Appendix I

West Oxfordshire District Council

Core Strategy

Habitats Regulations Assessment

Stage I - Screening

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1. Introduction

This is a Habitats Regulation Assessment (HRA) screening report for the West Oxfordshire District Core Strategy. HRA aims to ensure the protection of sites of exceptional importance for rare, endangered or vulnerable natural habitats and species within the European Community. The European Habitats Directive¹ designates sites that are of international importance for their habitats, flora, or fauna; these are known as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites. Together they make up a network of protected sites known as the Natura 2000 network or 'European sites'.

The Directive requires that land use plans are subject to HRA where they might have a significant effect on a Natura 2000 site. There are no Special Protection Areas or Ramsar sites in West Oxfordshire or within 20km of the district border. This HRA will assess the potential impacts of the West Oxon Core Strategy on Special Areas of Conservation (SAC) in West Oxon and within a 20km radius.

This HRA has been carried out by Oxfordshire County Council on behalf of the Competent Authority (in this case West Oxfordshire District Council) to allow them to make a decision on whether there will be likely significant effects on international sites as a result of the Core Strategy and for approval by Natural England, the statutory consultee for Habitats Regulations Assessment.

West Oxfordshire DC published an 'Appropriate Assessment Scoping Statement' in January 2010. This report expands on the scoping statement to form Stage I (screening). Stage II (appropriate assessment) will be covered by a subsequent report.

1.1 Requirements of the Habitats Directive

The Habitats Directive is transposed into UK legislation through the 'Conservation of Habitats & Species Regulations 2010', generally known as the Habitats Regulations. Appropriate assessment of plans that could affect Special Areas of Conservation (SACs) is required by article 6(3) of the European Habitats Directive, which states:

'Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.'

Article 6(4) of the Habitats Directive discusses alternative solutions, the test of "imperative reasons of overriding public interest" (IROPI) and compensatory measures:

If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Guidance on Appropriate Assessment (AA) recommends the following stages for the assessment: **I. Screening**: determining whether a plan in combination with other plans and projects is likely to have a significant effect (having regard to the probability, frequency, duration and reversibility of any effect) on a European site, applying the precautionary principle.

- **II. Appropriate Assessment**: determining whether the plan would have an adverse effect on the on the integrity of any European site in view of the site's conservation objectives
- **III. Alternatives and mitigation**: where an option is assessed as having an adverse effect on the integrity of any sites, alternative options and mitigation measures should be examined.
- IV. Assessment where no alternative solutions remain and where adverse impacts remain:

¹ Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna

In exceptional circumstance (e.g. where there are imperative reasons of overriding public interest), compensatory measures to be put in place to offset negative impacts.

If having been through the HRA (stages I to III) a plan option has adverse effects on a European site, mitigation measures have been exhausted and no alternatives exist, the option should, as a rule, not be pursued. Only in exceptional circumstances, for reasons of overriding public interest, can consideration be given to proceeding and in such cases compensation measures must be put in place. Options are unlikely to get to this stage (IV) as given the legal requirements of the Habitats Directive it is unwise to pursue a plan option which is likely to have adverse effects on a European site.

1.2 Draft West Oxfordshire Core Strategy (January 2011)

The draft West Oxfordshire Core Strategy seeks to deliver 4,300 new homes between 1 April 2011 and 31 March 2026, the majority of which, under the current proposed draft locational strategy, will be accommodated in the three main service centres as follows:

Witney - 1,500 new homes to include a strategic development area to the west Carterton - 1,600 new homes to include a new strategic development area Chipping Norton - 400 new homes

The draft West Oxfordshire Core Strategy also provides for 20h of employment land to be accommodated in and around existing settlements and the following transport infrastructure in the Witney area:

- Cogges Link Road a new distributor road crossing the River Windrush on the eastern side of Witney.
- A new junction between the A40 and Downs Road
- Between Mill Street and Hailey Road (West End Link Phase 2) to provide a further river crossing
- A40 Shores Green junction to the east of Witney to provide west facing slip roads.
- enhance pedestrian, cycle and public transport links and related infrastructure

1.3 Methodology Used for this Habitats Regulations Assessment

The HRA for the draft South East Plan² suggests a tiered approach, similar to that recommended for Sustainability Appraisal, considering the Appropriate Assessment of higher level plans. The HRA of the draft South East and South West Plans provides a useful evidence base identifying the range of impacts development plans may have on European sites. This information has been considered in relation to sites within or near West Oxfordshire to provide background information.

Relevant information has also been considered from HRAs carried out for core strategies of other districts within Oxfordshire and Wiltshire, the Oxfordshire Minerals & Waste Development Framework, the Chilterns Railways Evergreen proposals and the Environment Agency's Oxford Flood Risk Management Strategy.

This report covers Stage I (screening) of this process as outlined below:

Stage I - Screening

 Identification of European sites that could possibly be affected by West Oxfordshire's draft Core Strategy, qualifying features, conservation objectives and key environmental conditions to support the sites' integrity;

- Initial assessment of policies in the Draft West Oxon Core Strategy for potential impacts on European sites
- Identification of impacts and sites that can be initially screened out, and those that are likely to require more detailed assessment;

² Appropriate Assessment of the draft South East Plan Final Report http://www.southwesteip.co.uk/downloads/documents/20070522120523.pdf

 Assessment of WODC draft core strategy for significance of potential impacts on European sites not already screened out (Oxford Meadows and Cothill Fen) in terms of magnitude, duration, probability, frequency, duration and reversibility.

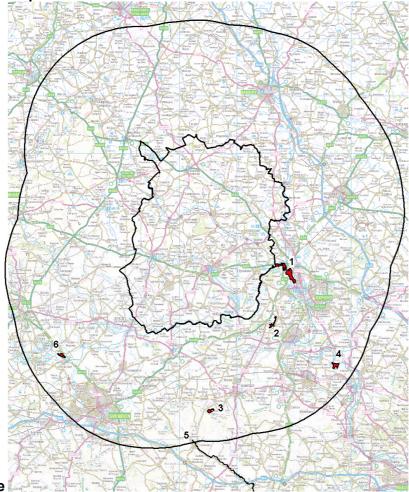
2. European sites

2.1 Location of European sites

There is only one Special Area of Conservation (SAC) partly within West Oxfordshire: Oxford Meadows. There are several others within 20km of West Oxfordshire including: Cothill Fen, Little Wittenham, Hackpen Hill, North Meadow, Cricklade and the River Lambourn at Upper Lambourn. There are no Special Protection Areas within or near to West Oxfordshire (the nearest is over 40km away).

Figure 2.1 shows the West Oxfordshire District boundary, a 20km buffer of this boundary (considered an appropriate distance to assess indirect and 'in combination' effects of development in West Oxfordshire) and European sites wholly or partially within this buffer.

Figure 2.1 European sites within or near to West



Oxfordshire Kev

- 1. Oxford Meadows SAC
- 2. Cothill Fen SAC
- 3. Hackpen Hill SAC
- 4. Little Wittenham SAC
- 5. River Lambourn SAC
- 6. North Meadow SAC

2.2 Conservation features & objectives and site integrity of European Sites

Table 2.1 lists all European sites that are within 20km of West Oxfordshire and describes the reasons for their designation, their conservation objectives and the key environmental conditions required to support the sites' integrity.

Table 2.1 Conservation features of European sites within 20km of West Oxfordshire

Name of Site	Reason for Designation ³	Conservation objectives	Key environmental conditions to support site integrity
Oxford Meadows	Annex I habitats that are a primary reason for selection of this site Oxford Meadows represents lowland meadows in the Thames Valley centre of distribution. The site includes vegetation communities that are perhaps unique in the world in reflecting the influence of long-term grazing and hay-cutting on lowland 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. Annex II species that are a primary reason for selection of this site Oxford Meadows is selected because Port Meadow is the larger of only two known sites in the UK for creeping marshwort Apium repens.	To maintain alluvial, species rich flood meadows in a favourable condition. Port Meadow with Wolvercote Common & Green: to maintain, in favourable condition, the habitats for creeping marshwort <i>Apium Repens</i> . Oxford Meadows SAC is currently in favourable condition.	1. Minimal air pollution. 2. Absence of nutrient enrichment of waters; good water quality. 3. Balanced hydrological regime – alteration to adjacent rivers may alter flooding regime and reduce botanical diversity. 4. Maintenance of traditional hay cut and light aftermath grazing. 5. Absence of direct fertilisation. 6. Ensuring that recreational pressures are maintained at a reasonable level. 7. Ensuring that the A34 does not need to be widened.
Cothill Fen	Annex I habitats that are a primary reason for selection of this site This lowland valley mire contains one of the largest surviving examples of alkaline fen vegetation in central England, a region where fen vegetation is rare. The M13 Schoenus nigricans – Juncus subnodulosus vegetation found here occurs under a wide range of hydrological conditions, with frequent bottle sedge Carex rostrata, grass-of-Parnassus Parnassia palustris, common butterwort Pinguicula vulgaris and marsh helleborine Epipactis palustris. The alkaline fen vegetation forms transitions to other vegetation types that are similar to M24 Molinia caerulea – Cirsium dissectum fen-meadow and S25 Phragmites australis – Eupatorium cannabinum tall-herb fen and wet alder Alnus spp. wood. Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	To maintain fen meadow, mire and swamp and broadleaved, mixed and yew woodland in a favourable condition.	1. Maintain high water table. 2. Maintain calcareous, base-rich water supply 3. Minimal air pollution. 4. Ensuring that recreational pressures are maintained at a reasonable level.

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³ SACs in the United Kingdom http://jncc.defra.gov.uk/page-1458

Name of Site	Reason for Designation	Conservation objectives	Key environmental conditions to support site integrity
Little Wittenham	Annex II species that are a primary reason for selection of this site Great crested newt <i>Triturus cristatus</i> One of the best-studied great crested newt sites in the UK, Little Wittenham comprises two main ponds set in a predominantly woodland context (broad-leaved 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 <i>Triturus cristatus</i> have been recorded in the two main ponds, and research has revealed that they range several hundred metres into the woodland blocks.	To maintain lowland broadleaved woodland with ponds supporting a breeding population of great crested newts and a grassland habitat supporting a population of great crested newt in favourable condition.	1. Maintenance of habitat diversity including unshaded, medium sized ponds, and a variety of terrestrial habitat such as woodland, scrub and grassland, fallen branches, and piles of logs and stones to provide suitable resting, foraging and hibernation areas. 2. Water quality and levels requires maintenance to support suitability as breeding ponds. 3. Control or elimination of fish and invasive/alien aquatic plants may be required. 4. Ensure that recreational pressures are maintained at a reasonable level.
Hackpen Hill	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia). Annex II species that are a primary reason for selection of this site Early gentian Gentianella anglica. Hackpen Hill is an extensive area of unimproved chalk grassland in the Downs. The site has a variety of aspect and gradients, with the grassland dominated by red fescue Festuca rubra and upright brome Bromus erectus. The herb flora includes a significant population of early gentian Gentianella anglica, as well as autumn gentian Gentianella amarella, fragrant orchid Gymnadenia conopsea, frog orchid Coeloglossum viride, horseshoe vetch Hippocrepis comosa, common rock-rose Helianthemum nummularium and dwarf thistle Cirsium acaule.	To maintain lowland calcareous grassland supporting <i>Gentiana</i> anglica in a favourable condition. There are issues at this site with localised high nutrient levels and siltation problems which are associated with sewage treatment works ⁴ .	 Maintenance of sward structure & composition Control scrub encroachment. Avoid eutrophication Avoid application of fertilizer, herbicides or pesticides.

⁴ Habitats Regulations Assessment Report: SBC Core Strategy and Development Management Policies: Submission Draft http://www.swindon.gov.uk/ep/ep-planning-localdev/Documents/hra_final_report.pdf

Name of Site	Reason for Designation	Conservation objectives	Key environmental conditions to support site integrity
River Lambourn	Annex I habitats that are a primary reason for selection of this site Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation The Lambourn is an example of sub-type 1 in central southern England, a chalk stream discharging into the middle reaches of the Thames system. For part of its length it is a winterbourne, drying through the summer months. It is one of the least-modified rivers of this type, with a characteristic flora dominated by pond water-crowfoot Ranunculus peltatus. In the downstream perennial sections R. peltatus is replaced by stream water-crowfoot R. penicillatus var. pseudofluitans. Annex II species that are a primary reason for selection of this site Bullhead Cottus gobio The Lambourn represents bullhead Cottus gobio populations inhabiting chalk streams in central southern England. Good water quality, coarse sediments and extensive beds of submerged plants again provide excellent habitat for the species. Annex II species present as a qualifying feature, but not a primary reason for site selection Brook lamprey Lampetra planeri	To maintain, in a favourable condition the floating formations of water crowfoot (<i>Ranunculus</i>) of plain and sub-mountainous river; and to maintain, in favourable condition, the habitats for the population of Brook lamprey <i>Lampetra planeri</i>) and Bullhead (<i>Cottus gobio</i>). The site is currently in unfavourable condition due to inappropriate weirs and dams, invasive freshwater species and polluting agricultural run-off.	1. Maintenance of water quality and availability. 2. Avoidance of constriction of the river or blockage of its floodplain. 3. Avoid excessive run-off of soil particles and nutrients into the river 4. Avoid the creation of artificial barriers to the passage of migratory fish and other animals, such as otters. 5. Avoid over- exploitation of fish populations or other native animals and excessive stocking.
North Meadow and Clattinger Farm	Annex I habitats that are a primary reason for selection of this site Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>) North Meadow and Clattinger Farm in the Thames Valley in southern England is one of two sites representing lowland hay meadows near the centre of its UK range. As in the case of the Oxford Meadows, this site represents an exceptional survival of the traditional pattern of management and so exhibits a high degree of conservation of structure and function. This site also contains a very high proportion (>90%) of the surviving UK population of fritillary <i>Fritillaria meleagris</i> , a species highly characteristic of damp lowland meadows in Europe and now rare throughout its range.	To maintain the lowland neutral grassland habitat in favourable condition (or restored to favourable condition if features are judged to be unfavourable).	 Maintain seasonal flooding. Ensure late summer hay cut, followed by grazing. Maintain ground-water levels. Minimal air pollution. Ensuring that recreational pressures are maintained at a reasonable level.

3. Scoping impacts

Potential impacts were identified using the key environmental conditions required to support the integrity of the European sites within 20km of West Oxon and the South East and South West Plans HRA.

3.1 Initial assessment

An initial assessment of the policies in the Draft West Oxon Core Strategy for potential impacts on European sites and is shown in table 3.1

Natural England recommended that the effects of the Core Strategy elements be categorised in the form of a schedule.

Categorisation of the effects of the elements of the Core Strategy

- A Policies and proposals that cannot have any negative effect on a European site
- B Effects will be addressed in assessments "down the line", including project assessment under regulation 48
- C Could have an effect, but would not be likely to have a significant (negative) effect (alone or in combination with other plans or projects)
- D Likely to have a significant effect alone and would require Appropriate Assessment
- E Likely to have a significant effect in combination with other plans or projects and which require appropriate assessment of those combinations
- F Likely to have a significant effect, alone or in combination with other plans or projects, but which would not adversely affect the integrity of a European site
- G Likely to have a significant effect, alone or in combination with other plans or projects, and for which it cannot be ascertained that they would not adversely affect the integrity of a European site

Table 3.1: WODC Draft Core Strategy Policies – Initial assessment of likely effects

Draft Policy*	Assessment of likely effects			
Diait Policy	Explanation	Category	Type of effect	European site
Policy CS1:Overall Spatial Strategy	Large-scale development (1,500 new homes in Witney, 1,600 new homes in Carterton and 400 new		Increased water abstraction	Oxford Meadows Cothill Fen
	homes in Chipping Norton) will increase the number of cars on the road network and effluent discharge into water bodies. There		Increased effluent discharge	Oxford Meadows Cothill Fen River Lambourn
	may also be an increase in visitors to sites with open access.	D	Reduced air quality	Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm
			Increased recreational pressure	Oxford Meadows Cothill Fen Little Wittenham
Policy CS2: Settlement Hierarchy The location, scale and type of new development will be consistent with the hierarchy of towns and villages	The impacts of large-scale development are covered in other policies. Small-scale development is unlikely to affect European sites but any potential impacts would be dealt with at the planning application stage.	B/C	n/a	n/a
Policy CS3:Design of new development High design quality is central to the strategy for West Oxfordshire. New development should respect and contribute to local distinctiveness and, where possible, enhance the character and quality of the surroundings.	High design quality would have either a neutral or positive impact on the natural environment and therefore European sites. A design guide for green infrastructure, water management and biodiversity would secure these positive impacts.	А	n/a	n/a

^{*} The following is a summary of the policy. For full policy wording, see 'West Oxfordshire Draft Core Strategy January 2011', http://planningconsultation.westoxon.gov.uk/gf2.ti/f/236578/5181733.1/pdf/-/Core%20Strategy%202011.pdf

Explanation Large-scale development in Witney, Carterton and Chipping	Category	Type of effect	European site
Witney, Carterton and Chipping			
Norton will increase the number of		Increased water abstraction	Oxford Meadows Cothill Fen
cars on the road network and effluent discharge into water		Increased effluent	Oxford Meadows Cothill Fen River Lambourn
increase in visitors to sites with		discriarge	Niver Lambourn
open access.	D	Reduced air quality	Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm
		Increased recreational pressure	Oxford Meadows Cothill Fen Little Wittenham
Large-scale development (1,500 new homes in Witney) will increase the number of cars on the road network and effluent discharge into		Increased effluent discharge	Oxford Meadows Cothill Fen River Lambourn Oxford Meadows
an increase in visitors to sites with open access.	D	quality	Cothill Fen Hackpen Hill North Meadow & Clattinger Farm
		Increased recreational	Oxford Meadows Cothill Fen Little Wittenham
	cars on the road network and effluent discharge into water bodies. There may also be an increase in visitors to sites with open access. Large-scale development (1,500 new homes in Witney) will increase the number of cars on the road network and effluent discharge into water bodies. There may also be an increase in visitors to sites with	cars on the road network and effluent discharge into water bodies. There may also be an increase in visitors to sites with open access. D Large-scale development (1,500 new homes in Witney) will increase the number of cars on the road network and effluent discharge into water bodies. There may also be an increase in visitors to sites with	cars on the road network and effluent discharge into water bodies. There may also be an increase in visitors to sites with open access. D Reduced air quality Increased recreational pressure Large-scale development (1,500 new homes in Witney) will increase the number of cars on the road network and effluent discharge into water bodies. There may also be an increase in visitors to sites with open access. D Increased effluent discharge into water bodies. There may also be an increase in visitors to sites with open access.

^{*} The following is a summary of the policy. For full policy wording, see 'West Oxfordshire Draft Core Strategy January 2011', http://planningconsultation.westoxon.gov.uk/gf2.ti/f/236578/5181733.1/pdf/-/Core%20Strategy%202011.pdf

Droft Policy*	Assessment of likely effects				
Draft Policy*	Explanation	Category	Type of effect	European site	
Policy CS6: West Witney Strategic Development Area Proposals for development of land north of Range Road and east of Downs Road (primarily for employment uses), development of land west of Downs Road (for leisure/recreation and employment development/redevelopment), development of land south of Range Road and east of Downs Road (1,000 homes, a minimum of 10 hectares of land primarily for business and general industrial uses, a primary school and provision for secondary education, local shopping, community and leisure facilities, provision for green space, supporting transport infrastructure, provision of a new A40 junction at Downs Road)	Large-scale development in Witney will increase the number of cars on the road network and effluent discharge into water bodies. There may also be an increase in visitors to sites with open access.	D	Increased effluent discharge Reduced air quality Increased recreational pressure	Oxford Meadows Cothill Fen River Lambourn Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm Oxford Meadows Cothill Fen Little Wittenham	
Policy CS7: Strategy for Carterton Delivery of at least 1,600 new homes within and on the fringe of Carterton and provision of new community/leisure facilities	Large-scale development in Carterton will increase the number of cars on the road network and effluent discharge into water bodies. There may also be an increase in visitors to sites with open access.	D	Increased effluent discharge Reduced air quality Increased recreational pressure	Oxford Meadows Cothill Fen River Lambourn Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm Oxford Meadows Cothill Fen Little Wittenham	

^{*} The following is a summary of the policy. For full policy wording, see 'West Oxfordshire Draft Core Strategy January 2011', http://planningconsultation.westoxon.gov.uk/gf2.ti/f/236578/5181733.1/pdf/-/Core%20Strategy%202011.pdf

Droft Boliov*	A	ssessmen	t of likely effects	
Draft Policy*	Explanation	Category	Type of effect	European site
Policy CS8: Strategy for Chipping Norton Delivery of at least 400 new homes within and on the fringe of Chipping Norton	Large-scale development in Chipping Norton will increase the number of cars on the road network		Increased water abstraction	Oxford Meadows Cothill Fen
	and effluent discharge into water bodies. There may also be an increase in visitors to sites with open access.		Increased effluent discharge	Oxford Meadows Cothill Fen River Lambourn
		D	Reduced air quality	Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm
			Increased recreational pressure	Oxford Meadows Cothill Fen Little Wittenham
Policy CS9: Type of New Homes	The type of new homes within a development footprint is unlikely to affect European sites as this will not increase the development footprint or increase the population of people in West Oxon.	А	n/a	n/a
Policy CS10: Affordable Housing	The percentages of affordable housing within a development footprint are unlikely to effect European sites as this will not increase the development footprint or increase the population of people in West Oxon.	А	n/a	n/a

^{*} The following is a summary of the policy. For full policy wording, see 'West Oxfordshire Draft Core Strategy January 2011', http://planningconsultation.westoxon.gov.uk/gf2.ti/f/236578/5181733.1/pdf/-/Core%20Strategy%202011.pdf

Droft Policy*	A	ssessmen	t of likely effects	5
Draft Policy*	Explanation	Category	Type of effect	European site
Policy CS11: Rural Exception Sites	This policy relates to small-scale developments which are unlikely to effect European sites. Any potential impacts would be dealt with at the		Increased effluent discharge	Oxford Meadows Cothill Fen River Lambourn
	planning application stage.	B/C	Reduced air quality	Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm
			Increased recreational pressure	Oxford Meadows Cothill Fen Little Wittenham
Policy CS12: Travelling communities	This policy relates to small-scale developments which are unlikely to effect European sites. Any potential impacts would be dealt with at the	B/C	Increased effluent discharge	Oxford Meadows Cothill Fen River Lambourn
	planning application stage.	B/C	Reduced air quality	Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm
Policy CS13: Re-use of Existing Buildings	This policy relates to small-scale development on existing development footprints which are unlikely to effect European sites.	B/C	Increased effluent discharge	Oxford Meadows Cothill Fen River Lambourn
	Any potential impacts would be dealt with at the planning application stage.	B/C	Reduced air quality	Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm

^{*} The following is a summary of the policy. For full policy wording, see 'West Oxfordshire Draft Core Strategy January 2011', http://planningconsultation.westoxon.gov.uk/gf2.ti/f/236578/5181733.1/pdf/-/Core%20Strategy%202011.pdf

Droft Policy*	Assessment of likely effects			
Draft Policy*	Explanation	Category	Type of effect	European site
Policy CS14: Existing housing	This policy relates to small-scale development on existing development footprints which are unlikely to effect European sites. Any potential impacts would be dealt with at the planning application stage.	B/C	Increased effluent discharge Reduced air quality	Oxford Meadows Cothill Fen River Lambourn Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm
Policy CS15: Existing employment sites	This policy relates to small-scale development on existing development footprints which are unlikely to effect European sites. Any potential impacts would be dealt with at the planning application stage.	B/C	Increased effluent discharge Reduced air quality	Oxford Meadows Cothill Fen River Lambourn Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm
Policy CS16:Farm and Country Estate Diversification Development proposals which make a positive contribution to farm or country estate diversification will be supported.	This policy relates to small-scale developments which are unlikely to affect European sites. Any potential impacts would be dealt with at the planning application stage.	B/C	Increased effluent discharge Reduced air quality	Oxford Meadows Cothill Fen River Lambourn Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm

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^{*} The following is a summary of the policy. For full policy wording, see 'West Oxfordshire Draft Core Strategy January 2011', http://planningconsultation.westoxon.gov.uk/gf2.ti/f/236578/5181733.1/pdf/-/Core%20Strategy%202011.pdf

Droft Dalieu*	Assessment of likely effects			
Draft Policy*	Explanation	Category	Type of effect	European site
Policy CS17: Sustainable Tourism	This policy relates to small-scale developments which are unlikely to effect European sites. Any potential impacts would be dealt with at the		Increased effluent discharge	Oxford Meadows Cothill Fen River Lambourn
	planning application stage.	B/C	Reduced air quality	Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm
			Increased recreational pressure	Oxford Meadows Cothill Fen Little Wittenham
Policy CS18: Town centres	This policy relates to small-scale developments which are unlikely to affect European sites. Any potential impacts would be dealt with at the planning application stage.	B/C	Increased effluent discharge Reduced air quality	Oxford Meadows Cothill Fen River Lambourn Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm
			Increased recreational pressure	Oxford Meadows Cothill Fen Little Wittenham
Policy CS19:Renewable and low carbon energy development In principle, renewable and low-carbon energy developments will be supported, especially community based wind schemes, solar clubs and the use of biomass.	This policy relates to small-scale developments which are unlikely to affect European sites. Any potential impacts would be dealt with at the planning application stage.	В	Increased effluent discharge Reduced air quality	Oxford Meadows Cothill Fen River Lambourn Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm

^{*} The following is a summary of the policy. For full policy wording, see 'West Oxfordshire Draft Core Strategy January 2011', http://planningconsultation.westoxon.gov.uk/gf2.ti/f/236578/5181733.1/pdf/-/Core%20Strategy%202011.pdf

Draft Policy*	Assessment of likely effects			
Draft Policy*	Explanation	Category	Type of effect	European site
Policy CS20: Development design for renewable energy	High design quality would have either a neutral or positive impact on the natural environment and therefore European sites.			
	A design guide for green infrastructure, water management and biodiversity would secure these positive impacts.	A	n/a	n/a
Policy CS21: Sustainable construction All new development (including new buildings, conversions and the refurbishment of existing building stock) will be required to achieve high standards of sustainable design and construction.	High design quality would have either a neutral or positive impact on the natural environment and therefore European sites. A design guide for green infrastructure, water management and biodiversity would secure these positive impacts.	А	n/a	n/a
Policy CS22: Natural resources All development proposals will be required to show consideration of the efficient and prudent use and management of natural resources.	High design quality would have either a neutral or positive impact on the natural environment and therefore European sites. A design guide for green infrastructure, water management and biodiversity would secure these positive impacts.	А	n/a	n/a

^{*} The following is a summary of the policy. For full policy wording, see 'West Oxfordshire Draft Core Strategy January 2011', http://planningconsultation.westoxon.gov.uk/gf2.ti/f/236578/5181733.1/pdf/-/Core%20Strategy%202011.pdf

Dueff Dalieu*	Assessment of likely effects			
Draft Policy*	Explanation	Category	Type of effect	European site
Policy CS23: Green Infrastructure The existing green infrastructure assets* of West Oxfordshire will be protected and enhanced and new multi-functional areas of green space will be created where improvements to the network can be achieved.	The protection and enhancement of green infrastructure would have either a neutral or positive impact on the natural environment and therefore European sites.	A	n/a	n/a
	Further guidance on green infrastructure would secure these positive impacts.			
Policy CS24: Natural Environment The quality and character of West Oxfordshire's natural environment, its diversity and its local distinctiveness, will be conserved and enhanced, including its landscape, countryside and biodiversity.	The protection and enhancement of the natural environment would have either a neutral or positive impact on the natural environment and therefore European sites.	A	n/a	n/a
Policy CS25: Biodiversity The overall biodiversity of West Oxfordshire shall be protected and opportunities to achieve a net gain actively pursued.	The protection and enhancement of biodiversity would have either a neutral or positive impact on the natural environment and therefore European sites.	A	n/a	n/a
Policy CS26:Transport and movement Priority will be given to locating new development in areas with convenient access to a reasonable range of services and facilities and where the need to travel by private car, particularly where it would add to traffic congestion around Oxford, can be minimised. West Oxfordshire District Council will work with the highway authority, local councils and other organisations, including the Oxfordshire Rural Community Council, bus and rail operators.	Minimising private car use by encouraging other modes of transport should help minimise air quality impacts and offset the potential increase in traffic movement potentially caused by improving the road network. Transport assessments submitted with planning applications for new developments should address potential impacts on European sites as a result of reduced air quality.	В	Reduced air quality Increased recreational pressure	Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farm Oxford Meadows Cothill Fen Little Wittenham

^{*} The following is a summary of the policy. For full policy wording, see 'West Oxfordshire Draft Core Strategy January 2011', http://planningconsultation.westoxon.gov.uk/gf2.ti/f/236578/5181733.1/pdf/-/Core%20Strategy%202011.pdf

Droft Dollars*	Assessment of likely effects			
Draft Policy*	Explanation	Category	Type of effect	European site
Policy CS27: Infrastructure	Any new infrastructure required as		Increased water	Oxford Meadows
Infrastructure to support existing and new communities will be delivered by working with relevant organisations and	part of new development should be assessed for its impact on		abstraction	Cothill Fen
prospective developers.	European sites along with the		Increased	Oxford Meadows
'	impact of the development itself.		effluent	Cothill Fen
			discharge	River Lambourn
		В	Reduced air quality	Oxford Meadows Cothill Fen Hackpen Hill North Meadow & Clattinger Farn
			Increased recreational pressure	Oxford Meadows Cothill Fen Little Wittenham

^{*} The following is a summary of the policy. For full policy wording, see 'West Oxfordshire Draft Core Strategy January 2011', http://planningconsultation.westoxon.gov.uk/gf2.ti/f/236578/5181733.1/pdf/-/Core%20Strategy%202011.pdf

3.2 Appropriate Assessment of the South East Plan & South West Plan

Although central government has announced the imminent abolition of Regional Spatial Strategies, the background evidence used to prepare the plans is sound and should be used by local authorities in preparing their Local Development Frameworks. The findings of the HRA for the South East Plan and South West Plan are therefore highly relevant to the HRA of the West Oxfordshire Core Strategy. It should be noted that these HRA focused on information and impacts considered appropriate at the regional level. For example, rather than focusing on information and impacts relating to the specific location of future development, the assessment has addressed bigger issues such as air pollution and water abstraction across the region. The HRA of the West Oxfordshire Core Strategy is carried out at a West Oxfordshire wide level and it will be necessary for future planning applications to consider the impact at an individual site level.

The HRA of the Draft South East Plan and Draft South West Plan concluded that there were a number of possible impacts 'for which it was not possible to conclude' that there would be 'no adverse effect' on the SACs close to West Oxfordshire due to developments under the South East Plan or South West Plan, either alone or in combination with other plans or projects. These are outlined in table 3.2.

Table 3.2 Possible impacts of the South East & South West Plans

Name of Site	Possible impacts 'for which it was not possible to conclude' that there would be 'no adverse effect' due to developments under the South East & South West Plans, either alone or in combination with other plans or projects.				
	Increased water abstraction	Increased effluent discharge	Reduction in air quality	Increased primary aggregate requirements	
Oxford Meadows	~	✓	~	✓	
Cothill Fen	~	→	>		
Hackpen Hill			→		
Little Wittenham	Screened out as it is considered that sufficient terrestrial habitat to support the breeding population is present within the boundaries of the SAC itself.				
River Lambourn	•	•			
North Meadow and Clattinger Farm ⁵	•		•		

3.3 Management of European sites & surroundings

All of the European sites rely on good management regimes to maintain their site integrity and sensitive management of the surrounding area to prevent pollution from run-off. As none of the sites are under the control of West Oxfordshire DC and the Core Strategy will not affect management activities, these potential impacts are scoped out of this HRA.

3.4 Increased water abstraction

The Environment Agency's catchment abstraction management strategies (CAMS) and abstraction licensing regime will avoid any adverse effects on European sites. The CAMS will be subject to HRA according to section 99 of the Conservation of

⁵ South West RSS Habitats Regulations Assessment Final Report http://www.swcouncils.gov.uk/media/SWRA/RSS%20Documents/Technical%20Documents/T echnical%20Work/Habitat%20Regulations%20Assessment/SW RSS Final HRA Report.pdf

Habitats & Species Regulations 2010. However, Thames Water (TW) responded to the West Oxfordshire Core Strategy: Preferred Approach on 16th March 2010 with concerns about further development in Chipping Norton due to low water pressure in the water network. TW state that further modelling would need to be carried out to determine if the existing infrastructure could accommodate the growth proposed. An increase in water abstraction is a potential issue for Oxford Meadows and Cothill Fen as they both include habitats (flood meadow and lowland fen respectively) which rely on the current hydrological regime and groundwater levels to maintain their quality. An increase in water abstraction could also result in a decrease in water quality as pollutants would be more concentrated. Therefore the potential impact of increased water abstraction must be considered further.

3.5 Increased primary aggregate requirements

The potential impacts of primary aggregate requirements will be addressed by Oxfordshire County Council in their Minerals and Waste Development Framework and by Wiltshire Unitary Authority in the Wiltshire and Swindon Minerals and Waste Development Framework so the effects of increased primary aggregate requirements can be scoped out for the West Oxon Core Strategy HRA.

3.6 Reduced air quality

Impacts of reduced air quality as a result of new roads will be dealt with by the Highways Authority under with under Reg. 84 or 94 of the Conservation of Habitats & Species Regulations 2010 so can be scoped out for the West Oxon Core Strategy HRA.

However, there are potential impacts of reduced air quality as a result of more vehicles using existing roads which could arise as a result of the West Oxon Core Strategy due to the 4,300 new homes and 20ha of employment land seeking to be delivered up to 2026. Therefore reduced air quality must be considered further.

3.7 Increased effluent discharge / water pollution

The West Oxon Core Strategy could result in an increase in effluent discharge as a result of the 4,300 new homes and 20ha of employment land seeking to be delivered up to 2026. Therefore increased effluent discharge must be considered further.

3.8 Increased recreational pressure

An increase in the population of West Oxfordshire could result in increased recreational pressure with associated impacts such as disturbance to fauna and trampling of vegetation on European sites. Natural England statistics suggest people travel an average distance of 11 miles for a day countryside visit and 7.5 miles for an inland town / city trip⁶. As both Oxford Meadows and Cothill Fen fall within this distance of West Oxfordshire, recreational pressures must be considered further.

3.9 Residual impacts

The potential impacts of increased recreational pressure, increased air pollution and increased effluent discharge / water pollution cannot be scoped out at this stage so must be considered further.

http://naturalengland.etraderstores.com/NaturalEnglandShop/Product.aspx?ProductID=e21aa 150-6e4c-4928-9e4b-f67c516f2d73

⁶ England Leisure Visits: Report of the 2005 survey

4. Scoping out European sites

An assessment was made of the residual potential impacts on the European sites (based on an analysis of the key environmental conditions required to support each site) within 20km of West Oxon to determine whether any of the sites can be scoped out at this stage.

4.1 Little Wittenham SAC

The only potential impact not already screened out for Little Wittenham is increased recreational pressure as increased air pollution and increased effluent discharge / water pollution are unlikely to result in significant impacts on the great crested newts, woodland or grassland which are the important features of the site.

The HRA for the Oxford City Core Strategy concluded that there was unlikely to be an increase in recreational pressure as Little Wittenham SAC is 12 miles from the city boundary, green space will be provided in new developments and visitor data obtained from the Northmoor Trust indicates that the increase in visitors from Oxford is likely to be only around 320-400 a year, based on current visitor patterns.

The draft AA of South Oxfordshire District Council's Core Strategy concludes there is no risk of a significant effect arising as a result of the proposed population growth at Didcot due to the restricted access policies which apply to the areas where newts are primarily found and that increased visitor numbers will be concentrated onto other habitats on the reserve. These habitats are relatively unimportant and robust in biodiversity terms and not related to the primary reasons for the selection of the SAC. They also note that Great Crested Newts are not believed to be particularly sensitive to human disturbance provided their breeding ponds are not affected and their primary terrestrial habitat and hibernacula are not adversely affected. Provided controls on access to the most sensitive areas are maintained (i.e. ponds and hibernacula are not disturbed), it concludes that there is no reason to believe there would be any significant effect on the integrity of the site or the primary reason for the selection of the site⁷.

As development in West Oxfordshire will be a minimum of 18 miles from Little Wittenham and Natural England statistics suggest people travel an average distance of 11 miles for a day countryside visit, impacts on Little Wittenham are scoped out of this HRA.

4.2 River Lambourn SAC

The River Lambourn SAC is not sensitive to increased air pollution or increased recreational pressure. There are issues at this site with localised high nutrient levels and siltation problems which are associated with sewage treatment works⁸ and the SE Plan HRA concluded that the River Lambourn could be affected by effluent discharge. However, the Swindon Core Strategy⁹ concluded that development in

⁷ Draft Appropriate Assessment of South Oxfordshire District Council's Core Strategy <a href="http://ww2.southoxon.gov.uk/gw/webpub/excondMa4jq8gm4Fm2/GWDOC/DREF/sodc.docaccesspo1.public/7387/Official/webacc/GWContentRoot?action=Document.View&User.html="bulletable.com/substantial/webacc/GWContentRoot?action=Document.View&User.html="bulletable.com/substantial/webacc/GWContentRoot?action=Document.View&User.html="bulletable.com/substantial/webstantial/webacc/GWContentRoot?action=Document.View&User.html="bulletable.com/substantial/webstantial

⁹ 'Swindon Core Strategy Revised Proposed Submission Habitats Regulations Assessment Update Note' http://www.swindon.gov.uk/ep/ep-planning/ep-planning-localdev/Documents/habitatsregulationassessment2011%5B1%5D.pdf

Swindon would not have any significant water quality impacts on the site due to the Environment Agency taking these issues into consideration in their 'Thames River Basin Management Plan' and the Thames Water 'Water Resources Management Plan'. Therefore impacts on the River Lambourn SAC are scoped out of this HRA.

4.3 Hackpen Hill SAC

The SE Plan HRA identified that Hackpen Hill could be affected by a reduction in air quality. However, Hackpen Hill is over 7km from the closest main road (the M4) from which any significant traffic generated by development in West Oxfordshire is likely to travel. Interim Advice Note 61/05 (Guidance for Undertaking Environmental Assessment of Air Quality for Sensitive Ecosystems in Internationally Designated (Nature Conservation Sites and SSSIs) states that an Appropriate Assessment is only required if a designated site is within 2km of a scheme. Therefore impacts on Hackpen Hill SAC are scoped out of this HRA.

4.4 North Meadow & Clattinger Farm SAC

The SW plan HRA identified that North Meadow & Clattinger Farm could be affected by a reduction in air quality. However, the Swindon Core Strategy HRA concluded that although air pollution is a key concern if a road carrying a significant proportion of new traffic runs within 200 metres of a European site, the current condition assessments for this site indicate that air pollution is not having an adverse effect on the site and that site level management is the key factor in maintaining site integrity.

As development in Swindon is unlikely to have an impact on this site, development further away in West Oxfordshire is also unlikely to have any impact, therefore impacts on Hackpen Hill SAC are scoped out of this HRA.

4.5 European sites to investigate further

Oxford Meadows SAC

The environmental conditions required to support Oxford Meadows are:

- 1. Minimal air pollution.
- 2. Absence of nutrient enrichment of waters; good water quality.
- 3. Balanced hydrological regime alteration to adjacent rivers may alter flooding regime and reduce botanical diversity.
- 4. Maintenance of traditional hay cut and light aftermath grazing.
- 5. Absence of direct fertilisation.
- 6. Ensuring that recreational pressures are maintained at a reasonable level.
- 7. Ensuring that the A34 does not need to be widened.
- 1. Both the Oxford City and Cherwell District Core Strategy HRAs recommended that policies be added to the core strategy requiring developments to demonstrate by detailed air quality modelling and analysis that there will not be any localised adverse effects on the integrity of Oxford Meadows SAC as a result of construction or increased road trips on roads within 200m of the site. Therefore the potential impacts of air pollution should be addressed in Stage II Appropriate Assessment.
- 2. An increase in water abstraction could result in a decrease in water quality as pollutants would be more concentrated. An increase in effluent discharge without sufficient infrastructure to treat waste could also result in a reduction in water quality. Therefore the potential impacts of an increase in water abstraction and increase in effluent discharge should be addressed in Stage II Appropriate Assessment.

- 3. Oxford Meadows rely on the current hydrological regime and groundwater levels to maintain its quality. With concerns about further development in Chipping Norton due to low water pressure in the water network, therefore the potential impacts of an increase in water abstraction should be addressed in Stage II Appropriate Assessment.
- 4, 5 & 7. The West Oxon Core Strategy will not affect these environmental conditions so they do not need to be considered further.
- 6. The potential impacts of increased recreational pressure on Oxford Meadows should be addressed in Stage II Appropriate Assessment because development in West Oxfordshire may be about 6 miles away from Oxford Meadows (Natural England statistics suggest people travel an average distance of 11 miles for a day countryside visit) and the site is a popular destination that is accessible to the public.

Cothill Fen SAC

The environmental conditions required to support Cothill Fen are:

- 1. Maintain high water table.
- 2. Maintain calcareous, base-rich water supply
- 3. Minimal air pollution.
- 4. Ensuring that recreational pressures are maintained at a reasonable level.
- 1. The 4,300 new homes and 20ha employment land seeking to be delivered up to 2026 will increase the demand for water. Cothill Fen relies on the current hydrological regime and groundwater levels to maintain its quality. Therefore the potential impacts of an increase in water abstraction should be addressed in Stage II Appropriate Assessment.
- 2. An increase in water abstraction could result in a decrease in water quality as pollutants would be more concentrated. An increase in effluent discharge without sufficient infrastructure to treat waste could also result in a reduction in water quality. Therefore the potential impacts of an increase in water abstraction and increase in effluent discharge should be addressed in Stage II Appropriate Assessment
- 3. The A338 is the only road within 200m of Cothill Fen (the busier A420 is 3km away) and it is unlikely that development within West Oxfordshire will increase traffic and therefore air pollution on such a small road. Traffic from Witney is likely to either flow along the A40 east-bound, the A415 southbound or the A420 (3km away from Cothill).
- 4. The potential impacts of increased recreational pressure on Cothill Fen will be addressed in this HRA because development in West Oxfordshire may be as little as 6 miles away from Cothill (Natural England statistics suggest people travel an average distance of 11 miles for a day countryside visit). The site is a National Nature Reserve and is accessible to the public.

<u>5. Assessment of potential impacts of West Oxon Core Strategy on European sites</u>

The possible impacts of West Oxon Core Strategy were assessed in terms of nature, magnitude, duration, probability, frequency, duration and reversibility for Oxford Meadows and Cothill Fen in tables 5.1 and 5.2

Table 5.1 Assessment of potential impacts of West Oxon Core Strategy on Oxford Meadows SAC

Draft Policies	Nature	Impact	Magnitude	Duration	Location
- 1,500 new homes in Witney - 1,600 new homes in Carterton - 400 new homes	Air Pollution	- Increased nitrogen deposition	- Flood meadow becomes less species-rich - Site not in favourable condition	15 years (throughout Core Strategy) 1 st April 2011 to 31 March 2026	A34 and A40 (less than 200m from Oxford Meadows)
in Chipping Norton - 4,300 new homes overall - 20 ha employment land	Water pollution	- Eutrophication - Nutrient enrichment	- Flood meadow becomes less species-rich - Site not in favourable condition	15 years + time to remove pollution	River Thames (adjacent to Oxford Meadows)
- Supporting infrastructure	Increased visitor pressure	- Vegetation trampling - Disturbance so less frequent grazing	- Flood meadow becomes less species-rich - Site not in favourable condition	15 years +	Oxford Meadows

Table 5.2 Assessment of potential impacts of West Oxon Core Strategy on Cothill Fen SAC

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Draft Policies	Nature	Impact	Magnitude	Duration	Location
- 1,500 new	Water	- Acidification of	- Fen meadow,	Permanent and	Groundwater
homes in Witney	pollution	fen.	mire & swamp	irreversible	(Corallian aquifer)
l - 1.600 new			destroyed.		
homes in	Increased	- Vegetation	- Fen meadow,	15 years +	Cothill Fen
Carterton	visitor	trampling	mire, swamp &		
- 400 new homes	pressure	- Disturbance	woodland loses some species.		
in Chipping			- Site not in		
Norton			favourable		
- 4,300 new			condition.		
homes overall					
- 20 ha					
employment land					
- Supporting					
infrastructure					

6. Conclusion

Potential impacts of reduced air quality, reduced water quality & quantity and increased recreational pressure on Oxford Meadows SAC and reduced water quality & quantity and increased recreational pressure on Cothill Fen SAC cannot be scoped out at this stage so will be subject to further assessment in stage II (appropriate assessment).