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Pyrton Neighbourhood Plan

Habitats Regulations Assessment

Screening Report
Prepared by LUC
August 2018

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1 Introduction

- 1.1 LUC was commissioned by South Oxfordshire District Council to carry out a Habitats Regulations Assessment (HRA) of the Pyrton Neighbourhood Plan – Final Submission version (February 2018). This report presents the methodology and findings of the HRA screening.
- 1.2 The report is prepared in line with a recent judgment from the Court of Justice of the European Union 'People over Wind, Peter Sweetman v Coillte Teoranta' which ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment, and should not be taken into account at the screening stage. The precise wording of the ruling is as follows:

"Article 6(3)must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site."

Background

- 1.3 The Pyrton Neighbourhood Plan¹ sets out policies and site allocations to guide future development within the parish to 2033. The Neighbourhood Plan adds detail to the policies contained within the District-wide South Oxfordshire Local Plan and planning applications in Pyrton would be considered against both plans.
- 1.4 South Oxfordshire District Council (SODC) is producing a new Local Plan for the District², 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).
- 1.5 The scale of development allowed for in the Pyrton Neighbourhood Plan exceeds that allocated within the Core Strategy 2012 and Publication version of the South Oxfordshire Local Plan. Pyrton is categorised as an 'Other Village' and therefore no housing is allocated to it in the Core Strategy or Local Plan. However, the Pyrton Neighbourhood Plan steering group supports a contribution of 15-20 houses towards the housing need of the wider area. The HRA of the aforementioned plans has informed the HRA screening of the Pyrton Neighbourhood Plan, where applicable.
- 1.6 The HRA of the Pyrton Neighbourhood Plan considers whether the plan could have a significant effect on the integrity of internationally important wildlife sites, either alone or in combination with other plans, including the South Oxfordshire Local Plan.

The requirements to undertake HRA of development plans

- 1.7 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in July 2007 and updated in 2010 and again in 2012. These updates were consolidated into the Conservation of Habitats and Species Regulations 2017³.

¹ http://www.southoxon.gov.uk/sites/default/files/Pyrton%20Neighbourhood%20Plan_0.pdf

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

³ *The Conservation of Habitats and Species Regulations 2017* (Statutory Instrument 2017 No. 1012) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments.

- 1.8 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.
- 1.9 Currently, the Government also expects potential SPAs (pSPAs), possible SACs (pSACs) and Ramsar sites to be included within the assessment⁴.
- 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).
- 1.10 Candidate SACs (cSACs) and Sites of Community Importance (SCIs), which are sites that have been adopted by the European Commission but not yet formally designated by the government, must also be considered.
- 1.11 For ease of reference during HRA, these designations are collectively referred to as European sites, despite Ramsar designations being at the wider international level.
- 1.12 The overall purpose of the HRA is to conclude whether or not a proposal or policy, or whole development plan would adversely affect the integrity of the site in question. This is judged in terms of the implications of the plan for a site’s ‘qualifying features’ (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on the precautionary principle. Where uncertainty or doubt remains, an adverse effect should be assumed.

Stages of Habitats Regulations Assessment

- 1.13 **Table 1.1** below summarises the stages involved in carrying out a full HRA, based on various guidance documents^{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.	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	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.

⁴ Department of Communities and Local Government (July 2018) National Planning Policy Framework (para 176).

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/>

Stage	Task	Outcome
	options. Assess alternative options. If no alternatives exist, define and evaluate mitigation measures where necessary.	If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.
Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation	Identify and demonstrate 'imperative reasons of overriding public interest' (IROPI). Demonstrate no alternatives exist. Identify potential compensatory measures.	This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

1.14 In assessing the effects of the Neighbourhood Plan in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017⁷, there are potentially two tests to be applied by the competent authority: a 'Significance Test', followed if necessary by an Appropriate Assessment which will inform the 'Integrity Test'. The relevant sequence of questions is as follows:

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

1.15 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the inclusion of mitigation measures designed to avoid, reduce or abate effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that so called 'imperative reasons of overriding public interest' (IROPI) are likely to be justified only very occasionally and would involve engagement with both the Government and European Commission.

1.16 The HRA should be undertaken by the 'competent authority' - in this case South Oxfordshire District Council (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.

⁷ SI No. 2017/2012

⁸ Regulation 5 of *The Conservation of Habitats and Species Regulations 2017* (Statutory Instrument 2017 No. 1012).

2 Pyrton Neighbourhood Plan

- 2.1 The Pyrton Neighbourhood Plan (PNP) provides an overall vision, aims and objectives, along with 12 policies and one site allocation 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 Neighbourhood Plan's vision states:

"The PNP is designed to secure a sustainable future for the parish that will conserve and enhance for future generations the features of Pyrton valued by today's residents, along with those who visit and appreciate the qualities of the parish."

- 2.3 In order to achieve this vision, the Neighbourhood Plan sets out a number of aims and objectives:

- To conserve and enhance the quality and character of the built and natural environment in Pyrton, including its history, heritage assets and landscape, for the benefit of residents, visitors and future generations:
 - Maintain the present 'open buffer' or 'local gap' between Pyrton and Watlington in order to retain their respective identities and character;
 - Ensure any new development respects, complements and enhances the existing built and natural environment;
 - Ensure any new development conserves and enhances, where relevant, the parish's Conservation Area, listed buildings, Shirburn registered park and gardens, the Watlington and Pyrton Hills SSSI, Knightsbridge Lane SSSI, and the Chilterns Area of Outstanding Natural Beauty (AONB), and, where relevant, their respective settings;
 - Conserve and enhance key community assets.
- To support the growth of the parish through the delivery of new homes, commensurate with the character of the parish, to contribute towards district housing needs, including affordable housing:
 - Demonstrate that the number and density of new homes will tie in with, and relate well to, existing development;
 - Deliver an appropriate mix of new housing types and tenures commensurate with district requirements.
- To establish principles for the redevelopment of the former MoD site (PYR1) to enable the site to return to positive use:
 - Confirm the allocation of the site for housing;
 - Ensure that an acceptable relationship is achieved with the neighbouring land off Pyrton Lane (PYR2);
 - Ensure that the site is carefully designed so it does not have an adverse impact on the character of the built and natural environment in Pyrton.
- To establish design principles to guide and maintain the quality of future development in the parish:
 - Ensure any new development generally accords with local architectural design styles and principles, without stifling the potential for high quality innovative design.

- To establish the function of the charity land in Pyrton village to the east of Pyrton Lane and Christmas Common, and PYR2:
 - Confirm the role of the charity land to the east of Pyrton Lane and PYR2 in conserving and enhancing the separate identities of Pyrton and Watlington;
 - Ensure the Pyrton and Christmas Common charity lands continue to play a valuable role for the parish, including enhancing Pyrton’s setting, and benefit the local community.
 - To identify measures to improve existing services and infrastructure:
 - Determine which aspects of the existing services and infrastructure within the parish require improvements;
 - Identify proposals that may be funded by CIL in order to improve, sustain and enhance existing services and infrastructure;
 - Take this opportunity to develop an Action Plan to include matters that do not necessarily fall within the scope of land use and development, but which are important to the parish.
- 2.4 The Neighbourhood Plan outlines 12 policies included under the headings: built and natural environment, community, housing and design, to achieve these objectives.
- 2.5 The Neighbourhood Plan allocates one site, the former MoD site at the junction of Shirburn Road (B4009), to provide 15 dwellings, under Policy SA1.

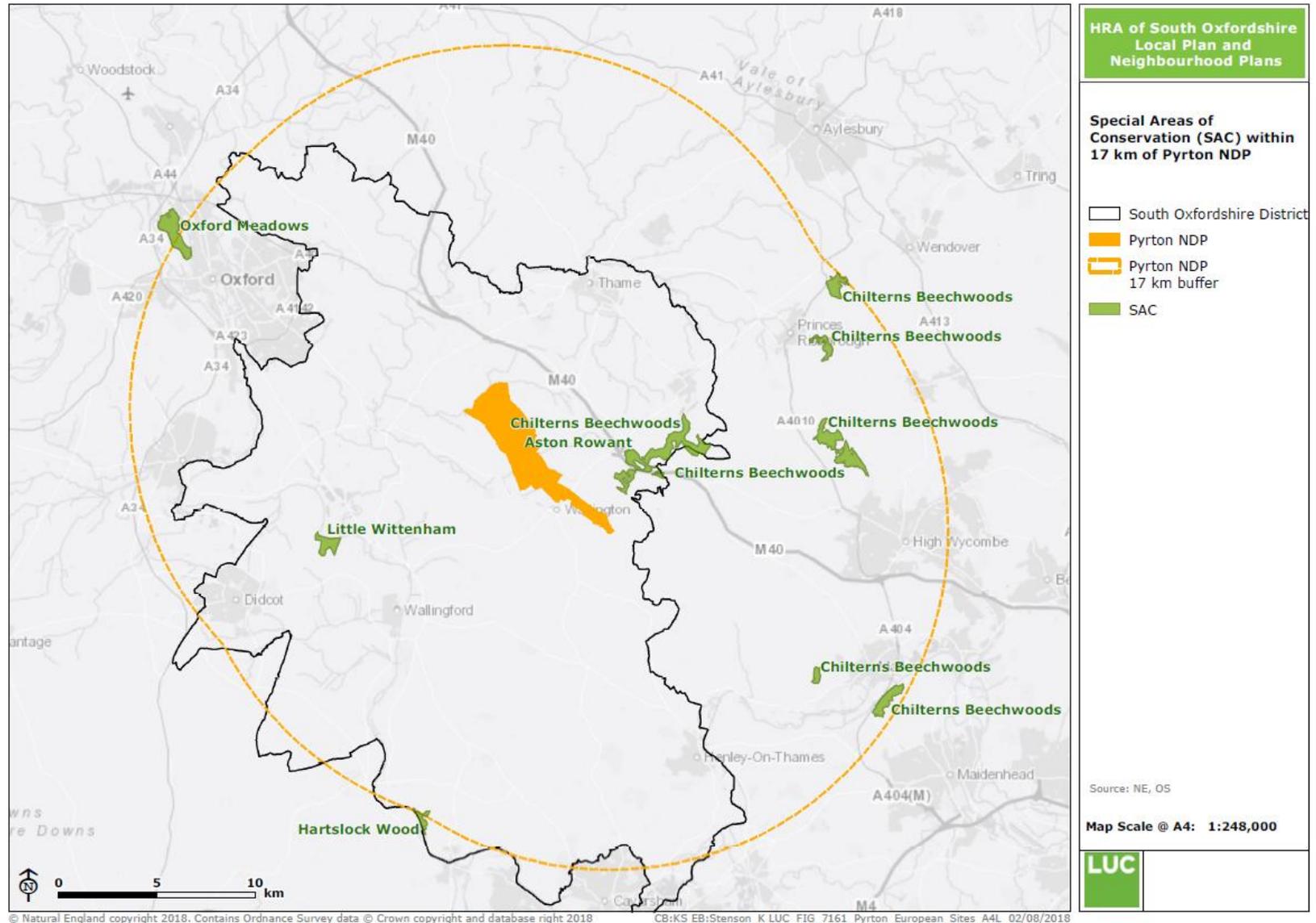
3 HRA Screening Methodology

- 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, and takes into account the ruling in the 'People over Wind' judgment. The tasks that have been undertaken during the screening stage of the HRA are described in detail below.

European sites which may be affected by the Neighbourhood Plan

- 3.2 The HRA of the Publication version of the 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 Pyrton and have been included in the HRA:
- Chilterns Beechwoods SAC.
 - Aston Rowant SAC.
 - Little Wittenham SAC.
 - Hartslock Wood SAC.
 - Oxford Meadows 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 Pyrton



Assessment of 'likely significant effects' of the Neighbourhood Plan

- 3.5 As required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017⁹ (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 Pyrton, without taking mitigation into account in accordance with the 'People over Wind' judgment.
- 3.6 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.
 - Changes to hydrological regimes.
- 3.7 The determination of which effects to include in the HRA screening of the Pyrton Neighbourhood Plan is designed to be consistent with those included in the HRA screening being undertaken of the Publication version of the Local Plan.
- 3.8 The detailed screening matrix can be found in **Appendix 2** of this report and the findings are described in more detail in **Chapter 4**.
- 3.9 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.
- 3.10 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.
- 3.11 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'

- 3.12 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.
- 3.13 In the Waddenzee case¹⁰, the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 105 in the Habitats Regulations), including that:

⁹ SI No. 2017/2012

¹⁰ 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).

3.14 A relevant opinion delivered to the Court of Justice of the European Union¹¹ 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."

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

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

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

3.17 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

3.18 Any development resulting from the Neighbourhood Plan will be located within Pyrton. 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.

3.19 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).

3.20 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.
- Little Wittenham SAC: great crested newt.

3.21 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.¹² The preferred habitat

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

¹² <https://www.royalparks.org.uk/parks/richmond-park/richmond-park-attractions/wildlife/stag-beetles>

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.¹³ Research¹⁴ suggests that 2km is 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 beyond 2km from Pyrton (over 3km at the nearest point), therefore potential loss of or damage to off-site habitats associated with Chilterns Beechwoods SAC can be screened out of further assessment.

3.22 Great crested newts will travel away from their breeding ponds, during the terrestrial phase of their lifecycle, but not large distances. 500 metres¹⁵ from their breeding location is considered an appropriate buffer distance inside which great crested newts might be found. The site listing for Little Wittenham SAC¹⁶ 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 farmland¹⁷. 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.

3.23 **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

3.24 Noise and vibration effects, for example 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.

3.25 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 Pyrton.

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

Air pollution

3.27 Air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by any deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen availability that can then affect plant health, productivity and species composition.

3.28 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.

3.29 Based on the Highways Agency Design for Road and Bridges (DMRB) Manual Volume 11, Section 3, Part 1¹⁸ (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.

¹³ <http://www.arkive.org/stag-beetle/lucanus-cervus/>

¹⁴ <http://onlinelibrary.wiley.com/doi/10.1111/j.1469-7998.2006.00282.x/abstract>

¹⁵ <https://www.gov.uk/guidance/great-crested-newts-surveys-and-mitigation-for-development-projects>

¹⁶ <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030184>

¹⁷ http://etheses.dur.ac.uk/6683/1/6683_3987.PDF

¹⁸ <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3/ha20707.pdf>

- 3.30 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.
- 3.31 It has been assumed that only those roads forming part of the strategic road network (motorways and primary '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). Where a site is not within 200m of a motorway or primary 'A' road, likely significant effects from traffic-related air pollution were ruled out.
- 3.32 The European sites within 17km of Pyrton that are within 200m of strategic roads are Aston Rowant SAC (M40), Chilterns Beechwoods SAC (A404, A4010), and Oxford Meadows SAC (A34, A40). Aston Rowant SAC is located approximately 1.5km northeast, whilst the nearest of many sites comprising the Chilterns Beechwoods is located approximately 3.3km northeast of Pyrton. Oxford Meadows SAC is located approximately 15.9km northwest of Pyrton.
- 3.33 The area of Chilterns Beechwoods SAC that lies closest to Pyrton (and is adjacent to Aston Rowant SAC) is not within 200m of a strategic road. The areas of the SAC that are within 17km of Pyrton that are adjacent to strategic roads are next to the A4010 between High Wycombe and Princes Risborough, c.11.2km from Pyrton, and the area adjacent to the A404 south of Marlow and c.16km from Pyrton.
- 3.34 The assessment of Oxford Meadows SAC in the HRA Report¹⁹ of the Publication version of the Local Plan found that it is a site at which physical changes to the aquatic environment, invasive aquatic species or changes to land management are the main threats or pressures, despite the site being situated close to major settlements (Oxford and Newbury) and the roads that serve them. The assessment concluded that the site is "*not considered to be particularly sensitive to aerial nitrogen deposition from increases in vehicle emissions*".
- 3.35 **The potential effects of air pollution have therefore been screened in for further screening assessment 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 Pyrton, 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 HRA of the Publication version of the South Oxfordshire Local Plan, as follows.

¹⁹ LUC (January 2018) *South Oxfordshire Local Plan Habitats Regulations Assessment Report*

- 3.39 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.
- 3.40 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 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.
- 3.41 The Framework advises that there is a presumption against development within 400m of the European site (assumed adverse effect on integrity unless site-specific Appropriate Assessment demonstrates otherwise), that avoidance measures are necessary in relation to all residential development within a Zone of Influence from 400 metres to 5km from the perimeter of the European site and that applications for large scale development (over 50 houses) between 5km and 7km from the edge of the European site should be assessed on a case by case basis. The potential for effects will depend upon the scale of development proposed and the features for which the site is designated; however, as a conservative estimate, it has been assumed that any development within 7km of a sensitive site could have impacts due to recreation.
- 3.42 Aston Rowant SAC lies c.1.5km and a 5 minute drive away from Pyrton. The nearest part of Chiltern Beechwoods SAC lies c.3.3km and a 10 minute drive away from Pyrton. Little Wittenham SAC lies c.9.2km and a 20 minute drive away from Pyrton. Oxford Meadows SAC lies c.16km from Pyrton and a 30 minute drive away from Pyrton. Hartslock Wood SAC lies c.16.7km and a 35 minute drive away from Pyrton. Therefore, only Aston Rowant SAC and Chiltern Beechwoods SAC are within the 7km buffer zone for recreational pressure.
- 3.43 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 being close to large settlements:
- Aston Rowant SAC: c.7km from Thame.
 - Hartslock Wood SAC: <2km from Goring and Pangbourne.
- 3.44 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. Therefore as a precaution and because Aston Rowant SAC lies close to Pyrton, recreation pressure has been considered in relation to the Pyrton Neighbourhood Plan.
- 3.45 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 27.5km and a 35 minute drive away from Pyrton.
- 3.46 Due to their distance from Pyrton and taking into account the sensitivity of the sites and their qualifying features, it is considered that Chiltern Beechwoods SAC, Oxford Meadows SAC, Hartslock Wood SAC and Little Wittenham SAC are not likely to be significantly affected by recreational pressure as a result of development at Pyrton, either alone or in combination with other plans.
- 3.47 **Therefore, the effects of recreation are screened in for further screening assessment in relation to Aston 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

Water quantity and quality

- 3.48 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 Pyrton 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 site²³; this site has therefore been screened out.
- 3.49 **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

- 3.50 Regulation 105 of the Habitats Regulations 2017²⁴ 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".
- 3.51 The first stage in identifying 'in-combination' effects involves identifying which other plans and projects in addition to the Pyrton 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).
- 3.52 Eight parishes in South Oxfordshire have made (adopted) neighbourhood plans.
- 3.53 All eight 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.
 - Thame Neighbourhood Plan, Sonning Common Neighbourhood Plan, and the Joint Henley and Harpsden Neighbourhood 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.
 - The Brightwell-cum-Sotwell Neighbourhood Plan provides land that could accommodate c.60 homes (c.13% increase).
 - The Dorchester on Thames Neighbourhood Plan does not allocate any housing sites and does not have a specific housing allocation in the Core Strategy, as it is classified as a small village.
- 3.54 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 Publication version of the Local Plan provides for a minimum of 500 new homes across all of the smaller villages, based on 5-10% growth. The Brightwell-cum-Sotwell Neighbourhood Plan allows for 13% growth, while Long Wittenham Neighbourhood Plan allows for 5%. Jointly, they are not considered likely to have in-combination effects over and above what is proposed in the Publication version Local Plan.
- 3.55 The Benson Parish Neighbourhood Plan allocates more homes for the village than are set out in the Publication version of the South Oxfordshire Local Plan, as well as the Local Plan 2011 and

²³ Site Improvement Plan for Little Wittenham SAC <http://publications.naturalengland.org.uk/publication/6567758347108352>

²⁴ SI No. 2017/2012

Core Strategy 2012. Consideration will be made of this with regard to the assessment of in-combination air pollution effects. However, the HRA of the Benson Neighbourhood Plan – Referendum Version (May 2018) concluded that it will not give rise to likely significant effects on European sites, either alone or in-combination with other plans or projects²⁵. The Benson Neighbourhood Plan is not expected to impact upon recreation pressure at Aston Rowant SAC.

- 3.56 The Chalgrove Neighbourhood Plan has been submitted for independent examination and subsequent changes have been proposed to the Neighbourhood Plan. Including these proposed changes, the Chalgrove Neighbourhood Plan allocates 320 dwellings for the parish. However, development of these 320 dwellings has already been granted planning permission. Therefore, the Chalgrove Neighbourhood Plan does not result in any additional 'new' homes. None of the policies or site allocations in the Neighbourhood Plan are considered likely to result in significant effects on European sites, either alone or in-combination with other plans or projects²⁶. As such, in-combination effects with the Chalgrove Neighbourhood Plan do not need to be considered further.
- 3.57 The Cholsey Neighbourhood Plan has been submitted for independent examination. The scale of development allowed for in the Cholsey Neighbourhood Plan is proportionate to that allocated within the Local Plan 2011 and Core Strategy 2012. It does, however, allocate more homes for the parish than set out in the Publication version of the South Oxfordshire Local Plan. The HRA of the Cholsey Neighbourhood Plan (in draft) concluded that it will not give rise to likely significant effects on European sites, either alone or in-combination with other plans or projects²⁷. The Cholsey Neighbourhood Plan is not expected to impact upon recreation pressure at Aston Rowant SAC. However, in line with the precautionary principle, in-combination effects of the Pyrton Neighbourhood Plan and the Cholsey Neighbourhood Plan should be considered further with regards to effects on air pollution at Aston Rowant SAC.
- 3.58 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 HRA²⁸ of the Wycombe District Local Plan²⁹ concluded that the Wycombe Local Plan will not lead to adverse effects on the integrity of European sites, alone or in combination with other plans or projects, in relation to air pollution.
- 3.59 The South Oxfordshire Core Strategy and Publication version Local Plan have the potential for in-combination effects with the Pyrton 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 Pyrton, i.e. the quantum of development that is over and above that allocated in the Core Strategy or Local Plan, has therefore been considered with reference to in-combination effects identified in the HRAs of the Core Strategy and the Local Plan.

²⁵ LUC (July 2018) *Benson Neighbourhood Plan Habitats Regulations Assessment Screening Report*

²⁶ LUC (August 2018) *Chalgrove Neighbourhood Development Plan Habitats Regulations Assessment Screening*

²⁷ LUC (August 2018) *Cholsey Neighbourhood Plan*

²⁸ Wycombe District Council (July 2018) *Wycombe District Local Plan Revised Habitats Regulations Assessment Report*

²⁹ Wycombe District Council (October 2017) *Wycombe District Local Plan Regulation 19 Publication Version*

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 Pyrton Neighbourhood Plan on nearby European sites.
- 4.2 The full screening matrix used for this assessment can be found in **Appendix 2** and the findings are summarised in the sections below.
- 4.3 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 Pyrton and the in-combination effects of the policies together have therefore been taken into consideration where relevant.

Significant effects likely

- 4.4 **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 Pyrton.

Significant effects unlikely

- 4.5 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.
- 4.6 The following policies are screened out because they will not result directly in development:
- Policy BNE1: Historic Environment.
 - Policy BNE2: Landscape character.
 - Policy BNE3: Local Green Spaces.
 - Policy BNE4: Local Gap.
 - Policy BNE5: Flood risk and drainage.
 - Policy BNE6: Footpaths and bridleways.
 - Policy C2: Development contributions.
 - Policy H2: Type of new homes.
 - Policy D1: Detailed design criteria.
 - Policy D3: Extension of existing properties.
- 4.7 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 and/or in a location that is unlikely to result in significant air pollution effects:
- Policy C1: Community Assets.
 - Policy D2: Infill design criteria.

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**. These are considered further below.

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:
- Policy H1: New homes.
 - Policy SA1: Former MoD site (PYR1).
- 4.10 Data on commuting by car³⁰ indicates that fewer than 6 people travel from Pyrton to any one destination for work. The development of up to 20 new homes could increase the amount of people travelling from the parish for work. South Oxfordshire is expected to have an average household size of 2.18 by 2026 and thus the population of Pyrton could increase from 227 to 270 (a 19% increase) on completion of development. Despite this, not all new residents will necessarily commute to work. UCL's DataShine Commute resource does not show the destinations that Pyrton residents travel to for work (only flows with 6+ people are included). However, this information is available for the nearby village of Watlington. Commuting to work patterns from Watlington are very dispersed, with no particular key destinations that a large number of residents travel to work. It is assumed that commuting patterns for Pyrton are likely to reflect the dispersed commuting pattern from Watlington. As such, the effect of development of up to 20 new homes in Pyrton will only have negligible effects on traffic on any particular route.
- 4.11 **Pyrton Neighbourhood Plan alone is therefore unlikely to significantly increase traffic, and therefore air pollution, adjacent to sensitive European sites.**
- 4.12 The Neighbourhood Plan does, however, have the potential to have impacts on air pollution in combination with other plans.
- 4.13 The HRA of the Core Strategy³¹ 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 Pyrton 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.
- 4.14 The HRA of the Benson Neighbourhood Plan – Referendum Version (April 2018)³² found that 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 and concluded that the Neighbourhood Plan is unlikely to significantly increase traffic, and therefore air pollution, adjacent to sensitive European sites.
- 4.15 The HRA of the Publication version of the 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. This is because, although the site lies within the initial screening radius of 17km, the actual distance which would need to be travelled to reach these locations by car from the plan area exceeds this distance for most routes. It can therefore reasonably be expected that the contribution of growth within the local plan area to traffic flows at these locations would be *de minimis*. This also applies to the very small number of additional

³⁰ UCL's DataShine Commute: <http://commute.datashine.org.uk>

³¹ http://www.southoxon.gov.uk/sites/default/files/Appropriate%20Assessment_2.pdf

³² LUC (July 2018) Benson Neighbourhood Plan Habitats Regulations Assessment. Screening Report.

journeys likely to be generated by the additional 20 homes allocated in the Pyrton Neighbourhood Plan.

- 4.16 However, the HRA of the Publication version of the Local Plan was not able to screen out effects upon Aston Rowant SAC and therefore an Appropriate Assessment was undertaken. The Appropriate Assessment employed an air quality model which confirmed that while the in-combination effects of growth would result in increased NO_x concentrations across part of Aston Rowant 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. The HRA concluded that they would be unlikely to result in an adverse effect on the qualifying features, based on long-term trends and past monitoring at the SAC.
- 4.17 It was therefore concluded that the Publication version of 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.
- 4.18 This conclusion is corroborated by the findings of the HRA of the Regulation 19 Publication version of the Wycombe District Local Plan, which took into account potential in-combination effects of growth in traffic in South Oxfordshire.
- 4.19 Furthermore, traffic modelling of the effects of the Publication version Local Plan demonstrated that, even when taking a precautionary approach, the change in traffic flows due to the Local Plan is likely to be significantly below the 1,000 AADT screening criteria, for the M40 adjacent to Aston Rowant SAC. As such, it is considered that the development of up to 20 additional homes allocated in the Pyrton Neighbourhood Plan over and above the number allocated in the Publication version of the Local Plan are expected to have a negligible effect on air quality at Aston Rowant SAC, even in-combination with other plans. This includes the Cholsey Neighbourhood Plan, which allocates an additional 14 houses above that set out in the Publication version of the Local Plan but would have negligible effects in combination with the 20 additional homes allocated in the Pyrton Neighbourhood Plan.
- 4.20 **The Pyrton Neighbourhood Plan would not result in likely significant effects on Chiltern Beechwoods SAC and Aston Rowant SAC as a result of air pollution, either alone or in-combination with other plans or projects, and no Appropriate Assessment is required.**

Recreation effects

- 4.21 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 H1: New homes.
 - Policy SA1: Former MoD site (PYR1).
- 4.22 As mentioned previously, South Oxfordshire is expected to have an average household size of 2.18 by 2026 (close to the end of the plan period). Therefore, up to 20 new homes could result in a local population increase of c.44. There are currently approximately 35,708³³ people living within 7km of Aston Rowant SAC, based on 2011 Census data, therefore the increase in population due to the Neighbourhood Plan represents an increase of c.0.1%. This is expected to have negligible effects on recreation pressures at the site.
- 4.23 In addition, there are a number of alternative sites for recreation around Pyrton, such as the Watlington Recreation Ground.
- 4.24 **Pyrton Neighbourhood Plan alone is therefore not expected to have a likely significant effect on visitor numbers at Aston Rowant SAC.**
- 4.25 The Neighbourhood Plan could, however, increase recreational pressure in combination with other plans.

³³ Based on 2011 census data for Lower Super Output Areas in South Oxfordshire that are 7km from Aston Rowant SAC; calculated using GIS

- 4.26 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.
- 4.27 Subsequent discussions with Natural England officers have provided reassurance that Aston Rowant SAC is not particularly sensitive to increases in recreation pressure, the site's qualifying features are considered to be fairly resilient to recreation pressure, with changes to habitat management more likely to be an issue. Access to the site can be effectively managed as there are two relatively small car parks and only two main footpaths; there are no plans to increase parking capacity or change the access management policy.
- 4.28 Potential effects of recreational pressure on Aston Rowant SAC were subsequently screened out of the HRA, and it would be appropriate for the Council to rely on the conclusion of the Local Plan HRA in screening the Pyrton Neighbourhood Plan.
- 4.29 It may be concluded that **Pyrton Neighbourhood Plan would not have any likely significant effects on Aston Rowant SAC from recreational pressure, either alone or in-combination with other plans or projects, and no Appropriate Assessment is required.**

5 Conclusions

- 5.1 The HRA screening of the Pyrton Neighbourhood Plan (February 2018) 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.
 - 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 Pyrton, due to air pollution or recreation pressure.
- 5.4 One policy and one site allocation, both of which would result in new homes, were identified as having uncertain effects on Aston Rowant SAC and Chilterns Beechwoods SAC due to increased traffic and air pollution, and uncertain effects on Aton Rowant SAC due to increased visitor numbers:
- Policy H1: New homes
 - Policy SA1: Former MoD site (PYR1)
- 5.5 Data on commuting by car indicates that fewer than 6 people travel from Pyrton to any one destination for work. The development of up to 20 new homes could increase the amount of people travelling from the parish for work. South Oxfordshire is expected to have an average household size of 2.18 by 2026 and thus the population of Pyrton could increase from 227 to 270 (a 19% increase) on completion of development. Despite this, not all new residents will necessarily commute to work. UCL's DataShine Commute resource does not show the destinations that Pyrton residents travel to for work (only flows with 6+ people are included). However, this information is available for the nearby village of Watlington, which shows a highly dispersed commuting pattern. It is assumed that commuting patterns for Pyrton are likely to reflect the dispersed commuting pattern from Watlington. As such, the effect of development of up to 20 new homes in Pyrton will only have negligible effects on traffic on any particular route.
- 5.6 The HRA of the Publication version of the South Oxfordshire Local Plan concludes that the in-combination effects of growth would not result in any likely significant effects on Chiltern Beechwoods SAC because although the site lies within the initial screening radius of 17km, the actual distance which would need to be travelled to reach these locations by car from the plan area exceeds this distance for most routes. This also applies to the 20 homes allocated in the Pyrton Neighbourhood Plan.
- 5.7 The HRA of the Publication version of the Local Plan concluded that the in-combination effects of growth could have likely significant effects on the Aston Rowant SAC in relation to the potential effects of traffic-related air pollution. However, an Appropriate Assessment of those effects confirmed that they would not result in an adverse effect on the integrity of the site. Despite this, Pyrton will be delivering development above the figures set out in the Local Plan. The Pyrton HRA Screening confirms that development of up to 20 new homes would not result in an adverse effect on the integrity of Aston Rowant SAC, and as such no Appropriate Assessment of the Pyrton Neighbourhood Plan is required. This is because the traffic modelling of the effects of the emerging Local Plan demonstrated that the change in traffic flows is likely to be significantly below the 1,000 AADT screening criteria, for the M40 to Aston Rowant SAC. It is considered that

the additional traffic generated by development of up to 20 additional homes, as allocated in the Neighbourhood Plan, would be negligible in this context, therefore the effect of the Neighbourhood Plan on air quality at Aston Rowant SAC would also be negligible both alone and in-combination with other plans.

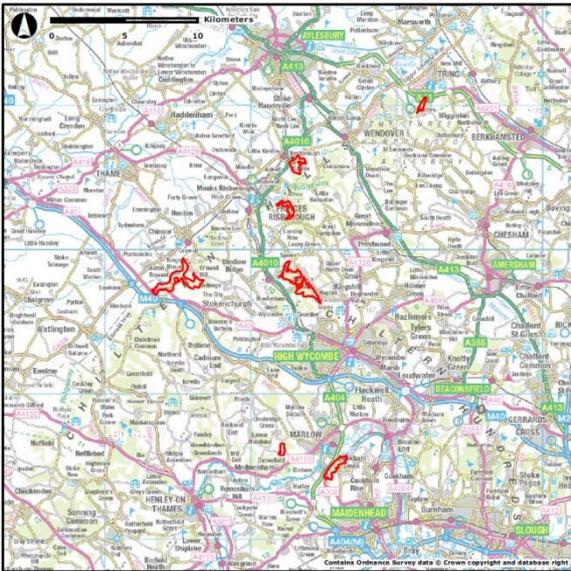
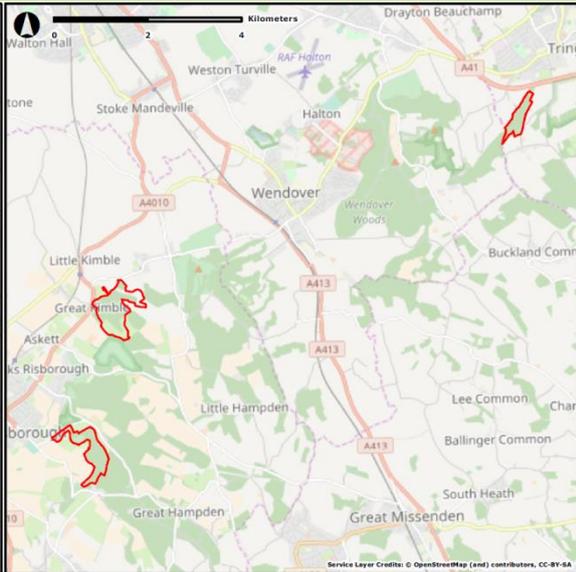
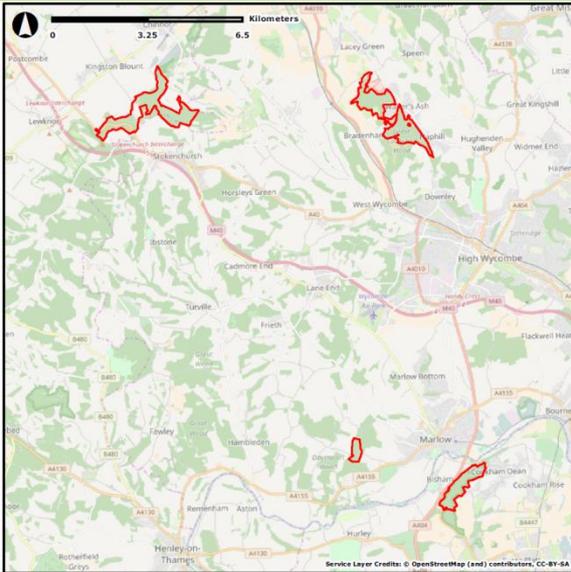
- 5.8 At present there are 35,708 people living within 7km of Aston Rowant SAC. Development of up to 20 new homes could represent an increase in visitors to the Aston Rowant SAC of 0.1%³⁴, which is considered to be a negligible increase. Furthermore, Natural England officers have confirmed that Aston Rowant SAC is not particularly sensitive to increases in recreation pressure. As such it may be concluded that Pyrton Neighbourhood Plan would not have any likely significant effects on Aston Rowant SAC through recreational pressure either alone or in-combination with other plans and therefore no Appropriate Assessment is required.
- 5.9 **In conclusion, the Pyrton Neighbourhood Plan (February 2018) will not give rise to likely significant effects on European sites, either alone or in-combination with other plans or projects, and Appropriate Assessment is therefore not required.**

LUC
August 2018

³⁴ South Oxfordshire is expected to have an average household size of 2.18 by 2026.

Appendix 1 - European sites within 17km of Pyrton

1. 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*	83% in favourable condition; 17% in an unfavourable condition, recovering

Special Area of Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- The populations of qualifying species, and;
- The distribution of qualifying species within the site.

1. Chilterns Beechwoods Special Area of Conservation

Site Improvement Plan³⁵: 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.

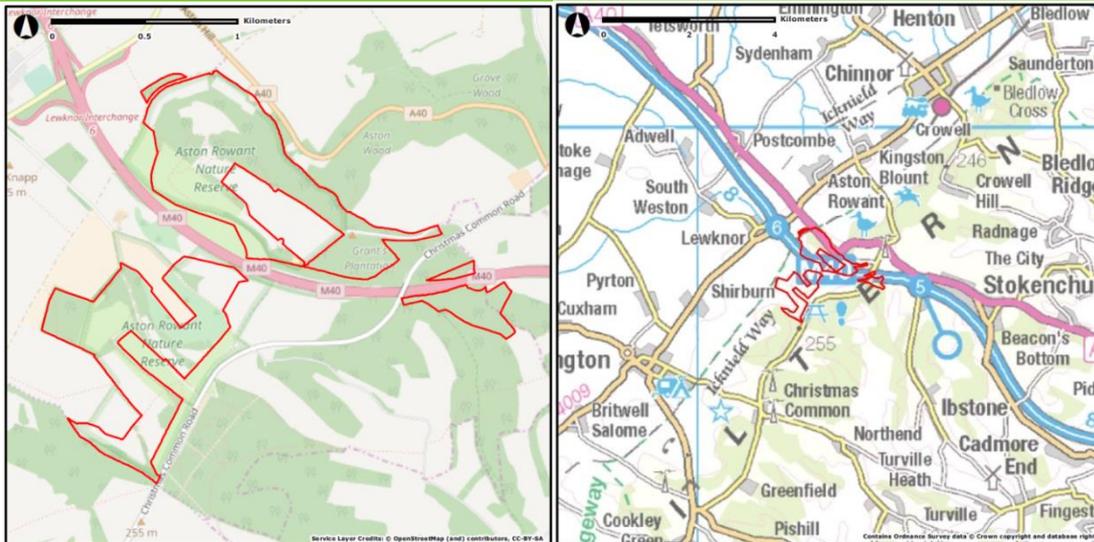
Key environmental conditions supporting the site

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

³⁵ Natural England - Site Improvement Plan: Chilterns Beechwoods (SIP045)
<http://publications.naturalengland.org.uk/publication/6228755680854016?category=6149691318206464>

2. 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* ³⁶	100% in favourable condition

Special Area of Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats;
- The structure and function (including typical species) of qualifying natural habitats, and;
- The supporting processes on which qualifying natural habitats rely.

Site Improvement Plan³⁷: 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

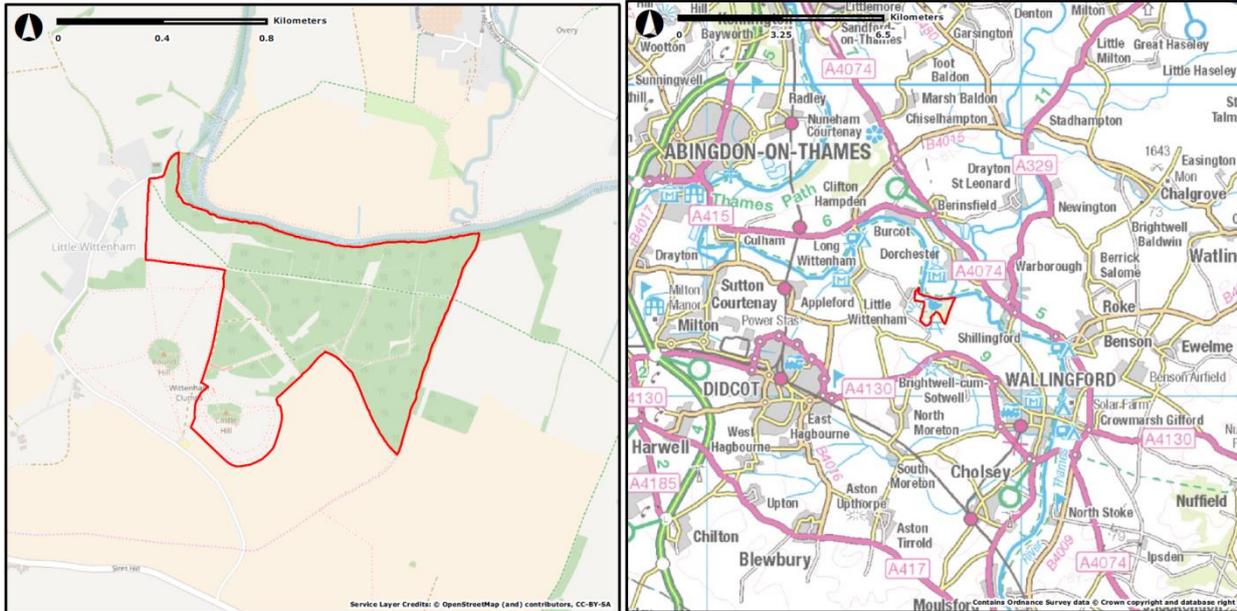
1. Regular management to keep vegetation open and allow seedlings to establish
2. Prevention of rabbit grazing on seedlings
3. Minimal air pollution

³⁶ Site status is an assessment by Natural England of the status of the SSSIs within the SAC

³⁷ Natural England - Site Improvement Plan: Aston Rowant (SIP007)

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

3. 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

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of habitats of qualifying species;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which the habitats of qualifying species rely;
- The populations of qualifying species, and;
- The distribution of qualifying species within the site.

Site Improvement Plan³⁸: 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.

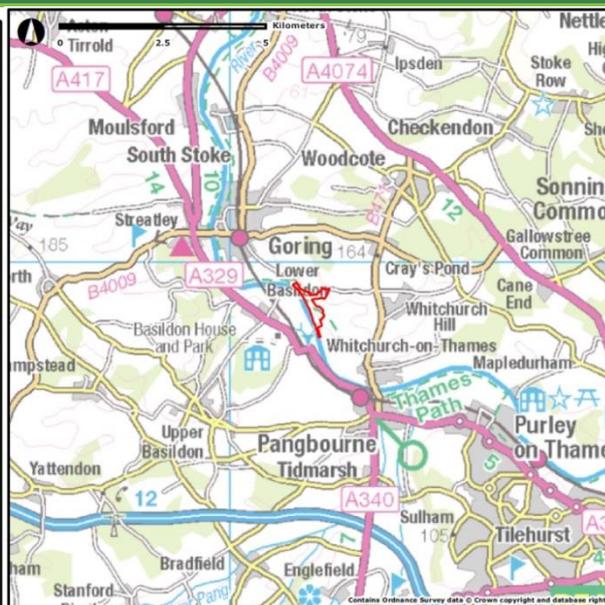
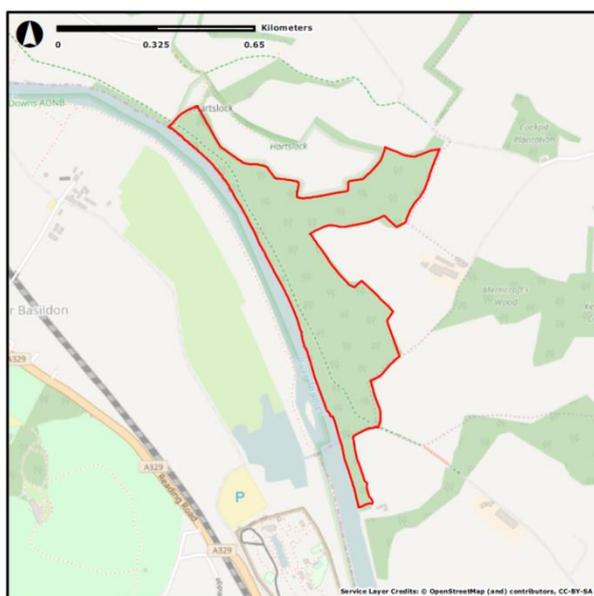
Key environmental conditions supporting the site

1. Suitable foraging and refuge habitat within 500 metres of the pond
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

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

4. Hartslock Wood Special Area of Conservation

5. Oxford Meadows 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	88% in favourable condition; 12% in an unfavourable condition, recovering

Special Area of Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of the qualifying natural habitats;
- The structure and function (including typical species) of the qualifying natural habitats, and;
- The supporting processes on which the qualifying natural habitats rely.

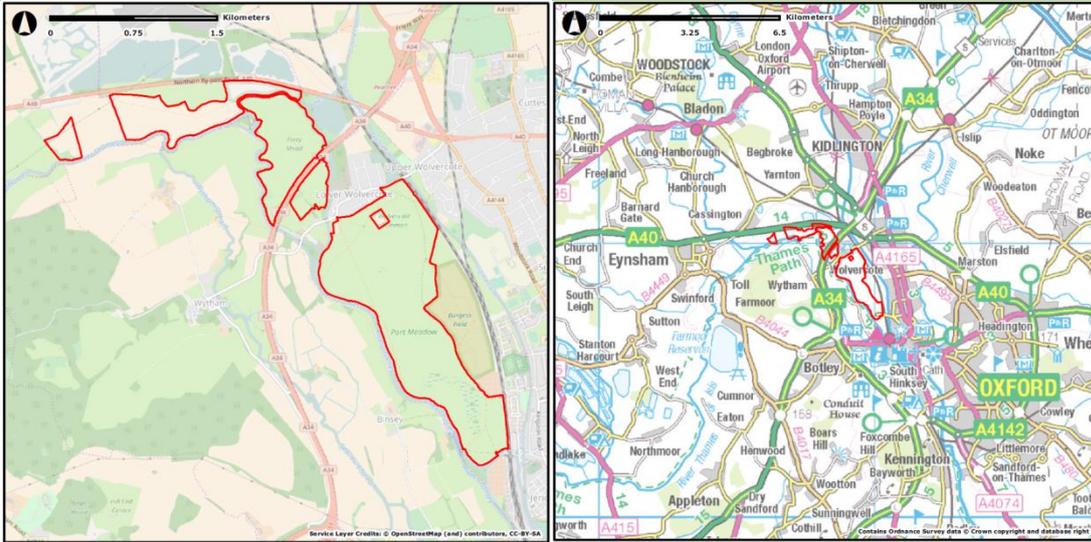
Site Improvement Plan³⁹: pressures, threats and related development

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
3. Absence of direct fertilisation

³⁹ Natural England - Site Improvement Plan: Hartslock Wood (SIP100)
<http://publications.naturalengland.org.uk/publication/4874314121740288?category=6149691318206464>



Site description

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

Qualifying features

H6510	Lowland hay meadows
S1614	Apium repens; Creeping marshwort
Site status*	99% in favourable condition; 1% in an unfavourable condition, recovering

Special Area of Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- The populations of qualifying species, and;
- The distribution of qualifying species within the site.

Site Improvement Plan⁴⁰: pressures, threats and related development

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

Key environmental conditions supporting the site

1. Maintenance of traditional hay cut
2. Maintenance of appropriate grazing regime
3. Minimal air pollution
4. Absence of direct fertilisation
5. Balanced hydrological regime
6. Absence of excessive nutrient enrichment of floodwaters

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

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

Appendix 2– Screening matrix for the Neighbourhood Plan

The screening matrix below shows which types of likely significant 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 likely significant effect, the relevant cell is shaded **green**. Where a site could potentially have a certain type of likely significant effect, this is shown in **orange**. The final column sets out the screening conclusions.

	Likely activities (operation) to result as a consequence of the proposal	Likely effect if proposal implemented	European site(s) potentially affected	Could the proposal have likely significant effects on European sites?
Policies				
Policy BNE1: Historic Environment	None – this policy provides protection for designated and non-designated heritage assets along with their settings, and will not result in new development.	n/a	n/a	No
Policy BNE2: Landscape character	None – this policy provides protection for the landscape character of the parish, including the Chilterns AONB and its setting, but will not result in new development.	n/a	n/a	No
Policy BNE3: Local Green Spaces	None – this policy protects green spaces.	n/a	n/a	No
Policy BNE4: Local Gap	None – this policy prevents coalescence of Pyrton and Watlington, and a strong edge to Watlington settlement.	n/a	n/a	No
Policy BNE5: Flood risk and drainage	None – this policy sets out how the risk of flooding will not be increased and that opportunities to reduce flood risk will be exploited.	n/a	n/a	No
Policy BNE6: Footpaths and	None – this policy provides protection	n/a	n/a	No

	Likely activities (operation) to result as a consequence of the proposal	Likely effect if proposal implemented	European site(s) potentially affected	Could the proposal have likely significant effects on European sites?
bridleways	of footpaths and bridleways.			
Policy C1: Community Assets	Community facilities development Increase in vehicle traffic	Air pollution	Aston Rowant SAC Chiltern Beechwoods SAC	Unlikely: air pollution Although partial redevelopment or extensions of buildings for community use could result from this policy, it does not allocate land for development and such development is expected to meet a local need and would be unlikely to generate trips from outside the local area.
Policy C2: Development contributions	None – this policy sets developer contributions for new development.	n/a	n/a	No
Policy H1: New homes	Residential development Increase in vehicle traffic Increase in recreation pressure	Disturbance from recreation Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	Uncertain: air pollution and recreation This policy supports the provision of 15-20 new homes at the former MoD site at the junction of Shirburn Road (B4009). The remainder of the policy references the site at New Farm (which has extant planning permission for three new homes) and the site between Old Vicarage Cottage and The Lodge House (which has planning permission for two homes). Development of 15-20 homes is very unlikely to exceed the screening threshold of 1,000 AADT adjacent to sensitive sites on its own, but could in combination with other policies or

	Likely activities (operation) to result as a consequence of the proposal	Likely effect if proposal implemented	European site(s) potentially affected	Could the proposal have likely significant effects on European sites?
				plans. Owing to the proximity of Pyrton to Aston Rowant SAC, new development has the potential to increase visitor numbers at the site and cause disturbance from recreation. While it is unlikely that this site would have recreational effects on its own, it could in combination with other policies or plans.
Policy H2: Type of new homes	None – this policy ensures that any new residential development is in keeping with the existing houses in the parish, and will not itself result in development.	n/a	n/a	No
Policy D1: Detailed design criteria	None – this policy requires high quality design but will not result in new development.	n/a	n/a	No
Policy D2: Infill design criteria	This policy states that planning permission will be granted for infill residential development provided it meets the referenced design criteria. Therefore, the policy could potentially result in infill development, which could lead to the following effects: Residential development Increase in vehicle traffic Increase in recreation pressure	Disturbance from recreation Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	Unlikely: air pollution and recreation This policy could lead to infill development within Pyrton. However, the infill development would be of such small-scale that it would be unlikely to result in significant effects on European sites.

	Likely activities (operation) to result as a consequence of the proposal	Likely effect if proposal implemented	European site(s) potentially affected	Could the proposal have likely significant effects on European sites?
Policy D3: Extension of existing properties	Residential development	None – while this will result in some minor development it is not expected to increase the population of the area.	n/a	n/a
Site allocations				
Policy SA1: Former MoD site (PYR1)	Residential development Increase in vehicle traffic Increase in recreation pressure	Disturbance from recreation Air pollution	Aston Rowant SAC Chilterns Beechwoods SAC	Uncertain: air pollution and recreation This policy provides details of the former MoD site (PYR1) allocated for residential development consisting of around 15 units, along with associated landscape and infrastructure works required to support the scheme. Development of 15-20 homes is very unlikely to exceed the screening threshold of 1,000 AADT adjacent to sensitive sites on its own, but could in combination with other policies or plans. Owing to the proximity of Pyrton to Aston Rowant SAC, new development has the potential to increase visitor numbers at the site and cause disturbance from recreation. While it is unlikely that this site would have recreational effects on its own, it could in combination with other policies or plans.

