/S3133/FUL>

³³ Conversations with Natural England's SSSI officers for the site, as part of the Local Plan HRA work

5 Conclusions

- 5.1 The HRA screening of the Benson Neighbourhood Plan: Pre-Submission Plan (March 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 Benson, due to air pollution or recreation pressure.
- 5.4 Four policies that would result in new homes were identified as having *uncertain* likely significant effects on Little Wittenham SAC, due to increased visitor numbers, and uncertain likely significant effects on Aston Rowant SAC and Chilterns Beechwoods SAC, due to increased traffic and air pollution:
- BEN NP2: Land to the north of Littleworth Road (site allocation BEN1) - c.241 homes;
 - BEN NP3: Land off Hale Road (site allocation BEN2) - c.80 homes;
 - BEN NP4: Land North and North East of Sands Way (site allocation BEN 3) - c.110 homes; and
 - BEN NP5: Land North of The Sands (B4009) (site allocation BEN4) - c.140 homes.
- 5.5 571 homes at Benson would represent a local population increase of c.2% (3% including completed / committed development in Benson); therefore none of these four policies either alone or in combination, or the Neighbourhood Plan as a whole, is likely to have a significant effect on Little Wittenham SAC due to recreation pressure. The small increase in total homes in Benson over what was assessed in the Core Strategy HRA also mean that the Neighbourhood Plan will not have a significant in-combination effect with the Core Strategy.
- 5.6 Benson Neighbourhood Plan in combination with planning applications for additional development in Benson and the emerging new Local Plan has the potential for more significant increases in visitors to Little Wittenham SAC. The emerging new Local Plan is expected to result in an increase in visits to the site of c.32% alone and c.50% in combination with already-committed developments, over the plan period. However, Natural England is of the view that the site's qualifying feature, its great crested newt population, is not particularly sensitive to disturbance from recreation. As the Earth Trust is actively managing the site to reduce the visitor pressure on the SAC, the expected increase in visitor numbers is not expected to have a significant effect on Little Wittenham SAC.
- 5.7 With this in mind, and taking into account mitigation provided by several policies within the Neighbourhood Plan that require developments to provide open space, it is considered that Appropriate Assessment of recreation effects at Little Wittenham SAC is not required.
- 5.8 Data on commuting by car³⁴ indicates that a large proportion of people living in Benson travel to Wallingford for work, with destinations to the northwest and west also jointly accounting for a large proportion of trips to work. Very few journeys to work involve trips that would require use of the M40, A404 or A4010 in the direction of Aston Rowant SAC or Chilterns Beechwoods SAC.

³⁴ UCL's DataShine Commute: <http://commute.datashine.org.uk>

Travel to Benson for work again largely comes from the northwest, west or southwest, with a higher proportion of trips from Didcot, Wallingford, Cholsey, Berinsfield and Newington. Very few journeys are made to Benson from the direction of Aston Rowant SAC or Chilterns Beechwoods SAC. Benson 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.

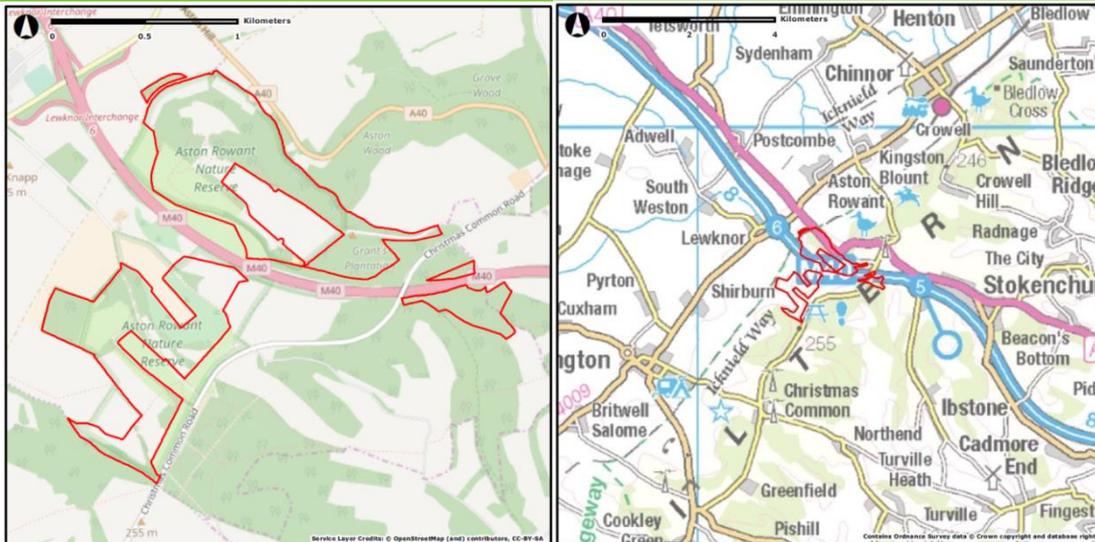
- 5.9 The Council may rely upon the conclusions of the recent HRA of the emerging Local Plan in respect of the potential effects of traffic related air pollution. The assessment concluded that the in-combination effects of growth could have likely significant effects on the Aston Rowant SAC, however an appropriate assessment of those effects has confirmed that they would not result in an adverse effect on the integrity of the site, and as such no further appropriate assessment of the Benson Neighbourhood Plan is required.

LUC

December 2017

Appendix 1- European sites within 17km of Benson

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* ³⁵	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 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.

Key environmental conditions supporting the site

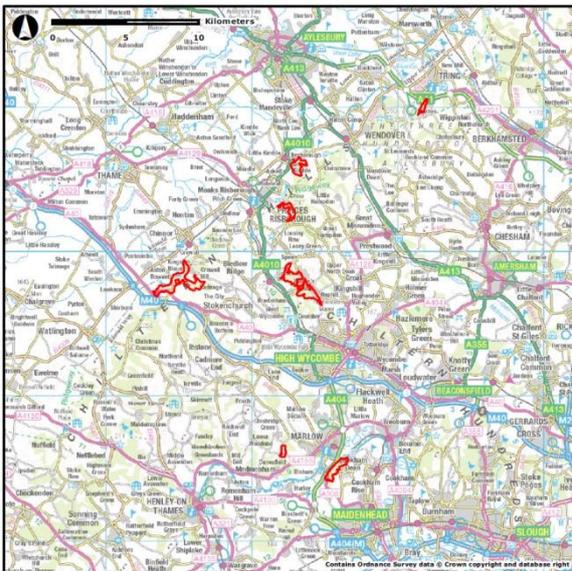
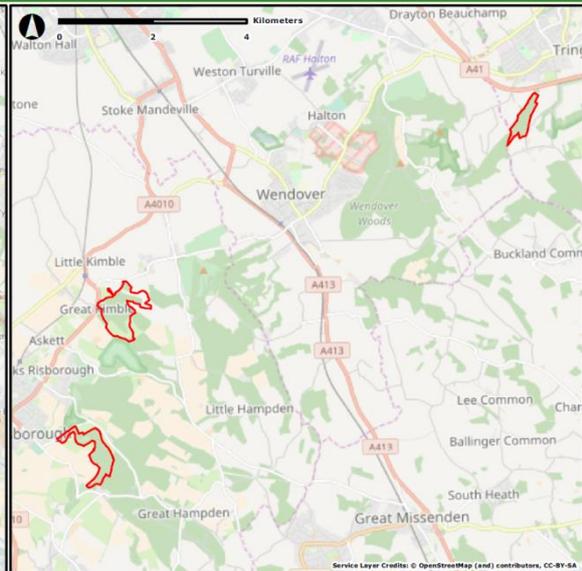
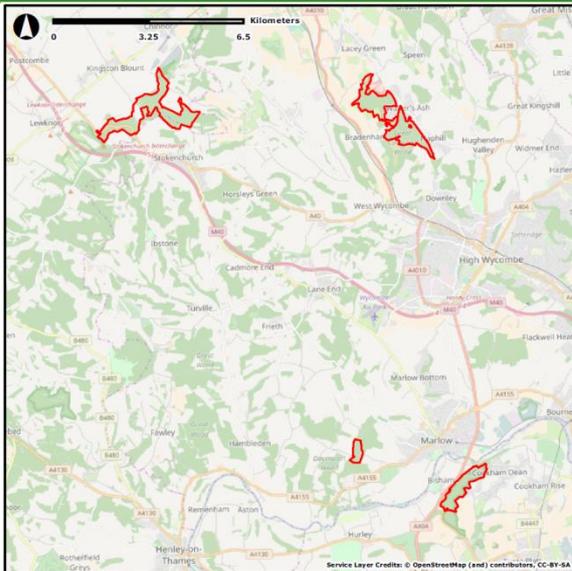
1. Regular management to keep vegetation open and allow seedlings to establish
2. Prevention of rabbit grazing on seedlings
3. Minimal air pollution

³⁵ Site status is an assessment by Natural England of the status of the SSSIs within the SAC

³⁶ Natural England - Site Improvement Plan: Aston Rowant (SIP007)

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

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 Plan³⁷: 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.

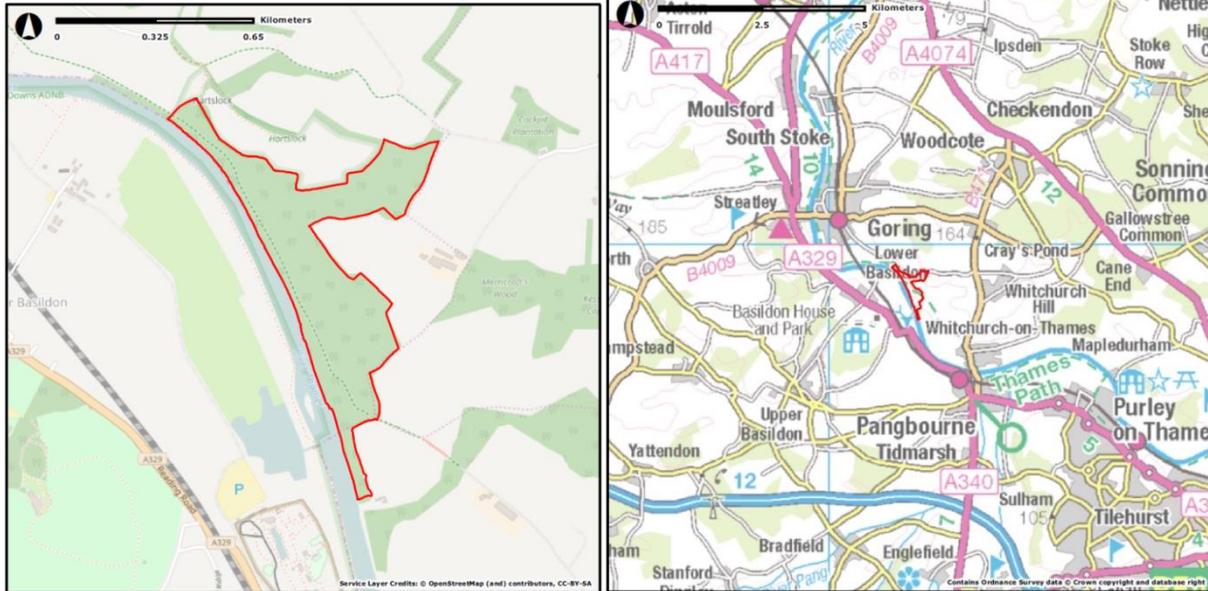
Key environmental conditions supporting the site

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

³⁷ 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 Plan³⁸: 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.

Key environmental conditions supporting the site

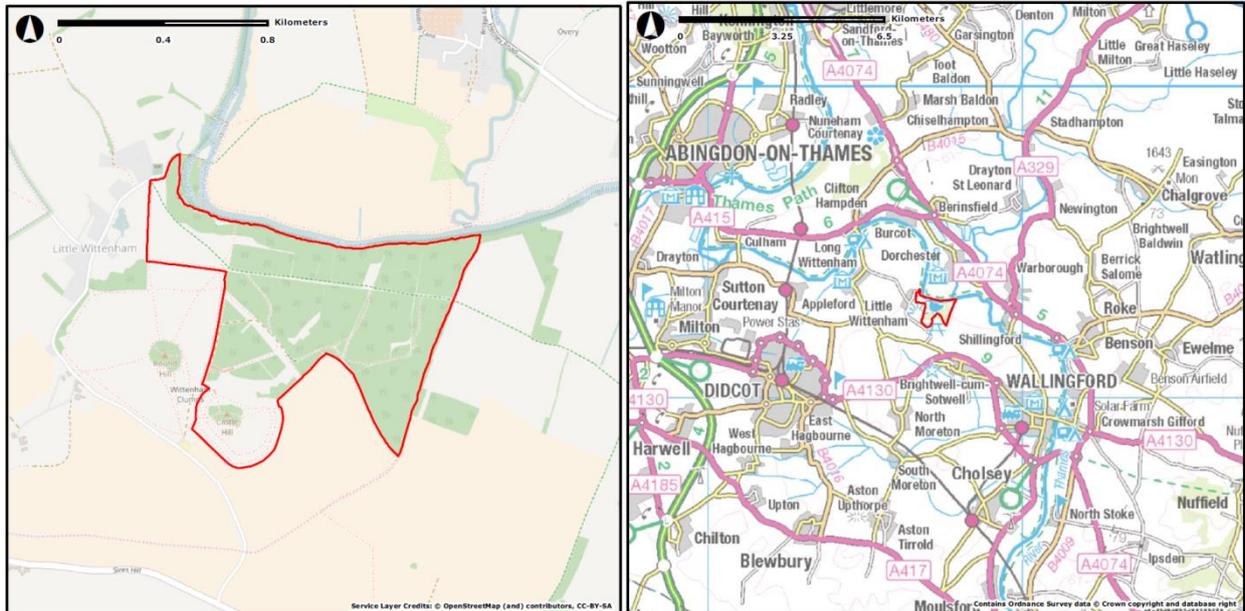
1. Appropriate management of grazing
2. Minimal air pollution

³⁸ Natural England - Site Improvement Plan: Hartslock Wood (SIP100)
<http://publications.naturalengland.org.uk/publication/4874314121740288?category=6149691318206464>

3. Hartslock Wood Special Area of Conservation

- 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 Plan³⁹: 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

³⁹ Natural England - Site Improvement Plan: Little Wittenham (SIP122)
<http://publications.naturalengland.org.uk/publication/6567758347108352?category=6149691318206464>

4. Little Wittenham Special Area of Conservation

2. Relatively unpolluted water of neutral pH
3. Some ponds deep enough to retain water throughout February to August at least one year in three

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.

Policy	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)?
BEN NP1: Strategic Approach	None – this policy defines the permissible locations for development within the village but will not itself result in new development; the principles set out in this strategic policy are covered by other more specific policies.	n/a	n/a	n/a	No
BEN NP2: Land to the north of Littleworth Road (BEN1) (Approx. 241 dwellings, and greenspace including allotments and 5ha nature reserve)	Residential development Increase in vehicle traffic Increase in recreation pressure	Disturbance from recreation Air pollution	Little Wittenham SAC Aston Rowant SAC Chilterns Beechwoods SAC	None	Uncertain: air pollution and recreation This policy will result in approximately 241 new homes in the village. 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. Where those roads pass within 200m of sensitive European sites, the increase in traffic could have air pollution impacts. This policy could have an air pollution effect alone or in combination with other plans or proposals. Development within 7km of Little Wittenham SAC, including this site allocation and others within the Neighbourhood Plan, has the potential to increase visitor

Policy	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)?
					numbers at the site and cause disturbance from recreation.
BEN NP3: Land off Hale Road (BEN2) (Approx. 80 dwellings)	Residential development Increase in vehicle traffic Increase in recreation pressure	Disturbance from recreation Air pollution	Little Wittenham SAC Aston Rowant SAC Chilterns Beechwoods SAC	None	Uncertain: air pollution and recreation This policy will result in approximately 80 new homes in the village. 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. Where those roads pass within 200m of sensitive European sites, the increase in traffic could have air pollution impacts. This policy could have an air pollution effect alone or in combination with other plans or proposals. Development within 7km of Little Wittenham SAC, including this site allocation and others within the Neighbourhood Plan, has the potential to increase visitor numbers at the site and cause disturbance from recreation.
BEN NP4: Land North and North East of Sands Way (BEN 3) (Approx. 110 dwellings and open space)	Residential development Increase in vehicle traffic Increase in recreation pressure	Disturbance from recreation Air pollution	Little Wittenham SAC Aston Rowant SAC Chilterns Beechwoods SAC	None	Uncertain: air pollution and recreation This policy will result in approximately 110 new homes in the village. 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. Where those roads pass within 200m of sensitive European sites, the

Policy	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)?
					<p>increase in traffic could have air pollution impacts. This policy could have an air pollution effect alone or in combination with other plans or proposals.</p> <p>Development within 7km of Little Wittenham SAC, including this site allocation and others within the Neighbourhood Plan, has the potential to increase visitor numbers at the site and cause disturbance from recreation.</p>
<p>BEN NP5: Land North of The Sands (B4009) (BEN4) (Approx. 140 dwellings and open space)</p>	<p>Residential development Increase in vehicle traffic Increase in recreation pressure</p>	<p>Disturbance from recreation Air pollution</p>	<p>Little Wittenham SAC Aston Rowant SAC Chilterns Beechwoods SAC</p>	<p>None</p>	<p>Uncertain: air pollution and recreation</p> <p>This policy will result in approximately 140 new homes in the village. 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. Where those roads pass within 200m of sensitive European sites, the increase in traffic could have air pollution impacts. This policy could have an air pollution effect alone or in combination with other plans or proposals.</p> <p>Development within 7km of Little Wittenham SAC, including this site allocation and others within the Neighbourhood Plan, has the potential to increase visitor numbers at the site and cause disturbance from recreation.</p>

Policy	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)?
BEN NP6: Land to the south of St Helen's Avenue (BEN7) (Burial ground, GP surgery)	Community facilities Increase in vehicle traffic	Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	None	Unlikely: air pollution It is assumed the extension of the burial ground and new GP surgery are unlikely to be major trip generators.
BEN NP7: Conservation and Heritage	None – this policy provides protection for heritage features and their setting, and will not result in new development	n/a	n/a	n/a	No
BEN NP8: Design	None – this policy requires high quality design but will not result in new development	n/a	n/a	n/a	No
BEN NP9: Traffic Flow & Pinch points	None – this policy seeks to improve congestion within the village but is unlikely to generate additional traffic overall	n/a	n/a	n/a	No
BEN NP10: Parking	None – this policy defines parking standards for new development but will not itself result in additional traffic (defined by the number and location of new homes)	n/a	n/a	n/a	No
BEN NP11: Sustainable Transport, Accessibility, Public Transport	None – this policy provides for improved access to public transport and will not result in new development	n/a	n/a	Policy NP11 provides for improved access to public transport and could therefore contribute to an overall reduction in traffic and therefore air pollution.	No

Policy	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)?
BEN NP12: Pedestrians & Cyclists	None – this policy provides for improved walking and cycling facilities and will not result in new development	n/a	n/a	Policy NP12 provides for improved walking and cycling facilities and could therefore contribute to an overall reduction in traffic and therefore air pollution.	No
BEN NP13: Environmental Transport	None – this policy requires new developments to provide electric vehicle charging points and cycle parking and will not result in new development	n/a	n/a	Policy NP13 encourages the use of electric vehicles and bicycles and could therefore contribute to an overall reduction in air pollution.	No
BEN NP14: Local Infrastructure Facilities	Community facilities Retail development Increase in vehicle traffic	Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	None	Unlikely: air pollution Although the Benson Neighbourhood Plan does not currently define the type or scale of community facilities or retail that would be permitted under this policy, it assumes that it would be of a scale appropriate to a village and intended for use by the local population, and therefore unlikely to generate significant trips from outside the local area.
BEN NP15: Benson Library	Community facilities Increase in vehicle traffic	Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	None	Unlikely: air pollution It is assumed that a new or extended village library is likely to be a small scale development and unlikely to be major trip generator.

Policy	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)?
BEN NP16: Village Centre (1)	Community facilities Increase in vehicle traffic	Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	None	Unlikely: air pollution It is assumed that any change of use from retail to community use is likely to be a small scale development and unlikely to be major trip generator.
BEN NP17: Village Centre (2)	Employment development Increase in vehicle traffic	Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	None	Unlikely: air pollution It is assumed that any change of use from residential/commercial to retail/business use is likely to be a small scale development and unlikely to be major trip generator.
BEN NP18: Assets of Community Value	None – this policy protects assets of community value and will not result in new development	n/a	n/a	n/a	No
BEN NP19: Doctor's Surgery	None – this policy requires developer contributions towards the new GP surgery allocated in BEN NP6 but will not itself result in new development	n/a	n/a	n/a	No
BEN NP20: Phone and Broadband Provision (1)	None – this policy requires new developments to provide internet access and will not result in new development	n/a	n/a	n/a	No
BEN NP19: Phone and Broadband Provision (2)	Communications infrastructure	None	n/a	n/a	No
BEN NP22: Allotments	None – this policy defines the quantity of allotment provision but BEN NP2 and NP5 are the policies that	n/a	n/a	n/a	No

Policy	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)?
	would enable these allotments to come forward				
BEN NP23: Outdoor Recreation (1)	None – this policy defines a standard for play provision in new developments but will not itself result in new development	n/a	n/a	n/a	No
BEN NP24: Outdoor Recreation (2)	None – this policy identifies that outdoor recreation facilities will be provided as part of BEN NP2 but will not itself result in new development	n/a	n/a	n/a	No
BEN NP25: Protecting Existing Green Space	None – this policy protects existing green spaces and will only permit development that is small scale and maintains the green space function	n/a	n/a	n/a	No
BEN NP26: Creating New Green Spaces	None – this policy requires new development to provide green space according to South Oxfordshire District Council's standards, and will not result in new development	n/a	n/a	Policy NP26 requires new developments to provide green space and could therefore contribute to a reduction in the use of European sites for recreation	No
BEN NP27: Biodiversity - Nature in Benson (1)	None – this policy protects biodiversity at sites within Benson but will not itself result in new development	n/a	n/a	n/a	No

Policy	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)?
BEN NP28: Biodiversity - Nature in Benson (2)	None – this policy requires new development to provide wildlife corridors but will not itself result in new development	n/a	n/a	n/a	No
BEN NP29: Biodiversity - Nature in Benson (3)	None – this policy requires new green infrastructure to have management plans in place and will not result in new development	n/a	n/a	n/a	No
BEN NP30: Biodiversity - Nature in Benson (4)	None – this policy protects the ecology of water courses and will not result in new development	n/a	n/a	n/a	No
BEN NP32: Important Views	None – this policy requires new development to consider important views but will not result in new development	n/a	n/a	n/a	No
BEN NP33: Flood Risk Management (1)	None – this policy requires new developments to include sustainable drainage systems but will not result in new development	n/a	n/a	n/a	No
BEN NP34: Flood Risk Management (2)	None – this policy protects flood storage areas and will not result in new development	n/a	n/a	n/a	No