









Wiltshire Local Transport Plan 2011 - 2026

Habitat Regulations Assessment Screening

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1 Introduction

This report presents the results of the screening stage of the Habitats Regulation Assessment (HRA) process for the Wiltshire Local Transport Plan 2011 - 2026 (LTP3), which entails a review of the proposed Plan to identify any 'Likely Significant Effects' (LSEs) on the conservation objectives of European designated sites (see section 1.3 for further detail). If, following screening, LSEs are anticipated, a 'full' 'Appropriate Assessment' (AA) would consider these in more detail and determine whether alternative measures could be adopted. If there are no viable alternatives, a Plan can only be implemented if there are 'imperative reasons of overriding public interest'.

1.1 The Structure of this Report

The purpose of this report is to screen the Draft LTP to determine whether the plan could have significant effects on the conservation objectives of any European designated site. This document will be consulted on with Natural England and other stakeholders (detailed below). The objectives of the HRA screening are to:

- Identify the European sites which could potentially be affected by the LTP;
- Identify the potential for likely significant effects on European sites (including an indication of the potential for in-combination effects); and
- Where practical, identify any recommended measures by which potential effects can be avoided in the development of the LTP.

This chapter (Chapter 1) explains the requirement for HRA of the Wiltshire LTP and describes the plan to be assessed. Chapter 2 summarises the HRA process and explains the purpose of screening in more detail. It also details the approach taken to the consideration of possible in-combination effects and describes the consultation undertaken to date. Chapter 3 sets out the results, conclusions and recommendations arising out of the screening stage. A screening matrix is provided as Appendix 1.

1.2 The need for Habitats Regulations Assessment (HRA)

On 1st April 2010 the 1994 Habitats Regulations and all subsequent amendments to date were superseded by a new statutory instrument and the Conservation of Habitats and Species Regulations 2010 came into force. The Conservation of Habitats and Species Regulations 2010 transposes into English Law the requirement to carry out Appropriate Assessment for projects and land use plans. Regulation 61 of the Conservation of Habitats and Species Regulations 2010 requires Appropriate Assessment of plans and projects likely to have a significant effect on a European site. This means that the effects of such plans/projects on European designated sites need to be assessed to ensure that the integrity of these sites is maintained.

Regulation 102 of the Conservation of Habitats and Species Regulations 2010 specifically relates to land use plans and sets out that plan-making authorities need to make an

appropriate assessment of the implications for European designated sites in view of the conservation objectives of such sites, before the plan is adopted.

The Conservation of Habitats and Species Regulations 2010 are commonly referred to as the 'Habitats Regulations'.

Guidance on Local Transport Plans (Department for Transport, 2009) states that local transport authorities need to consider if their LTP is likely to have a significant effect on a European site. If a significant effect is likely, the Plan must be subject to an appropriate assessment.

1.3 European Designated Sites

In the case of land use planning, European designated sites are Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). Planning Policy Statement 9 Biodiversity and Geological Conservation (PPS9) (ODPM, 2005) advises that proposed sites awaiting approval – potential SPAs (pSPAs) and candidate SACs (cSACs) should be treated in the same way as those already classified and approved.

PPS9 also recommends that Ramsar sites should be afforded the same level of consideration as SPAs and SACs, in policy if not in law. All SPAs, (non-marine) SACs and Ramsar sites overlap to some degree with Sites of Special Scientific Interest (SSSIs). HRA relates specifically and exclusively to the qualifying interests of European sites and not to the broader conservation interests or requirements under other SSSIs. However, the latter should be factored into plan-making as part of the SEA / SA process and the planning authority's duty under section 28G of the Wildlife and Countryside Act 1981 to conserve and enhance SSSIs in carrying out their functions.

1.4 The Wiltshire LTP3 2011 - 2026

The Wiltshire LTP3 covers the time period from 2011-2026 and replaces Wiltshire's second Local Transport Plan (LTP2). The LTP3 consists of a long term strategy and a shorter term implementation document. At this time, the long term strategy consists of:

- A high level strategy document;
- A car parking strategy
- A freight strategy;
- A road safety strategy; and
- A public transport strategy.

Further information about the LTP3 is provided in Section 3.2 with regards to the potential ecological effects the plan could have.

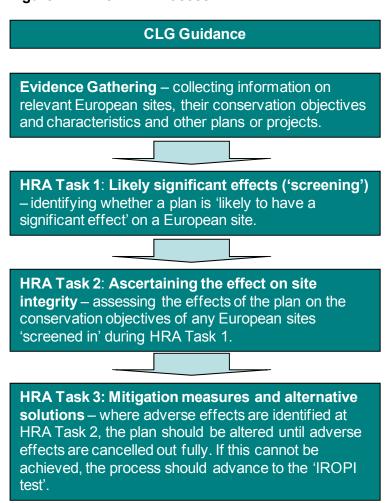
Methodology

The purpose of AA is to ensure that significant effects on European sites are avoided. The assessment is carried out solely in respect of the 'conservation objectives' for which a European site has been designated and its integrity in relation to its ability to support those objectives.

1.5 Approach to the HRA

Figure 2.1 sets out the overall HRA process in accordance with the CLG draft guidance¹. This draft guidance document was never formalised but provides some useful suggestions for a staged approach to HRA. Current best practice has moved on since 2006 and demonstrates that a more flexible approach to the sequencing of the stages is the most effective method of assessing a plan as it develops

Figure 2.1: The HRA Process



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Department for Communities and Local Government (August 2006) Planning for the Protection of European Sites: Appropriate Assessment, Guidance for Regional Spatial Strategies and Local Development Documents, Consultation Document. DCLG Publications

The process set out in Figure 2.1 is an iterative process and should be revisited as policies develop, in response to consultation and as more information becomes available. The approach to the HRA screening of the Draft LTP3 focused on identifying potential risks of effects and puts forward recommendations for impact avoidance to inform the development of the draft plan by Wiltshire Council. This report presents the findings of Task 1 of the HRA.

1.5.1 HRA Task 1: Screening

The purpose of screening (this stage) is to identify whether any European site (whether within Wiltshire, or in neighbouring counties) might be exposed to Likely Significant Effects (LSEs) and therefore to determine whether further stages of AA would be required. In this context 'likely' means "probably", or "it well might happen", not merely that it is a fanciful possibility. 'Significant' means not trivial or inconsequential but an effect that is noteworthy and which could potentially undermine the site's conservation objectives (David Tyldesley Associates, Natural England draft guidance 2009²).

Guidance issued by Natural England (Tyldesley and Associates for Natural England²) suggests that AA should consider sites occurring within a wider area of approximately 10km from the boundary of the area directly affected by a plan. However it is important to consider the possibility of impacts for any European site which might be affected, whatever its location, given the activities included in the plan and their range of influence. This may extend some distance from the area within the immediate influence of a plan.

Sites which could possibly be affected were identified and information obtained about designated interest features and associated conservation objectives, largely using the Joint Nature Conservation Committee (JNCC) website. These were reviewed against the Draft Wiltshire LTP3 to identify any policies, activities or aspects which might affect interest features, or the ability to achieve favourable condition. Following this review a short list of European designated sites were identified. These sites were then included in the screening exercise in order to identify LSEs. The results are summarised in Appendix 1.

The tasks involved in undertaking the screening exercise are as follows:

- Consult with NE and agree European sites to be considered in the screening exercise;
- 2. Collate information about sites and other relevant plans or projects;
- 3. Review the Draft LTP3 and identify LSEs; and
- 4. Prepare screening report including recommendations for avoidance measures to help inform plan development.

The European sites which could potentially be affected by the Draft LTP3 are discussed in Section 3 of this report.

² Revised Draft Guidance - The Habitats Regulations Assessment of Local Development Documents David Tyldesley and Associates for Natural England (February 2009)

1.6 In combination effects

In considering the potential for in combination effects at this early stage we have given initial consideration to the potential for any identified LSEs to also give rise to in combination effects with other plans and projects. A full identification of potential in combination effects will not be undertaken until the Appropriate Assessment stage and this would include consideration of other neighbouring authority plans and projects.

1.7 Consultation

This report is intended to provide the information required for the Competent Authority (in this case Wiltshire Council) to determine whether further stages of Appropriate Assessment are required for the draft Wiltshire LTP3.

Consultation has been carried out with Natural England to confirm sites and issues to be addressed and to review the methodology and approach through a telephone discussion on 4th October 2010.

Further consultation with Natural England (NE) has been carried out in January 2011 regarding the suitable design and application of appropriate mitigation that would remove the likelihood of a significant adverse effect on a European designated site.

Text and tables have been updated in this HRA screening document to reflect the outcomes of the further consultation.

2 Identifying sites for assessment

2.1 European Designated Sites considered in the Screening exercise

There are several European designated sites lying wholly or partially within Wiltshire which have automatically been included in the screening exercise.

An initial search area of 15 km from the boundary of Wiltshire County was established which is in line with the search area for the Core Strategy HRA, within which European designated sites and Ramsar sites were identified. The initial search area is shown on the Figures within Appendix A (Special Protection Areas and Special Areas of Conservation). This essentially forms the long list of sites that need to be considered. Table B within Appendix B presents the long list of sites and provides information on their designation criteria and factors affecting site integrity.

Factors affecting the integrity of the sites (with regard to their conservation objectives) were reviewed to provide a basis for considering whether proposed activities in the LTP3 might exacerbate any existing adverse trends or affect site integrity. While conservation objectives are specific to each site, certain generic objectives tend to apply, including:

- Maintaining the population of the habitat/species as a viable component of the site;
- Maintaining the distribution of the habitat/species within the site;
- Maintaining the distribution and extent of any supporting habitat;
- Maintaining the structure, function and supporting processes of habitats supporting the species; and
- Ensuring there is no significant disturbance of species for which a site has been designated.

The following table summarises the factors that affect the integrity of each of the sites identified in Table B (Appendix B):

Table 3.1: Factors	affecting the in	ntegrity of sites					
	Habitat management	Land take/ Fragmentation	Recreational use/	Air pollution	Water pollution	Water levels	Invasive species
SPA entirely or pa	rtly in Wiltshire	e					
Porton Down SPA	✓						
Salisbury Plain SPA	✓		✓				
SPA within 15km	of Wiltshire						
New Forest SPA	✓		✓			✓	

	Habitat management			Recreational use/	Air pollution	Water pollution	Water	Invasive
		Fragmentation	Disturbance	polition	polition	leveis	species	
Dorset	✓	✓	✓				✓	
Heathlands SPA Solent and Southampton	✓		✓		✓			
Water SPA Avon Valley SPA						✓		
SAC entirely or pa	rtly in Wiltshire	9						
		1	✓			T		
Bath & Bradford on Avon Bats SAC			v					
Chilmark Quarries SAC			✓					
Great Yews SAC	✓							
Kennet & Lambourn floodplain SAC	✓				~	✓		
New Forest SAC	✓		✓			✓		
North Meadow and Clattinger Farm SAC	✓		✓	~		✓		
Pewsey Downs SAC	✓							
Prescombe Down SAC							✓	
River Avon SAC					✓	✓		
Salisbury Plain SAC	✓		✓					
SAC within 15km o	of Wiltshire							
Cotswolds	✓			✓				
Beechwood SAC Dorset	✓	✓	✓				✓	
Heathlands SAC Emor Bog SAC	✓				✓	✓		
Fontmell and Melbury Downs	✓						✓	
SAC								
Hackpen Hill SAC	✓						✓	
Kennet Valley Alderwoods SAC						✓		
Mells Valley SAC			✓					
Mendip		√						
Woodlands SAC Mottisfont Bats	✓		✓				✓	

Table 3.1: Factors	affecting the in	ntegrity of sites					
	Habitat management	Land take/ Fragmentation	Recreational use/	Air pollution	Water pollution	Water levels	Invasive species
River Lambourn SAC					✓		
Rodborough Common SAC	✓		√				
Solent Maritime SAC		✓			✓		√
RAMSAR Sites wit	thin 15km of W	iltshire	-	-	1	1	1
Dorset Heathlands				✓	✓		
Solent and Southampton Water		✓					
The New Forest		✓	√			✓	√
Avon Valley	✓	✓	✓		✓	✓	✓
(Information gather	ed from JNCC w	lebsite and consu	Itation with Natu	ral England)			

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3 Potential Ecological Effects of the LTP

3.1 Potential Ecological effects of Transport Plans

Transport affects the natural environment in three key areas:

- Biodiversity, landscape, geodiversity and soils through direct and indirect impacts from land take, traffic and air pollution;
- Climate change and energy through greenhouse gas emissions and the environmental challenges posed by biofuels; and
- Quality of life through people's access to and experience of the natural environment, and through links between walking, cycling, health and well-being.

The following sections look at the potential ecological effects of LTPs in general both positive and negative. Section 4.2 looks more specifically at the potential for the Wiltshire LTP 3 to have ecological effects.

3.1.1 Water Pollution

Surface water runoff and groundwater sub-surface flow generated from construction works or from increased traffic levels can transport pollution material and sediments to nearby water courses. There is potential for the increased transport of chemical contaminants reaching the aquatic environment from runoff or spray. Increased sediment loads from works or operations can also increase turbidity levels and sediment deposition within aquatic systems.

3.1.2 Air pollution

The construction phase of schemes can generate dust emissions from operating machinery that can cause localised smothering of vegetation or potential health issues in large animals e.g. birds. A transport intervention may also lead to increased traffic levels and associated increases in the nitrogen oxide deposition levels on surrounding sensitive habitats.

3.1.3 Land take

The construction of transport infrastructure could lead to direct loss of habitat availability and/or indirectly fragment inter-connecting habitats that are important for species movement and population viability.

3.1.4 Disturbance

Increased noise levels and human presence have the potential to disturb fauna and impact on habitats (e.g. trampling on plants).

3.1.5 Mortality

Increased road traffic or the introduction of traffic into a new area through the construction of a new road could lead to road kill of certain species, such as amphibians and mammals.

3.1.6 Changes to hydrology

During both the construction and operation phases of infrastructure developments there is potential to alter the hydrology of sensitive habitats and species by either increasing or decreasing runoff or water percolation into aquifers.

3.1.7 Lighting

Increased lighting from construction works or infrastructure operations has the potential to cause insensitive illumination of habitat areas that may deter associate wildlife e.g. bats.

3.1.8 Pests/invasive species

During construction there is the potential for invasive species to be inadvertently transported to European sites. The introduction of such species can out compete and replace desirable native organisms.

3.1.9 Protection and enhancement of the natural environment

Inclusion of programmes, policies and solutions within LTPs can protect and enhance the natural environment (including landscape, biodiversity, geodiversity and soils).

3.1.10 Climate change mitigation and adaptation

Policies can be included within LTPs that reduce carbon emissions, sound design principles for new transport infrastructure and innovative management of the existing transport network to benefit the natural environment and for network resilience.

3.1.11 Improving sustainable access to the natural environment

LTPs can improve environmentally sustainable access to the natural environment for local residents and visitors, in both urban and rural settings.

3.1.12 Integrating Rights of Way Improvement Plans (ROWIPs)

LTPs can use the public Rights of Way (RoW) network to provide a means of sustainable, active travel, particularly for short journeys, in both urban and rural areas, and can play a significant part in reducing traffic congestion and harmful emissions, and providing safer routes for vulnerable travellers.

3.1.13 Contributing to the delivery of green infrastructure

Multi-functional green infrastructure can deliver a range of benefits for the natural environment and local communities, including health and recreation, climate change adaptation, flood alleviation and water management, sustainable transport and biodiversity.

3.2 Features of the Wiltshire LTP with potential ecological effects

The provisional third Wiltshire LTP3 2011-2026 sets out the council's approach to tackling the current problems and future challenges for the transport system in Wiltshire.

The LTP3 sets out the strategy, vision and implementation programme for all forms of transport. It aims to meet national, regional and local priorities, including the government's national goals for delivering a sustainable transport system, which are:

- To support national economic competitiveness and growth, by delivering reliable and efficient transport networks;
- To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change;
- To contribute to better safety, security and health and longer life expectancy through reducing the risk of death, injury or illness arising from transport, and promoting travel modes that are beneficial to health;
- To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society; and
- To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.

The strategy of the LTP3 will cover the period 2011/12 - 2025/26 to tie in with the emerging Wiltshire Local Development Framework (LDF) Core Strategy. Reviews of the LTP strategy would be undertaken to coincide with reviews of the LDF Core Strategy.

As outlined in the main LTP3 strategy document, Wiltshire Council is faced with a number of uncertainties, financial and otherwise. Recent changes made by the new coalition Government have contributed to a period of significant uncertainty particularly with regard to future housing growth and funding levels. Given this, the council has taken the pragmatic decision to reduce the scale and scope of the LTP3 by:

- Only producing a one-year implementation plan;
- Not including any area transport strategies; and
- Just producing four theme strategies (i.e. parking, freight, public transport and road safety).

Once clarity has been restored, the council will produce a three/four year implementation plan, area transport strategies for Chippenham, Devizes, Salisbury and Trowbridge, and the remaining theme strategies. All of these will be subject to public consultation in 2011/12, along with a Strategic Environmental Assessment and HRA screening, as necessary.

The draft LTP3 contains 18 strategic objectives, which were developed following DfT guidance and which reflect local circumstances. These are as follows:

- SO1 To support and help improve the vitality, viability and resilience of Wiltshire's economy and market towns.
- SO2 To provide, support and/or promote a choice of sustainable transport alternatives including walking, cycling, buses and rail.
- SO3 To reduce the impact of traffic on people's quality of life and Wiltshire's built and natural environment.
- SO4 To minimise traffic delays and disruption and improve journey time reliability on key routes.

- SO5 To improve sustainable access to a full range of opportunities particularly for those people without access to a car.
- SO6 To make the best use of the existing infrastructure through effective design, management and maintenance.
- SO7 To enhance Wiltshire's public realm and streetscape.
- SO8 To improve safety for all road users and to reduce the number of casualties on Wiltshire's roads.
- SO9 To reduce the impact of traffic speeds in towns and villages.
- SO10 To encourage the efficient and sustainable distribution of freight around Wiltshire.
- SO11 To reduce the level of air pollutant and climate change emissions from transport.
- SO12 To support planned growth in Wiltshire and ensure that new developments adequately provide for their sustainable transport requirements and mitigate their traffic impacts
- SO13 To reduce the need to travel, particularly by private car.
- SO14 To promote travel modes that are beneficial to health.
- SO15 To reduce barriers to transport and access for people with disabilities and mobility impairment.
- SO16 To improve the resilience of the transport system to impacts such as adverse weather, climate change and peak oil.
- SO17 To improve access to Wiltshire's countryside and provide a more usable public rights of way network.
- SO18 To enhance the journey experience of transport users.

As a strategic document, the Wiltshire LTP does not contain details of individual schemes. Rather, it sets out a long-term transport strategy, a shorter term implementation plan (for one year, as mentioned above) and a number of supporting strategies.

The Wiltshire LTP3 2011-2026 has been reviewed and the following activities included within this plan have been identified which could lead to potential adverse effects of European sites:

- Construction such as improving junction layouts in order to improve safety, the
 introduction of new road signs for routing or safety purposes, potential new transport
 interchanges, potential improvements to pedestrian and cycle routes, and
 reconstruction and strengthening works to bridges; and
- Changes to lighting during any construction works.

The locations of such activities are not yet known and are not indicated within the LTP3. Such activities will be subject to the availability of funding as the LTP3 progresses and, as mentioned above, it should be noted that the LTP3 is currently subject to significant funding uncertainties.

On the basis of the potential negative effects of the Wiltshire LTP3, it is considered that the European designated sites identified within Table 3.2 which fall outside of Wiltshire do not require HRA screening because there is limited construction and minor improvement works planned in the LTP3 and these will only take place inside the Wiltshire county boundary. Therefore, only those European designated sites which are vulnerable to changes in lighting, air pollution, water pollution, changes in water levels, land take from development and invasive species through construction activities (and which fall wholly or partly within Wiltshire) have been identified for inclusion within the screening assessment.

It is not considered that the LTP3 will have an influence on recreational access to the European designated sites or the numbers of people that access the European designated sites because of the small scale of changes being proposed within the LTP3. For example, no new or diverted public transport, road or pedestrian, cycle or bridleway routes are proposed. However, through consultation, Natural England has suggested that Salisbury Plain SPA, the New Forest SPA and North Meadow and Calttinger Farm SAC are included in the screening assessment because they are particularly sensitive to recreation pressure. Natural England also suggested that the River Lambourn SAC should be included within the screening assessment because it passes underneath the M4 motorway. In addition, it was suggested by Natural England that Prescombe Down SAC, although sensitive to invasive species, would not be affected by the types of invasive species associated with construction activities and therefore does not need to be included within the screening assessment.

The European sites considered in the screening assessment are listed in Box 5.1.

4 Assessment of Likely Significant Effects on European Sites

This chapter reviews likely significant effects (LSEs) on the sites identified in the previous chapter:

Box 5.1: European sites screened for LSEs

- Bath & Bradford on Avon Bats SAC;
- Kennet & Lambourn floodplain SAC;
- New Forest SPA;
- Salisbury Plan SPA;
- North Meadow and Clattinger Farm SAC
- River Lambourn SAC; and
- River Avon SAC.

This short list of sites to be considered in the screening exercise has been informally agreed with Natural England via telephone and email correspondence.

For the sites listed in Box 5.1, information relating to the reasons for designation of the sites and the key factors affecting site integrity are set out in Appendix B. Conservation objectives and requirements to maintain favourable condition status of the site are set out within the table 5.1. Information regarding the sites has been obtained from the following sources:

- JNCC website: http://www.jncc.gov.uk/; and
- Natural England representatives.

The table below summarises this information.

Site name	Conservation objectives and designated features	Factors affecting integrity	Likely significant effect?	Likely in- combination effect?
SPAs				
Salisbury Plain SPA	Conservation objectives: The Conservation Objectives for this site are, subject to natural change, to maintain the lowland calcareous grassland and standing open water and canals habitats in favourable condition (or restored to favourable condition if features are judged to be unfavourable). Standards for favourable condition are defined with particular reference to the specific designated features. To maintain the designated habitats in favourable condition, which is defined in part in relation to a balance of habitat extent (extent attribute). Favourable condition is defined at this site in terms of the site-specific standards for the habitats. On this site favourable condition requires the maintenance of the extent of each designated habitat type. Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent. To maintain the designated habitats in favourable condition, to support the species features of national/international importance. Favourable condition is defined at this site in terms of site-specific standards for the species. Designated Features: The site qualifies because it regularly supports 14.5% of the GB breeding population of Annex I Eurasian stone-	This site is owned by the Ministry of Defence and used intensively for military training. The grassland is robust and when dry is able to sustain considerable training pressure. Other land uses include agriculture, forestry and recreation. Military training requirements constrain ideal conservation management (including grazing and scrub management) and have led to the establishment of extensive plantations which, over time, may pose a threat to the open grassland landscape and its ecology. An additional threat is stone road construction: this has replaced rutted tracks with engineered stone roads over many kilometres. Any further road construction or development will be subject to stringent Environmental Assessments. The military training requirements, conservation management requirements and other land use issues have been brought together in an Integrated Land	The LTP3 does not contain any measures within the Implementation Plan or the strategies which will directly increase recreational access to Salisbury Plain or increase traffic on roads in the vicinity. In addition, there is no new infrastructure planned within or immediately adjacent to the SPA. Conclusions: No LSE	Conclusion: No in- combination effect.

Table 5.1 Li	kely Significant Effects on European Designated S	ites resulting from the Draft Wiltshire	LTP3	
Site name	Conservation objectives and designated features	Factors affecting integrity	Likely significant effect?	Likely in- combination effect?
	curlew hen harrier <i>Burhinus oedicnemus</i> , 0.7% of the GB breeding population of hen harrier <i>Circus cyaneus</i> , 20% of the population in GB of common quail <i>Coturnix coturnix</i> and 1.2% of the population in GB of hobby <i>Falco subbuteo.</i>	Management Plan (ILMP). This seeks to optimise military training whilst sustaining and enhancing nature conservation and other heritage interests.		
New Forest SPA	Conservation Objectives: The Conservation Objectives for this site are, subject to natural change, to maintain the following habitats and geological features in favourable condition (or restored to favourable condition if features are judged to be unfavourable): • Habitat Types represented (Biodiversity Action Plan categories): • Broadleaved, yew and mixed woodland • Acid grassland • Neutral grassland • Fen, Marsh and Swamp • Dwarf shrub heath • Standing open water and canals • Geological features (Geological Site Types): • Inland outcrops and stream sections (EO)	The site is subject to recreational pressure. Recreational pressures and disturbance has been shown to adversely affect populations of woodlark elsewhere. However, the population in the New Forest is currently at a high level. Good habitat management is also relevant for maintaining populations of woodlark and Dartford warbler and this is achieved through the grazing, cutting and burning of gorse and heather to provide a diverse age structure and prevent succession to woodland. A recent decline in waders; redshank, lapwing, curlew and snipe may in part be due to the effects of walkers and particularly those with dogs, as well as low water levels affecting the wetland habitats. Most of the valley mires in the Forest have been damaged in the past by drainage which has caused drying out of	The LTP3 does not contain any measures within the Implementation Plan or the strategies which will increase recreational access to the New Forest SPA or increase traffic on roads in the vicinity. Habitats within the SPA are also sensitive to changes in water levels. The New Forest SPA lies outside of the Wiltshire County boundary and therefore it is considered unlikely that any infrastructure maintenance works required as part of the LTP3 would result in changes to water levels affecting the	Conclusion: No potential in- combination effect

of further erosion has en tackled on some sites but ensive programme of infilling itches is currently being with the landowners and s. The work to restore valley ems is expected to influence populations in time. being taken to deal with	oitats of the SPA. nclusions: No LSE	
en tackled on some sites but ensive programme of infilling itches is currently being with the landowners and s. The work to restore valley ems is expected to influence populations in time.	nclusions: No LSE	
al pressures. The Forestry on is carrying out an exercise the dog walking public during season. Further monitoring ch on the effects that al pressures have on ground-ds is considered essential.		
11	Tus is considered essential.	Tus is considered essential.

Site name	Conservation objectives and designated features	Factors affecting integrity	Likely significant effect?	Likely in- combination effect?
	assemblage.			
	Designated features:			
	During the breeding season the area regularly supports 8.8% of the GB breeding population of Annex I European nightjar <i>Caprimulgus europaeus</i> , 29.5% of the GB breeding population of woodlark <i>Lullula arborea</i> , 12.5% of the GB breeding population of honey buzzard <i>Pernis apivorus</i> , 33.6% of the GB breeding population of Dartford warbler <i>Sylvia undata</i> 5% of the population in Great Britain of hobby <i>Falco subbuteo</i> and at least 2% of the population in Great Britain of wood warbler <i>Phylloscopus sibilatrix</i> . Over winter the area regularly supports 2% of the GB population of hen harrier <i>Circus cyaneus</i> .			
SACs	1		1	
Bath & Bradford on Avon Bats SAC	Conservation objectives: The Conservation Objectives for this site are, subject to natural change, to maintain the Inland Rock and Broadleaved, Mixed and Yew Woodland habitats in favourable condition (or restored to favourable condition if features are judged to be unfavourable). Standards for favourable condition are defined with particular reference to the specific designated features. To maintain the designated features in favourable condition, which is defined in part in relation to a balance of habitat extents (extent attribute). Favourable condition is defined at Box Mine in terms of site-specific	These disused stone mines are of key importance to greater horseshoe bats because of a combination of temperature and humidity conditions, suitable access for the bats, lack of pollution and infilling, and freedom from significant disturbance. In order to maintain these conditions, efforts are being made to fit grilles over the most vulnerable mine entrances. As some of the mines are unstable, there is a danger of collapse or subsidence. An environmental	It is unknown whether any infrastructure maintenance works or road safety improvement works which require an introduction of new lighting, either temporary or permanent, on the roads in the vicinity of the SAC will occur as a result of the LTP3.	A potential incombination effect could occur with any development or Highways Agency works which change the lighting within the areas identified

Site name	Conservation objectives and designated features	Factors affecting integrity	Likely significant effect?	Likely in- combination effect?
	standards. At Box Mine favourable condition requires the maintenance of the extent of each habitat type (either designated habitat or habitat supporting designated species). Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent. Designated features: The site includes the hibernation sites associated with 15% of the UK Annex II species greater horseshoe bat Rhinolophus ferrumequinum population and is selected on the basis of the importance of this exceptionally large overwintering population. Small numbers of Bechstein's bats Myotis bechsteinii have been recorded hibernating in abandoned mines in this area, though maternity sites remain unknown.	assessment is being prepared for the Combe Down Mines stabilisation project.	Works on the A36 and B3108 around Limpley Stoke and the A4 and B3109 around Corsham could be relevant to this issue, although any works on the A36 would not be in the control of Wiltshire Council as this is a trunk road managed by the Highways Agency. However, mitigation techniques are available to remove the impact of lighting on roosts and foraging routes. Consultation with NE on the design of appropriate mitigation will ensure no likely significant effect on SAC features Conclusion: LSE can be successfully mitigated.	(Limpley Stoke and Corsham). However, mitigation techniques are available to remove the impact of lighting on roosts and foraging routes. Consultation with NE on the design of appropriate mitigation will ensure no likely significant effect on SAC features Conclusion: Potential incombination effect can be successfully mitigated

Table 5.1 Li	Likely Significant Effects on European Designated Sites resulting from the Draft Wiltshire LTP3						
Site name	Conservation objectives and designated features	Factors affecting integrity	Likely significant effect?	Likely in- combination effect?			
Kennet & Lambourn floodplain SAC	Conservation objectives: The Conservation Objectives for this site are, subject to natural change, to maintain the Reed bed, Fen, marsh, swamp and Lowland Neutral Grassland habitats in favourable condition (or restored to favourable condition if features are judged to be unfavourable. Standards for favourable condition are defined with particular reference to the specific designated features. To maintain the designated features in favourable condition, which is defined in part in relation to a balance of habitat extents (extent attribute). Favourable condition is defined at this site in terms of site-specific standards. On this site favourable condition requires the maintenance of the extent of each habitat type (either designated habitat or habitat supporting designated species). Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent. To maintain the designated species in favourable condition, which is defined in part in relation to their population attributes. Favourable condition is defined at this site in terms of site-specific standards. On this site favourable condition requires the maintenance of the population of each designated species or assemblage. Maintenance implies restoration if evidence from condition assessment	Integrity of the population of Desmoulin's whorl snail is being maintained by taking measures, including habitat creation, to safeguard populations. Two of the component parts of the site lie immediately adjacent to the Newbury bypass. The road design has incorporated features to reduce possible impacts, such as spray and run-off. These measures are intended to prevent direct damage or habitat change to populations adjacent to the road. Within the entire site, current management practises are maintaining the required open, unshaded conditions. V. moulinsiana is critically dependent upon an adequate supply of high quality water. The Environment Agency and English Nature are working together to ensure that all parts of the site have appropriate water levels, through measures such as the production of water level management plans and regular monitoring of water quality.	The SAC passes underneath the M4 (managed by the Highways Agency) motorway outside of the Wiltshire County boundary (near Newbury). The LTP3 is not likely to increase traffic on the M4 motorway and therefore no LSE is identified with this part of the SAC. However, there is a component site of the SAC which lies adjacent to the B4192 to the north west of Hungerford, within Wiltshire. It is unclear whether the road is currently causing an adverse effect on the SAC as a result of contaminated spray. It is also unclear whether any maintenance works on this road are required as part of the LTP3,	Water quality of this part of the SAC to the north west of Hungerford could also be affected by any other development works immediately adjacent to it. Conclusion: potential incombination effect can be successfully mitigated.			

Site name	Conservation objectives and designated features	Factors affecting integrity	Likely significant effect?	Likely in- combination effect?
	suggests a reduction in size of population or assemblage. Designated features: The cluster of sites selected in the Kennet and Lambourn valleys supports one of the most extensive known populations of Annex II Desmoulin's whorl snail Vertigo moulinsiana in the UK and is one of two sites representing the species in the south-western part of its range in the important chalk stream habitat. The habitat occupied at this site differs from the Fenland sites in East Anglia in that it is predominantly reed sweet-grass Glyceria maxima swamp or tall sedges at the river margins, in ditches and in depressions in wet meadows.		which could potentially affect the water quality of this site. However the implementation of a robust construction method statement for all works of any nature on roads adjacent to the SAC would remove any significant adverse effects on the features of the SAC. Conclusion: LSE can be successfully mitigated	
River Lambourn SAC	Conservation objectives: The Conservation Objectives for this site are, subject to natural change, to maintain the Lowland rivers habitat in favourable condition (or restored to favourable condition if features are judged to be unfavourable). Standards for favourable condition are defined with particular reference to the specific designated features. To maintain the designated habitats in favourable condition, which is defined in part in relation to a balance of habitat extent (extent attribute). Favourable condition is defined at this site in terms of site-specific	The River Lambourn is considered to have one of the least modified catchments in southern England and has one of the lowest levels of abstraction. Water quality, water quantity and habitat quality are all considered to be high. However, localised higher water nutrient levels and siltation problems are at present associated with sewage treatment works. Measures to reduce these problems are being investigated through the AMP3 water company investment	The SAC passes underneath the M4 (managed by the Highways Agency) motorway outside of the Wiltshire County boundary (near Newbury). The LTP3 is not likely to increase traffic on the M4 motorway and therefore no LSE is identified with this part	Conclusion: No potential in- combination effect.

Site name	Conservation objectives and designated features	Factors affecting integrity	Likely significant effect?	Likely in- combination effect?
	standards. On this site favourable condition requires the	programme. English Nature and the Environment Agency have produced an agreed protocol for dealing with issues affecting the river.	of the SAC.	
	maintenance of the extent of each designated habitat type. Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent.		Conclusion: No LSE	
	Designated features:			
	Annex I habitats that are a primary reason for selection of this site comprise water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation. The Lambourn represents Annex II bullhead <i>Cottus gobio</i> 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.			
North	Conservation objectives:	The habitat is dependent on traditional agricultural practices of hay-cutting with aftermath cattle grazing or seasonal cattle grazing. However the traditional hay meadow management is uneconomic in the present agricultural climate and support through agrienvironment payments or a management agreement may be required in the long-term. Adjacent extraction and renovation of gravel workings are a potential threat to water levels and are subject to	A component site of the SAC (North Meadow SSSI) lies adjacent to the A419 to the north of Cricklade. This SSSI could be affected by air pollution from the A419 and recreation pressure. The Design Manual for Roads and Bridges (DMRB) identifies 200m as the	Conclusion:
Meadow and Clattinger Farm SAC	The Conservation Objectives for this site are, subject to natural change, to maintain the Lowland neutral grassland habitat in favourable condition (or restored to favourable condition if features are judged to be unfavourable).			No potential in- combination effect
	Standards for favourable condition are defined with particular reference to the specific designated features.			
	To maintain the designated habitats in favourable condition, which is defined in part in relation to a balance of habitat extent (extent attribute). Favourable condition is defined at this site in terms of site-specific			

Site name	Conservation objectives and designated features	Factors affecting integrity	Likely significant effect?	Likely in- combination effect?
	standards. On this site favourable condition requires the maintenance of the extent of each designated habitat type. Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent. To maintain the designated species in favourable condition, which is defined in part in relation to their population attributes. Favourable condition is defined at this site in terms of site-specific standards. On this site favourable condition requires the maintenance of the population of each designated species or assemblage. Maintenance implies restoration if evidence from condition assessment suggests a reduction in size of population or assemblage. Designated features: North Meadow and Clattinger Farm in the Thames Valley in southern England is one of two sites representing the Annex I habitat 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	monitoring and mitigation measures.	distance beyond which the contribution of traffic emissions to local pollutant concentrations is considered to be negligible. According to the SW RSS HRA the SAC is a site where Nitrogen deposition is currently exceeding critical loads but this is over 200m from a major road and agricultural activity may be the source of the problem. Conclusion: No LSE	

Site name	Conservation objectives and designated features	Factors affecting integrity	Likely significant effect?	Likely in- combination effect?
	throughout its range.			
River Avon SAC	Conservation objectives:	The main factors influencing the river	advised that the River Avon SAC is currently failing the condition status due to significant amounts of sediment entering the river and some research has suggested that a significant origin of sediments are roadside verges and potentially unsurfaced bridleways. A number	Conclusion: No in- combination effect
	The Conservation Objectives for this site are, subject to natural change, to maintain the Rivers & streams, Lowland neutral grassland and Fen, mash and swamp (including wet woodland) habitats in favourable condition (or restored to favourable condition if features are judged to be unfavourable).	system are: historical modifications for mills, water meadows and more recently land drainage; land use in the catchment, abstraction of water for public supply and agricultural uses, disposal of sewage effluents and management of the water courses for		
	Standards for favourable condition are defined with particular reference to the specific designated features.	fishery, agricultural and other uses. Currently much of the system is		
	To maintain the designated features in favourable condition, which is defined in part in relation to a balance of habitat extents (extent attribute). Favourable condition is defined at this site in terms of site-specific standards.	considered to be at risk from reduced flows, elevated nutrient levels and changes to sediment processes resulting from previous channel modifications.		
	On this site favourable condition requires the maintenance of the extent of each habitat type (either designated habitat or habitat supporting designated species). Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent.	Full restoration of the conservation status of the qualifying features will be a long-term process addressing major land use activities on a catchment scale through Local Environment Action Plans, Catchment Abstraction Plans and Water Level Management Plans as well as through management agreements with landowners/occupiers. Reviews of abstraction licences and	of B roads lie adjacent to the River Avon SAC within Wiltshire. However, no objectives within the LTP3 will result in an increase in	
	Designated features: Annex I habitats that are a primary reason for selection of this site include water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation.		sedimentation within the River Avon SAC. The implementation of a robust construction	
	Annex II species that are a primary reason for selection of this site Desmoulin's whorl snail <i>Vertigo moulinsiana</i> ,	discharge consents under the Habitats Regulations will help to address some of	method statement for all works of any nature	

Site name	Conservation objectives and designated features	Factors affecting integrity	Likely significant effect?	Likely in- combination effect?
	Sea lamprey <i>Petromyzon marinus</i> , Brook lamprey <i>Lampetra planeri</i> , Atlantic salmon <i>Salmo salar</i> and Bullhead <i>Cottus gobio</i> .	the water quality and quantity issues.	on roads adjacent to the SAC would remove any significant adverse effects on the features of the SAC.	
			Conclusion: No LSE as a result of implementation of the LTP3.	

5 Conclusions and Recommendations

The HRA screening assessment has screened the Draft LTP3 and has identified risk of Likely Significant Effects (LSEs) on the sites shown in Table 6.1 in connection with changes to water quality from roads including sedimentation, air pollution from existing traffic and potential changes to lighting regimes (please note not all LSEs affect all of the sites, please see Table 5.1 for further details). Table 6.1 summarises the potential LSEs identified with each European site.

Table 6.1: Summary of Screening Conclusions

Site name	Likely significant effect?	Likely in- combination effect?	What appropriate and sufficient mitigation is available that would remove the likely significant effect?
Salisbury Plain SPA	Х	Х	Not required
New Forest SPA	Х	Х	Not Required
Bath & Bradford on Avon Bats SAC	✓	√	Lighting constraints to be agreed in consultation with NE
Kennet & Lambourn floodplain SAC	✓	√	A robust Construction Method Statement for all road works within the possible zone of impact, approved by the County Ecologist will remove the likelihood of adverse impact.
River Lambourn SAC	X	X	Not Required
North Meadow and Clattinger Farm SAC	X	X	Not Required
River Avon SAC	V	✓	A robust Construction Method Statement for all road works within the possible zone of impact, approved by the County Ecologist will remove the likelihood of adverse impact.

Following the identification of potential LSEs in relation to the Draft LTP3, a number of recommendations are made below in order to avoid potential adverse effects on the European designated sites. However, these recommendations are draft only and need to be discussed and agreed with Natural England before the LTP3 is finalised. The recommendations are as follows:

Potential effects relating to lighting and the Bath and Bradford on Avon Bats SAC:

- The risk of this potential effect occurring could be eliminated if it were identified within the LTP3 that no night time construction works or alterations to the permanent street lighting of the B3108 around Limpley Stoke and the A4 and B3109 around Corsham are planned; and
- For any unforeseen construction works requiring lighting that are required on the B3108 around Limpley Stoke and the A4 and B3109 around Corsham, the LTP3 should require that Natural England will be consulted regarding the exact nature of the works and measures are agreed and put in place to avoid disturbance of bat species.

Potential effects relating to water quality and the Kennet & Lambourn floodplain SAC:

- Measures should be identified within the LTP3 to prevent pollution of water bodies through any maintenance and construction works required as part of the LTP3.
 Suggested measures are listed below, however, the detail of these measures needs to be discussed and agreed with Natural England:
 - In order to avoid pollutants entering sensitive water bodies through construction and maintenance works, all site works should be undertaken in accordance with the EA's Pollution Prevention Guidance Note 6 'Working at Construction and Demolition Sites'.
 - Construction drainage systems will be designed and managed to comply with BS6031:1998- British Standard Code of Practice for Earthworks, which details methods that should be considered for the general control of drainage on construction sites. Further advice is also contained within BS8004: 1986-British Standard Code of Practice for Foundations.
 - A robust construction method statement for works on roads adjacent to the SAC or with any hydrological connectivity to the SAC, will be agreed in consultation with Natural England to ensure that works do not result in any significant adverse effect on the integrity of the SAC.

Potential effects relating to water pollution (sedimentation) and the River Avon SAC:

 Further investigation is required to ascertain the nature of effects currently experienced by the River Avon SAC. If the SAC is currently affected by sedimentation from roads and bridleways in Wiltshire, intervention to address this effect may be required, however this is not within the scope of the LTP3 and none of the objectives of the LTP3 has the potential to increase sedimentation within the River Avon SAC.

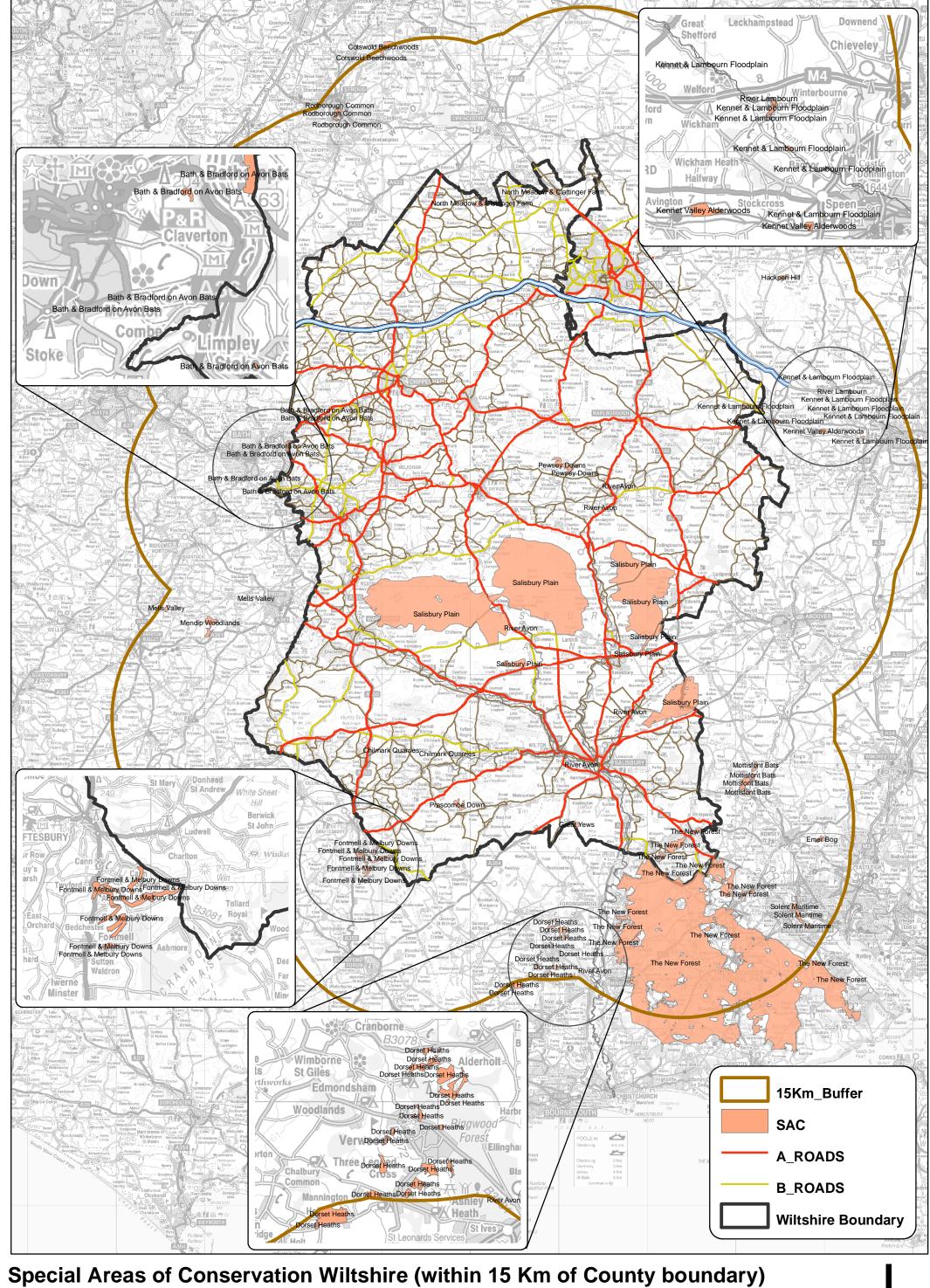
The draft of the LTP3 has been screened and a number of potential LSEs have been identified. Recommendations have been made for measures which would avoid adverse effects on European designated sites. Following consultation with Natural England with regards to the efficacy, the recommended avoidance measures have been incorporated into the final LTP3.

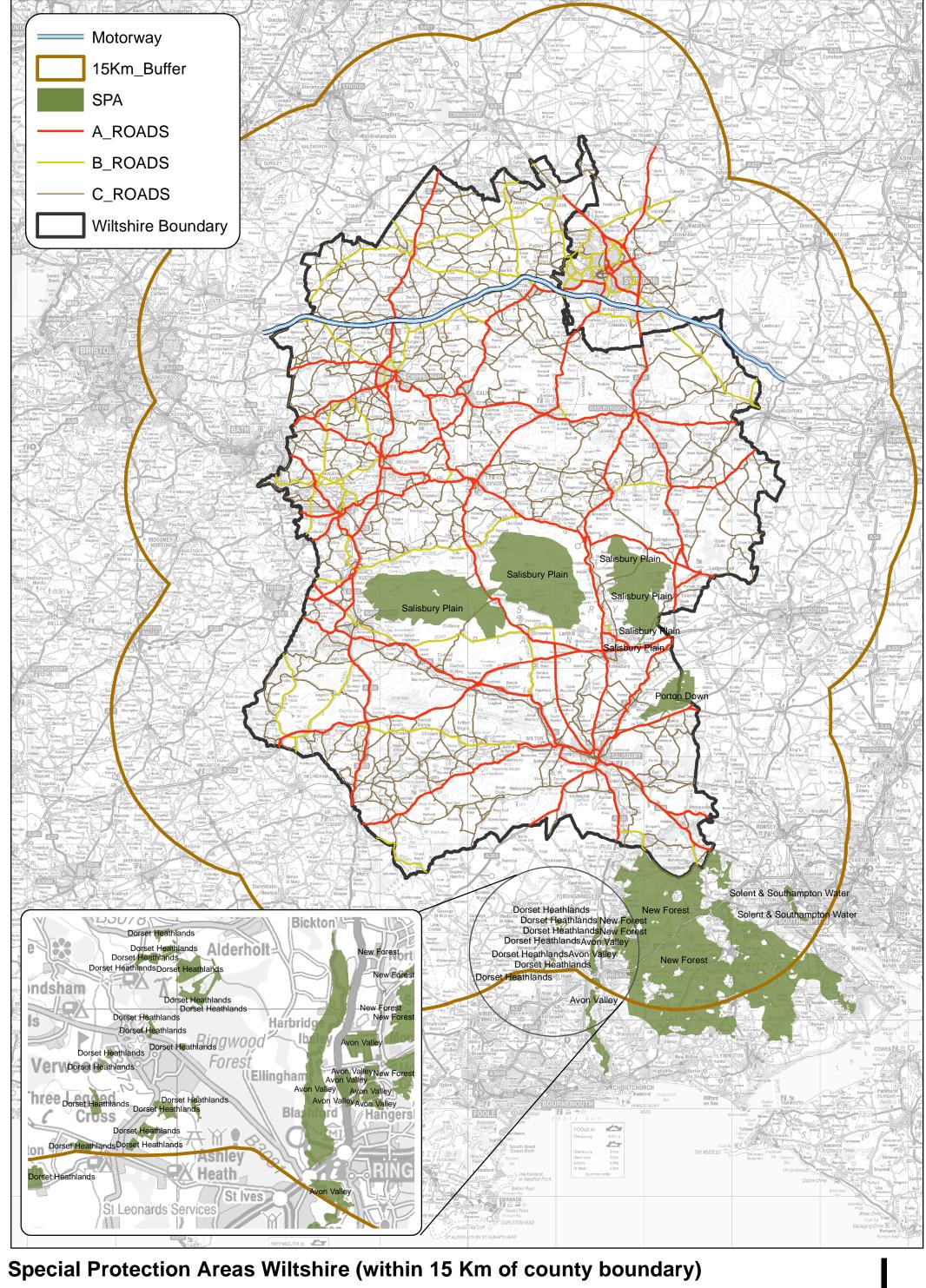
Recommendations for mitigation of likely significant effects given in this document will be carried forward in all daughter documents and strategies that follow on from the LTP3.

The final conclusions of the HRA are that there will be no significant adverse effect on the designated features of any European designated site as a result of the implementation of LTP3.

A further HRA screening assessment will be undertaken on the implementation plan and area and theme transport strategies which are to be developed by Wiltshire Council during 2011/12, which will have regard to the recommendations given in this document.

Appendix A: Figures





Appendix B: European Sites: Designation Criteria and Integrity Factors

Table B Long list of European Sites – Designation Criteria and Integrity Factors

Site name	Designation criteria ³	Factors integrity depends upon	
SPA entirely or partly in Wiltshire			
Porton Down SPA	This site is notified for its unimproved calcicolous grassland communities. During the breeding season the area regularly supports Annex I Eurasian stone-curlew Burhinus oedicnemus.	The SPA interest is dependent on the chalk grassland habitat. On the whole, the existing land use is compatible with maintaining the SPA interest and the habitat is generally robust to ground disturbance, provided this is kept to an acceptable level. An ongoing scrub management programme continues to prevent	
		significant loss of grassland to scrub. Management and operational issues continue to be dealt with through a working Integrated Land Management Plan and a generic consent which is periodically reviewed. Consent is issued by Natural England on a case by case basis for operations/ management outside the scope of the generic consent.	
Plain SPA grassland because it population Burhinus of population population	Salisbury Plain SPA is the largest area of open chalk grassland in north-west Europe. The site qualifies because it regularly supports 14.5% of the GB breeding population of Annex I Eurasian stone-curlew hen harrier <i>Burhinus oedicnemus</i> , 0.7% of the GB breeding population of hen harrier <i>Circus cyaneus</i> , 20% of the population in GB of common quail <i>Coturnix coturnix</i> and 1.2% of the population in GB of hobby <i>Falco subbuteo</i> .	It is owned by the Ministry of Defence and used intensively for military training. The grassland is robust and when dry is able to sustain considerable training pressure. Other land uses include agriculture, forestry and recreation. Military training requirements constrain ideal conservation management (including grazing and scrub management) and have led to the establishment of extensive plantations which, over time, may pose a threat to the open grassland landscape and its ecology. An additional threat is stone road construction: this has replaced rutted	
		tracks with engineered stone roads over many kilometres. Any further road construction or development will be subject to stringent Environmental Assessments. The military training requirements, conservation management	

³ Information collated from JNCC site designation sheets; URL: http://www.jncc.gov.uk/page-23



Site name	Designation criteria ³	Factors integrity depends upon
		requirements and other land use issues have been brought together in an Integrated Land Management Plan (ILMP). This seeks to optimise military training whilst sustaining and enhancing nature conservation and other heritage interests.
SPA within 1	5km of Wiltshire	
New Forest SPA	During the breeding season the area regularly supports 8.8% of the GB breeding population of Annex I European nightjar <i>Caprimulgus europaeus</i> , 29.5% of the GB breeding population of woodlark <i>Lullula arborea</i> , 12.5% of	The site is subject to recreational pressure. Recreational pressures and disturbance has been shown to adversely affect populations of woodlark elsewhere. However, the population in the New Forest is currently at a high level.
	the GB breeding population of honey buzzard <i>Pernis apivorus</i> , 33.6% of the GB breeding population of Dartford warbler <i>Sylvia undata</i> 5% of the population in Great Britain of hobby <i>Falco subbuteo</i> and at least 2% of the population in Great Britain of wood warbler <i>Phylloscopus sibilatrix</i> . Over winter the area regularly supports 2% of the GB population of hen harrier <i>Circus cyaneus</i>	Good habitat management is also relevant for maintaining populations of woodlark and Dartford warbler and this is achieved through the grazing, cutting and burning of gorse and heather to provide a diverse age structure and prevent succession to woodland.
		A recent decline in waders; redshank, lapwing, curlew and snipe may in part be due to the effects of walkers and particularly those with dogs, as well as low water levels affecting the wetland habitats.
		Most of the valley mires in the Forest have been damaged in the past by drainage which has caused drying out of the peat layers.
		Prevention of further erosion has already been tackled on some sites but a more extensive programme of infilling drainage ditches is currently being discussed with the landowners and commoners. The work to restore valley mires systems is expected to influence these bird populations in time.
		Steps are being taken to deal with recreational pressures. The Forestry Commission is carrying out an exercise to educate the dog walking public during the nesting season. Further monitoring and research on the effects that recreational pressures have on ground-nesting birds is considered essential.
Dorset Heathlands	During the breeding season the area regularly supports at least 12.8% of the GB breeding population of European	The Dorset Heathlands have become a fragmented heathland area through extensive losses to agriculture, forestry and urban development.

Site name	Designation criteria ³	Factors integrity depends upon
SPA	nightjar Caprimulgus europaeus, at least 6.8% of the GB breeding population of woodlark Lullula arborea, and at least 26.1% of the GB breeding population of Dartford warbler Sylvia undata. Over winter the area regularly	The scale of previous fragmentation and development has left a number of adverse pressures and many heaths in or near urban areas suffer recreational use pressure and a high incidence of wildfires, and are sometimes also disturbed by infrastructure works.
	supports 2.7% of the GB population of hen harrier <i>Circus</i> cyaneus and 1.2% of the GB population of merlin <i>Falco</i> columbarius.	The heaths are affected by several old mineral extraction permissions, some still active.
		In and around the urban areas there are now well established initiatives to manage and contain recreation uses, and to more effectively control the occurrence and spread of fires.
		At two old waste sites within the Heathlands leaching has occurred.
		The decline in use for traditional agriculture has resulted in a successional trend to scrub and woodland together with invasion by conifer and introduced scrub species, especially Rhododendron.
Solent and Southampto n Water SPA	During the breeding season the area regularly supports 15.4% of the GB breeding population of Mediterranean gull <i>Larus melanocephalus</i> , 2% of the GB breeding population of little tern <i>Sterna albifrons</i> , 3.1% of the GB	Previous flood and coastal defence works, land-claim and dredging operations have modified physical processes and sediment transfer patterns which can have a knock-on effect on the extent and distribution of intertidal habitats.
	breeding population of roseate tern <i>Sterna dougallii</i> , 2.2% of the GB breeding population of common tern <i>Sterna</i>	Sea level rise and issues related to coastal squeeze.
	hirundo and 1.7% of the GB breeding population sandwich tern Sterna sandvicensis. Over winter the area regularly supports an internationally important assemblage of birds including brant goose Branta bernicla bernicla, common teal Anas crecca, ringed plover Charadrius hiaticula and black tailed godwit Limosa limosa islandica.	Potential for accidental pollution from shipping, heavy industrial activities and former waste disposal sites, as well as ongoing impacts from wastewater discharge.
		High levels of pressure both on shore and at sea from recreational and commercial interests, in what is a busy developed area.
Avon Valley SPA	Over winter the area regularly supports 1.9% of the GB population of bewicks swan <i>Cygnus columbianus bewickii</i>	Problems with retaining floodwater can lead to drying out of the site in summer, affecting breeding waders, flora and invertebrate fauna.
	and 2.2% of the population of gadwall <i>Anas strepera</i> .	The site is also vulnerable due to water abstraction. Such abstraction within the vicinity of the site will be reviewed under the provisions of the Habitat Regulations.

Site name	Designation criteria ³	Factors integrity depends upon
SAC entirely	or partly in Wiltshire	
Bath & Bradford on Avon Bats SAC	The site includes the hibernation sites associated with 15% of the UK Annex II species greater horseshoe bat <i>Rhinolophus ferrumequinum</i> population and is selected on the basis of the importance of this exceptionally large overwintering population. Small numbers of Bechstein's bats <i>Myotis bechsteinii</i> have been recorded hibernating in abandoned mines in this area, though maternity sites remain unknown.	These disused stone mines are of key importance to greater horseshoe bats because of a combination of temperature and humidity conditions, suitable access for the bats, lack of pollution and infilling, and freedom from significant disturbance. In order to maintain these conditions, efforts are being made to fit grilles over the most vulnerable mine entrances. As some of the mines are unstable, there is a danger of collapse or subsidence. An environmental assessment is being prepared for the Combe Down Mines stabilisation project.
Chilmark Quarries SAC	This complex of abandoned stone mines provides suitable hibernation conditions for a range of bat species and has a long history of usage by Annex II greater horseshoe bats <i>Rhinolophus ferrumequinum</i> . This complex of abandoned mines in central-southern England is regularly used by small numbers of barbastelle <i>Barbastella barbastellus</i> as a hibernation site. The site also contains an important assemblage of other bat species, including Bechstein's bat <i>Myotis bechsteinii</i> , for which this site has also been selected, indicating that conditions at this site are particularly favourable for the survival of these bat species	The long-term safeguard of the hibernacula entails preventing the collapse of the underground voids and restricting unauthorised access.
Great Yews SAC	Great Yews represents yew <i>Taxus baccata</i> woods in the south-west of the habitat's range. Although it is the smallest example of the habitat within the SAC series, it is important for the presence of about 300 old trees.	The woodland is currently considered to be in good condition. Little active management is carried out except small-scale recreational activity which at current levels does not have a significant impact on the interests. This management has been agreed on with the landowner through a site management statement. In the longterm, regeneration of the yew should be monitored and if necessary positive management carried out, which would require support through woodland grant schemes or management agreement.

Site name	Designation criteria ³	Factors integrity depends upon
Kennet & Lambourn	The cluster of sites selected in the Kennet and Lambourn valleys supports one of the most extensive known	Integrity of the population of Desmoulin's whorl snail is being maintained by taking measures, including habitat creation, to safeguard populations.
floodplain SAC	populations of Annex II Desmoulin's whorl snail <i>Vertigo moulinsiana</i> in the UK and is one of two sites representing the species in the south-western part of its range in the important chalk stream habitat. The habitat occupied at this site differs from the Fenland sites in East Anglia in that it is predominantly reed sweet-grass	Two of the component parts of the site lie immediately adjacent to the Newbury bypass. The road design has incorporated features to reduce possible impacts, such as spray and run-off. These measures are intended to prevent direct damage or habitat change to populations adjacent to the road.
	Glyceria maxima swamp or tall sedges at the river margins, in ditches and in depressions in wet meadows.	Within the entire site, current management practises are maintaining the required open, unshaded conditions.
		V. moulinsiana is critically dependent upon an adequate supply of high quality water. The Environment Agency and English Nature are working together to ensure that all parts of the site have appropriate water levels, through measures such as the production of water level management plans and regular monitoring of water quality.
New Forest	Annex I habitats that are a primary reason for selection of	Drainage of wetland habitats for improved grazing and forestry.
SAC	this site comprise Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), Oligotrophic to mesotrophic standing waters	Afforestation of heathland habitats with conifers and other non-native species.
	with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Northern Atlantic wet heaths with	Essential grazing by commoners' animals is vulnerable to current economic trends
	Erica tetralix, European dry heaths, Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion</i>	Increased recreational pressures.
	caeruleae), Depressions on peat substrates of the Rhynchosporion, Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion), Asperulo-Fagetum beech forests, Old acidophilous oak woods with Quercus robur on sandy plains and Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae). Annex II species that are a primary reason for selection of this site	Land managers are addressing these issues through the emerging cSAC Management Plan, through the proposed National Park, and through supplementary funding for restoration. Preliminary actions are being taken to carry out restoration measures over the next 20-50 years.
	include Southern damselfly Coenagrion mercuriale and	

Site name	Designation criteria ³	Factors integrity depends upon
	Stag beetle Lucanus cervus.	
North Meadow and Clattinger Farm SAC	North Meadow and Clattinger Farm in the Thames Valley in southern England is one of two sites representing the Annex I habitat 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.	The habitat is dependent on traditional agricultural practices of hay- cutting with aftermath cattle grazing or seasonal cattle grazing. However the traditional hay meadow management is uneconomic in the present agricultural climate and support through agri-environment payments or a management agreement may be required in the long-term. Adjacent extraction and renovation of gravel workings are a potential threat to water levels and are subject to monitoring and mitigation measures.
Pewsey Downs SAC	This site is situated on the southern edge of the Marlborough Downs on the Wiltshire chalk and consists largely Annex I Habitat 6210 semi-natural dry grassland. It contains a large population of the nationally scarce burnt orchid <i>Orchis ustulata</i> . The uncommon greenwinged orchid <i>Orchis morio</i> , autumn lady's-tresses <i>Spiranthes spiralis</i> and frog orchid <i>Coeloglossum viride</i> are also present, together with a rich assemblage of more widespread species, including bee orchid <i>Ophrys apifera</i> , fragrant orchid <i>Gymnadenia conopsea</i> and pyramidal orchid <i>Anacamptis pyramidalis</i> . Pewsey Downs is one of three sites selected in the central part of the range for Annex II early gentian <i>Gentianella anglica</i> .	Management by extensive grazing with cattle and sheep is threatened in the long-term by the decline of the livestock industry in the UK. It is likely that management will require increased support through agrienvironment schemes/management agreements.
Prescombe Down SAC	Annex II species that are a primary reason for selection of this site early gentian <i>Gentianella anglica</i> . Prescombe Down is one of three sites selected in the central part of the range for early gentian. It holds very significant populations of hundreds of thousands of plants in high-quality chalk grassland that has been sympathetically managed for many years.	The prevailing agricultural climate in the UK is encouraging neighbouring landowners to diversify, especially into shooting. Increased stocking of game birds could have an impact on the calcareous grassland, although negotiation is ongoing with the landowner to prevent this.
River Avon	Annex I habitats that are a primary reason for selection of	The main factors influencing the river system are: historical
SAC	this site include water courses of plain to montane levels	modifications for mills, water meadows and more recently land drainage;

Site name	Designation criteria ³	Factors integrity depends upon
	with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation. Annex II species that are a primary reason for selection of	land use in the catchment, abstraction of water for public supply and agricultural uses, disposal of sewage effluents and management of the water courses for fishery, agricultural and other uses.
	this site Desmoulin's whorl snail <i>Vertigo moulinsiana</i> , Sea lamprey <i>Petromyzon marinus</i> , Brook lamprey <i>Lampetra planeri</i> , Atlantic salmon <i>Salmo salar</i> and Bullhead <i>Cottus gobio</i> .	Currently much of the system is considered to be at risk from reduced flows, elevated nutrient levels and changes to sediment processes resulting from previous channel modifications.
		Full restoration of the conservation status of the qualifying features will be a long-term process addressing major land use activities on a catchment scale through Local Environment Action Plans, Catchment Abstraction Plans and Water Level Management Plans as well as through management agreements with landowners/occupiers.
		Reviews of abstraction licences and discharge consents under the Habitats Regulations will help to address some of the water quality and quantity issues.
Salisbury Plain SAC.	Annex I habitats that are a primary reason for selection of this site comprise <i>Juniperus communis</i> formations on heaths or calcareous grasslands, Semi-natural dry grasslands and scrubland facies: on calcareous	This site comprises three landholdings: a military training area, a military research area and an National Nature Reserve. The interests of all three sites require low intensity grazing which on the military areas has occurred as a by-product of military use over many years
	substrates (<i>Festuco-Brometalia</i>) and important orchid sites. Salisbury Plain represents Annex II marsh fritillary <i>Euphydryas aurinia</i> in chalk grassland in central southern England, and contains a cluster of large sub-populations where the species breeds on dry calcareous grassland. The site extends the range of ecological variability included in the SAC series.	Lack of management is a problem in some places on the training area, and the decline in the UK livestock industry has implications for all three areas, such that future grazing management may require increased financial support.
		Changes in military use, particularly use of increased numbers of vehicles and construction of roads and tracks to accommodate those vehicles have the potential to damage the qualifying interests, but are subject to prior assessment and are being strategically addressed through an integrated land management plan. The land that is subject to purely agricultural use is managed sympathetically through a National Nature Reserve management plan.

Site name	Designation criteria ³	Factors integrity depends upon
Cotswolds Beechwood SAC	The Cotswold Beechwoods represent the most westerly extensive blocks of Annex I Asperulo-Fagetum beech forests in the UK. The woods are floristically richer than the Chilterns, and rare plants include red helleborine Cephalanthera rubra, stinking hellebore Helleborus foetidus, narrow-lipped helleborine Epipactis leptochila and wood barley Hordelymus europaeus. There is a rich mollusc fauna. The woods are structurally varied, including blocks of high forest and some areas of remnant beech coppice.	The woodland is being maintained by a variety of silvicultural practices including selective forestry, group fellings and small areas of coppicing. Age-class and structural diversity is being enhanced through a sympathetic Woodland Grant Scheme. Early removal of planted conifers is being encouraged in areas where planting occurred in the 1970s.
Dorset Heathlands SAC	Annex I habitats that are a primary reason for selection of this site include Northern Atlantic wet heaths with Erica tetralix, European dry heaths and Depressions on peat substrates of the <i>Rhynchosporion</i> . Annex II species that are a primary reason for selection of this site includes Southern damselfly <i>Coenagrion mercurial</i> .	The Dorset heathlands have become a fragmented heathland area through extensive losses to agriculture, forestry and urban development. The scale of previous fragmentation and development has left a number of adverse pressures and many heaths in or near urban areas suffer recreational pressure and a high incidence of wildfires, and are sometimes also disturbed by infrastructure works. The heaths are affected by several old mineral extraction permissions, some still active. These will require review under the Habitats
		Regulations to ensure no adverse effect on integrity. The decline in use for traditional agriculture has resulted in a successional trend to scrub and woodland together with invasion by conifer and introduced scrub species, especially Rhododendron.
Emer Bog SAC	Annex I habitats that are a primary reason for selection of this site comprise transition mires and quaking bogs.	The principal threat to this site is considered to be adjacent land-use which affects the hydrological processes acting on the mire. This also includes nutrient-enrichment and potential development.
		English Nature will be exploring mechanisms that can be put in place to curtail damaging agricultural activities in the vicinity of the site. The mire is managed as a nature reserve and the site's importance has been raised through the Local Plan process to ensure that impacts of development proposals are fully considered.
Fontmell and Melbury	This inland site supports consistently large populations of early gentian <i>Gentianella anglica</i> (Annex II species that is	This area was traditionally extensively grazed by cattle and although much of the land is currently grazed by cattle or sheep, a return to the

Downs SAC a primary reason for selection of this site) numbering many thousands of plants. The site includes large areas of species-rich chalk grassland and is one of three sites selected in the centre of the main range of the species. Hackpen Hill SAC Hackpen	Site name	Designation criteria ³	Factors integrity depends upon
Hackpen Hill SAC 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 Annex II 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. Kennet Valley Alderwoods SAC Mells Valley Mells Valley in southern England is selected on the basis of the size of its exceptional breeding population. It contains the maternity site associated with a population comprising about 12% of the UK Annex II greater	Downs SAC	a primary reason for selection of this site) numbering many thousands of plants. The site includes large areas of species-rich chalk grassland and is one of three sites	traditional regime for the whole site is desirable. Scrub encroachment is one result of suboptimal management, although this is being tackled by other means.
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 Annex II early gentian Gentianella amglica, as well as autumn gentian Gentianella amglica, fragrant orchid Gymnadenia conopsea, frog orchid Coeloglossum viride, horseshoe vetch Hippocrepis comosa, common rock-rose Helianthemum nummularium and dwarf thistle Cirsium acaule. Kennet Valley Alderwoods SAC Kennet Valley SAC Mells Valley SAC Mells Valley SAC Mells Valley in southern England is selected on the basis of the size of its exceptional breeding population. It contains the maternity site associated with a population comprising about 12% of the UK Annex II greater		selected in the centre of the main range of the species.	threat. This, together with a lack of management, can allow invasive
Valley Alderwoods SAC this site comprise alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae). Mells Valley SAC Mells		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 Annex II 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	agreement. Nevertheless, the site is subject to periodic damage by rapid fluctuations in rabbit numbers. Means of reducing the threat from this
SAC of the size of its exceptional breeding population. It contains the maternity site associated with a population comprising about 12% of the UK Annex II greater Nature is discussing access provisions with the owner.	Valley Alderwoods	this site comprise alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion	maintenance of constantly high groundwater levels. There are, however, no known threats to groundwater levels. The site is subject to low levels of intervention and natural processes are allowed to prevail to a large extent. A WGS scheme is in place which favours the maintenance of the
proportion of the population also hibernates at the site, though other hibernation sites remain unknown.		of the size of its exceptional breeding population. It contains the maternity site associated with a population comprising about 12% of the UK Annex II greater horseshoe bat <i>Rhinolophus ferrumequinum</i> population. A proportion of the population also hibernates at the site,	The population is vulnerable to disturbance from human access. English Nature is discussing access provisions with the owner.
Mendip Annex I habitats that are a primary reason for selection of Two parts of the SAC, Ebbor Gorge and Rodney Stoke, are National	•		
Woodlands this site comprise Tilio-Acerion forests of slopes, screes and ravines. Nature Reserves, with the exception of a small area at Rodney Stoke. These are not currently under any threat. Cheddar Wood is a Somerse		· · · · · · · · · · · · · · · · · · ·	Nature Reserves, with the exception of a small area at Rodney Stoke. These are not currently under any threat. Cheddar Wood is a Somerset

Site name	Designation criteria ³	Factors integrity depends upon
		Wildlife Trust nature reserve but is owned by the quarrying company, Associated Aggregates. The woodland is currently protected by local planning policies as a notified SSSI. No threat from quarrying is at present anticipated. The Asham Wood extension has been badly affected by quarrying in the past with up to 20% lost. This has now ceased and no major threats are apparent.
Mottisfont Bats SAC	The Mottisfont woodland supports an important population of the rare Annex II barbastelle Barbastella	Approximately 70% of the site is owned by the National Trust and is open to public access.
	barbastellus. It is one of only six known maternity sites in the UK and the only one in Hampshire. Mottisfont contains a mix of woodland types including hazel coppice with standards, broadleaved plantation and coniferous plantation which the bats use for breeding, roosting, commuting and feeding.	The National Trust has recently renewed the Woodland Grant Scheme which is targeted at restoration and general woodland management which should enhance the habitats and ensure future sustainability. 25% of the site is privately owned and not open to public access. The majority of this area is also subject to a recently-approved Woodland Grant Scheme renewal which is targeted primarily at maintaining the rotational coppicing programme which should also ensure sustainability of woodland management. This part of the site is managed for rearing game birds with pest-control carried out, in particular for deer and grey squirrel <i>Sciurus carolinensis</i> .
River Lambourn SAC	Annex I habitats that are a primary reason for selection of this site comprise water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation. The Lambourn represents Annex II bullhead <i>Cottus gobio</i> 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.	The River Lambourn is considered to have one of the least modified catchments in southern England and has one of the lowest levels of abstraction. Water quality, water quantity and habitat quality are all considered to be high. However, localised higher water nutrient levels and siltation problems are at present associated with sewage treatment works. Measures to reduce these problems are being investigated through the AMP3 water company investment programme. English Nature and the Environment Agency have produced an agreed protocol for dealing with issues affecting the river.
Rodborough Common	Annex I habitats that are a primary reason for selection of this site comprise semi-natural dry grasslands and	The grassland is dependent upon the maintenance of grazing, and this is co-ordinated through a Commoners Committee.
SAC	scrubland facies: on calcareous substrates (Festuco- Brometalia)	The site owners (National Trust) have developed a project to restore management to the species-rich slopes of the site, and a number of authorities are working together to provide traffic-calming measures on

Site name	Designation criteria ³	Factors integrity depends upon
		busy through roads to reduce the number of livestock injuries and promote further uptake of common rights.
		Recreation has an impact on areas accessible by cars, and is causing localised erosion.
		Management issues are being addressed through continued liaison, joint working and a Site Management Statement between English Nature and the National Trust.
Solent	Annex I habitats that are a primary reason for selection of	Existing and proposed flood defence and coast protection works.
Maritime SAC	this site comprise Estuaries, Spartina swards (Spartinion maritimae), and Atlantic salt meadows (Glauco-Puccinellietalia maritimae).	Coastal squeeze of intertidal habitats due to coastal erosion/ sea level rise and sea-walls/ development in the hinterland
		Developments pressures including ports, marinas, jetties etc. Proposals often involve capital/ maintenance dredging to provide/ improve deep water access, and land-claim of coastal habitats
		Potential accidental pollution from shipping, oil/chemical spills, heavy industrial activities, former waste disposal sites and waste-water discharge
		Introduction of non-native species e.g. from shipping activity.
		These issues are being addressed through a number of mechanisms including the review of consents procedure under the Habitats Regulations, the Management Scheme for European Marine Sites, Biodiversity.
		Action Plans, other coastal strategies, management plans and management agreements. All future developments will be assessed for adverse effects on integrity under the Habitats Regulations.
RAMSAR Sit	tes in Wiltshire	
None		

Site name	Designation criteria ³	Factors integrity depends upon
RAMSAR Sit	tes within 15km of Wiltshire	
The New Forest	Valley mires and wet heaths are found throughout the site and are of outstanding scientific interest. The mires and heaths are within catchments whose uncultivated and undeveloped state buffer the mires against adverse ecological change. This is the largest concentration of intact valley mires of their type in Britain. The site supports a diverse assemblage of wetland plants and animals including several nationally rare species.	Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects: commercial-scale forest exploitation, drainage/land-claim, Introduction/invasion of non-native plant species and recreational/tourism disturbance.
	The suite of mires is regarded as the "locus classicus" of this type of mire in Britain. Other wetland habitats include numerous ponds of varying size and water chemistry including several ephemeral ponds and a network of small streams mainly acidic in character which have no lowland equivalent in the UK.	
	The plant communities in the numerous valleys and seepage step mires show considerable variation, being affected especially by the nutrient content of groundwater. In the most nutrient-poor zones, Sphagnum bog-mosses, crossleaved heath, bog asphodel, common cottongrass and similar species predominate. In more enriched conditions the communities are more fen-like. Seven species of nationally rare plant are found on the site, as are at least 65 British Red Data Book species of invertebrate. The mire habitats are of high ecological quality and diversity and have undisturbed transition zones. The invertebrate fauna of the site is important due to the concentration of rare and scare wetland species. The whole site complex, with its examples of semi-natural habitats is essential to the genetic and ecological diversity	

Site name	Designation criteria ³	Factors integrity depends upon
	of southern England.	
Dorset Heathlands	Contains particularly good examples of (i) northern Atlantic wet heaths with cross-leaved heath Erica tetralix and (ii) acid mire with Rhynchosporion. Contains largest example in Britain of southern Atlantic wet heaths with Dorset heath Erica ciliaris and cross-leaved heath Erica tetralix. Supports 1 nationally rare and 13 nationally scarce wetland plant species, and at least 28 nationally rare wetland invertebrate species. Has a high species richness and high ecological diversity of wetland habitat types and transitions, and lies in one of the most biologically-rich wetland areas of lowland Britain, being continuous with three other Ramsar sites: Poole Harbour, Avon Valley and The New Forest.	Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects: Acid rain and unspecified pollution.
Solent and Southampto n Water	The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs. The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site. Species with peak counts in winter: 51343 waterfowl (5 year peak mean 1998/99-2002/2003)	Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects: erosion.
Avon Valley Ramsar Site	The site encompasses the lower reaches of the River Avon and its floodplain between Bickton and	Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and

Site name	Designation criteria ³	Factors integrity depends upon
	Christchurch. The River Avon displays wide fluctuations in	development projects:
	water level and parts of the valley are regularly flooded in winter. The Avon valley has a greater range of habitats	Disturbance to vegetation through cutting / clearing;
	and a more diverse flora and fauna than any other chalk river in Britain. The valley includes one of the largest	Vegetation succession;
	expanses of unimproved floodplain grassland in Britain,	Drainage/land-claim for agriculture;
	including extensive areas managed as hay meadow. The site provides a habitat for several species/populations	Sedimentation/siltation;
	which are considered to be internationally important including the Gadwall Anas strepera strepera, Northern	Introduction/invasion of non-native plant species;
Pintail Anas a	Pintail Anas acuta and Black-tailed Godwit Limosa limosa islandica. The site also provides a habitat for 8 fauna	Pollution – domestic sewage and agricultural fertilisers;
	species and 2 floral species of national importance.	Recreational/tourism disturbance (unspecified); and
		Reservoir/barrage/dam impact: flow regime.