

Pre-Submission Publication of the Herefordshire Local Plan - Core Strategy

Habitats Regulations Assessment Report

Updated for the Submission version of the Local Plan-Core Strategy

Final Report Prepared by LUC September 2014 **Project Title**: HRA of Herefordshire's Local Plan - Core Strategy

Client: Herefordshire County Council

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1 Introduction

- 1.1 Herefordshire Council is producing a Local Plan Core Strategy, in order to set out the vision, spatial strategy and core policies for the spatial development of the county up to 2031. The Core Strategy will form part of Herefordshire's Local Plan (formerly known as the Local Development Framework (LDF)).
- 1.2 LUC was appointed by Herefordshire Council in 2009 to undertake Habitats Regulations
 Assessment (HRA) of the Herefordshire Core Strategy on its behalf. This report was prepared in
 relation to the Pre-Submission Publication version of the Local Plan Core Strategy (May 2014),
 referred to throughout this report as the Pre-Submission Core Strategy and was published for
 consultation alongside the Local Plan Core Strategy document.
- 1.3 The HRA report has now been updated to reflect comments received from Natural England during the Pre-Submission consultation period. While Natural England supported the conclusions of the report, it requested that the structure of the document be amended to more clearly distinguish between the screening and Appropriate Assessment stages of the HRA. A summary of Natural England's consultation response has been added to **Appendix 3**.
- 1.4 The minor changes that have been made to the Local Plan-Core Strategy since the Pre-Submission Publication stage do not affect the findings of the HRA; therefore this report continues to refer to the Pre-Submission version of the Core Strategy throughout.

HRA work undertaken to date for the Herefordshire Core Strategy

- 1.5 Herefordshire Council began the HRA process in relation to the Core Strategy internally, producing the following documents:
 - Developing Options Paper HRA Screening Report (June 2008)
 - Developing Options Paper HRA Screening Report Addendum (April 2009)
 - Joint SA and HRA Report for the Place Shaping Paper (January 2010)
- 1.6 Preferred Options for the policies and spatial options within the Core Strategy were then produced by the Council. These Preferred Options were prepared in three batches, and were subject to targeted consultations during summer 2010. Each batch of policies was subject to HRA by LUC, and an initial HRA report was produced in relation to the first batch. An HRA note was then prepared to report on the findings of the HRA of the Hereford policies and was made available to Herefordshire Council internally. A full updated HRA report (November 2010) was then produced, presenting the findings of the HRA of all of the Preferred Options for the Core Strategy policies.
- 1.7 Following the publication of the Preferred Options, the Council published revisions to the Preferred Options for the rural areas, Hereford, Leominster and Ross-on-Wye. There were various reasons for these revisions, which were described in full in Herefordshire Council's Herefordshire LDF Core Strategy Revised Preferred Options Background Paper (September 2011). The HRA findings for the relevant Preferred Options were also revisited by LUC, in order to reflect the revisions made, and the findings were presented in an HRA Note for the Revised Preferred Options (August 2011).
- 1.8 The Preferred Options (including the Revised Preferred Options) were then developed into more detailed policies and were presented together in the Draft Herefordshire Core Strategy (March 2013). The essence of the overriding strategy for the development of the county in terms of housing numbers had not changed since Revised Preferred Options stage. An updated HRA report for the Draft Core Strategy was produced by LUC in February 2013.
- 1.9 The Draft Core Strategy was subject to public consultation in March 2013. The consultation responses received have informed Herefordshire Council's changes to the Draft Core Strategy, which is now being subject to a six week 'soundness' consultation under Regulation 19 of the

- Town and Country Planning (Local Planning) (England) Regulations 2012 (Statutory Instrument 2012 No. 767) prior to the Core Strategy being submitted to government for examination.
- 1.10 Note that since the Draft version of the Core Strategy, the Council has changed the name of the document to the 'Local Plan Core Strategy'. Throughout this SA Report, references to the current version of the Core Strategy (the Pre-Submission version) should be taken to mean the Local Plan Core Strategy.
- 1.11 Only generally minor changes have been made to the Core Strategy since the March 2013 Draft version. The main changes in the current Pre-Submission version are the inclusion of a new overarching policy for Environmental Quality and Local Distinctiveness (SS6) and one for Hereford (HD1: Hereford), and the removal of the employment location at Bromyard (south of the A44 Leominster Road) as a "strategic location". In addition, the employment land allocation at Ledbury has increased from 12ha to 15ha. A full audit trail of the changes that the Council has made to the Core Strategy since the March 2013 Draft version can be found in Appendix 3 of the Sustainability Appraisal Report for the Pre-Submission Core Strategy, along with the Council's justification for why each change was made.
- 1.12 This HRA report has been fully updated to reflect the changes made to the Core Strategy since the Draft version. The HRA screening matrix presented in **Appendix 1** has been updated to reflect the changes to the Core Strategy policies and **Chapter 3** of this HRA report includes an updated summary of the findings from the Screening stage of the HRA.

Relevant work used to inform the HRA of the Herefordshire Local Plan - Core Strategy

- 1.13 The findings from the earlier stages of the HRA have helped to inform the conclusions of the HRA for the Pre-Submission version of the Herefordshire Core Strategy, as described in the following chapters. In addition to the HRA work undertaken for the Core Strategy itself, a separate HRA report was prepared for the route options considered for the Hereford Relief Road¹, and the findings of that work have also informed the HRA of the overall Core Strategy where relevant. Finally, following publication of the 2010 HRA Report, and in view of objections from Natural England regarding the potential for significant effects on the water quality of the River Wye SAC (which currently includes sections where the water quality exceeds phosphate level targets defined in Natural England's favourable condition tables) Herefordshire Council established a Water Steering Group comprising officers from the Council, Natural England, the Environment Agency and Dwr Cymru Welsh Water. This group met a number of times to discuss and try to seek a solution. David Tyldesley & Associates (DTA) was also commissioned to provide advice to the Council on this matter.
- 1.14 The key outcome of the Water Steering Group discussions has been extensive joint working on the production of a River Wye SAC Nutrient Management Plan (NMP). The NMP will set out measures which could be implemented in order to ensure the favourable conservation status of the SAC in respect of phosphate levels as soon as possible and at the latest by 2027 taking into account the existing river phosphate levels and existing water discharge permits. The NMP will also seek to identify actions that would enable additional development (beyond existing consents) to proceed during the period 2013 to 2031 of the type and amount, and in the locations specified in or pursuant to the emerging Herefordshire Core Strategy and other relevant development plans.
- 1.15 The NMP comprises three parts: Evidence Base, Options Appraisal and Action Plan. The Environment Agency commissioned consultants to carry out the first two parts². The Evidence Base has been produced using source apportionment modelling software to identify the phosphate contributions from the different sources within the catchment. The evidence base also contains the predicted impact of growth in Powys and Herefordshire on the SAC.
- 1.16 The Options Appraisal section explores some of the measures available to reduce the phosphate loads. Four different scenarios were developed all of which are predicted by the model to achieve the favourable condition within the SAC. These include a range of scenarios for

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¹ Hereford Relief Road Habitats Regulations Assessment – Route Corridor Options Screening Report. Hyder Consulting (UK) Limited, April 2011.

² River Wye SAC Nutrient Management Plan: Evidence Base and Options Appraisal. Draft Report. Atkins, January 2014.

- increasing reductions from the agricultural sector (diffuse sources) alongside further P-stripping at sewage treatment works.
- 1.17 The Environment Agency consulted with its catchment partners on how to take the Action Plan forward. As demonstrated in the Options Appraisal there is a variety of ways to achieve the required standards for the River Wye SAC, and the Action Plan will be based on a consensus of opinion on how to distribute the improvements throughout the catchment. The Action Plan is due to be produced by the end of September 2014 and will be a 'living document' in that it will undergo regular review and be adapted through time to take account of new evidence.
- 1.18 A Memorandum of Understanding has also been signed between Herefordshire Council and Dwr Cymru Welsh Water in relation to maintaining their current operating practices at the Eign and Rotherwas Waste Water Treatment Works (WWTW) (known as the 'Hereford City' WWTW).
- 1.19 The relevance of these documents is helpfully explained in a paper prepared by DTA called "Informing the Habitats Regulations Assessment of the Herefordshire Core Strategy The River Wye SAC" (DTA, 19 February 2013) (referred to hereafter as 'the DTA paper'). Further reference to these documents is made where relevant in the following chapters of this HRA Report.

The requirement to undertake Habitats Regulations Assessment of development plans

- 1.20 The requirement to undertake HRA of development plans was confirmed by the amendments to the "Habitats Regulations" published for England and Wales in July 2007 and updated in 2010³. Therefore, when preparing its Core Strategy, Herefordshire Council is required by law to carry out an assessment known as "Habitats Regulations Assessment".
- 1.21 HRA is an impact-led assessment (in contrast to Sustainability Appraisal which adopts an 'objectives-led' approach), and refers to the assessment of the potential effects of a development plan on one or more European sites, including Special Protection Areas (SPAs) and Special Areas of Conservation (SACs):
 - **SPAs** are classified under the European Council Directive 'on the conservation of wild birds' (79/409/EEC; 'Birds Directive') for the protection of **wild birds and their habitats** (including particularly rare and vulnerable species listed in Annex 1 of the Birds Directive, and migratory species).
 - **SACs** are designated under the Habitats Directive and target **particular habitats** (Annex 1) and/or species (Annex II) identified as being of European importance.
- 1.22 As a matter of Government policy, potential SPAs (pSPAs), candidate SACs (cSACs) and Ramsar sites are also expected to be included within the assessment.
 - Ramsar sites support internationally **important wetland habitats** and are listed under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention, 1971).
- 1.23 For ease of reference during HRA, general practice has been that these three designations are collectively referred to as either **Natura 2000** or **European sites**, (the latter despite Ramsar designations being at the international level).
- 1.24 The HRA of development plans is undertaken in stages (as described below) and should conclude whether or not a proposal or policy in a development plan would adversely affect the integrity of the site in question. This is judged in terms of the implications of the plan for a site's 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated) and are measured with reference to the conservation objectives for those qualifying features as defined by Natural England. Significantly, HRA is based on the precautionary principle, such that where uncertainty or doubt remains, an adverse impact should be assumed.

³ The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007. HMSO Statutory Instrument 2007 No. 1843. From 1 April 2010, these were consolidated and replaced by the Conservation of Habitats and Species Regulations 2010 (SI No. 2010/490), and as amended in 2012 (SI no. 2012/1927).

Stages of the Habitats Regulations Assessment

Table 1.1 below summarises the stages involved in carrying out a full HRA, based on various guidance documents^{4,5,6}.

Table 1.1 Stages in HRA

Stage	Task	Outcome
Stage 1: Screening	Description of the plan. Identification of potential effects on European Sites. Assessing the effects on European Sites (taking into account potential mitigation provided by other policies in the plan).	Where effects are unlikely, prepare a 'finding of no significant effect report'. Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.
Stage 2: Appropriate Assessment	Gather information (plan and European Sites). Impact prediction. Evaluation of impacts in view of conservation objectives. Where impacts considered to affect qualifying features, identify alternative options. Assess alternative options. If no alternatives exist, define and evaluate mitigation measures where necessary.	Appropriate assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be avoided through, firstly, avoidance, and secondly, mitigation including the mechanisms and timescale for these mitigation measures. If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.
Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation	Identify 'imperative reasons of overriding public interest' (IROPI). Identify potential compensatory measures.	This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

- 1.26 In assessing the effects of the Core Strategy in accordance with Regulation 102 of the Conservation of Habitats and Species Regulations 2010, there are potentially two tests to be applied by the competent authority, a "Significance Test", followed if necessary by an appropriate assessment which will inform the "Integrity Test". The relevant sequence of questions is as follows:
 - Step 1: Under Reg. 102(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not –
 - Step 2: Under Reg. 102(1)(a) consider whether the plan is likely to have a significant effect on the site, either alone or in combination with other plans or projects ("the Significance

⁴ Assessment of plans and projects significantly affecting European Sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/FFC. Furopean Commission Environment DG. November 2001.

⁽⁴⁾ of the Habitats Directive 92/43/EEC. European Commission Environment DG, November 2001.

⁵ Planning for the Protection of European Sites. Guidance for Regional Spatial Strategies and Local Development Documents.

Department for Communities and Local Government (DCLG), August 2006.

 $^{^{6}}$ The Appropriate Assessment of Spatial Plans in England. A guide to why, when and how to do it. RSPB. August 2007.

- Test"). [These two steps are undertaken as part of Stage 1: Screening shown in Table 1.1 above.] If Yes –
- Step 3: Under Reg. 102(1), make an appropriate assessment of the implications for the site in view of its current conservation objectives. In so doing, it is mandatory under Reg. 102(2) to consult Natural England, and optional under Reg. 102(3) to take the opinion of the general public. [This step is undertaken during Stage 2: Appropriate Assessment shown in Table 1.1 above.]
- Step 4: In accordance with Reg.102(4), but subject to Reg.103, give effect to the land use plan only after having ascertained that the plan will not adversely affect the integrity of the European site.
- 1.27 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the inclusion of mitigation measures designed to avoid, reduce or abate effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that so called 'imperative reasons of overriding public interest' (IROPI) are likely to be justified only very occasionally and would involve engagement with both the Government and European Commission. The iterative approach taken to the Herefordshire Core Strategy HRA has meant that at each iteration, the information obtained during the previous stage, as well as changes made to the Core Strategy based on HRA recommendations, has been drawn on and enabled some of the previously identified likely significant effects to be ruled out, and reduced the number of issues that needed to be considered during Stage 2 (Appropriate Assessment). This is explained in detail in **Chapter 2**.
- The HRA should be undertaken by the 'competent authority'; in this case Herefordshire Council, and LUC has been commissioned to do this on its behalf. The HRA also requires close working with Natural England as the statutory nature conservation body⁷ in order to obtain the necessary information and agree the process, outcomes and any mitigation proposals. The Environment Agency, while not a statutory consultee for the HRA, is also in a strong position to provide advice and information throughout the process as it is required to undertake HRA for its existing licences and future licensing of activities. Herefordshire Council has worked closely with Natural England and the Environment Agency throughout the HRA process, as described in **Chapter 3**. The Countryside Council for Wales (CCW now Natural Resources Wales (NRW)) has also been consulted at appropriate stages due to the fact that Herefordshire borders Wales, and some of the European sites that could be affected are in Wales. The consultation responses received from Natural England and Natural Resources Wales (formerly CCW) on the 2013 HRA Report and Natural England's response to the May 2014 HRA Report are presented in **Appendix 3** of this report, explaining how their comments have been addressed.

Potential impacts of the Herefordshire Local Plan - Core Strategy on European sites

1.29 As the Herefordshire Core Strategy includes proposals for future development in the county (including residential commercial, retail, minerals, waste, tourism, renewable energy and community developments), it is necessary to consider the types of impacts that development in general may have on European sites. **Table 1.2** below sets out the range of potential impacts and operations that development may have on European sites.

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

Table 1.2 Potential impacts and operations adversely affecting European sites

Broad categories (in bold), and examples, of potential impacts on European sites	Examples of operations responsible for impacts
 Physical loss Removal (including offsite effects, e.g. foraging habitat) Mine collapse Smothering Habitat degradation 	Development (e.g. housing, employment, infrastructure, tourism, flood defences) Infilling (e.g. of mines, water bodies) Alterations or works to disused quarries Structural alterations to buildings (bat roosts) Afforestation Tipping Cessation of or inappropriate management for nature conservation
Physical damage - Sedimentation / silting - Prevention of natural processes - Habitat degradation - Erosion - Trampling - Fragmentation - Severance / barrier effect - Edge effects - Fire	Flood defences Port activity Dredging Mineral extraction Recreation (e.g. motor cycling, cycling, walking, horse riding, water sports, caving) Development (e.g. infrastructure, tourism, adjacent housing etc.) Vandalism Arson Cessation of or inappropriate management for nature conservation
Non-physical disturbance Noise Visual presence Human presence Light pollution Vibration	Development (e.g. housing, industrial) Recreation (e.g. dog walking, water sports) Industrial activity Mineral extraction Navigation Vehicular traffic Artificial lighting (e.g. street lighting)
 Water table/availability Drying Flooding / stormwater Water level and stability Changes in coastal water levels Water flow (e.g. reduction in velocity of surface water Barrier effect (on migratory species) Changes in water temperature Changes in periodicity of high/low flows 	Water abstraction Drainage interception (e.g. reservoir, dam, infrastructure and other development) Coastal defences Increased discharge (e.g. drainage, runoff)
Toxic contamination - Water pollution - Soil contamination - Air pollution	Agrochemical application and runoff Diffuse air and soil pollution Navigation Oil / chemical spills Tipping

Broad categories (in bold), and examples, of potential impacts on European sites	Examples of operations responsible for impacts	
	Storm water runoff Vehicular traffic Emissions/spills from waste management facilities	
Non-toxic contamination Nutrient enrichment (e.g. of soils and water) Algal blooms Changes in salinity Changes in thermal regime Changes in turbidity Air pollution (dust)	Agricultural runoff Sewage discharge Water abstraction Industrial activity Flood defences Navigation Construction	
Biological disturbance - Direct mortality - Disturbance to flight lines, migration routes, roosting, foraging and breeding areas - Out-competition by non-native species - Selective extraction of species - Introduction of disease - Rapid population fluctuations - Natural succession	Development (e.g. housing areas with domestic and public gardens) Predation by domestic pets Introduction of non-native species (e.g. from gardens) Fishing Hunting Agriculture Changes in management practices (e.g. grazing regimes, access controls, cutting / clearing)	

Structure of the HRA report

- 1.30 This chapter has introduced the Herefordshire Core Strategy and potential impacts that could arise from its implementation, as well as explaining the requirement to conduct HRA and its main stages. The remainder of the report is set out in the following sections:
 - **Chapter 2 HRA Methodology:** Sets out the approach that has been taken to the HRA of Herefordshire's Local Plan-Core Strategy.
 - **Chapter 3 HRA findings:** Summarises the findings of the HRA for the Pre-Submission version of the Core Strategy.
 - **Chapter 4 Conclusions:** Draws together the findings of the HRA.
- 1.31 The information in the main body of the report is supplemented by the following appendices:
 - **Appendix 1** presents the HRA Screening matrix.
 - **Appendix 2** presents the review of other plans and programmes that could potentially lead to in-combination effects with the Herefordshire Core Strategy.
 - Appendix 3 sets out the consultation responses received from Natural England and Countryside Council for Wales in relation to the 2013 and May 2014 versions of the HRA report for Herefordshire's Local Plan-Core Strategy.

2 HRA Methodology

- 2.1 As the Herefordshire Core Strategy is not directly connected with the management of any European sites, and includes proposals for development which may affect European sites, it is necessary under Regulation 102(1)(a) of the Habitats Regulations 2010 to undertake screening for likely significant effects on European sites. Once it is established that a development plan requires HRA, the HRA generally involves three stages (Screening, Appropriate Assessment, and Assessment where no alternatives exist), as shown in **Table 1.1** in **Chapter 1**.
- 2.2 This chapter sets out the approach that has been taken to the screening and Appropriate Assessment stages of the HRA for the Pre-Submission version of the Herefordshire Core Strategy, and the screening conclusions are summarised in **Chapter 3**.
- 2.3 The screening stage involves assessing broadly whether the Pre-Submission Core Strategy is likely to have a significant effect on any European site(s), and therefore requires an 'Appropriate Assessment' of whether this would result in an adverse effect on integrity of the European site(s) in question.
- 2.4 Following the screening stage, the plan-making authority is required under Regulation 102(1) of the Habitats Regulations 2010, to make an 'Appropriate Assessment' of the implications of any likely significant effects identified from the plan for European sites, in view of their conservation objectives, to ascertain whether the plan would have an adverse effect on the integrity of the European site(s).

Stage 1: Screening

Screening of Developing Options and Place Shaping Paper (2008-2010)

2.5 HRA Screening was first undertaken by Herefordshire Council at the Developing Options stage, and the findings from that initial screening exercise were reported on in June 2008. All sites within the county (+15km) were screened on the basis of the strategic options set out in the Developing Options paper. The report was then updated via the publication of an Addendum in April 2009, following an HRA workshop that took place in August 2008. A joint SA and HRA report was then produced in January 2010, in relation to the Place Shaping Paper consultation. Natural England responded to the consultation on the joint SA/HRA report, noting that the report had correctly identified the suite of European sites that could potentially be affected by the Core Strategy options and that should therefore go through to the Appropriate Assessment stage, as well as the types of effects that could occur.

Screening of Preferred Options (2010)

- 2.6 A set of Preferred Options for the Core Strategy was produced by Herefordshire Council and subject to HRA screening by LUC in order to identify those proposals which were likely to significantly affect the integrity of European sites, and which therefore needed to be taken through to the Appropriate Assessment stage of the HRA. The findings of the screening of the Core Strategy Preferred Options were presented in the HRA Report for the Preferred Options (November 2010).
- 2.7 An HRA workshop was held on 4th August 2010, prior to which an interim HRA Report was prepared. At the workshop, representatives from Natural England, CCW and Welsh Water raised comments with regards to this Interim HRA Report and CCW also provided a detailed response in writing. This was drawn upon during the preparation of the full HRA report (November 2010), as described in that report (CCW's written consultation response can be found in Appendix 3 of that report). A further HRA meeting was then held on 16th November 2010 between LUC, Herefordshire Council, Natural England, the Environment Agency and a representative from Hyder Consulting (who carried out the HRA of the proposed Hereford relief road). At this meeting,

- further discussion took place regarding the emerging findings of the full HRA which were documented in the November 2010 HRA report.
- 2.8 Following the production of the revised Preferred Options for some of the Hereford, Ross-on-Wye and rural areas proposals, the screening findings for the relevant Preferred Options were revisited and the findings of that exercise were presented in an HRA Note for the Revised Preferred Options (August 2011).
 - European sites screened out at earlier stages in the HRA
- 2.9 The June 2008 HRA Screening Report was able to conclude that Lyppard Grange Ponds SAC (designated for the Great Crested Newts that the ponds support) was unlikely to be significantly affected by any proposals in the Herefordshire Core Strategy (either at Developing Options stage or further ahead in its preparation) due to its distant location in Worcestershire, within a built up residential area. It was concluded that any new development in Herefordshire was unlikely to have any additional, in-combination, or adverse effect on the ponds (and thus the Great Crested Newts) from recreational pressure, fish introductions or control of Stickleback. Therefore, Lyppard Grange Ponds SAC has not been considered further in this HRA Report.
- 2.10 In addition, the conclusion reached at the Developing Options stage in 2009 that some of the European sites within 15km of the county boundary are unlikely to be significantly affected from implementation of the Herefordshire Core Strategy, remains in this version of the HRA for the Pre-Submission Herefordshire Core Strategy. These sites are as follows:
 - Coed y Cerrig SAC
 - Cwm Clydach Woodlands SAC
 - Seven Estuary Ramsar/SPA
 - Sugar Loaf Woodlands SAC
 - Walmore Common Ramsar/SPA
- 2.11 This conclusion is due to one or all of the following reasons (as explained in Appendix 1 of the HRA Screening Addendum March 2009): the distance of the European site from the strategic development locations within Herefordshire; a lack of pathway between sources of impact and the qualifying features of the site; and/or the fact that there is a management plan in place to help reduce existing pressures. Upon review during the HRA of the Draft Core Strategy and again for this iteration of the HRA screening, and based on the interpretation of the opinion from the 'Sweetman' case described below, it is concluded that any impact associated with development in Herefordshire is likely to have no appreciable effect on these European sites, and therefore they are not likely to be significantly affected.
- 2.12 However, the potential for some impacts identified (recreation, air pollution, changes in hydrology due to abstraction) to combine with similar impacts from neighbouring authorities' development plans has been considered for these European sites. Although, as set out in the DTA paper (referred to in **Chapter 1**), the effects of the other plans or projects would need to combine with the residual effects of the Core Strategy on these European sites in ways that would make the Core Strategy's effects more likely to occur or to be significant.

Screening of the Draft Core Strategy (2013)

- 2.13 The Draft version of the Herefordshire Core Strategy was subject to HRA in early 2013. The screening stage needed to be carried out again because the full suite of policies presented in the Draft Core Strategy had not all been screened under the Habitats Regulations, and a number of the draft policies had changed significantly from the Preferred Options and Revised Preferred Options that were subject to HRA screening in 2010 and 2011.
- 2.14 The findings were reported in the HRA Report for the Draft Core Strategy (March 2013). The consultation responses received from Natural England and Natural Resources Wales (formerly CCW) on the 2013 HRA Report are presented in **Appendix 3** of this report, showing how the comments have been addressed.

Screening of the Pre-Submission Local Plan - Core Strategy (2014)

2.15 The HRA Report for the Draft Core Strategy has now been updated to reflect the changes that have been made to the plan since the Draft version in 2013. The tasks that have been completed during the HRA screening of the Pre-Submission Core Strategy are described in detail below. Certain tasks involved in the process, such as identifying the European sites within and around Herefordshire, did not need to be undertaken again at this stage as the findings of the earlier screening work remain valid.

Identification of European sites which may be affected by the Herefordshire Core Strategy and the factors contributing to and defining the integrity of these sites

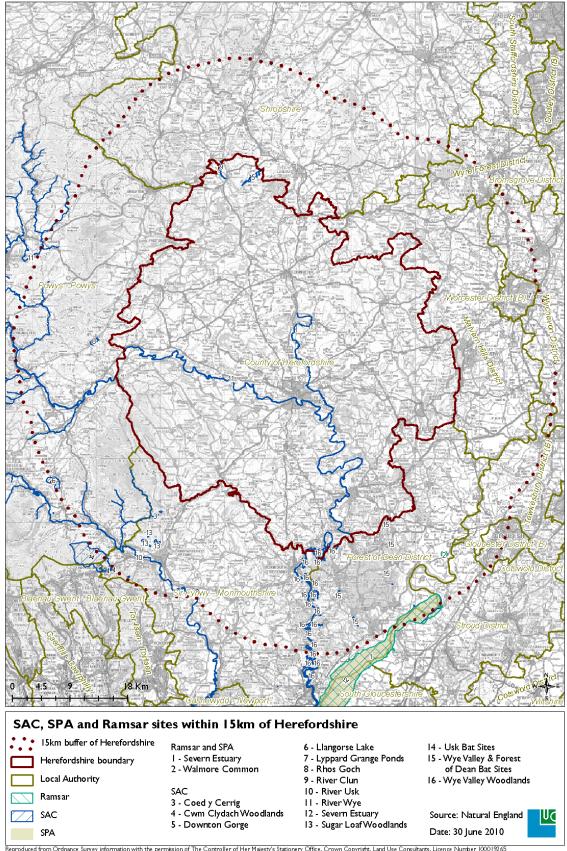
- 2.16 The June 2008 Screening Report that was produced by Herefordshire Council for the Developing Options identified the European sites located within Herefordshire (see Appendix 2 within that report). In line with the precautionary approach, European sites lying partially or wholly within 15km of the county boundary were also included in the assessment, in order to address the fact that proposals in the Herefordshire Core Strategy may affect European sites outside the administrative boundary of the plan. The distance of 15km was considered appropriate to ensure that all designated sites outside the county boundary that could be affected by development within Herefordshire were identified and included in the assessment. Where sites lie partially within 15km of the county boundary, the potential for effects on the whole of those sites has been considered.
- 2.17 The European sites identified within Herefordshire (+15km), and which have the potential to be affected by the Core Strategy, are listed below in **Table 2.1** and are mapped in **Figure 2.1**.

Table 2.1 European Sites within the Herefordshire County Boundary (+15km)

Special Areas of Conservation (SACs)	Special Protection Areas (SPAs)	Ramsar Sites
Sites inside the boundary		
Downton Gorge		
River Clun		
River Wye		
Wye Valley Woodlands		
Sites within 15km of the bound	ary	
Coed y Cerrig	Severn Estuary	Severn Estuary
Cwm Clydach Woodlands	Walmore Common	Walmore Common
Llangorse Lake		
Lyppard Grange Ponds		
Rhos Goch		
River Usk		
Severn Estuary		
Sugar Loaf Woodlands		
Usk Bat Sites		
Wye Valley and Forest of Dean		
Bat Sites		

2.18 The attributes of these sites which contribute to and define their integrity were described (see Appendix 3 of the June 2008 HRA Screening Report) and European site interest features and relevant conservation objectives were also highlighted. This information made it possible to identify the features of each site which determine site integrity, as well as the specific sensitivities of each site, therefore enabling later analysis of how the potential impacts of the Herefordshire Core Strategy may affect site integrity.

Figure 2.1: European sites within 15km of Herefordshire County boundary



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Description of the Herefordshire Core Strategy

- 2.19 The Pre-Submission Herefordshire Core Strategy (May 2014) presents detailed policies for development in the county up to 2031. The first section introduces the Core Strategy and the second provides the context for the Plan, describing the county and the key issues and challenges that it faces.
- 2.20 The third part of the Pre-Submission Core Strategy includes the overarching vision and objectives of the Core Strategy, and sets out the overall spatial strategy, which is detailed in seven specific policies, covering:
 - Sustainable development
 - Delivering new homes
 - · Release of land for housing
 - Movement and transportation
 - Employment provision
 - Environmental quality and local distinctiveness
 - Climate change
- 2.21 Section four sets out 22 place-shaping policies which relate to housing and employment development in:
 - Hereford
 - Bromyard
 - Leominster
 - Ledbury
 - Ross-on-Wye
 - Kington
 - Rural areas
- 2.22 Section five then sets out 34 general policies, which relate to:
 - Housing
 - Social and community facilities
 - Open space, sport and recreation
 - Traffic management
 - Employment
 - Tourism
 - Retail
 - Local distinctiveness
 - Sustainable design
 - Natural resources: minerals
 - Waste
- 2.23 Section six of the Pre-Submission Core Strategy then describes how the Plan will be delivered, implemented and monitored, and includes one policy relating to infrastructure delivery.
 - Identification of other plans and projects which may have 'in-combination' effects
- 2.24 Regulation 102 of the Habitats Regulations 2010 requires an appropriate assessment where a land use plan (not directly connected with or necessary to the management of the site) is likely to have a significant effect on a European site, either alone or in combination with other plans or projects. In order to try to identify potential 'in-combination' effects consideration has been given

to other plans with any components that could have an impact on European sites within the Plan area boundary (+15km), i.e. those plans which include areas or towns where additional development is proposed near to the European sites within 15km of Herefordshire's boundary (as there could be effects from transport, water use, infrastructure and recreation pressures associated with new developments).

- There are a large number of potentially relevant plans and projects which may result in incombination effects with the Herefordshire Core Strategy. A targeted review of plans was undertaken and has been updated for this HRA report, focusing on planned spatial growth within the adjacent authorities to Herefordshire (see **Appendix 2**). The review focused on the spatial strategies and policies included in the Core Strategies and Local Plans for the Forest of Dean, Malvern Hills, Shropshire, Monmouthshire, Powys and the Brecon Beacons National Park,. The most recent HRA reports for those plans were also reviewed where available, as a guide to the potential for any of the policies and proposals in those plans to have adverse effects on the European sites being considered in the HRA of Herefordshire's Core Strategy. Where likely significant effects have been identified, or were not able to be ruled out for these other plans, their potential to combine with effects from the Herefordshire Core Strategy has been considered.
- 2.26 The Water Cycle Study for Herefordshire⁸ was also drawn upon in the 2010-11 HRA reports for the Core Strategy, as it collates information from the available water resource management plans within the county at that time, which helps to indicate the potential for planned water abstraction requirements to combine with pressures on European sites from the Core Strategy. The more up to date final Water Resource Management Plans were consulted for the 2013 HRA report for the Draft Core Strategy and the findings from that review remain valid. In the HRA for the final Dwr Cymru Welsh Water WRMP⁹ it notes that the Environment Agency's Review of Consents exercise already completed an 'in combination' assessment for all currently licensed abstractions (and many unlicensed abstractions), which underpins the WRMP. In addition, the WRMP explicitly accounts for land-use plans and growth forecasts when calculating future water demand (and hence areas with potential deficits).
- 2.27 Finally, the work of the Water Steering Group established by Herefordshire Council with Natural England, Environment Agency, Dwr Cymru Welsh Water, and in particular work that has been carried out to prepare a Nutrient Management Plan for the River Wye SAC, has also been considered as part of the in-combination assessment, especially with respect to the measures that will be implemented as part of the Nutrient Management Plan to ensure the favourable conservation status of the SAC in respect of phosphate levels as soon as possible and at the latest by 2027.

Assessment of the 'likely significant effects' of the Herefordshire Core Strategy

As required under Regulation 102 of the Habitats Regulations 2010, a screening assessment of the 'likely significant effects' of the Pre-Submission version of the Herefordshire Core Strategy (May 2014) (alone and in combination with other plans or projects) has been undertaken. A screening matrix was prepared in order to identify whether any of the policies in the Pre-Submission Core Strategy would be likely to have a significant effect on one or more European sites and has been updated at each stage in the HRA. The findings of the screening assessment of the Pre-Submission Core Strategy can be seen in the screening matrix in **Appendix 1**. The screening judgements have been based on the assumptions and information summarised in the next section of this chapter. Colour coding was used to record the likely impacts of the policies on European sites and their qualifying habitats and species, as shown in **Table 2.2** below.

Table 2.2 Key to Colour Coding used in the HRA Screening Matrix

Red	There are likely to be significant effects.
Green	Significant effects are unlikely.

⁸ Herefordshire Outline Water Cycle Study Brian Faulkener (for Herefordshire County Council) 2009.

⁹ Habitats Regulations Assessment of the Dwr Cymru Welsh Water Revised Draft Water Resources Management Plan. Entec, 2011.

Interpretation of 'likely significant effect'

- 2.29 The DTA paper prepared to inform the HRA of the Draft Herefordshire Core Strategy (February 2013), and which remains relevant to the HRA of the Pre-Submission version, sets out reference to recent relevant case law, which helps to interpret when effects should be considered as a likely significant effect, when carrying out HRA of a land use plan.
- 2.30 In the Waddenzee case¹⁰, the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), including that:
 - An effect should be considered 'likely', "if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site" (para 45).
 - An effect should be considered 'significant', "if it undermines the conservation objectives" (para 47).
 - A conclusion of 'no adverse effect on integrity': ".... is the case where no reasonable scientific doubt remains as to the absence of such effects" (para 59).
- 2.31 Reference is also made in the DTA paper to a relevant opinion delivered to the Court of Justice of the European Union¹¹, which commented:
 - "The requirement that an effect in question be 'significant' exists in order to lay down a de minimus threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."
- 2.32 This opinion (the 'Sweetman' case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered 'trivial' or *de minimus*; referring to such cases as those "which have no appreciable effect on the site". In practice such effects could be screened out as having no likely significant effect; they would be 'insignificant'.

Stage 2: Appropriate Assessment

2.33 EC Guidance¹² states that the Appropriate Assessment stage of the HRA should consider the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function. A site's integrity depends on it being able to sustain its 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated) and to ensure their continued viability. A high degree of integrity is considered to exist where the potential to meet a site's conservation objectives is realised and where the site is capable of self-repair and renewal with a minimum of external management support.

Assessing the effects on site integrity

- 2.34 The Appropriate Assessment focuses on those impacts that are judged likely to have a significant effect on the qualifying features of a European site, or where insufficient certainty regarding this remained at the screening stage. As discussed in **Chapter 1**, a conclusion needs to be reached as to whether or not a policy and/or the plan would adversely affect the integrity of a European site. In order to reach such a conclusion, consideration needs to be given to whether the predicted impacts of the Herefordshire Core Strategy policies (either alone or in combination) have the potential to:
 - Delay the achievement of conservation objectives for a site.
 - Interrupt progress towards the achievement of conservation objectives for a site.
 - Disrupt factors that help to maintain the favourable conditions of a site.

¹⁰ ECJ Case C-127/02 "Waddenzee" Jan 2004..

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

¹² Assessment of plans and projects significantly affecting European sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission Environment DG, November 2001.

- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of a site.
- 2.35 Based on the Screening findings in **Appendix 1** (and described in the following chapter), an Appropriate Assessment has been undertaken for the River Wye SAC where likely significant effects with respect to changes in water quality from some of the Herefordshire Core Strategy policies were unable to be ruled out during the screening stage.
- 2.36 The conservation objectives for the River Wye SAC¹³ are to:

"Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.

Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site"
- 2.37 The potential impacts in relation to water quality have been considered in **Chapter 3** and an appropriate assessment made, based on the information available, as to whether the impact is likely to affect the integrity of the site, and if mitigation measures may be implemented to reduce the likelihood or severity of the impact.

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 $^{^{13}\} http://www.naturalengland.org.uk/Images/UK0012642-River-Wye-Afon-Gwy-SAC_tcm6-32033.pdf$

3 HRA Findings

Screening Findings

- 3.1 The screening matrix presented in **Appendix 1** took the approach of screening each policy individually, which is consistent with current guidance documents. Using the broad categories of impact described in **Table 1.2**, particular consideration was given to the possible pathways through which effects from activities associated with implementing policies in the Pre-Submission Herefordshire Core Strategy may be transmitted to features contributing to the integrity of a European site (e.g. via groundwater, air, river catchments etc.).
- 3.2 As described further below, the HRA screening for the Pre-Submission Core Strategy found that there are unlikely to be significant effects on all of the European sites considered (see Table 2.1), except for the River Wye SAC, specifically in relation to potential impacts on water quality arising from the following policies:
 - Policy HD3: Hereford Movement.
 - Policy LO1: Development at Leominster.
 - Policy LO2: Leominster urban extension.
 - Policy RA1: Rural Housing Strategy.
 - Policy RA2: Herefordshire's Villages.
 - Policy RA6: Rural economy.

Mitigation provided by policies within the Core Strategy

- 3.3 Mitigation of some of the identified potential effects could be achieved through implementation of policies which require good practice measures during construction (e.g. of transport infrastructure, housing or employment development) such as noise and light reduction, and more efficient use of water in new development. The provision and use of improved sustainable transport links to and from particular locations (e.g. major business/employment sites) would also help to reduce car traffic.
- 3.4 Certain policies within the Pre-Submission Core Strategy will help to implement these types of mitigation measures described above and therefore avoid significant effects on European sites. Such policies include MT1: Traffic Management, Highway Safety and Promoting Active Travel (which aims to increase the use of sustainable modes of transport), LD2: Biodiversity and Geodiversity (which specifically aims to conserve and enhance local biodiversity, including at European sites) SD3: Sustainable Water Management and Water Resources (which specifically aims to conserve water and reduce surface water discharge) and SD4: Wastewater Treatment and River Water Quality (which aims to ensure that development does not undermine the achievement of water quality targets for protected rivers within the county, in particular through the treatment of wastewater). In addition, specific references have also been made within some of the place-shaping policies where needed to ensure adverse effects on integrity of European sites will be avoided (e.g. policy RW2 relating to the strategic allocation at Ross-on-Wye and potential noise and vibration effects during construction and occupation of new homes).
- 3.5 Due to recommendations made in the previous stages of the HRA, additional mitigation measures have been included or strengthened within some of the Core Strategy policies. Therefore, the extent to which mitigation may be achieved through other policies within the Core Strategy was considered during the screening stage and has influenced the screening conclusions of the HRA (see **Appendix 1**).
- 3.6 As described in **Chapter 1**, the findings of the HRA work that Herefordshire Council and LUC have already carried out in relation to earlier versions of the Herefordshire Core Strategy have been

- taken into consideration, along with the HRA Report for the Hereford Relief Road, and the outputs of the Water Steering Group.
- 3.7 Therefore, during the Screening of the Pre-Submission Herefordshire Core Strategy (May 2014), a number of assumptions were applied in relation to assessing the likely significant effects on European sites that may result from development associated with implementing the policies in the Core Strategy. These assumptions are described in relation to each type of potential effect below.

Physical Loss/Damage to Habitat

- 3.8 Any development resulting from the Core Strategy would be located in Herefordshire County; therefore only those European sites within the Herefordshire boundary should be affected through physical loss of habitat (unless there is a known range for mobile species outside the boundary of the European site). As such, this potential effect only needed to be considered in relation to the four sites within Herefordshire's boundary (Downton Gorge, River Clun, River Wye and Wye Valley Woodlands SACs), as well as the Wye Valley & Forest of Dean Bat Sites SAC due to the potential for off-site habitats used by the bat species outside of the SAC boundary to be affected.
- 3.9 The overall Movement and Transportation Policy (SS4) and the Hereford Movement Policy (HD3) are the only policies that specifically direct development within the boundary of a European site, because the proposed Hereford Relief Road will have to cross the River Wye SAC. However, the separate HRA undertaken for the relief road corridor route options looked in more detail at the potential effects of physical damage or loss of habitat for the qualifying features of the River Wye SAC. It states that site clearance and construction activities could result in the loss or damage of otter holt or lying up sites. No evidence of otter holts was recorded in habitats in close proximity to the proposed river crossings during surveys undertaken in June and October 2010, but such sites may exist in areas of woodland away from the SAC. The Relief Road HRA report states that further surveys should be undertaken on any route corridor option taken forward, to confirm the presence or absence of holts and/or above-ground resting sites. The loss of above-ground resting sites, or holts used on an occasional basis, if present, is unlikely to have a significant adverse effect on local otter populations, as abundant suitable habitat is present along the River Wye. However, the loss of any natal holt sites may be more significant, should they be present and it may not be possible to avoid them through careful alignment of the road within the corridor. In this situation, it is likely that compensation for the loss of any important holt sites, in the form of replacement artificial holts, would be required. In addition, the Relief Road HRA stated that the use of widespan bridge structures would enable direct working within the watercourse to be avoided (and thus avoid likely significant effects on loss or damage to habitats for the fish and crayfish qualifying features of the River Wye SAC).
- 3.10 Despite this, the Relief Road HRA noted that at this stage in the relief road project it is difficult to conclusively demonstrate there will not be a likely significant effect on the River Wye SAC, because sufficient uncertainty remains regarding the specific route, design and construction methods that will be used. As the project progresses, it may be possible to confirm that there will be no significant effects on the River Wye SAC.
- 3.11 As a result of recommendations from the HRA team in a draft version of the HRA report for the Draft Core Strategy that was supplied to Herefordshire Council, the Council made changes to policy HD3 (at that time referred to as policy HD2) prior to finalising the Draft Herefordshire Core Strategy (March 2013). The current policy HD3 now requires the relief road to be developed in such a way which avoids and mitigates adverse impacts from physical damage/loss of habitat, noise pollution and vibration, light pollution, air pollution, flood risk and water quality on the River Wye SAC. The supporting text also states that work on the detailed alignment of the road will be considered during the preparation of the Hereford Area Plan. Close working with key statutory bodies will be needed to avoid impact on natural assets and appropriate identification of mitigation measures particularly in relation to impacts from physical damage/loss of habitat, noise pollution and vibration, light pollution, air pollution and water quality on the River Wye.
- 3.12 Therefore, sufficient mitigation requirements are now included in policy HD3 to ensure that there will not be likely significant effects as a result of physical loss or damage to habitats within the River Wye SAC. However, it is recommended that HRA screening for the Hereford Area Plan should revisit the screening conclusion regarding the

potential for likely significant effects arising from physical loss or damage to habitats within the River Wye SAC, once more detail about the proposed route for the relief road is available, and to ensure any more detailed specific mitigation requirements for the relief road are included.

- 3.13 None of the other policies which specify strategic locations for development (e.g. the place-shaping policies for Hereford, Leominster, Bromyard, Ledbury and Ross-on-Wye) are likely to have a significant effect due to physical damage or loss of habitat at any of the European sites within Herefordshire (+15km). A number of other policies are likely to result in housing or other forms of development (e.g. the rural areas/waste/minerals/employment policies); however, the location of much of this development will not be known until lower tier plans are prepared (i.e. other development plan documents by Herefordshire Council or neighbourhood development plans) or planning applications for development are submitted.
- 3.14 Policy LD2: Biodiversity and Geodiversity seeks to protect sites of international importance (and has been strengthened based on earlier HRA recommendations in the 2010 HRA report), therefore it is considered unlikely that significant effects would result in terms of physical damage or loss of habitat due to development proposals that come forward, as they will need to be assessed against policy LD2.

Noise, Vibration and Light Pollution

- 3.15 **Noise** pollution effects, e.g. during the construction of new housing or other development or as a result of increases in traffic along roads, are most likely to disturb birds and mammals species and are thus a key consideration with respect to European sites where these are among the qualifying features. A large proportion of the European sites within Herefordshire are not vulnerable to noise pollution or vibration as their qualifying features are plants, woodland etc. which are not vulnerable to these effects. **Therefore, only those European sites that include bat species among their qualifying features were considered likely to experience adverse effects due to noise (Wye Valley Woodlands SAC and the Wye Valley and Forest of Dean Bat Sites SAC).**
- 3.16 Vibration effects may also result where development takes place in close proximity to European sites which include bats, otters and fish species as qualifying features. It is assumed that for such disturbances to have a significant effect, the development taking place would need to be either within or immediately adjacent to the site. In the case of Herefordshire, development taking place as a result of the Core Strategy policies would therefore need to be located within the county boundary and close to the strategic locations allocated for housing and employment development (around Hereford and the market towns). Therefore, resulting vibration is not considered likely to significantly affect European sites located outside of the county boundary. The only sites within Herefordshire which include qualifying features likely to be affected by vibration are the River Wye SAC, Wye Valley Woodlands SAC and the Wye Valley and Forest of Dean Bat Sites SAC. There is some uncertainty regarding the appropriate assumption to be applied with regards to the distance over which vibration effects are likely to be experienced, as it is not possible to determine in this strategic-level HRA the proximity of proposed development areas (which are not specifically defined in the Pre-Submission Core Strategy) to specific locations of qualifying fish species spawning sites, otter breeding sites etc. However, for the bat sites, a 10km buffer around the SAC boundary was used as described below.
- 3.17 Artificial **lighting** at night (e.g. street lamps, flood lighting and security lights) is most likely to affect bat populations, which are nocturnal. **Therefore, only those European sites that include bat species among their qualifying features were considered likely to experience adverse effects due to lighting (Wye Valley Woodlands SAC and the Wye Valley and Forest of Dean Bat Sites SAC).**
- 3.18 In line with the assumptions that were used in the HRA of the West Midlands RSS¹⁴, and also reflecting studies cited in the Hereford Relief Road HRA¹⁵, **a 10km buffer was used to**

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¹⁴ Habitats Regulations Assessment of the Phase II Revision of the Regional Spatial Strategy for the West Midlands Prepared for West Midlands Regional Planning Body by URSUS Consulting Ltd. and Treweek Environmental Consultants, October 2007.

¹⁵ Hereford Relief Road Habitats Regulations Assessment – Route Corridor Options Screening Report. Hyder Consulting (UK) Limited, April 2011.

establish the likely zone of influence of development and associated noise, vibration and light pollution on European sites in which bats are a qualifying feature, as they may travel up to 10km to forage or roost. Within this identified zone, more detailed information about the locations of foraging/roosting sites and patterns of movement was used in order to come to a judgement about the likely significance of effects of Core Strategy policies on particular sites. In particular, the Herefordshire Bat Study¹⁶ provided useful data, for example mapping the locations of roosting sites. This data was supplemented by input from our own in-house ecologists in order to make a judgement about the likely significant effects of Core Strategy policies which may lead to development and other activities within the vicinity of bat sites, and about the potential mitigation measures that may reduce or remove the potential for such effects.

- 3.19 The Usk Bat Sites SAC is located more than 10km away from any of the development that has been spatially mapped, and is located approximately 15km from the Herefordshire county boundary, therefore development taking place within the county as a result of the Core Strategy proposals is not likely to have a significant effect on the qualifying features of the site. However, the Wye Valley Woodlands SAC and the Wye Valley and Forest of Dean Bat Sites SAC are located within 10km of the proposed development at Ross-on-Wye, meaning that noise, vibration and light pollution effects on the bats from the housing development proposed at Ross-on-Wye needed to be considered.
- 3.20 The findings of the Herefordshire Bat Study were that the strategic development site proposed at Ross-on-Wye is largely an unsuitable habitat for lesser and greater horseshoe bats and that nearby foraging areas will not be affected by new development on that site. Specific reference to the potential for impacts is not included in the study report. When particular locations come forward for development at the planning application stage, further information should become available to enable more certain conclusions about the likely impact of noise pollution and vibration on the bats, as this will depend largely on the scale and type of development and the potential to mitigate effects, e.g. through the implementation of good practice construction techniques during construction. Therefore, significant effects on the Wye Valley Woodlands SAC and the Wye Valley and Forest of Dean Bat Sites SAC due to noise, vibration and light pollution on bat species associated with development at Ross-on-Wye are considered to be unlikely, as development of the strategic site is unlikely to affect habitat used by the bats. In addition, as a result of the recommendation made in the 2010 HRA report, and an additional recommendation arising from the HRA of the Draft Core Strategy in 2013, there is a specific requirement within policy RW2 (Land at Hildersley) to avoid and mitigate adverse impacts from noise and light pollution and vibration (during both construction and occupation of new homes) on the River Wye SAC, Wye Valley Woodlands SAC and the Wye Valley & Forest of Dean Bat Sites.
- 3.21 In addition to the potential impacts of noise and vibration on bat species in the above SACs, while otters and some fish species (notably Allis and Twaite shad) which are qualifying features of the River Wye SAC may also be adversely affected from noise and vibration associated with development at Ross-on-Wye, Hereford and the Hereford Relief Road, it should be possible to avoid or mitigate adverse impacts on otters and shad, for example by timing works to avoid critical periods (e.g. spawning periods for shad or otter breeding periods), or preventing work from being undertaken at night to avoid disturbance to otters, and providing new otter holts. These sorts of measures can be more specifically defined at the planning application stage, once detailed proposals and site locations are provided, and required as conditions on planning permissions. As noted above, as a result of the recommendation made in the 2010 HRA report, there is a specific requirement within policy RW2 (Land at Hildersley) to avoid and mitigate adverse impacts from noise pollution and vibration (during both construction and occupation of new homes) on the River Wye SAC. As part of the HRA for the Draft Core Strategy in 2013, a similar criterion was recommended to be added to policy HD6 (Southern Urban Expansion - Lower Bullingham, previously policy HD5), which was added by Herefordshire Council in the final version of the Draft Herefordshire Core Strategy (March 2013) and remains in this current Pre-Submission version. Therefore, significant effects on the River Wye SAC due to noise and vibration

¹⁶ Greater and Lesser Horseshoe Bats in South Herefordshire 2010: A Study to Inform Herefordshire Council's Local Development Framework. Herefordshire Biological Records Centre. June 2010.

effects on otter or fish species associated with development at Hereford or Ross-on-Wye are considered to be unlikely.

- 3.22 The screening conclusions of the **Relief Road** HRA with respect to the River Wye SAC were that the western route corridor options (which include the route proposed as part of policies SS4 and HD3) are considered **unlikely to result in significant effects from noise, vibration or light pollution on the River Wye SAC, provided appropriate implementation of the assumed mitigation measures** described in Section 4.2.5 of the report (e.g. works that involve percussive construction techniques, such as pile-driving, should be avoided in the vicinity of the river if possible, or undertaken outside the key migration periods and only during daylight hours. Light pollution effects may also be mitigated in a similar way to those relating to noise and vibration, e.g. the use of appropriate construction techniques, and avoiding working at night time).
- 3.23 The Relief Road HRA looked in more detail at the potential effects of light pollution for the qualifying features of the River Wye SAC. It notes that fish, otters, and other nocturnal species using the river, for example the white-clawed crayfish could be affected by nocturnal lighting of the River Wye during construction of the relief road (in particular the bridge that would need to span the river). It states that nocturnal lighting of the River Wye during construction will need to be avoided as far as possible. However, there may be a requirement, for example for health and safety reasons, to illuminate the bridge during construction. The use of directional lighting to minimise light-spill, and maintain dark corridors to allow continued movement of otters and fish species would be expected to minimise any adverse impacts. Any lighting incorporated into the bridge once it is operational will not illuminate the river channel. This will ensure that the fish, otters, and white-clawed crayfish using the river are not affected by lighting proposals. The Relief Road HRA concludes that the exact lighting proposals will need to be finalised during the detailed design of the bridge structure.
- 3.24 The Relief Road HRA also states that site clearance and construction activities would also have the potential to disturb otters in the vicinity of the works. The report notes however, that it is likely that otters would quickly become habituated to increased levels of noise and disturbance associated with new bridge crossings of the River Wye, based on evidence experienced by the authors of the HRA report in relation to several schemes where otters have been shown to move along river corridors during new bridge construction operations. Therefore, a likely significant effect on the River Wye SAC is not considered to occur with respect to noise and vibration effects on otters.
- 3.25 However, the Relief Road HRA notes that at this stage in the relief road project it is difficult to conclusively demonstrate these findings, and they can only be supported if in-combination effects with other policies and plans and the Herefordshire Core Strategy can be satisfactorily mitigated. Development of the preferred route corridor option would require further ecological surveys, air and water quality, and hydrological/hydrogeological surveys to be completed, and more detailed information on design and construction methodologies to be produced.
- 3.26 Based on the findings of the Relief Road HRA, during the HRA for the Draft Core Strategy the HRA team recommended that Herefordshire Council add specific mitigation requirements to policy HD3 and the supporting text to policy HD3 (Hereford Movement)¹⁷. The Council agreed to make those changes and Policy HD3 in the Pre-Submission Core Strategy (April 2014) now requires the relief road to be developed in such a way that it avoids and mitigates adverse impacts from physical damage/loss of habitat, noise pollution and vibration, light pollution, air pollution and water quality on the River Wye SAC. The supporting text also states that work on the detailed alignment of the road will be considered during the Hereford Area Plan. Close working with key statutory bodies will be needed to avoid impacts on natural assets and appropriate identification of mitigation measures particularly in relation to impacts from physical damage/loss of habitat, noise pollution and vibration, light pollution, air pollution and water quality on the River Wye SAC.
- 3.27 Therefore, sufficient mitigation requirements are now included in policy HD3 to ensure that there will not be likely significant effects as a result of noise and light pollution or vibration effects from the relief road development on the qualifying species within the River Wye SAC. However, it is recommended that HRA screening for the Hereford Area Plan should revisit the screening conclusion regarding the potential for likely significant

 $^{^{\}rm 17}$ Note that in earlier versions of the Core Strategy, this policy was numbered HD2.

effects arising from noise and light pollution or vibration on the qualifying fish and otter species within the River Wye SAC, once more detail about the proposed route for the relief road is available, and to ensure any more detailed specific mitigation requirements for the relief road are included.

Air Pollution

- 3.28 Air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by any deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen availability that can then affect plant health, productivity and species composition.
- 3.29 In terms of vehicle traffic, nitrogen oxides (NOx, i.e. NO and NO_2) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NOx can cause eutrophication of soils and water.
- 3.30 Based on the Highways Agency Design for Road and Bridges (DMRB) Manual Volume 11, Section 3, Part 1¹⁸ (which was produced to provide advice regarding the design, assessment and operation of trunk roads (including motorways)), it is assumed that air pollution from roads is unlikely to be significant beyond 200m from the road itself. Where increases in traffic volumes are forecast, this 200m buffer needs to be applied to the relevant roads in order to make a judgement about the likely geographical extent of air pollution impacts.
- 3.31 The DMRB Guidance for the assessment of local air quality in relation to highways developments provides criteria that should be applied at the screening stage of an assessment of a plan or project, to ascertain whether there are likely to be significant impacts associated with routes or corridors. Based on the DMRB guidance, affected roads which should be assessed are those where:
 - Daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more; or
 - · Heavy duty vehicle (HDV) flows will change by 200 AADT or more; or
 - Daily average speed will change by 10 km/hr or more; or
 - Peak hour speed will change by 20 km/hr or more; or
 - Road alignment will change by 5 m or more.
- 3.32 There is no County wide model that provides traffic forecasts for all roads in the County at the end of the Local Plan period versus the current baseline flows and taking into account the housing provision planned. The Department for Transport website provides traffic count data for local authorities on a quarterly and annual basis¹⁹, however, the majority of counts are on major roads (A roads and motorways), and only a sample of points on the minor road network is counted each year.
- 3.33 In the absence of detailed traffic forecasts for the whole county, it was assumed that only those roads forming part of the primary road network (motorways and 'A' roads) might be likely to experience any significant increases in vehicle traffic as a result of development (i.e. greater than 1,000 AADT). As such, where a site is within 200m of only minor roads, no significant effect from traffic-related air pollution was considered to be the likely outcome. This assumption was queried by Natural England, but for the reasons described below, has continued to be applied in the HRA for the Herefordshire Local Plan Core Strategy.
- 3.34 The National Transport Model (produced by the DfT for their forecasting purposes) estimates the West Midlands growth in AADT for minor roads is around 26% from 2012 to 2032²⁰. The forecasts are not broken down to county level, but if we apply this rate of growth to minor roads in Herefordshire, it would mean that in order for a minor road to have a change in AADT of more than 1,000 vehicles over the Local Plan period (and therefore a potential significant increase in

¹⁸ Design Manual for Road and Bridges. Highways Agency. http://dft.gov.uk/ha/standards/dmrb/index.htm

¹⁹ http://www.dft.gov.uk/traffic-counts/index.php

 $^{^{20} \ \}text{https://www.gov.uk/government/publications/road-transport-forecasts-2011-results-from-the-department-for-transports-national-transport-model} \\$

- deposition of pollutants), it would need to be carrying more than 4,000 vehicles AADT currently (26% of 4,000 equals 1,040).
- 3.35 There is no traffic count data for all minor roads in Herefordshire; only a sample of points on the minor road network is counted each year and these counts are used to produce estimates of traffic growth on minor roads²¹. The traffic download data for Herefordshire's sample of minor roads shows that from 2000-2012 very few of the minor roads have AADTs of greater than 4,000²², apart from the B4399 (which runs from the A49 south of Hereford around Rotherwas) and the B4244 (which is the Eign Road running south east out of Hereford down towards the A449 near Ross-on-Wye). Therefore, the assumption that most minor roads in Herefordshire are unlikely to experience increases in traffic of greater than 1,000 AADT seems reasonable.
- 3.36 There are no European sites within 200m of the B4244 and B4399 apart from the River Wye SAC. Traffic flows on these two minor roads are more likely to change as a result of the Hereford Relief Road which will also cross the River Wye SAC, and the potential effects of air pollution from the Hereford Relief Road has been discussed below.
- 3.37 Critical loads for nitrogen have been established for certain habitats dependent on low nitrogen levels, and are expressed in deposition units of kg N/ha/yr, and are reported in DMRB guidance and on the Air Pollution Information System (APIS)²³ database. Data from APIS has been used to identify those European sites in and around Herefordshire where levels of particular pollutants are already exceeding critical loads, indicating that any increases could have adverse impacts.
- 3.38 Of the sites not screened out at earlier stages in the HRA, only Usk Bat Sites SAC and Wye Valley Woodlands SAC lie within 200m of an 'A' road (A465 between Merthyr Tydfil and Abergavenny for the Usk Bat Sites SAC, and the A40 between Monmouth and Ross-on-Wye and the A466 between Monmouth and Hereford for the Wye Valley Woodlands SAC). According to the APIS website, both Usk Bat Sites SAC and Wye Valley Woodlands SAC contain qualifying habitats that are sensitive to deposition of nitrogen and exceeding critical loads, including broadleaved and coniferous woodland which is noted in APIS as the relevant broad habitat for the qualifying bat species. However, road transport emissions only contribute around 8% and 12.6% of the overall nitrogen deposition respectively for the Usk Bat Sites SAC and the Wye Valley Woodlands SAC. These sites could experience air pollution effects due to an increase in vehicle traffic resulting from the provision of new housing and a potential increase in travel between towns within and around the county. However, traffic forecast data for the A40 and A466 provided by Herefordshire Council's transport consultants shows that AADTs will change by less than 1,000 between 2012 and 2032, as shown in **Table 3.1** below, so significant effects are unlikely for the Wye Valley Woodlands

Table 3.1: Changes in AADT between 2012 and 2032 on A40, A466 and A465

Road	Direction of travel	AADT 2012	AADT 2032	Change in AADT	%age change
A40 between	Northbound	1,000	1,200	200	20
Ross-on-Wye and Monmouth	Southbound	1,100	1,500	400	36
A466 south of Monmouth	Not covered by modelled area				
A466 north of	Northbound	1,300	1,900	600	46
Monmouth	Southbound	1,300	2,200	900	69

 $^{^{21}\ \}text{http://data.dft.gov.uk/gb-traffic-matrix/traffic-counts-metadata.pdf}$

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²² http://www.dft.gov.uk/traffic-counts/download.php (There are spreadsheets covering the whole of England for major and minor roads, Herefordshire data has been extracted.)

²³ www.apis.ac.uk

Road	Direction of travel	AADT 2012	AADT 2032	Change in AADT	%age change
A465 south	Northbound	3,900	5,100	1,200	31
west of Hereford	Southbound	3,600	5,000	1,400	39

- 3.39 Traffic flows on the A465 from Hereford towards Abergavenny may increase above 1,000 AADT as also shown in Table 2.3, therefore potential air pollution effects may be significant on the Usk Bat Sites SAC (which is within 200m of the A465 in Wales between Gilwern and Brynmawr). However, the data is only for the stretch of the A465 within Herefordshire, and it is uncertain how much that would contribute to increases in traffic along the A465 between Gilwern and Brynmawr. Indeed, more significant increases are likely to be associated with the major dualling project for the A465 being undertaken by the Welsh Government as discussed below.
- Extensive environmental assessment has been undertaken to accompany the proposals for each 3.40 section of the dualling project, including the Brynmawr to Gilwern section (Section 2 of the project)²⁴. The Environmental Statement Non-Technical Summary²⁵ for this section of the dualling project explains that due to 2km of the Scheme (i.e. the A65 dualling) being located within the Usk Bat Sites SAC and SSSI, the Scheme alignment in this area has been developed in consultation with Natural Resources Wales. It goes on to explain that effects on European sites have been assessed separately, through an Assessment of Implications on European Sites (AIES) (which is a requirement for highways and roads projects under the Habitats Regulations). The report of the AIES for the A464 Brynmawr to Gilwern section could not be located on the internet. However, the Non-Technical Summary explains that without appropriate mitigation the Scheme could have a significant effect on many of the habitats and protected species found along the Scheme, particularly lesser horseshoe bats, semi-natural broadleaved woodland, and the sites designated for their nature conservation interest. Measures are proposed within the Non-Technical Summary to mitigate the impacts on the qualifying bats and habitats of the Usk Bat Sites SAC resulting from the Scheme, but potential impacts from air pollution are not referred to as air pollution presumably was not identified as having a significant effect. The mitigation measures relate to reducing loss of habitat, avoiding impacts on bat maternity and hibernation roosts and maintaining routes for bats to cross beneath the road. With the mitigation measures in place the assessment concluded that all of the effects of the Scheme except one would be reduced to a level deemed to be not significant. The exception was the loss of semi-natural broadleaved woodland. However, this loss would diminish over time due to the extensive areas of woodland planting being introduced for replacement bat foraging and commuting.
- 3.41 The HRA Report for the LTP²⁶ also concludes that there would not be adverse effects on integrity of these two SACs from air pollution. For the Usk Bat Sites SAC, it notes that transport emissions contribute only a small amount to the nitrogen deposition on the site with agriculture being the main source of pollution. It also notes that the proposals within the Herefordshire LTP to reduce car usage and improve air quality are unlikely to significantly impact on the habitats susceptible to air pollution within the Usk Bat Sites SAC due to the distance of the site from Herefordshire.
- 3.42 Therefore, significant effects as a result of air pollution on the Usk Bat Sites SAC and Wye Valley Woodlands SAC are considered unlikely.
- 3.43 The HRA for the Hereford relief road found that emissions associated with construction machinery and vehicles using any of the proposed eastern or western route corridor options would lead to local increases in air pollution. It noted that the qualifying Ranunculion fluitantis and Callitricho-Batrachion vegetation communities within the river could be affected by increased silt deposition, diffuse and point source pollution, including both air and waterborne. It concluded that these localised increases in atmospheric pollution would not be expected to have significant impacts on the River Wye SAC. However, as detailed air quality assessments have not yet been undertaken for the final route of the relief road, these would be required to fully assess the impacts of air

²⁴ http://a465gilwern2brynmawr.co.uk/

²⁵ A465 Heads of the Valleys Section 2 Gilwern to Brynmawr Environmental Statement: Non-Technical Summary. Welsh Government, October 2013.

²⁶ Herefordshire Local Transport Plan. Habitats Regulations Assessment – Appropriate Assessment Report. Amey, February 2013.

- pollution on the River Wye SAC. Given the distance of the North Core and South Core route corridor options from the SAC, the Relief Road HRA considered it highly unlikely that emissions associated with construction and operation of these route corridor options would lead to any significant changes in air quality in the vicinity of the River Wye SAC.
- 3.44 As a result of recommendations from the previous iteration of the HRA, Herefordshire Council added specific mitigation requirements to policy HD3 and the supporting text to policy HD3 (Hereford Movement formerly referred to as HD2). Policy HD3 now requires the relief road to be developed in such a way which avoids and mitigates adverse impacts from physical damage/loss of habitat, noise pollution and vibration, light pollution, air pollution, flood risk and water quality on the River Wye SAC. The supporting text also states that work on the detailed alignment of the road will be considered during the Hereford Area Plan. Close working with key statutory bodies will be needed to avoid impact on natural assets and appropriate identification of mitigation measures particularly in relation to impacts from physical damage/loss of habitat, noise pollution and vibration, light pollution, air pollution and water quality on the River Wye SAC.
- 3.45 Therefore, sufficient mitigation requirements are now included in policy HD3 to ensure that there will not be likely significant effects as a result of air pollution on the qualifying habitats or species within the River Wye SAC. However, it is recommended that HRA screening for the Hereford Area Plan should revisit the screening conclusion regarding the potential for likely significant effects arising from air pollution on the qualifying habitats and species within the River Wye SAC, once more detail about the proposed route for the relief road should be available, and to ensure any more detailed specific mitigation requirements for the relief road are included.
- 3.46 In addition to vehicle traffic, air pollution may also be caused by particular types of development such as waste management facilities (where they incorporate thermal treatment) or agricultural activities. Some types of waste facilities release gaseous emissions from waste management technologies involving, anaerobic digestion or producing energy from waste. Agriculture can impact air quality through the spreading of slurries and manures, and housed livestock. The main emissions from agriculture that are of concern include ammonia:
 - Ammonia; high ammonia levels can cause localised nutrient enrichment, harming native plant species that require nutrient-poor conditions. About two-thirds of the nitrogen deposition that leads to over-enrichment and acidification of sensitive soils, habitats, and fresh waters comes from agricultural ammonia.
 - Methane; agricultural methane results from the digestive processes of livestock, with the remainder coming from animal waste.
 - Nitrous oxide; agricultural nitrous oxide emissions arise from the use of inorganic nitrogen fertilisers and the storage of manures.
- 3.47 Where such development may result from the Core Strategy (employment policy SS5 and waste policies W2 and W4), there may be an adverse effect on nearby European sites; however it is not possible to fully assess the likelihood of this occurring at this stage due to a lack of information about the precise location, type and scale of development, which will not be known until either the preparation of a Natural Resources Development Plan Document or at the planning application stage. However, most waste management facilities and large scale pig or poultry farms will also need to meet the high standards of design and operation that are required to obtain an Environmental Permit (EP), as regulated by the Environment Agency. The requirement to meet EP standards (including emissions to air, land and water, energy efficiency, noise, vibration and heat and accident prevention) should ensure that the design and operation of waste and agricultural facilities minimises air pollution. Therefore, significant effects from air pollution on the European sites within Herefordshire are considered unlikely to occur as a result of waste or agricultural development.

Recreation and 'Urban' Impacts

3.48 Where a European site is small in size, located some distance from the main population centres and is not known to be under particular pressure from recreation activities or to be an especially popular place for amenity use, it was assumed that increases in population of the scale likely to result from the Herefordshire Core Strategy policies are unlikely to place sufficient additional

pressure on the site through demand for recreation space that the site's integrity would be threatened. Conversely, effects were considered more likely where it is known that a site is already under pressure from recreation activities, or where it is large in size and is easily accessible from the main population centres in Herefordshire. Because the housing proposed under the rural areas policy (RA1) could potentially be located in any part of the county, it was considered possible that usage of any of the European sites for recreation may increase. In addition, 'urban' pressures such as deliberately started fires can be associated with an increase in human presence around European sites.

- 3.49 Detailed information about the use of the European sites in and around Herefordshire for recreation and amenity purposes was not available during the assessment. However, **only two of the European sites were identified as already being vulnerable to existing recreation and urban pressures** (in the JNCC data forms for each site), as follows. The River Wye SAC is known to be popular location for a wide range of recreation activities which may increase as a result of a growing nearby population. In addition, fishing activities had been implicated with the decline of salmon, however, the JNCC data form (dated July 2011) notes that initiatives such as the Wye Salmon Action Plan will help to address this issue. At the River Clun SAC, trout fishing is a threat, and the freshwater pearl mussel for which the site is designated relies on the presence of trout for part of its breeding cycle. None of the other European sites in and around Herefordshire were identified as vulnerable to recreation or urban pressures.
- 3.50 Therefore, the potential for adverse impact on the River Wye and River Clun SAC sites as a result of increased pressure for recreation space (e.g. as a result of the overall increased housing development planned at Hereford, the market towns and rural areas) was considered. However, the policies included in the Core Strategy in relation to provision and protection of Open Space, Sport and Recreation (OS1-3), Tourism (E4) and Biodiversity (LD2) are considered sufficient to mitigate any adverse impacts on these sites in relation to increased pressure for recreation space due to either their safeguards in terms of ensuring no detrimental effects on environmental assets, or their aim to provide open spaces and recreation areas which will help to reduce pressure on the Rivers Wye and Clun. Therefore, significant effects on River Wye and River Clun SACs are considered unlikely due to recreation pressure and activities associated with increased housing development across the county.

Interruptions to Hydrological Regimes (Changes in Water Quantity)

- 3.51 European sites can be sensitive to changes in water quantity where they are designated for their water habitats, but also other habitats dependent on consistent water levels (e.g. bogs, mires, woodlands etc.). Of the European sites not screened out at earlier stages in the HRA, the following are sensitive to changes in water level/water table: River Wye SAC, River Clun SAC, Rhos Goch SAC, Llangorse Lake SAC and the River Usk SAC.
- 3.52 The water supply in Herefordshire comes mainly from Dwr Cymru Welsh Water (DCWW). DCWW's website states that following publication of their draft Water Resources Management Plan in 2009, new information was received arising from the Environment Agency Wales's Review of Consents process. The information included proposals from Environment Agency Wales, to modify DCWW's abstraction licences in order to comply with the Habitats Regulations 2010. As a result of this information a revised draft Water Resources Management Plan was published in October 2011, taking into account these proposed changes (and accompanied by its own HRA Report²⁷). Following consultation the WRMP was amended to include the additional supporting evidence that DCWW had committed to provide in the Final WRMP²⁸.
- 3.53 As DCWW is a member of Herefordshire Council's Water Steering Group, the progress of the WRMP and the Review of Consents was discussed directly with the Environment Agency and Herefordshire Council. From the minutes of the Water Steering Group meetings (available on the Council's website) and a summary Water Resources Report by the Water Steering Group (dated 3 February 2012, and also available on the Council's website) it is understood that DCWW confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout its operating area. It is also stated in the WRMP that there are sufficient water

²⁷ Habitats Regulations Assessment of the Dwr Cymru Welsh Water Revised Draft Water Resources Management Plan. Entec, 2011.

²⁸ *Dŵr Cymru Welsh Water Final Water Resources Management Plan.* Dŵr Cymru Welsh Water, September 2012.

resources to meet demand during the plan period. The HRA for the WRMP also incorporates the sustainability reductions of the Review of Consents. Accordingly the HRA concludes no likely significant effects on any water resource sensitive European site. Furthermore the WRMP is subject to regular review to account for any changes experienced during the plan period. Herefordshire Council has agreed in the Water Resources Report to liaise with DCWW on this matter to ensure that there are no detrimental impacts on growth within Herefordshire. Should such an impact arise, Herefordshire Council will report this through the Annual Monitoring Report process and thus initiate a review of policy in the Core Strategy. **Therefore, no likely significant effects on European sites as a result of changes in water quantity are expected in relation to the Herefordshire Core Strategy**.

Water Pollution

- 3.54 With regards to water quality, the Environment Agency confirmed the location of sewage treatment works servicing Herefordshire. Further information about waste water treatment was obtained from the Herefordshire Water Cycle Study²⁹ initially, and subsequently the information arising from the Water Steering Group's meetings during 2011-13. Several of the European sites within Herefordshire are considered vulnerable to the increased water pollution that could result from a greater volume of sewage effluent being discharged into rivers as a result of new housing development. The different river catchments within Herefordshire are shown in the map below policy SD4 in the Pre-Submission Core Strategy.
- 3.55 Settlements within Herefordshire's boundary are served by either DCWW or Severn Trent Water companies. The Severn Trent area covers an area in the north of the County (catchment of the River Teme) and the eastern part of the County, which is in the catchment of the River Leadon. None of Severn Trent STWs discharge into the River Wye catchment. The Severn Trent area is the minority of the County (compared to the are covered by DCWW) but it does include a number of the larger rural settlements, including Colwall the largest of the county's villages, Cradley, Leintwardine, Wigmore, Orleton and Brimfield, and the market town of Ledbury. The sewage treatment works serving Ledbury discharges into the River Leadon which is not a designated European site within Herefordshire (+15km), so the development proposed there is not considered likely to result in a significant effect on water quality within the plan area, either alone or in combination with other proposals.

River Usk and River Clun SACs

3.56 The River Usk SAC receives discharge from sewage treatment works (STWs) serving settlements outside of the administrative boundary of the plan. Similarly, the River Clun SAC, only has only around 1km of the river in Herefordshire, with no STWs serving Herefordshire discharging to it.

Therefore, the policies included in the Core Strategy will not have a significant effect on the River Usk SAC or the River Clun SAC in relation to water quality.

River Wye SAC

- 3.57 Apart from the STWs serving Ledbury and some of the rural villages in the north and east of the county, most of the sewage treatment works that serve the settlements within Herefordshire are operated by DCWW and discharge into the River Wye, either directly or via tributaries such as the River Lugg, River Frome, River Monnow and the River Arrow. The River Lugg catchment already suffers from pollution pressures from phosphates entering the river from STW discharges and agricultural diffuse pollution. Diffuse pollution also arises from urban areas. The evidence map in the Water Cycle Study appendices (Map 7-5) shows that most of the River Wye catchment is in moderate ecological status, while the upper reaches of the River Lugg (which is a tributary of the River Wye) from Presteigne to Leominster are in poor ecological status.
- 3.58 The River Wye SAC is already experiencing impacts on water quality as a result of changing land use within the catchment, and from point-source discharges, therefore any increase in demand for water treatment in the vicinity of the site could exacerbate this problem. In 2013, Herefordshire Council and DCWW reviewed existing capacity and 'headroom^{30'} available within the 'Dry Weather

 $^{^{29}}$ Herefordshire Outline Water Cycle Study (2009) Brian Faulkener (for Herefordshire County Council)

³⁰ Note that the Joint Environment Agency and Natural England guidance published in July 2011, "Advising on Growth and Water quality in Natura 2000 sites and SSSIs", defines 'headroom' as relating to the unused components of a permit that allow for variation in

Flow³¹′ permits for the STWs serving Hereford, the Market Towns and more rural areas, and compared this (through a series of calculations) with the amount of new development proposed in the Herefordshire Core Strategy for each town plus the rural areas. A summary of this review is provided in Table 3.2, and shows that there is sufficient existing permitted headroom in the STWs serving Hereford, Bromyard, Kington, and Ross-on-Wye to continue to treat water from the amount of new housing provided for in the Core Strategy throughout the plan period, although under the current water quality levels in the River Wye SAC this does not mean that there would not be a likely significant effect on water quality if all the available headroom were used.

- 3.59 However, as described in the DTA paper, the work undertaken by the Herefordshire Water Steering Group, namely the preparation of the draft Nutrient Management Plan (NMP) for the River Wye SAC should ensure that development within Herefordshire which can be accommodated within existing water discharge permits would not be likely to have a significant effect upon the River Wye SAC.
- As shown in Table 3.2 above, there is not sufficient existing permitted headroom in the STWs serving Leominster and parts of rural Herefordshire to continue to treat water from all of the new housing provided for in the Core Strategy without affecting water quality in the River Wye SAC. In terms of the rural areas, development in villages near Leominster and just north of Hereford are more likely to have an impact due to the sensitivity of the River Lugg and the lack of permitted headroom in the STWs, but specific locations for development in the villages and outside villages will not be determined until either lower tier plans are produced, or planning applications come forward. However, some of the villages and rural areas where the additional 5,300 homes will be developed will be served by Severn Trent Water STWs, so the shortfall in the existing headroom at DCWW STWs may not be as great as shown in Table 3.2. Therefore, a likely significant effect could not be ruled out for Policies LO1, LO2, RA1, RA2 and RA6 and this needed to be considered through the Appropriate Assessment stage of the HRA (see below).

Table 3.2: Summary of approximate number of new housing that can be delivered within headroom of existing Dry Weather Flow Permits for DCWW STWs serving Herefordshire towns and rural areas

STW name and town/area served (in brackets)	Approximate number of new housing that can be delivered within headroom of existing Dry Water Flow Permit	Number of new housing units proposed in Core Strategy
HEREFORD EIGN (Hereford)	7,595	6,500
ROTHERWAS (Hereford)	11,525	
BROMYARD (Bromyard)	526	500
KINGTON (Kington)	597	200
LOWER CLEEVE (Ross-on-Wye)	1,403	900
LEOMINSTER WORCESTER ROAD (Leominster)	922	2,300
Various STWs (rural parts of Herefordshire)	2,513	5,300
Total	25,081	

3.61 Due to the rural nature of Herefordshire a number of settlements are not on mains drainage and accordingly non-mains drainage is the only option for treatment of wastewater. Non-mains drainage is not factored into the shortfall calculations for existing permitted headroom in WWTWs. Non-mains drainage also discharges to the River Wye and its tributaries, therefore it also

the efficacy of treatment to provide scope for additional capacity at a STW. Headroom in a permit can be generated through a difference between current and permitted effluent **quality**, or a difference between current and permitted effluent **flow rate**.

³¹ The same EA/NE guidance explains that the 'Dry Weather Flow' (DWF) of an effluent is the flow specified in permit conditions. This flow, together with the required water quality target and dilution rates in the river is used to calculate permit conditions for effluent quality.

contributes to increasing phosphate levels. For this reason, previously NE had objected to a number of planning applications for non-mains drainage. However, through the positive partnership working of all members of the Water Steering Group, Herefordshire Council has agreed with Natural England to a set of distance and volume threshold criteria with regard to non-mains drainage to allow development within the River Wye SAC catchment to proceed where the development is of such a small-scale and situated such a distance from the SAC that there would be no impact.

3.62 In addition to the potential for changes in water quality resulting from increased pressure on sewage treatment works, the HRA Screening was unable to rule out likely significant effects due to the potential for construction of the Hereford Relief Road (policy HD3) to increase sediment levels within the River Wye SAC at the point at which it needs to cross the River Wye.

Appropriate Assessment findings

An Appropriate Assessment has been undertaken for the River Wye SAC because likely significant effects with respect to changes in water quality from six of the Herefordshire Core Strategy policies were unable to be ruled out during the screening stage (Policies HD3: Hereford Movement, LO1: Development at Leominster, LO2: Leominster urban extension, RA1: Rural Housing Strategy, RA2: Herefordshire's Villages and RA6: Rural economy).

Policy HD3: Hereford Movement

- 3.64 Any reductions in water quality as a result of pollutants or silt entering the river during construction or operation of the Hereford relief road could negatively affect the white-clawed crayfish and qualifying fish species, by interfering with feeding ability (for crayfish) fish migrations, reducing breeding success, or contributing to mortality of the species. In addition, if reductions in fish densities in the river occur due to increased siltation, this could reduce the availability of prey species for otters, which are also a qualifying feature of the River Wye SAC. Significant reductions in fish densities as a result of the scheme construction would only be expected to occur in the event of a serious pollution event during construction or operation of the scheme.
- 3.65 However, while the exact route is not yet determined, nor the crossing point on the River Wye, the HRA for the Relief Road concluded that it would be possible to deliver an effective pollution prevention strategy following Environment Agency guidelines, particularly during construction of the scheme, and develop a suitable drainage design, which would avoid likely significant effects on water quality in the River Wye SAC. However, the Relief Road HRA considered that a successful pollution prevention strategy would be easier to achieve for the western route options than the eastern route options (due to the number of river crossings and length of river that would be affected if an eastern route was selected). Due to the changes made to policy HD3 and its supporting text in the Pre-Submission version of the Draft Core Strategy (March 2013), it is considered that sufficient mitigation requirements are now included in policy HD3 to ensure that there will no adverse effects on the integrity of the River Wye SAC as a result of water pollution from construction of the Relief Road.

Policies LO1: Development at Leominster, LO2: Leominster urban extension, RA1: Rural Housing Strategy, RA2: Herefordshire's Villages and RA6: Rural economy

3.66 In relation to development <u>beyond existing permits</u> as shown in Table 3.2 (i.e. within the place-shaping policies for Leominster and the rural areas, where the STWs do not have sufficient permitted headroom available to meet all of the development proposed in the Core Strategy throughout the plan period), the evidence base for the NMP³² identifies measures that would enable such development to proceed. The evidence base and options appraisal for the NMP modelled four scenarios involving different combinations of measures improving point source and diffuse agricultural discharges that aim to achieve the conservation objective's phosphate target.

³² River Wye SAC Nutrient Management Plan: Evidence Base and Options Appraisal. Draft Report. Atkins, January 2014.

All four scenarios showed that it is possible to achieve the targets through the implementation of the measures, and as described in Chapter 1, the Environment Agency is currently preparing the first version of the NMP for the River Wye SAC. Therefore, it can be concluded that **even where development is proposed at or around Leominster and in the rural areas, provided the mitigation measures set out in the NMP are implemented, there should be no adverse effect on the integrity of the River Wye SAC.**

Further information to inform the HRA conclusions relating to water quality

The DTA paper to inform the HRA of the Herefordshire Core Strategy, very helpfully summarises the key outcomes and conclusions of the Herefordshire Water Steering Group with respect to the River Wye SAC water quality issue, and with reference to relevant recent case law relating to interpretation of the requirements of the Habitats Regulations Assessment process.

It states that an appropriate assessment of the effects of increasing the dry weather flow limits at existing wastewater treatment works to accommodate further development "beyond existing permits" would need to take account of the potential effects of such permit amendments in light of the prevailing environment conditions at the time of the proposed permit changes (bearing in mind that there is some existing permitted headroom within the STWs, so some of the planned development within Leominster and the rural areas will be able to go ahead, but in later years in the plan period there will be a shortfall in permitted headroom available). The implementation of the NMP up to 2027 will result in an improving trend in phosphate levels within the SAC; the timing, location and extent of such anticipated "improvements" will only become apparent once the NMP is implemented.

The DTA paper therefore notes the difficulty for the HRA of the Core Strategy to undertake an appropriate assessment of the potential effects on water quality in the River Wye SAC from the necessary permit changes (for those STWs serving Leominster and some of the rural areas), which takes account of the beneficial effects of the NMP in a meaningful manner. That is, it cannot be known at this time, what the phosphate levels in the River Wye will be in later parts of the plan period following successful implementation of the measures in the NMP.

With reference to relevant case law, the DTA paper states that whilst there can never be an absolute guarantee about what will happen in the future, in developing a Core Strategy, and because the effects are reasonably foreseeable, Herefordshire Council needs to have some degree of confidence that the avoidance of adverse effects on the integrity of the SAC, from allocated development "beyond existing permits", can be the subject of a legally enforceable framework which would prevent such risks from materialising. However, it is not sufficient to simply rely on a later appropriate assessment at project stage to avoid adverse effects upon the integrity of the SAC; some consideration of how such effects might realistically be avoided at the plan stage is necessary.

It therefore goes on to suggest four scenarios, taking account of the forthcoming NMP, that might apply to future required permit amendments to deliver development beyond existing permits at Leominster and some of the rural areas:

• Scenario A: Insignificant capacity – Further capacity which is considered to represent so small a contribution to the SAC that it could not compromise the conservation objectives (even when considered in combination with other plans and projects). This would generally be expected to apply to further capacity being delivered at WWTWs which are a considerable distance upstream of the SAC boundary, or to very minor increases in capacity at works closer to the SAC boundary. Such capacity will not have any appreciable effect and could be regarded as trivial in light of the recent Sweetman case already referred to in Chapter 2, and as defined in a Natural England paper on triviality³³ which is referred to in a Joint Environment Agency and Natural England 2011 paper³⁴. It is DTA's opinion that such capacity could reasonably be assigned to new development without having an adverse effect upon the integrity of the River Wye SAC.

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³³ Review of Consents Stage 3 conclusions, the in-combination test and triviality. Helen Wake, Natural England, 2004.

³⁴ Advising on Growth and Water Quality in Natura 2000 sites and SSSIs: A Joint Environment Agency / Natural England approach. Environment Agency and Natural England, July 2011.

- Scenario B: Non-exceeded capacity Further capacity which can be assigned without causing an exceedence of the relevant Natural England phosphate targets within the SAC. It is DTA's opinion that this capacity could reasonably be assigned to new development without having an adverse effect upon the integrity of the SAC, as it would not lead to an exceedence of the phosphate target and would not therefore undermine the conservation objectives.
- Scenario C: Temporary effect capacity Further capacity which is considered to represent a strictly temporary increase in phosphate load within the SAC, where the phosphate levels in the receiving stretch already exceed the relevant phosphate target. In the absence of a NMP the duration, severity and spatial extent of such permanent effects would generally be expected to prevent a conclusion of no adverse effect on the integrity of the SAC, especially when considered in-combination with other plans and projects. However, when the effects of planned development are considered in combination with the NMP, the potential effects can be regarded as temporary. The duration, severity and spatial extent of the temporary increase would be such that it would not undermine the deliverability of the NMP and would not therefore be expected to undermine the conservation objectives of the SAC. It is DTA's opinion that such development may reasonably be delivered without adverse effects upon the integrity of the SAC. DTA also considers it reasonably foreseeable, with reference to the underlying principles set out in the DTA paper, that such temporary effects associated with additional capacity beyond existing permits might be offset by measures to be delivered through the NMP and referred to within section 7 of the Statement of Intent.
- **Scenario D: Bespoke capacity** Further capacity that might be considered to require a "bespoke" solution would be relevant to two reasonably foreseeable scenarios:

Firstly, where the phosphate levels in the receiving stretch already exceed the relevant Natural England phosphate target, and further capacity beyond existing permits may result in effects for which the duration, severity and spatial extent of the potential increase in phosphate levels would be sufficient to cast doubt over whether the measures identified through the NMP could still be relied upon to ensure the favourable conservation status of the SAC in respect of phosphate levels by 2027. The delivery of such further capacity would therefore be considered to undermine the deliverability of the NMP, and hence undermine the achievement of the conservation objectives. There is a risk that it might not be possible to ascertain no adverse effect on the integrity of the SAC in relation to such development.

<u>Secondly, where the WWTW permit discharges into a stretch that is currently below the relevant Natural England phosphate target</u> and the further capacity would lead to an exceedence of the phosphate targets. Such a scenario is explicitly excluded within the Statement of Intent; the ecological implications of a stretch being pushed into an exceeded state from a non-exceeded state, even for a short period of time, would be considered to represent a threat of an adverse effect to the integrity of the SAC.

The DTA paper concludes that it would appear to be reasonable for the Council to rely on the wider benefits to be delivered through the NMP in "seeking to identify actions that would enable additional development (beyond existing consents)" as potential mechanisms which would enable development beyond existing permits within any of scenarios A-C above to be delivered without adverse effects upon the integrity of the SAC. However, if WWTW capacity beyond existing permits to serve the proposed development at Leominster in policies LO1 and LO2, and some of the rural areas in policies RA1, RA2, RA6 were to fall into scenario D, the WWTW capacity would need to be subject to specific bespoke mitigation measures being agreed with the relevant authorities, over and above those being delivered through the NMP, which would need to ensure that the proposed development will have no adverse effect on the integrity of the SAC. It is generally expected that such project specific mitigation will need to be provided prior to occupation/utilisation of the development concerned, and will be the responsibility of the project proposer.

At the recommendation of DTA, development which is not able to deliver such mitigation measures is explicitly excluded within bullet points 4 and 5 of policy SD4 within the Draft Herefordshire Core Strategy, and policy SD4 includes a specific safeguard condition in relation to such further capacity requirements which effectively provides a "conditional approval" in relation to such development. DTA also recommended that the policies relating to development at Leominster are cross-referenced to policy SD4, and this has been done in policy LO1. In addition,

policy SS3 (Releasing land for residential development) states that "the release of specific sites may be phased or delayed in order to ensure that necessary infrastructure is in place to support the new development or in order to ensure that there will be no significant adverse effects on the integrity of the River Wye Special Area of Conservation (SAC)".

A recommendation made in the HRA for the Draft Herefordshire Core Strategy (March 2013) that reference to the shortfall in rural STWs should be made within the supporting text to the rural area policies RA1, RA2 and RA6, and that cross-reference to policy SD4 is also made in these three policies, has now been addressed in the Pre-Submission Core Strategy.

Therefore, in accordance with the DTA paper, it is possible to reasonably ascertain no adverse effects upon the integrity of the River Wye SAC in relation to development which cannot be accommodated within existing water discharge permits due to the measures set out in the emerging NMP, as well as the protection afforded in policies SS3 and SD4.

Potential in-combination effects

- 3.67 As already described, Regulation 102 of the Habitats Regulations 2010 requires an Appropriate Assessment of 'a plan or project which is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects)'.
 Appendix 3 presents the review of neighbouring plans which were considered most likely to have in-combination effects with the Herefordshire Core Strategy.
- 3.68 The following potential impacts on European sites around Herefordshire were identified from plans and strategies in neighbouring authorities:
 - The HRA for the Adopted Forest of Dean Core Strategy concluded that the Core Strategy will not result in any significant negative impacts on identified sites, although there will be a need for HRA Screening, with the possibility of an Appropriate Assessment requirements, at later stages of the planning processes, when development proposals are more detailed. The HRA considered the potential for in-combination effects to arise from the Forest of Dean Core Strategy along with other plans and strategies, and no potential in-combination effects with the Herefordshire Core Strategy were identified.
 - The HRA for the Proposed Submission version of the South Worcestershire Development Plan (SWDP) identified at the screening stage that there was uncertainty with regard to the potential for significant effects on **Bredon Hill SAC** and **Lyppard Grange SAC** as a result of increased disturbance, in particular from increased recreational activity; however these potential impacts were able to be ruled out during the AA stage and it was concluded that the SWDP will not have adverse effects on the integrity of the SAC either alone or in combination with other plans through increased disturbance. The screening assessment also identified uncertainty with regard to the potential for significant in-combination effects with a number of plans including the Herefordshire Core Strategy on five European sites (including Lyppard Grange SAC, Downton Gorge SAC, River Wye SAC, Severn Estuary SAC/SPA/Ramsar site and Walmore Common SPA/Ramsar site) as a result of changes to water levels and water quality. These effects were again considered in more detail at the AA stage and it was concluded that the mitigation provided by Pre-Submission policies and current regulatory processes (EA Review of Consents), the SWDP will not have adverse in combination effects on the integrity of the identified European sites through reduced water levels or water quality.
 - The HRA for the Adopted Shropshire Core Strategy found that the Core Strategy was not likely to have a significant effect on any of the European sites in the county, provided that adequate HRA work is carried out in relation to the Site Allocations and Management of Development DPD which determines the precise locations for development. The HRA Report for the Site Allocations and Management of Development Plan concluded that **there would** be no likely significant effects on any European Sites either alone or in-combination with

- other plans, provided that HRA decisions for 10 of the draft policies are passed down to the next tier of the plan-making process or in some cases to planning application stage.
- The HRA Report for the Monmouthshire Draft Deposit LDP concluded that the Deposit LDP (incorporating Focussed Changes, and including site allocations) would not have any likely significant effects alone on European sites, if the recommended policy safeguards are incorporated into the Plan. These changes have since been incorporated through the Focussed Changes to the LDP and the SA and HRA Changes Log therefore reached a final conclusion of no likely significant effects on European sites from the LDP alone. This conclusion was again reached when the February 2014 HRA Addendum reviewed the final changes to the LDP. However, the screening work identified four main areas of impact arising that may have the potential for significant in combination effects on the integrity of the identified European sites: water resources, water quality, disturbance (including habitat loss and fragmentation) and air quality. These issues were taken forward into the AA and considered in further detail. The AA assessed that there is uncertainty with regard to the potential adverse impacts of the LDP acting in combination with surrounding plans and projects. To address this uncertainty the AA proposed a number of mitigation measures, including recommendations to strengthen the mitigation provided by certain LDP policies. The AA then concluded that the LDP will not have adverse effects on the integrity of European sites either alone or in-combination as the recommended mitigation measures have been incorporated into the Plan.
- The HRA Report for the Powys LDP (Preferred Strategy) highlighted the potential for the LDP to adversely affect the integrity of 28 European Sites, either alone or in-combination with other plans or projects. However, due to the early stage of the Plan, these effects were uncertain in all cases. The screening process also highlighted the potential for incombination effects with other plans, including from Herefordshire's Core Strategy in relation to pollution from adjacent road drains/houses/chemicals, development (engineering/contamination) and recreation and leisure. In order to ensure that Powys' LDP does not have a significant negative effect, detailed policies need to be developed to mitigate the 'in-combination' effect of development on the identified sites. The deposit proposals (currently due for consultation in June 2014) will be assessed and if necessary AA will be undertaken to inform the deposit plan.
- The HRA for the adopted Brecon Beacons Local Development Plan concluded that the LDP will
 not result in any significant negative impacts on European sites either alone or incombination with other plans as a result of the mitigation measures that have been
 incorporated into the Plan.
- 3.69 Therefore, it can be concluded that significant effects from the Herefordshire Core Strategy in combination with other surrounding land use plans are not expected. Although there is some uncertainty in the latest available HRA work for the Powys LDP in relation to the potential for incombination effects with the Herefordshire Core Strategy in relation to pollution and recreation and leisure, likely significant effects have been able to be ruled out for the Herefordshire Core Strategy and therefore it is possible to conclude that the plan will not result in adverse incombination effects.

4 Conclusions

- 4.1 The HRA of the Pre-Submission Herefordshire Core Strategy has been undertaken in accordance with currently available guidance and based on a precautionary approach as required under the Habitats Regulations. The overall HRA findings have been described in **Chapter 3** of this report.
- 4.2 The information gathered during earlier iterations of the HRA and for this HRA of the Pre-Submission Core Strategy enabled a conclusion of no likely significant effects from the policies in the Core Strategy, either alone or in combination with other plans, on all of the European sites within 15km of Herefordshire, except for the River Wye SAC.
- 4.3 In many cases this was because the policy would not itself result in development, i.e. it related instead to criteria for development which is proposed under other policies/plans (e.g. many of the General policies and some of the Spatial Strategy policies). In a number of cases, Pre-Submission Core Strategy policies also include measures to protect the natural environment, including biodiversity, and therefore a conclusion of no significant effect was reached for this reason. In addition, these policies have the potential to mitigate some of the possible adverse effects arising from other policies.
- 4.4 For those policies which would result in development (e.g. the place-shaping policies) and that could have impacts on one or more of the European sites within Herefordshire (+15km), based on the assumptions and information currently available summarised in **Chapter 3**, it was determined that these impacts would not have an appreciable effect on the site in question, i.e. that they were not likely to be significant.
- 4.5 For the River Wye SAC, likely significant effects on water quality could not be ruled out from water treatment requirements associated with development of housing within the place-shaping policies at Leominster (LO1 and LO2) and some of the rural areas in Herefordshire (RA1, RA2 and RA6) going beyond existing permits for wastewater treatment works. In addition, the HRA Screening was unable to rule out likely significant effects due to the potential for construction of the Hereford Relief Road (policy HD3) to increase sediment levels within the River Wye SAC at the point at which it needs to cross the River Wye.
- 4.6 However, following the Appropriate Assessment stage described at the end of Chapter 3, it is possible to reasonably ascertain no adverse effects upon the integrity of the River Wye SAC in relation to development which cannot be accommodated within existing water discharge permits due to the measures set out in the emerging NMP, as well as the protection afforded in policies SS3 and SD4. In particular, collaboration between Herefordshire Council, the Environment Agency, Natural England, water companies and other relevant stakeholders to address the potential effects on water quality in the River Wye SAC, through joint working on a Nutrient Management Plan has contributed to the HRA conclusions.
- 4.7 As stated in **Chapter 3**, while the Herefordshire Core Strategy contains sufficient policy safeguards (within policy HD3 and its supporting text) to ensure that any adverse effects on integrity arising from construction of the relief road on the River Wye SAC are avoided, it is recommended that the HRA screening for the Hereford Area Plan reviews the potential for likely significant effects on water quality in the River Wye SAC, based on the additional detail that should be available at that time about the proposed route and design of the relief road. Additional, more detailed mitigation requirements might need to be included in the Hereford Area Plan policies as well, and the HRA screening should help to identify these.

LUC September 2014

Appendix 1

Screening Matrix for the Pre-Submission Herefordshire Core Strategy (May 2014)

HRA Screening Matrix for the Pre-Submission Herefordshire Core Strategy (April 2013)

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
SS1- Presumption in Favour of Sustainable Development	N/A	N/A	N/A	N/A	No: This policy will not lead to development; rather it aims to ensure that new development coming forward under other Core Strategy policies contributes to sustainable development in the County.
SS2 - Delivering New Homes	Housing development Development of supporting infrastructure Increased recreation activities Increased vehicle traffic Increased demand for water abstraction and sewage treatment	Physical loss/damage Non-physical disturbance such as noise and light pollution Air pollution Interruption to hydrological regimes	Uncertain until development proposals come forward, although it is assumed that the strategic housing and employment allocations would be developed. Therefore, potentially any sites within and close to Herefordshire may be affected, but effects are more likely to be experienced at the River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands and Rhos Goch SACs due to their closer proximity to Hereford, the Market Towns,	Implementation of Core Strategy Policy LD2: Biodiversity and Geodiversity, which specifically aims to avoid adverse impacts on European sites from new development, including housing. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non-physical disturbance. The specific measures within the individual place-shaping policies (which allocate housing numbers for each of the market towns and the rural areas) relating to	No: While this policy allows for a total of at least 16,500 new homes to be provided in Herefordshire, and this scale of development (and the resulting population growth) could affect European sites directly as a result of construction as well as indirectly as a result of increased vehicle traffic, pressure for recreation space as well as demand for water abstraction and sewage treatment, sufficient mitigation measures are in place within policy SS3, SS4, and SS7 ,relevant place-shaping policies plus general policies LD2, OS1-3, SD1, SD3 and SD4 to avoid significant effects on European sites. Note that the specific housing allocations for Hereford, the market towns and rural areas are considered separately below in terms of their

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
			Rural villages, where the majority of new housing is to be located.	sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. The measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented. Improved water efficiency	potential to have a likely significant effect on European sites.
				measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites.	
SS3 – Releasing Land for Residential Development	N/A	N/A	N/A	N/A	No: This policy will not itself lead to development; rather it specifies how land for housing development proposed under other Core

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
					Strategy policies will be released. Note that the specific housing allocations for Hereford, the market towns and rural areas are considered separately below in terms of their potential to have a likely significant effect on European sites.
					In addition, this policy provides strong mitigation for other policies in the Core Strategy because it specifies that the release of specific sites for housing may be phased or delayed in order to ensure that there will be no adverse effects on the integrity of the River Wye SAC.
SS4 - Movement and Transportation	Development of transport infrastructure, including Hereford Relief Road, southern Leominster Link Road Increased vehicle traffic	Physical loss/damage Non-physical disturbance such as noise, vibration and light pollution Air pollution Interruption to hydrological regimes	Potentially any European sites in and around the County could be affected depending on the location of the transport infrastructure to be provided, but effects are more likely to be experienced at the River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands	Implementation of Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims to avoid adverse impacts on European sites from new development, including transport infrastructure. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1:	No: This policy will result in the development of transport infrastructure, which could have adverse effects on European sites as a result of both physical loss/damage and non-physical disturbance, depending on its specific location. However, the measures in this policy to increase the provision of sustainable transport infrastructure will help to mitigate the potential adverse impacts of other Core Strategy policies in relation to increased vehicle traffic. The policy also

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
			SACs due to their proximity to the preferred route for the Hereford Relief Road, as well as Hereford and the Market Towns, which are where a large proportion of development (with associated transport infrastructure and increased traffic) is likely to be focused.	Sustainable Design and Energy Efficiency and policy HD3: Hereford Movement should help to mitigate potential impacts relating to non-physical disturbance. The measures in this policy to promote sustainable transport provision and use could help to mitigate the potential adverse impacts of this and other Core Strategy policies in relation to increased vehicle traffic and the resulting noise and air pollution. As a result of recommendations made during earlier stages of the HRA process, Policy HD3: Hereford Movement requires the relief road to be developed in such a way which avoids and mitigates adverse impacts from physical damage/loss of habitat, noise pollution and vibration, light pollution, air pollution and water quality on the River Wye SAC. The supporting text also states that work on the detailed alignment of the road will be considered during the Hereford Area Plan. Close working with key statutory bodies will be needed to ensure avoid impact on natural assets and appropriate identification of mitigation	provides for the development of larger-scale transport infrastructure including the Hereford relief road and other road improvements (the impacts of which are considered separately under the relevant policies for the market towns below). Policy HD3 now includes strong safeguards to avoid significant effects on the River Wye SAC occurring during construction and operation of the Hereford relief road.

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
				measures particularly in relation to impacts from physical damage/loss of habitat, noise pollution and vibration, light pollution, air pollution and water quality on the River Wye SAC.	
SS5 - Employment Provision	Employment development Increased vehicle traffic	Physical damage/disturbance Non-physical disturbance such as noise and light pollution Air pollution Interruption to hydrological regimes	Potentially any sites within and near to the county may be affected, but effects are more likely to be experienced at the River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands and Rhos Goch SACs due to their closer proximity to Hereford, the Market Towns, Rural villages, where the majority of new employment land is to be located.	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development, including employment. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non- physical disturbance. The specific measures within the individual place-shaping policies (which allocate employment land for each of the market towns and the rural areas) relating to sustainable transport should help to avoid adverse impacts relating to increased vehicle traffic.	No: This policy provides for a total of 148ha of employment land over the Plan period throughout Herefordshire. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect from the potential effects identified. The EA/NE Nutrient Management Plan should also help to ensure that effects on water quality (from any pressure on STW capacity from new employment development) in the River Wye SAC are not significant. Note that the specific employment land allocations for the market towns and rural areas are considered separately below in terms of their potential to have significant effects on European sites.

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
				Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. Measures in the policy to allow for live-work units could help to mitigate the potential impacts of this and other Core Strategy policies in relation to increased vehicle traffic.	
SS6: Environmental Quality and Local Distinctiveness	N/A	N/A	N/A	N/A	No: This policy will not lead to new development; rather it aims to ensure that development proposed under other policies will conserve and enhance Herefordshire's environmental quality and local

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
					distinctiveness. It also states that biodiversity considerations should shape future development proposals, and that the management plans and conservation objectives of the county's international important features and areas (taken to include European sites) will be material to future development proposals.
SS7 - Addressing Climate Change	Development of renewable energy infrastructure	Physical damage/disturbance Non-physical disturbance e.g. noise pollution	Potentially any sites within and near to the county may be affected, but effects are more likely to be experienced at the River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands SACs due to their proximity to Hereford and the Market Towns, which are where a large proportion of development is likely to be focused.	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development, including renewable energy infrastructure. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non- physical disturbance. Core Strategy policy SD2: Renewable Energy requires	No: Most of this policy will not lead to development (rather it sets out criteria aiming to ensure that new development reduces Herefordshire's contribution to climate change), but the policy could result in the development of renewable energy infrastructure which could potentially affect European sites, depending in its location. However, there is sufficient mitigation provided within Core Strategy policies LD2, SD1 and SD2 to avoid a likely significant effect. Policy SS7 itself also refers to the aim of increasing the use of sustainable transport, which could help to mitigate the potential adverse impacts of other Core Strategy policies in relation to

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
				renewable energy developments to avoid adverse impacts on international designations for the conservation of the natural environment (taken to include European sites). The policy refers to the aim of increasing the use of sustainable transport, which could help to mitigate the potential adverse impacts of other Core Strategy policies in relation to increased vehicle traffic.	increased vehicle traffic.
HD1: Hereford	Housing development Employment land development Development of supporting infrastructure Increased recreation activities Increased vehicle traffic Increased demand for water abstraction and sewage treatment	Physical damage/disturbance Non-physical disturbance such as noise and light pollution Air pollution Interruption to hydrological regimes	River Wye SAC	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non- physical disturbance. Improved water efficiency measures, metering and	No: This policy provides for large-scale development within Hereford which will therefore be located within reasonably close proximity of the River Wye. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect (policies LD2, SD1, SD3, SD4 and OS1-OS3). DCWW confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period. DCWW has also confirmed that there is sufficient existing headroom within the STWs serving Hereford to meet the planned level

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
				addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. The measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	of growth without having a significant effect on the River Wye SAC. Note that the strategic locations policies for Hereford are considered separately below in terms of their potential to have significant effects on European sites.
HD2 - Hereford City Centre	Housing and infrastructure development Increase in recreation	Physical disturbance/damage Non-physical disturbance such as noise, vibration and	River Wye SAC	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development.	No: This policy provides for large- scale development within Hereford which will therefore be located within reasonably close proximity of the River Wye. However, sufficient policy safeguards are

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
	activities Increase in vehicle traffic Increased demand for water abstraction and treatment	light pollution Interruption to hydrological regimes Air pollution		Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non-physical disturbance. Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. The measures included in Core	included within the Core Strategy to avoid or mitigate a likely significant effect (policies LD2, SD1, SD3, SD4 and OS1-OS3). DCWW confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period. DCWW has also confirmed that there is sufficient existing headroom within the STWs serving Hereford to meet the planned level of growth without having a significant effect on the River Wye SAC.

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
				Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	
HD3 - Hereford Movement	Infrastructure development Increased vehicle traffic directly adjacent to the River Wye SAC	Physical disturbance/damage Non-physical disturbance such as noise, vibration and light pollution Air pollution Interruption to hydrological regimes	River Wye SAC	Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non-physical disturbance. The measures in this policy to encourage sustainable transport use may help to mitigate the potential adverse impacts of this and other Core Strategy policies in relation to increased vehicle traffic. As a result of recommendations made during earlier stages of the HRA process, Policy HD3 itself now requires the relief road to be developed in such a way which avoids and mitigates adverse impacts from physical	No for physical disturbance/damage, non-physical disturbance and air pollution: While this policy will result in the development of a relief road to the west of Hereford, which will need to cross the River Wye SAC, the HRA for the Relief Road has shown that likely significant effects could be avoided or mitigated through specific design, construction and operation measures. Policy HD3 now requires any proposal to be developed in such a way which avoids and mitigates adverse impacts from physical damage/loss of habitat, noise pollution and vibration, light pollution, air pollution and water quality on the River Wye SAC. However, due to the River Wye SAC already experiencing impacts on water quality as a result of changing land use within the catchment, and from point-source discharges, any increase in water

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
				damage/loss of habitat, noise pollution and vibration, light pollution, air pollution and water quality on the River Wye SAC. The supporting text also states that work on the detailed alignment of the road will be considered during the Hereford Area Plan. Close working with key statutory bodies will be needed to avoid impact on natural assets and appropriate identification of mitigation measures particularly in relation to impacts from physical damage/loss of habitat, noise pollution and vibration, light pollution, air pollution and water quality on the River Wye SAC.	pollution (e.g. from sedimentation during construction of the relief road where it crosses the River Wye) could exacerbate this problem and therefore a likely significant effect in relation to water quality could not be ruled out.
HD4 - Northern Urban Expansion	Housing and infrastructure development Increase in recreation activities Increase in vehicle traffic Increased demand for water abstraction and treatment	Non-physical disturbance such as noise, vibration and light pollution Air pollution Interruption to hydrological regimes	River Wye SAC	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate	No: The Holmer West development site is not directly adjacent to or overlapping with any European sites, but it lies within reasonably close proximity of the River Wye SAC. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect (policies LD2, SD1, SD3, SD4 and OS1-OS3). DCWW confirmed that there are sufficient water resources to meet the increases in demand from

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				potential impacts relating to non-physical disturbance. The measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	Herefordshire throughout their operating area and the plan period. DCWW has also confirmed that there is sufficient existing headroom within the STWs serving Hereford to meet the planned level of growth without having a significant effect on the River Wye SAC.
				Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing.	
HD5 - Western Urban	Housing and	Non-physical	River Wye SAC	Core Strategy Policy LD2:	No: The proposed development

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Expansion (Three Elms)	infrastructure development Increase in recreation activities Increase in vehicle traffic Increased demand for water abstraction and treatment	disturbance such as noise, vibration and light pollution Interruption to hydrological regimes Air pollution		Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non-physical disturbance. The measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented. Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water	site at Three Elms is not directly adjacent to or overlapping with any European sites, but it lies within reasonably close proximity of the River Wye SAC. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect (policies LD2, SD1, SD3, SD4 and OS1-OS3). DCWW confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period. DCWW has also confirmed that there is sufficient existing headroom within the STWs serving Hereford to meet the planned level of growth without having a significant effect on the River Wye SAC.

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				and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing.	
HD6 - Southern Urban Expansion (Lower Bullingham)	Housing and infrastructure development Increase in recreation activities Increase in vehicle traffic Increased demand for water abstraction and treatment	Non-physical disturbance such as noise, vibration and light pollution Interruption to hydrological regimes Air pollution	River Wye SAC	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non- physical disturbance. The measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any	No: The Lower Bullingham development site is not directly adjacent to or overlapping with any European sites, but it lies within reasonably close proximity of the River Wye SAC. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect (policies LD2, SD1, SD3, SD4 and OS1-OS3). DCWW confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period. DCWW has also confirmed that there is sufficient existing headroom within the STWs serving Hereford to meet the planned level of growth

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				increase in pressure on European sites for recreation space, if appropriately implemented. Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing.	without having a significant effect on the River Wye SAC.
HD7 - Hereford Employment Provision	Development of employment land Increase in vehicle traffic Increased demand for water abstraction and	Physical disturbance/damage Non-physical disturbance such as noise, vibration and light pollution Interruption to	River Wye SAC	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development. Good practice construction techniques including noise	No: This policy will result in employment development in Hereford, which could be within fairly close proximity of the River Wye SAC. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant

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	treatment	hydrological regimes Air pollution		suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non-physical disturbance. The measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented. Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the	effect (policies LD2, SD1, SD3, SD4, SS4, SS7 and OS1-OS3). DCWW confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period. DCWW has also confirmed that there is sufficient existing headroom within the STWs serving Hereford to meet the planned level of growth without having a significant effect on the River Wye SAC.

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				Nutrient Management Plan that Natural England and the Environment Agency are producing. The measures included in Core Strategy policies SS4 and SS7 will help to mitigate the effects of increased air pollution by reducing the need to travel.	
BY1 - Development in Bromyard	Housing and infrastructure development Development of employment land Increased demand for water abstraction and treatment Increased vehicle traffic Increased recreation pressure	Interruption to hydrological regimes Increased air pollution Physical damage from erosion/trampling	The River Frome is a tributary of the River Wye SAC. Impacts associated with increased air pollution and recreation pressure could potentially affect any European sites in and around Herefordshire, although the River Wye SAC is most likely to be affected as it is the closest European site to Bromyard.	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development. The policy itself states that development should have no adverse impact on water quality in the River Frome (a tributary of the River Wye SAC). Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should	No: The proposals for Bromyard make provision for the development of around 500 new homes and 5ha of employment land. Bromyard is some distance from the nearest European site, and therefore physical damage or disturbance from construction will not have a likely significant effect. The River Frome is a tributary of the River Wye SAC, but DCWW has confirmed that there is sufficient existing headroom within the STWs serving Bromyard to meet the planned level of growth without having a significant effect on the River Wye SAC. DCWW has also confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan

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				help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. The specific measures within the individual place-shaping policies including BY2 relating to sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. SS4 also aims to increase sustainable transport use and SS7 should help to reduce the need to travel. In addition, the measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	period. By contributing to a general increase in the local population and in local economic activity, this policy could also contribute to an increase in vehicle traffic throughout Herefordshire, which could adversely affect local air quality, as well as increased pressure for recreation space. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect (policies LD2, SS4, SS7, BY2 and OS1-OS3).
BY2 - Land at Hardwick Bank	Housing and infrastructure development Increased demand	Interruption to hydrological regimes Increased air	The River Frome is a tributary of the River Wye SAC. Impacts associated	Policy BY1, which is the overarching policy for development at Bromyard, states that development should have no	No: This policy for an urban extension at Bromyard makes provision for the development of around 250 new homes.

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	for water abstraction and treatment Increased vehicle traffic Increased recreation pressure	pollution Physical damage from erosion/trampling	with increased air pollution and recreation pressure could potentially affect any European sites in and around Herefordshire, although the River Wye SAC is most likely to be affected as it is the closest European site to Bromyard.	adverse impact on water quality in the River Frome. Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. The specific measures within the individual place-shaping policies including BY2 itself relating to sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. SS4 also aims to increase sustainable transport use and SS7 should help	Bromyard is some distance from the nearest European site, and therefore physical damage or disturbance from construction will not have a likely significant effect. The River Frome is a tributary of the River Wye SAC, but DCWW has confirmed that there is sufficient existing headroom within the STWs serving Bromyard to meet the planned level of growth without having a significant effect on the River Wye SAC. DCWW has also confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period. By contributing to a general increase in the local population and in local economic activity, this policy could also contribute to an increase in vehicle traffic throughout Herefordshire, which could adversely affect local air quality, as well as increased pressure for recreation space. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect (policies LD2, SS4, SS7 BY2 itself and OS1-

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				to reduce the need to travel. In addition, the measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	OS3).
KG1 – Development in Kington	Housing and infrastructure development Small-scale employment development. Increased demand for water abstraction and treatment Increased vehicle traffic Increased recreation pressure	Interruption to hydrological regimes Increased air pollution Physical damage from erosion/trampling	River Wye SAC. Impacts associated with increased air pollution and recreation pressure could potentially affect any European sites in and around Herefordshire, although the River Wye SAC is most likely to be affected as it is the closest European site to Kington.	Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. The specific measures within the individual place-shaping policies	No: This policy allocates around 200 new homes at Kington, as well as some small-scale employment provision. Kington is some distance from any European sites, and therefore direct physical damage or disturbance from construction will not have a likely significant effect. The development at Kington could contribute to an overall increase in vehicle traffic and recreation pressure in the county, as well as increased demand for water abstraction and treatment. However, DCWW confirmed that there are sufficient water resources to meet the increases in demand for water from Herefordshire throughout their operating area and the plan period. DCWW has also confirmed that there is sufficient

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				including KG1 itself relating to sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. SS4 and SS7 also aim to increase sustainable transport use. In addition, the measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	existing headroom within the STWs serving Kington to meet the planned level of growth without having a significant effect on the River Wye SAC. In addition, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect from recreation pressure or air pollution (policies LD2, SS4, SS7, KG1 itself and OS1-OS3).
LB1 – Development in Ledbury	Housing and infrastructure development Development of employment land Increased demand for water abstraction and treatment Increased vehicle traffic Increased recreation pressure	Interruption to hydrological regimes Increased air pollution Physical damage from erosion/trampling	River Wye SAC. Impacts associated with increased air pollution and recreation pressure could potentially affect any European sites in and around Herefordshire, although the River Wye SAC is most likely to be affected as it is the closest European site to Ledbury.	Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the	No: The proposals for Ledbury make provision for the development of around 800 new homes and 15ha of employment land, but this is focused in and around the town which is located some distance away from any European sites, therefore physical damage or disturbance from construction will not have a likely significant effect. The policy allows for the development of around 800 new homes and the resulting increase in demand for water abstraction and treatment may place increased pressure on nearby sites such as the River

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				Nutrient Management Plan that Natural England and the Environment Agency are producing. The specific measures within the individual place-shaping policies including LB1 itself relating to sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. SS4 and SS7 also aim to increase sustainable transport use. In addition, the measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	Wye SAC. However, DCWW confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period. In addition, the sewage treatment works serving Ledbury discharges into the River Leadon which is not a designated European site within Herefordshire (+15km), so there will not be a likely significant effect on any European site. By contributing to a general increase in the local population and in local economic activity, this policy could also contribute to an increase in vehicle traffic throughout Herefordshire, which could adversely affect local air quality, as well as increased pressure for recreation space. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect from recreation pressure or air pollution (policies LD2, SS4, SS7 LB1 itself and OS1-OS3).
LB2 – Land North of	Housing and infrastructure	Interruption to hydrological	River Wye SAC.	Improved water efficiency measures, metering and	No: The policy for this urban extension at Ledbury makes

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the Viaduct	development Employment development Increased demand for water abstraction and treatment Increased vehicle traffic Increased recreation pressure	regimes Increased air pollution Physical damage from erosion/trampling	Impacts associated with increased air pollution and recreation pressure could potentially affect any European sites in and around Herefordshire, although the River Wye SAC is most likely to be affected as it is the closest European site to Ledbury.	addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. The specific measures within the individual place-shaping policies including LB2 itself relating to sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. SS4 and SS7 also aim to increase sustainable transport use. In addition, the measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any	provision for the development of around 625 new homes and 3ha of employment land, but this is focused to the north of the town which is located some distance away from any European sites, therefore physical damage or disturbance from construction will not have a likely significant effect. The proposal allows for the development of around 625 new homes and the resulting increase in demand for water abstraction and treatment may place increased pressure on nearby sites such as the River Wye SAC. However, DCWW confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period. In addition, the sewage treatment works serving Ledbury discharges into the River Leadon which is not a designated European site within Herefordshire (+15km), so there will not be a likely significant effect on any European site. By contributing to a general increase in the local population, this policy could also contribute to an increase in vehicle traffic

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				increase in pressure on European sites for recreation space, if appropriately implemented.	throughout Herefordshire, which could adversely affect local air quality, as well as increased pressure for recreation space. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect from recreation pressure or air pollution (policies LD2, SS4, SS7 LB2 itself and OS1-OS3).
LO1 – Development in Leominster	Housing and infrastructure development Development of a southern link road Increase in recreation activities Increase in vehicle traffic Increased water abstraction and treatment	Interruption to hydrological regimes Increased air pollution Physical damage from erosion/trampling	The potential effects of this policy could combine with increased pressure on sewage treatment capacity discharging to the River Wye in association with development planned at Ledbury, Hereford, Bromyard and Rosson-Wye. Impacts associated with increased air pollution and recreation pressure could potentially affect any European sites in and around Herefordshire, although the River	Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. The policy itself states that development proposals will be encouraged where they ensure that development does not undermine the achievement of water quality targets in accordance with Policy SD3 &	No in relation to physical loss/damage, air pollution and water quantity: The proposals for Leominster make provision for the development of up to 2,300 new homes and 10ha of additional employment land, but this is focused in and around the town which is located some distance away from any European sites, therefore physical damage or disturbance from construction is not expected to have a likely significant effect. By contributing to a general increase in the local population and in local economic activity, this policy could also contribute to an increase in vehicle traffic throughout Herefordshire, which could adversely affect local air

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			Wye SAC is most likely to be affected as it is the closest European site to Leominster.	SD4. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. The specific measures within the individual place-shaping policies including LO1 itself relating to sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. SS4 and SS7 also aim to increase sustainable transport use. In addition, the measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	quality, as well as increased pressure for recreation space. In addition, the option allows for the development of the Leominster southern link road, which, dependent on the exact location and the resulting changes in patterns of traffic movements, may result in an adverse impact in terms of air pollution at the River Wye SAC from increased traffic volumes. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect from recreation pressure or air pollution (policies LD2, SS4, LO1 itself and OS1-OS3). The policy allows for the development of up to 2,300 new homes and the resulting increase in demand for water abstraction and treatment may place increased pressure on nearby sites such as the River Wye SAC. However, DCWW confirmed that there are sufficient water resources to meet the increases in demand for water from Herefordshire throughout their operating area and the plan period. Yes in relation to water quality:

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					There is not sufficient existing permitted headroom in the STWs serving Leominster to continue to treat water from all of the new housing provided for in the Core Strategy without affecting water quality in the River Wye SAC. Therefore, a significant effect on the SAC is considered likely and this issue needed to be considered through the Appropriate Assessment stage of the HRA.
LO2 – Leominster Urban Extension	Housing and infrastructure development Development of a southern link road Increase in recreation activities Increase in vehicle traffic Increased water abstraction and treatment	Interruption to hydrological regimes Increased air pollution Physical damage from erosion/trampling	The potential effects of this policy could combine with increased pressure on sewage treatment capacity discharging to the River Wye in association with development planned at Ledbury, Hereford, Bromyard and Rosson-Wye. Impacts associated with increased air pollution and recreation pressure could potentially affect any European sites in and around Herefordshire,	Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are	No in relation to physical loss/damage, air pollution and water quantity: This policy for the urban extension at Leominster makes provision for the development of around 1,500 new homes, but this is focused to the south of Leominster town which is located some distance away from any European sites, therefore physical damage or disturbance from construction is not likely to have a significant effect. By contributing to a general increase in the local population and in local economic activity, this policy could also contribute to an increase in vehicle traffic throughout Herefordshire, which could adversely affect local air

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			although the River Wye SAC is most likely to be affected as it is the closest European site to Leominster.	producing. The specific measures within the individual place-shaping policies including LO2 itself relating to sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. SS4 and SS7 also aims to increase sustainable transport use. In addition, the measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	quality, as well as increased pressure for recreation space. In addition, the option allows for the development of the Leominster southern link road, which, dependent on the exact location and the resulting changes in patterns of traffic movements, may result in an adverse impact in terms of air pollution at the River Wye SAC from increased traffic volumes. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect from recreation pressure or air pollution (policies LD2, SS4, LO2 itself and OS1-OS3). The policy allows for the development of around 1,500 new homes and the resulting increase in demand for water abstraction and treatment may place increased pressure on nearby sites such as the River Wye SAC. However, DCWW confirmed that there are sufficient water resources to meet the increases in demand for water from Herefordshire throughout their operating area and the plan period. Yes in relation to water quality:

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RW1 – Development in Ross on Wye	Housing and infrastructure development Increase in recreation activities Increase in vehicle traffic Increased water abstraction and treatment	Interruption to hydrological regimes Increased air pollution Physical damage from erosion/trampling	Hydrological impacts are most likely to affect the River Wye SAC. The sites most likely to be affected by an increase in recreation activities and/or air pollution in the surrounding area include the Wye Valley Woodlands SAC, the Wye Valley and Forest of Dean Bat Sites SAC.	Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the	There is not sufficient existing permitted headroom in the STWs serving Leominster to continue to treat water from all of the new housing provided for in the Core Strategy without affecting water quality in the River Wye SAC. Therefore, a significant effect on the SAC is considered likely and this issue needed to be considered through the Appropriate Assessment stage of the HRA. No: The policy for Ross-on-Wye provides for the development of around 900 new homes and 10ha of employment land. Some of these new homes will be located in an urban extension to the south east of the town, which is across the other side of the town centre to the River Wye SAC, and the remainder will be provided through existing commitments, infill development and peripheral town sites. Although the main urban area of Ross-on-Wye lies in between the proposed urban extension and the River Wye SAC, and therefore there is unlikely to be a significant effect from direct physical damage or disturbance

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				producing. The specific measures within the individual place-shaping policies including RW1 itself relating to sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. SS4 and SS7 also aims to increase sustainable transport use. Policy RW itself also states that development proposals will be encouraged where they enhance green infrastructure and biodiversity, particularly the River Wye. In addition, the measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	that there may be adverse effects from all of the development proposed in terms of interruption to hydrological regimes at the site e.g. as a result of increased demand for water abstraction and water treatment. However, DCWW confirmed that there are sufficient water resources to meet the increases in demand for water from Herefordshire throughout their operating area and the plan period. DCWW has also confirmed that there is sufficient existing headroom within the STWs serving Ross-on-Wye to meet the planned level of growth without having a significant effect on the River Wye SAC. In addition, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect from recreation pressure (including on bats) or air pollution (policies LD2, SS4, RW1 itself and OS1-OS3).
RW2 – Land at Hildersley	Housing and infrastructure development Increase in recreation	Interruption to hydrological regimes Increased air	Hydrological impacts are most likely to affect the River Wye SAC. The sites most likely	Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the	No: The policy for the urban extension at Ross-on-Wye provides for the development of around 200 new homes. The main urban area of Ross-on-Wye lies in

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	activities Increase in vehicle traffic Increased water abstraction and treatment	pollution Physical damage from erosion/trampling	to be affected by an increase in recreation activities and/or air pollution in the surrounding area include the Wye Valley Woodlands SAC, the Wye Valley and Forest of Dean Bat Sites SAC and Walmore Common SPA and Ramsar site.	water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. The specific measures within the individual place-shaping policies including RW2 itself relating to sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. SS4 and SS7 also aim to increase sustainable transport use. In addition, the measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if	between the proposed urban extension and the River Wye SAC, and therefore there is unlikely to be a significant effect from direct physical damage or disturbance during construction. It is possible that there may be adverse effects from all of the development proposed in terms of interruption to hydrological regimes at the site e.g. as a result of increased demand for water abstraction and water treatment. However, DCWW confirmed that there are sufficient water resources to meet the increases in demand for water from Herefordshire throughout their operating area and the plan period. DCWW has also confirmed that there is sufficient existing headroom within the STWs serving Ross-on-Wye to meet the planned level of growth without having a significant effect on the River Wye SAC. In addition, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect from recreation pressure (including effects on bats) or air pollution (policies LD2, SS4, RW2 itself and OS1-OS3).

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
RA1 – Rural Housing strategy	Housing development Development of supporting infrastructure Increased recreation activities Increased vehicle traffic Increased demand for water abstraction and sewage treatment	Physical damage/disturbance Non-physical disturbance such as noise and light pollution Air pollution Interruption to hydrological regimes	Potentially any sites within and close to Herefordshire may be affected, but effects are more likely to be experienced at the River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands, and Rhos Goch SACs due to their location within or adjoining the County.	appropriately implemented. Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development, including housing. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non- physical disturbance e.g. light pollution affecting bat foraging. The measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented.	No in relation to physical loss/damage, non-physical disturbance, air pollution and water quantity: This policy provides for around 5,300 new dwellings to be provided throughout Herefordshire's rural areas, which could affect European sites both directly as a result of physical disturbance and indirectly throughout noise, vibration, light and air pollution. The general increase in the local population may also result in increased vehicle traffic (particularly as the housing development is to be located in rural areas) and increased pressure for recreation space, water abstraction and water treatment. While the policy sets out housing numbers for each of the rural HMAs in Herefordshire, the exact location of the development is unknown at this stage. It is noted, however, that the housing
			Improved water efficiency measures, metering and addressing leakages in the supply	target for the villages in the Hereford HMA is largest (at 18%) which indicates that the most rural	

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				may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing.	growth is likely to occur in the vicinity of the River Wye SAC. Despite this uncertainty, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2, SD1, SD3, SD4 and OS1-OS3) in relation to physical and non-physical disturbance and air pollution. The policy allows for the development of around 5,300 new homes in the rural areas and the resulting increase in demand for water abstraction and treatment may place increased pressure on nearby sites such as the River Wye SAC. DCWW confirmed that there are sufficient water resources to meet the increases in demand for water from Herefordshire throughout their operating area and the plan period. Yes in relation to water quality: There is not sufficient existing permitted headroom in the STWs serving parts of rural Herefordshire to continue to treat water from all of the new housing provided for in the Core Strategy without affecting water quality in

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
					the River Wye SAC. Therefore, a significant effect on the SAC is considered likely and this issue needed to be considered through the Appropriate Assessment stage of the HRA.
RA2 – Herefordshire's Villages	Housing development Increased recreation activities Increased vehicle traffic Increased demand for water abstraction and sewage treatment	Physical damage/disturbance Non-physical disturbance such as noise and light pollution Air pollution Interruption to hydrological regimes	Potentially any sites within and close to Herefordshire may be affected, but effects are more likely to be experienced at the River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands, and Rhos Goch SACs due to their location within or adjoining the County.	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development, including housing. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non- physical disturbance. The measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented. Improved water efficiency	No in relation to physical loss/damage, non-physical disturbance, air pollution and water quantity: This policy allows for residential development in Herefordshire's villages (to help meet the 5,300 homes in rural areas) in certain circumstances, which could affect European sites both directly as a result of physical disturbance and indirectly throughout noise, vibration, light and air pollution. The general increase in the local population may also result in increased vehicle traffic (particularly as the housing development is to be located in rural areas) and increased pressure for recreation space, water abstraction and water treatment. While the policy sets out housing numbers for each of the rural HMAs in Herefordshire, the exact location of the development is unknown at this stage. Despite

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				measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing.	this uncertainty, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2, SD1, SD3, SD4 and OS1-OS3) in relation to physical and non-physical disturbance and air pollution. The policy allows for the development of around 5,300 new homes in the rural areas and the resulting increase in demand for water abstraction and treatment may place increased pressure on nearby sites such as the River Wye SAC. DCWW confirmed that there are sufficient water resources to meet the increases in demand for water from Herefordshire throughout their operating area and the plan period. Yes in relation to water quality: There is not sufficient existing permitted headroom in the STWs serving parts of rural Herefordshire to continue to treat water from all of the new housing provided for in the Core Strategy without affecting water quality in the River Wye SAC. Therefore, a significant effect on the SAC is

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					considered likely and this issue needed to be considered through the Appropriate Assessment stage of the HRA.
RA3 – Herefordshire's Countryside	N/A	N/A	N/A	N/A	No: This policy sets out criteria for residential development in rural areas, which is proposed under other Rural Areas policies (see above/below). Therefore it doesn't lead directly to development.
RA4 –Agricultural, Forestry and Rural Enterprise Dwellings	N/A	N/A	N/A	N/A	No: This policy sets out criteria for the development of agricultural, forestry and rural enterprise dwellings in rural areas. Any resulting development would be on a very small scale as this policy refers to the development of individual buildings and applies very strict criteria for when and where this would allowed. Policies in the Core Strategy e.g. LD2, SD1 SD3 and SD4 would also apply.
RA5 – Re-Use of Rural Buildings	N/A	N/A	N/A	N/A	No: This policy would not lead to new development; rather it relates to criteria for allowing the re-use of existing buildings. In addition, the re-use of existing buildings may help to avoid the need for new constructions, thereby

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					reducing the potential for new development to affect some European sites. Policies in the Core Strategy e.g. LD2, SD1 SD3 and SD4 would also apply.
RA6 - Rural Economy	Development for economic purposes e.g. employment sites Increase in emissions from employment-related development Increase in vehicle traffic Increase in tourism/recreation activities Increased demand for water abstraction and treatment	Physical disturbance/damage Non-physical disturbance such as noise, vibration and light pollution Interruption to hydrological regimes Air pollution	Potentially any sites within and close to Herefordshire may be affected, but effects are more likely to be experienced at the River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands, and Rhos Goch SACs due to their location within the County.	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development, including housing. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non- physical disturbance. The measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented. Provision of sustainable transport links to and from	No in relation to physical loss/damage, non-physical disturbance, air pollution and water quantity: This policy may lead to employment/economic development, and depending on the nature, size and precise location of this development, which could affect European sites both directly as a result of physical disturbance and indirectly throughout noise, vibration, light and air pollution. In addition, if the policy were to result in an increase in tourism-related activities, this could lead to increased recreation pressures at European sites, as could a general increase in population resulting from enhanced economic activities in the county's rural areas. This population growth may also result in increased demand for water abstraction/treatment and an increase in vehicle traffic. However, sufficient policy safeguards are included within the

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
				employment/business sites. Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing.	Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2, SD1, SD3, SD4 and OS1-OS3) in relation to physical and non-physical disturbance and air pollution. The policy allows for employment development in the rural areas and the resulting increase in demand for water abstraction and treatment may place increased pressure on nearby sites such as the River Wye SAC. DCWW confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period. Yes in relation to water quality: There is not sufficient existing permitted headroom in the STWs serving parts of rural Herefordshire to continue to treat water from all of the new development provided for in the Core Strategy without affecting water quality in the River Wye SAC. Therefore, a significant effect on the SAC is considered likely and this issue needed to be considered through the

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					Appropriate Assessment stage of the HRA.
H1 – Affordable Housing – Thresholds and Targets	N/A	N/A	N/A	N/A	No: The policy would not itself lead to development; instead it relates to criteria for development i.e. the proportion of affordable homes to be provided within overall housing development, the effects of which are assessed separately under other policies.
H2 - Rural Exception Sites	Housing development Increased recreation activities Increased vehicle traffic	Physical disturbance/damage Erosion/trampling Non-physical disturbance such as noise, vibration and light pollution Air pollution	Uncertain at this stage, potentially any sites in and immediately around the County could be affected, depending on the location of rural exception sites.	Core Strategy Policy LD2: Biodiversity and Geodiversity specifically aims help to avoid adverse impacts on European sites from new development, including housing. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non- physical disturbance. The measures included in Core Strategy policies OS1-OS3 relating to open space, sport and	No: The policy allows for small affordable housing schemes in rural areas on land which would not normally be released for housing in certain circumstances, and depending on the nature, size and precise location of this development, which could affect European sites both directly as a result of physical disturbance and indirectly throughout noise, vibration, light and air pollution. In addition, if the policy were to result in an increase in recreation activities, this could lead to increased recreation pressures at European sites. There may also be localised increases demand for water abstraction/treatment and an increase in vehicle traffic. However, the scale and extent of

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				recreation may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented. Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing.	such development is not likely to be significant, and sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2, SD1, SD3, SD4 and OS1-OS3). DCWW confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period. A number of these developments may deal with their waste water via non-mains drainage, and planning applications including non-mains drainage are subject to distance and volume screening criteria by Herefordshire Council (agreed with NE) to ensure no likely significant effect on the River Wye SAC.
H3 – Ensuring a Range and Mix of Housing	N/A	N/A	N/A	N/A	No: The policy would not itself lead to development; instead it relates to criteria for development i.e. the range and mix of housing types and sizes to be provided within overall housing development, the effects of which

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					are assessed under other policies.
H4 - Traveller Sites	Infrastructure development Increased recreation activities	Physical disturbance/damage Erosion/trampling Non-physical disturbance such as noise, vibration and light pollution Air pollution	Potentially any sites within the county may be affected, but more likely to be River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands, and Rhos Goch SACs due to their closer proximity to Hereford, the Market Towns, Rural Service Centres and Hubs, and local centres, (Gypsy and Traveller sites are considered more likely to be allowed within close proximity of these towns and villages as the policy requires them to afford reasonable access to services and facilities).	One of the criteria stipulated within the proposal itself should help to mitigate any increase in pressure for recreation space, as it specifies that sufficient on-site play areas should be provided. The measures included in the policies relating to open space, sport and recreation (OS1-OS3) may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non-physical disturbance.	No: The scale and extent of such development is not likely to be significant, and sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2, SD1 and OS1-OS3, and policy H4 itself).
SC1 – Social and Community Facilities	Development of social and community facilities and infrastructure	Physical disturbance/damage Non-physical disturbance such as noise, vibration and	Potentially any sites within the county may be affected, although the River Wye SAC, Wye Valley & Forest of	Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects	No: The scale and extent of such development is not likely to be significant, and sufficient policy safeguards are included within the Core Strategy to avoid or mitigate

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		light pollution	Dean Bat Sites and Wye Valley Woodlands SACs are particularly likely to be affected due to their proximity to Hereford and the market towns where most development is expected to occur.	during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non-physical disturbance.	a likely significant effect on any European site (policies LD2, SD1 and OS1-OS3).
OS1 – Requirement for Open Space, Sports and Recreation Facilities	N/A	N/A	N/A	This policy may itself help to mitigate the potential impacts of other Core Strategy policies on European sites as a result of increased pressure for recreation space.	No: The policy aims to enhance open space within Herefordshire, which could potentially benefit biodiversity, including at European sites. This may help to mitigate the potential adverse impacts of other Core Strategy policies in relation to increased pressure for recreation space.
OS2 – Meeting Open Space, Sports and Recreation Needs	Development of new sport and recreation facilities	Physical disturbance/damage Non-physical disturbance such as noise, vibration and light pollution	Potentially any sites within the county may be affected, but more likely to be River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands SACs due to their proximity to Hereford and the Market Towns, which are where the provision of sports	Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to nonphysical disturbance. The part of this policy relating to the provision of open space may	No: The scale and extent of such development is not likely to be significant, and sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2, SD1 and OS1-OS3).

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			and recreation facilities is likely to be focused.	help to mitigate the potential impacts of other Core Strategy policies on European sites as a result of increased pressure for recreation space.	
OS3 – Loss of Open Space, Sports or Recreation Facilities	N/A	N/A	N/A	N/A	No: The proposal itself will not lead to new development.
MT1 - Traffic Management, Highway Safety and Promoting Active Travel	Development of transport infrastructure.	Physical disturbance/damage Non-physical disturbance such as noise, vibration and light pollution	Potentially any European sites in and around the County could be affected depending on the location of transport infrastructure to be provided, but more likely to be River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands SACs due to their proximity to Hereford and the Market Towns, which are where a large proportion of the resulting development is likely to be focused.	Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non-physical disturbance. The measures in this policy to promote sustainable transport provision and use could help to mitigate the potential adverse impacts of other Core Strategy policies in relation to increased vehicle traffic and the resulting noise and air pollution.	No: This policy could result in the development of transport infrastructure, which could have adverse effects on European sites (e.g. as a result of physical damage or non-physical disturbance) depending on its location. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2, SD1 and MT1 itself).
E1 –Employment Provision	Increase in recreation	Physical disturbance/damage	Potentially any sites within the county may	The measures included in the policies relating to open space,	No: The policy seeks to focus larger-scale employment

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	Increase in vehicle traffic Increased water abstraction and treatment Increase in emissions from development	Air pollution Interruption to hydrological regimes	be affected, but more likely to be River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands SACs due to their proximity to Hereford and the Market Towns, which are where a large proportion of employment development is likely to be focused.	sport and recreation (OS1-OS3) may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented. Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The	development within urban areas, therefore is generally likely to direct this type of development away from sensitive European sites. However, an increase in economic activities within the County in general is likely to result in an increase in vehicle movements (including near to sensitive sites) and a general increase in population as employment opportunities become more readily available, bringing with it associated pressures e.g. for recreation space and for water supply and treatment, and a further increase in vehicle movements. Despite this, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2, SD1, SD3, SD4).

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				Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to nonphysical disturbance.	
E2 – Redevelopment of Employment Land and Buildings	N/A	N/A	N/A	N/A	No: This policy will not itself result in new development; rather it relates to safeguarding existing employment land.
E3 – Home Working	N/A	N/A	N/A	This policy may help to mitigate the potential impacts of other Core Strategy policies in relation to increased vehicle traffic, by reducing the extent to which people need to travel for work.	No: This policy will not relate to new development, rather it relates to the change of use of parts of existing residential properties in order to allow for home working. This may have positive effects on reducing vehicle traffic in Herefordshire and the associated potential impacts on European sites.
E4 - Tourism	Increase in recreation pressure Increase in vehicle traffic Increased water abstraction and demand for water treatment	Physical disturbance/damage Air pollution Interruption to hydrological regimes	Potentially any sites within the county may be affected, but more likely to be River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands SACs due to their proximity to Hereford and the Market Towns, which are where a large	The measures included in the policies relating to open space, sport and recreation (OS1-OS3) may help to relieve any increase in pressure on European sites for recreation space, if appropriately implemented. Improved water efficiency measures, metering and addressing leakages in the supply may help to mitigate any additional pressure placed on the	No – the policy emphasises the importance of environmental protection. While an increase in tourism activities in Herefordshire could lead to an increase in visitor pressure at sensitive European sites, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2, SD1, SD3, SD4). In addition, DCWW

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
			proportion of the resulting development is likely to be focused.	water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Wastewater Treatment and River Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to non-physical disturbance.	confirmed that there are sufficient water resources to meet the increases in demand from Herefordshire throughout their operating area and the plan period.
E5 – Town Centres	N/A for most town centres. For Hereford and Ross-on-Wye:	N/A for most town centres. For Hereford and Ross-on-Wye:	N/A for most town centres. For Hereford and Ross-on-Wye:	N/A for most town centres. For Hereford and Ross-on-Wye: Improved water efficiency measures, metering and	No: This policy aims to focus retail, commercial, leisure, cultural and tourism development within existing town centres; which are generally distant from sensitive

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
	Retail, commercial, leisure, cultural and tourism development. Increase in recreation activities Increase in vehicle traffic Increased water abstraction and treatment	Non-physical disturbance during construction. Interruption to hydrological regimes Increased air pollution Physical damage from erosion/trampling	River Wye SAC	addressing leakages in the supply may help to mitigate any additional pressure placed on the water supply as a result of new development. The implementation of Core Strategy policies SD3: Sustainable Water Management and Water Resources and SD4: Water Quality should help to avoid adverse impacts in relation to hydrological regimes at European sites. Water quality in the River Wye SAC is also specifically addressed through the Nutrient Management Plan that Natural England and the Environment Agency are producing. The specific measures within the individual place-shaping policies including RW1 relating to sustainable transport and green infrastructure provision should help to avoid adverse impacts relating to increased vehicle traffic and recreation pressure. SS4 also aims to increase sustainable transport use. In addition, the measures included in Core Strategy policies OS1-OS3 relating to open space, sport and recreation may help to relieve any increase in pressure on European	European sites. In addition, the policy states that the use of upper floors within town centres for residential and office uses will be supported, which means that less greenfield land will be used (so reducing likelihood of impacts from physical loss/damage) and also that construction of new development within the town centre is not likely to be at a scale that would have a significant effect. Any potential effects that might arise from development within Hereford or Ross-on-Wye town centre on the River Wye SAC will be sufficiently mitigated by policies LD2, SD1, SD3, SD4. SS4, RW1 and OS1-OS3.

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Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
				sites for recreation space, if appropriately implemented.	
E6 - Primary and Secondary Shopping Frontages	N/A	N/A	N/A	N/A	No: This policy will not lead to new development; rather it relates to the use of existing retail developments.
LD1 – Landscape and Townscape	N/A	N/A	N/A	N/A	No: This policy will not lead to new development; rather it aims to ensure that development proposed under other policies will conserve and enhance Herefordshire's landscape and townscape.
LD2 – Biodiversity and Geodiversity	N/A	N/A	N/A	The measures in this proposal to conserve and enhance biodiversity at European designated sites should help to provide mitigation against the potential adverse impacts of other Core Strategy policies.	No: This policy will not lead to new development; rather it specifically aims to ensure that development proposed under other policies will conserve, restore and enhance local biodiversity, with specific reference to habitats, networks and species of European importance. As such, this policy could help to provide mitigation against the potential impacts of other Core Strategy policies.
LD3 – Green Infrastructure	N/A	N/A	N/A	The measures in this proposal to provide for green infrastructure within new developments should help to provide mitigation against the potential adverse impacts of	No: This policy will not lead to new development; rather it encourages new development to provide for new green infrastructure. This could benefit biodiversity,

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
				other Core Strategy policies in relation to increased pressure for recreation space.	including that at and connected with European sites, by increasing habitat connectivity and reducing fragmentation.
LD4- Historic Environment and Heritage Assets	N/A	N/A	N/A	N/A	No: This policy will not lead to new development; rather it aims to ensure that development proposed under other policies will conserve and enhance local heritage assets,
SD1 – Sustainable Design and Energy Efficiency	N/A	N/A	N/A	This policy should help to mitigate potential adverse effects of future development on designated sites, by ensuring that development is undertaken as sustainably as possible.	No: The proposal will not itself lead to development, instead it relates to criteria for development. In addition, the proposal includes measures aiming to protect the environment, e.g. reducing pollution, which could benefit biodiversity including that at and connected with European sites.
SD2 – Renewable Energy	Development of renewable energy infrastructure	Physical damage/disturbance Plus non-physical damage	Potentially any sites within the county may be affected, but more likely to be River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands SACs due to their proximity to Hereford and the Market Towns, which are where a large	Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to nonphysical disturbance. The policy itself states that	No: This policy could result in the development of renewable energy infrastructure which could potentially affect European sites, depending in its location. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2, SS4, SD1 and policy SD2 itself).

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
			proportion of development is likely to be focused.	proposals for renewable energy development must not adversely impact upon the objectives of international designations for the conservation of the natural environment (which includes European sites).	
SD3 - Sustainable Water Management and Water Resources	N/A	N/A	N/A	This policy should help to mitigate potential adverse effects of future development from other Core Strategy policies on designated sites in relation to increased demand for water abstraction and sewage treatment.	No: The policy will not itself lead to development, instead it relates to criteria for development. In addition, the proposal specifically aims to ensure that new development does not have an adverse impact on the water environment which should benefit European sites that are dependent on water quality/quantity. The policy makes specific reference to the potential biodiversity benefits of conserving and enhancing the water environment.
SD4 – Wastewater Treatment and River Water Quality	N/A	N/A	N/A	This policy should help to mitigate potential adverse effects of future development from other Core Strategy policies on designated sites in relation to water quality.	No: The policy will not itself lead to development, instead it relates to criteria for development. In addition, the proposal specifically aims to ensure that new development does not have an adverse impact on water quality which should benefit European sites that are dependent on water quality. The policy makes specific

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
					reference to the need to protect SACs from deterioration in water quality and requires proposals for non-mains connected development to demonstrate that there will be no adverse impacts on the River Wye or River Clun SACs.
M1 - Minerals Safeguarding Areas	N/A	N/A	N/A	N/A	No: The proposal itself would not lead to development; rather it aims to restrict development in areas where this could lead to the sterilisation of minerals resources.
M2 - Annual Apportionments for Aggregate Provision	N/A	N/A	N/A	N/A	No: The proposal will not itself lead to development.
M3 - Criteria for the Assessment of Minerals Related Development	N/A	N/A	N/A	This policy should help to mitigate potential adverse effects from minerals development on European sites.	No: The proposal will not lead to development; rather it sets out criteria for the assessment of minerals-related development, and includes specific criteria aiming to protect biodiversity, especially at the River Wye SAC, from the potential impacts of minerals developments.
M4 - Small-Scale Non- Aggregate Building Stone and Clay Production	N/A	N/A	N/A	N/A	No: The proposal will not itself lead to development; rather it sets out criteria for small-scale nonaggregate building stone and clay production. It includes specific

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
					reference to the potential to restore extraction sites for biodiversity benefits.
M5 - Secondary (Re- Used and Recycled) Aggregates	N/A	N/A	N/A	N/A	No: The proposal will not itself lead to development; rather it sets out criteria for secondary aggregate production. It includes specific reference to the protection of the River Wye SAC from the potential impacts of proposals for the production, import, processing, treatment and storage of secondary aggregates,
M6 – Moreton on Lugg Railhead	N/A	N/A	N/A	N/A	No: The proposal will not itself lead to development; rather it relates to the continued use of this existing railhead.
W1 – Waste Streams and Targets	Development of waste management facilities Increase in emissions from waste facilities	Physical disturbance/damage Non-physical disturbance such as noise, vibration and light pollution Air pollution	Potentially any sites within the county may be affected, but more likely to be River Wye SAC, Wye Valley & Forest of Dean Bat Sites and Wye Valley Woodlands SACs due to their proximity to Hereford and the Market Towns, which are where the provision of waste	Good practice construction techniques including noise suppression measures, hours of operation etc. may help to mitigate potential adverse effects during construction. The measures included in policy SD1: Sustainable Design and Energy Efficiency should help to mitigate potential impacts relating to nonphysical disturbance.	No: The policy may lead to the construction of new waste management facilities, particularly in and around Hereford and the Market towns, although the likely impacts of this are unknown without precise information about the type, scale and location of such facilities, which would only be available as planning applications come forward. The development of new waste facilities may result in localised air

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
			management facilities is likely to be focused.		pollution if the facilities incorporate thermal treatment. However, sufficient policy safeguards are included within the Core Strategy to avoid or mitigate a likely significant effect on any European site (policies LD2 and SD1).
W2 - Location of New Waste Facilities	N/A	N/A	N/A	This policy should help to mitigate potential effects from waste development on designated sites.	No: The proposal will not itself lead to development; in addition it includes measures aiming to protect the natural environment.
W3 - Existing and Permitted Waste Treatment Sites	N/A	N/A	N/A	N/A	No: The proposal will not itself lead to development; rather it relates to the retention of existing waste management sites.
W4- Technologies for Biological Treatment of Waste	N/A	N/A	N/A	N/A	No: The proposal will not itself lead to development; rather it encourages the use of anaerobic digesters for both large and small-scale waste management proposals.
W5 – Waste Minimisation and Management in New Developments	N/A	N/A	N/A	N/A	No: The proposal will not itself lead to development; rather it aims to ensure that development proposed under other Core Strategy policies will minimise and effectively manage waste generation.

Pre-Submission Herefordshire Core Strategy Policy	Likely activities (operations) to result as a consequence of the policy	Likely effects if policy implemented	European site(s) potentially affected	Potential mitigation measures – if implemented would avoid likely significant effect	Could the policy have likely significant effects on European sites (taking mitigation into account)?
ID1 – Infrastructure Delivery	N/A	N/A	N/A	N/A	No: The policy will not itself lead to development, instead it relates to criteria for how development will be funded, where the development would be required as a result of other policies.

Appendix 2

Review of neighbouring plans for potential incombination effects

Neighbouring Local Plans

Forest of Dean Core Strategy: Adopted Version (2012)

Forest of Dean District lies to the south east of Herefordshire.

Housing: The Core Strategy sets out housing allocations for the settlements within the Forest of Dean up to 2026 as follows:

- Cinderford and Ruspidge Urban Area around 1,050 new homes
- Lydney around 1,900 new homes
- Coleford (includes Milkwall, Coalway, Mile End, Berry Hill) around 650 new homes
- Newent around 350 new homes
- Tutshill and Sedbury around 111 new homes
- Bream around 100 new homes
- Drybrook around 100 new homes
- Mitcheldean around 101 new homes
- Newnham around 65 new homes
- Whitecroft-Pillowell-Yorkley around 45 new homes
- Lydbrook-Joys Green around 82 new homes
- Other villages and rural around 608 new homes

Priority will be given to development on previously developed land and on sites identified for housing in the development plan. No new greenfield sites will be released unless it can be proven that land is not available from other sources and is needed to meet the plan's requirements.

Employment: The Core Strategy sets out employment land allocations for the settlements within the Forest of Dean as follows:

- Cinderford around 26ha
- Lydney around 30ha
- Coleford around 6.8ha
- Newent around 5ha
- Villages intensification, redevelopment and diversification will be supported on sites that are well linked to settlements and services.

HRA Findings: HRA for the adopted Core Strategy was undertaken and is reported in Appendix 10 of the SA Report for the Adopted Core Strategy (February 2012). The HRA screening concluded that the Core Strategy will not result in any significant negative impacts on identified sites, although there will be a need for HRA Screening, with the possibility of an Appropriate Assessment requirements, at later stages of the planning processes, when development proposals are more detailed. The HRA considered the potential for in-combination effects to arise from the Forest of Dean Core Strategy along with other plans and strategies, and there were three plans where the potential impacts were uncertain (West of England Joint Waste Strategy, Shoreline Management Plan and a New Nuclear power station at Oldbury). In these cases it was concluded that there was insufficient detail at this stage to assess, with any degree of accuracy, the potential impacts and that proposals will need to assess their in-combination effects with the Core Strategy at their appropriate decision making stages.

South Worcestershire Development Plan: Proposed Submission Document (January 2013) incorporating changes (May 2013)

The South Worcestershire Development Plan was submitted and subject to initial examination hearings in October 2013. The Inspector at that time stated that the number of homes required is likely to be substantially higher than the 23,200 figure in the submitted Plan. He asked the councils to supply

further information, and they have now examined updated estimates on likely economic growth and job creation across South Worcestershire up to 2030. In their submission to the Inspector, the councils have suggested a revised housing requirement of between 26,700 and 27,300, based on this latest evidence. At the hearings in March 2014, the Inspector will consider if this should be the final housing number that will be included in the completed Plan. The figures set out below may therefore change before the Plan is adopted.

Malvern Hills District lies to the east of Herefordshire. The Development Plan DPD has been prepared jointly with the two other South Worcestershire authorities, Worcester City and Wychavon (neither of which adjoin Herefordshire).

Housing: The Development Plan DPD makes provision for 23,200 dwellings (net) during the plan period, to be distributed as follows:

- Malvern Hills (excluding the Wider Worcester Area) 4,900
- Wychavon (excluding the Wider Worcester Area) 8,900
- Wider Worcester Area 9,400

Employment: The Core Strategy makes provision for about 280ha of employment land during the plan period, to be distributed as follows:

- Malvern Hills (excluding the Wider Worcester Area) 40ha
- Wychavon (excluding the Wider Worcester Area) 120ha
- Wider Worcester Area 120ha

HRA Findings: The HRA (Appropriate Assessment) Report for the South Worcestershire Development Plan Pre-Submission Consultation (November 2012) sets out the findings of both the screening and Appropriate Assessment stages of the HRA. The screening assessment concluded that there was uncertainty with regard to the potential for significant effects on Bredon Hill SAC and Lyppard Grange SAC as a result of increased disturbance, in particular from increased recreational activity. The screening assessment also identified uncertainty with regard to the potential for significant incombination effects on seven European sites as a result of changes water levels and five European sites as a result of changes to water quality. Based on the precautionary approach these issues were progressed through to the AA stage to be considered in more detail. The AA considered the potential for the SWDP to have adverse effects on the integrity of identified European sites through increased disturbance (recreational activity) and reduced water levels and quality. It concluded that the likelihood of proposed development increasing the number of people using Lyppard Grange Ponds SAC is minimal especially given the much larger areas of open space available for recreation within approximately 300 meters of the site. It therefore concluded that the SWDP will not have adverse effects on the integrity of the Lyppard Grange Ponds SAC through increased disturbance. Considering the location and size of proposed development in relation to Bredon Hill SAC and that recreational activity is not an issue at the site, the AA also concluded that the SWDP will not have adverse effects on the integrity of the SAC either alone or in combination through increased disturbance.

The AA found that the mitigation provided by Pre-Submission policies and current regulatory processes (EA Review of Consents) would ensure that the potential impacts of proposed development on the water environment would be minimised. It was concluded that the SWDP will not have adverse in combination effects on the integrity of the identified European sites through reduced water levels or water quality.

Shropshire Core Strategy: Adopted Version (2011)

Shropshire lies to the north of Herefordshire.

Housing: The Core Strategy sets out how housing development within the county will be phased as follows:

- 2006-2011 1,190 dwellings per annum
- 2011-2016 1,390 dwellings per annum
- 2016-2021 1,390 dwellings per annum

2021-2026 - 1,530 dwellings per annum

Overall, around 27,500 new homes will be delivered up to 2026, and they will be distributed as follows:

- Central Shropshire 8,250–8,800 dwellings.
- North West Shropshire 5,775-6,325 dwellings.
- North East Shropshire 5,500-6,050 dwellings.
- South Shropshire 3,575-4,125 dwellings.
- East Shropshire 3,025–3,575 dwellings together with additional housing provision of up to 1,000 dwellings, if required, for returning military personnel.

Employment: The Core Strategy states that up to 290 hectares of employment land will be provided in Shropshire up to 2026, to be distributed as follows.

- Central Shropshire 95-105 hectares employment land, of which 85 95 hectares will be in Shrewsbury.
- North West Shropshire 55-65ha.
- North East Shropshire 50-60ha.
- South Shropshire 35-45ha.
- East Shropshire 30-40ha.

HRA Findings: The February 2010 Stage 2 Habitats Regulations Assessment Report for the Shropshire Core Strategy found that the Core Strategy was not likely to have a significant effect on any of the European sites in the county, provided that adequate HRA work is carried out in relation to the Site Allocations and Management of Development DPD. A number of the Core Strategy policies propose development which has the potential to affect European sites; however the precise location will be determined through the Site Allocations DPD, therefore it was considered to be more appropriate to carry out the full Appropriate Assessment in relation to this development through the HRA of the Site Allocations DPD.

Now that the Core Strategy has been adopted, the Site Allocations and Management of Development (SAMDev) Plan is being progressed and a Stage 3 Habitats Regulations Assessment Report (January 2013) has now been produced in relation to the Draft Consultation Document. That HRA Report has concluded that while six of the SAMDev Draft Development Management Policies could be screened out of the HRA process and do not require further consideration in lower tier plans, 10 of the SAMDev Draft Development Management Policies have been identified as Code C (meaning that they are elements of the plan/options that could or would be likely to have a significant effect alone and will require the plan to be subject to an Appropriate Assessment before the plan may be adopted). However, all 10 policies meet the three criteria for the HRA decision to be passed down to lower tier document. The HRA of the Site Allocation and Management of Development Local Plan Document known as SAMDev Draft Development Management Policies therefore showed no likely significant effects on any European Sites provided that HRA decisions for 10 of the draft policies are passed down to the next tier of the plan-making process or in some cases to planning application stage.

Monmouthshire Local Development Plan: Composite version (February 2014) incorporating Focussed Changes, Minor Changes, Matters Arising Changes and the Inspector's Changes

Monmouthshire lies to the south west of Herefordshire.

Housing: The LDP sets out the spatial approach that is being taken to housing provision in Monmouthshire, with the main focus for new housing development being within or adjoining the Main Towns of Abergavenny, Chepstow and Monmouth. A smaller amount of new housing development is provided in the Severnside sub-region, particularly at Magor/Undy and Caldicot/Portskewett. A small amount of new housing development is also directed to the Rural Secondary Settlements of Usk, Raglan and Penperlleni. Provision will be made to meet a need for around 4,500 residential units in the plan period 2011-2021, to be distributed as follows:

• Abergavenny - 566 new homes

- Chepstow 675 new homes
- Monmouth 825 new homes
- Caldicot 210 new homes
- Portskewett 325 new homes
- Magor/Undy 631 new homes
- Caerwent 152 new homes
- Rogiet 53 new homes
- Sudbrook 244 new homes
- Usk 53 new homes
- Raglan 75 new homes
- Penperlleni 122 new homes
- Llanfoist 245 new homes

Seven strategic housing sites are identified at Abergavenny (Deri Road, Mardy), Caldicot/Portskewett (Crick Road, Portskewett), Chepstow (Land at Fairfield Mabey, Chepstow), Monmouth (Land at Wonastow Road, Monmouth), Magor/Undy (Rockfield Farm, Undy and Land at Vinegar Hill, Undy) and Sudbrook (Former Paper Mill, Sudbrook).

Employment: The Draft Deposit LDP makes provision for employment land including:

- 37ha at Magor suitable for employment development of regional or sub regional significance.
- Around 5-6ha at each of the Main Towns of Abergavenny (Llanfoist), Chepstow and Monmouth.

HRA Findings: The October 2012 HRA Report for the LDP describes the screening and Appropriate Assessment work that was undertaken. The screening assessment concluded that the Deposit LDP (including site allocations) would not have likely significant effects alone on European sites, if the recommended policy safeguards are incorporated into the Plan. These changes were incorporated into the LDP, and the SA and HRA Changes Log recognised this and reached a final conclusion of no likely significant effects on European sites.

The screening work identified four main areas of impact arising that may have the potential for significant in combination effects on the integrity of the identified European sites: water resources, water quality, disturbance (including habitat loss and fragmentation) and air quality. These issues were taken forward into the AA and considered in further detail. The AA assessed that there is uncertainty with regard to the potential adverse impacts of the LDP acting in combination with surrounding plans and projects. To address this uncertainty the AA proposed a number of mitigation measures, including recommendations to strengthen the mitigation provided by certain LDP policies. The AA concluded that the LDP will not have adverse effects on the integrity of European sites as the recommended mitigation measures have been incorporated into the Plan.

The AA conclusions were revisited in the **February 2014 HRA Addendum**, which took into account the changes made in the final version of the LDP. It did not change the conclusions of the 2012 HRA Report and **concluded that the LDP will still not have adverse effects on the integrity of European sites**.

Powys Local Development Plan 2011-2026: Preferred Strategy (March 2012)

Powys lies to the west of Herefordshire.

Housing: The Preferred Strategy sets out a preferred option for housing growth which would see the development of 7,700 new homes over the Plan period, to be phased as follows:

- 2011-2016 1,925 new homes
- 2016-2021 2,849 new homes
- 2021-2026 2,926 new homes

Employment: The preferred option for employment land provision is for the provision of 42ha of land over the Plan period, which equates to 2.8ha per annum.

The preferred spatial option for the distribution of new development in Powys is a settlement hierarchy based on levels of service provision and size of settlement (population) subject to environmental and infrastructure capacity. Higher levels of growth should be directed to those settlements along a central growth corridor in accordance with the Settlement Hierarchy.

HRA Findings: The Draft HRA Report for the Pre-Deposit Proposals (March 2012) took a precautionary approach and highlighted the potential for Powys' LDP to adversely affect the integrity of 28 European Sites, either alone or in-combination with other plans or projects. However, due to the early stage of the Plan, these effects were uncertain in all cases. The screening process also highlighted the potential for in-combination effects with other plans, including from Herefordshire's Core Strategy in relation to pollution from adjacent road drains/houses/chemicals, development (engineering/contamination) and recreation and leisure. In order to ensure that Powys' LDP does not have a significant negative effect, detailed policies need to be developed to mitigate the 'in-combination' effect of development on the identified sites. The deposit proposals will be assessed and if necessary AA will be undertaken to inform the deposit plan, which is currently due to be consulted on in June 2014.

Brecon Beacons Local Development Plan: Adopted version (December 2013)

The Brecon Beacons National Park lies to the west of Herefordshire.

Housing: The LDP has identified a supply of land to provide an estimated 2,045 dwellings over the LDP period. Land is allocated for 960 dwellings with 96 to be provided at Brecon, 102 at the key settlements (Crickhowell, Hay-on-Wye and Talgarth), 234 at the Level 3 settlements (Bwlch, Gilwern, Libanus, Llanbedr, Llanigon, Llanspyddid and Pennorth). A further 70 will be provided at a site near Glangrwyney.

Employment: The identified requirement for employment land within the Brecon Beacons National Park over the LDP period is 1.5ha. This requirement is to be met through the development of employment and mixed use allocations for B Class purposes. A number of employment site allocations are made at Brecon and Talgarth as well as two existing brownfield sites.

HRA Findings: The Sustainability Appraisal Report for the LDP (November 2013) includes a section describing the work that has been undertaken on the Habitats Regulations Assessment throughout the preparation of the LDP and states that the screening exercise concluded that there would be no likely significant effects on European sites. **Therefore, in-combination effects with the Herefordshire Core Strategy are not considered likely.**

Appendix 3

Consultation responses from NE and NRW on 2013 HRA Report, and NE on May 2014 HRA Report

Table 1: Responses relating to the Habitats Regulations Assessment Report for the Draft Core Strategy (March 2013)

Consultee	Response	Action/Justification					
General Comment	General Comments						
Natural Resources Wales	These comments are limited to those interventions and sites which lie wholly or partly within Wales and do not cover the sites which lie entirely within England. They should therefore be read in conjunction with comments from Natural England as the issues they raise may be relevant to the assessment as a whole.	Noted. Natural England's comments have also been reviewed as described in this table. No further actions are required in relation to the HRA Report.					
Natural Resources Wales	NRW welcomes this Habitats Regulations Assessment (HRA) of the Herefordshire Core Strategy and the continuing commitment to the HRA process; our detailed comments on the assessment are included in appendix 1. In general, we agree with the assessment conclusions and welcome the commitment to developing a Nutrient Management Plan to address potential water quality impacts (notably relating to dissolved phosphorus concentrations) which could result from the development proposed in the Plan on the River Wye SAC. While these issues are only relevant to a relatively short section to the lower River within Wales, NRW strongly support the catchment based approach taken and would welcome further engagement in the development of the Plan where it applies to the areas of the upper catchment that lie within Wales. NRW also notes and welcomes that several policies have been amended and strengthened as a consequence of previous assessments and consultations (particularly policy LD3) in order to mitigate for any potential adverse effects that could occur as a result of implementing the Core Strategy.	No further actions are required in relation to the HRA Report.					
Screening Method	ology						
Natural Resources Wales	2.8: We note the 5 Welsh sites screened out of the assessment and agree that these are unlikely to be significantly affected by the Herefordshire Core Strategy for the reasons identified in section 2.9. We welcome the precautionary approach taken to assessing potential 'in combination' effects with other plans and projects resulting from recreation, air pollution	Noted. No further actions are required in relation to the HRA Report.					

Consultee	Response	Action/Justification
	and changes in hydrology.	
Natural Resources Wales	2.22: We welcome that the most recent Dŵr Cymru Welsh Water (DCWW) draft Water Resources Management Plan (WRMP) has been used in the assessment process and that this has taken into account the Environment Agency's Review of Consents process and the likely housing growth forecast for the Herefordshire area. We also note and welcome that a Water Cycle Study has been carried out and that DCWW have given reassurances that there is sufficient water available to accommodate the proposed growth in the Hereford Cores Strategy for the life of the Plan. We therefore, agree with the conclusion that there will be no likely significant effect. However, given that a revised WRMP is currently being produced for consultation in the near future, we also welcome the commitment to monitor any changes in water availability in the Annual Monitoring Report and review the relevant Core Strategy policies to ensure any risk of potential impacts on any European protected sites is avoided.	Noted. No further actions are required in relation to the HRA Report.
Natural Resources Wales	2.35 - 2.41: Physical loss/damage to habitat . We note the 3 cross-border sites (River Wye, Wye Valley Woodlands and Wye Valley and Forest of Dean Bat Sites) identified as having the potential to be affected by physical habitat loss and the possible implications for mobile species features of these sites. The majority of the identified policies and allocations are only likely to directly impact on areas within Herefordshire (such as the Hereford Relief Road) and are unlikely to have any additional impacts on the conservation objectives or populations for the Welsh elements of the sites, over and above those already identified within the Plan area. Therefore, we have no additional comments to those made by Natural England, other than to note and welcome that additional mitigation measures included in the Core Strategy including the need for detailed HRA for specific schemes.	Noted. No further actions are required in relation to the HRA Report.
Natural Resources Wales	2.42 – 2.54: Noise, vibration and light: We welcome the precautionary approach taken to the assessment of potential impacts on the mobile species features of the three crossborder sites as a result of noise, vibration and light. NRW are of the opinion that there are unlikely to be any additional impacts on the Welsh populations of these features over and above those already assessed and addressed in the report. We particularly	Noted. No further actions are required in relation to the HRA Report.

Consultee	Response	Action/Justification
	welcome the use of 10km area of search for identifying potential impacts on bat features, the additions to policies RW2 and HD5 in relation to avoiding potential impacts on shad migration associated with vibration and the need for additional more detailed assessment for schemes such as the Hereford Relief Road. We therefore agree with the assessment conclusions in relation to Wales, subject to any comments that Natural England may have on these issues.	
Natural Resources Wales	2.55 – 2.67: Air pollution . We welcome the precautionary approach taken to assessing potential air quality impacts on the Usk Bat Sites and Wye Valley Woodlands sites and largely agree with the conclusion that this is unlikely to be significant, particularly when including the potential mitigating effects of the sustainable transport and other air quality improvement policies in the Plan. However, we acknowledge that there is a degree of uncertainty over both predicted traffic increases and the location and operation of agricultural and waste facilities, therefore, we welcome that this will be reviewed when more detail is available and, where required, project level assessment will be carried out and any additional mitigation identified.	Noted. No further actions are required in relation to the HRA Report.
Natural England	Air quality The assumption [in para. 2.59] that only roads forming part of the primary road network would be likely to experience any significant increases in vehicle traffic as a result of development is a very large assumption, especially considering that some European sites in the plan area are currently exceeding their critical loads / levels. Further assurance is sought around the potential for significant increases in vehicle traffic along smaller roads in close proximity to European sites exceeding their critical loads / levels.	Noted. The wording of paragraph 2.59 in the 2013 HRA Report may not have been completely clear. The assumption was that it is unlikely that minor roads would experience increases in annual average daily traffic flows (AADT) of greater than 1,000 (which is the threshold in the Design Manual for Roads and Bridges (DMRB) above which significant effects from traffic-related air pollution could be experienced). This assumption was made in the absence of any County wide traffic forecast model that includes all roads in the County. There is no data forecasting what traffic flows may be at the end of the Local Plan period versus the current baseline flows for all roads in the County. However, data from the Department for Transport website has been reviewed and described in paragraphs 2.63-2.64 of this report and it is considered reasonable to keep this assumption in the

Consultee	Response	Action/Justification
		2014 HRA Report.
Natural England	Air quality Paragraph 2.56 is somewhat confusing. It is not clear what 1% is a threshold of.	Noted. This reference was unclear and has been removed in the 2014 HRA Report.
Natural England	Air quality We recommend changing the wording in paragraph 2.57, to better reflect the wording in the DMRB: 2.57 Based on the Highways Agency Design for Road and Bridges (DMRB) Manual Volume 11, Section 3, Part 1, it is assumed that air pollution from roads is more-unlikely to be significant up to beyond 200m from the road itself.	Noted. The wording of this paragraph has been updated in the 2014 HRA Report.
Natural England	 Air quality Under paragraph 2.58, the following bullet point from the DMRB has been missed. We advise adding it, as it could be relevant: Road alignment will change by 5 m or more 	Noted. It is acknowledged that the bullet point may be relevant and has been included in the 2014 HRA Report.
Natural England	Air quality The reference to 'levels listed above' in paragraph 2.62 is somewhat confusing. There are no levels listed above.	Noted. Paragraph 2.62 referred to the DMRB traffic levels listed previously in the section at paragraph 2.58. However, this has been clarified in the 2014 HRA Report.
Natural Resources Wales	2.68 – 2.70: Recreation and 'urban' impacts . We agree with the conclusion that the development set out in the Hereford Core Strategy is unlikely to lead to any significant effects as a result of increases in recreational pressure, disturbance or 'urban' impacts on Welsh sites.	Noted. No further actions are required in relation to the HRA Report.
Natural Resources Wales	2.71 – 2.73: Changes in water quantity (see comments on section 2.22).	Noted. No further actions are required in relation to the HRA Report.
Natural Resources	2.74 – 2.83: Water pollution. We note the issues surrounding water	Noted.

Consultee	Response	Action/Justification	
Wales	quality in the lower Wye and the potential impact on phosphorus levels if all available licensed headroom were taken up by new development. While we accept that this is not a significant issue for the River Usk SAC or the Welsh stretches of the upper Wye, we welcome the precautionary approach that has been adopted in taking this forward for appropriate assessment, and the commitment to producing a Nutrient Management Plan (NMP) to address the shortfalls in environmental capacity identified. We also note and welcome the proposed mitigation measures identified to prevent any likely significant effects occurring as a result of the Hereford Relief Road proposals, and the need for these to be tied to the more detailed project level assessments.	No further actions are required in relation to the HRA Report.	
Screening Conclusion			
Natural Resources Wales	3.9 - 3.11: Potential 'in combination' effects . We welcome the detailed and thorough assessment of potential 'in combination' effects with surrounding land management plans and agree with the conclusion of no likely significant effects, providing the mitigation measures are implemented as identified.	Noted. No further actions are required in relation to the HRA Report.	
Appropriate Asses	sment		
Natural Resources Wales	See comments on section 2.74 – 2.83. We note that, with the exception of the Afon Llynfi, the upper sections of the River Wye SAC are currently meeting their conservation objectives as set out in the Core Management Plan with respect to phosphorus levels and are unlikely to be affected by proposals in the Hereford Core Strategy. However, NRW welcome the approach being adopted and look forward to working with all the partners in the development of the Nutrient Management Plan. We would, however, also support any comments that Natural England may have in relation to the assessment conclusions for the lower Wye and on the integrity of the site as a whole, particularly in relation to further clarification of mitigation measures such as the phasing of development.	Noted. No further actions are required in relation to the HRA Report.	
Conclusions			
Natural England	Further work	Noted.	

Consultee	Response	Action/Justification
	 We note the requirement for further work to inform the submission draft Core Strategy, specifically: Analysis of whether there would be an increase in traffic along the A456, A40 and A466, and whether this would result in adverse effects on the Usk Bat SAC and Wye Valley Woodlands SAC (recommended in the HRA); Further assurance around the potential for significant impacts arising from traffic increases on other road types, or improved justification for the assumptions made; The need for further investigation into the potential for air quality impacts on the interest features of the River Wye SAC as a result of the construction and operation of the western portion of the relief road (ref: paragraph 2.63) Analysis of any change in the number of new houses that could be served within the permitted headroom at the sewage treatment works serving Hereford, the market towns and rural areas (recommended in the HRA); The possible need for further consideration of in-combination impacts with Powys's emerging LDF. 	The first two bullet points have been addressed in the Assumptions and information currently available relating to Air Pollution section in Chapter 2 of the 2014 HRA Report. The third bullet relates to the conclusion and recommendation still contained in Chapter 2 of the 2014 HRA Report that states: "Therefore, sufficient mitigation requirements are now included in policy HD3 to ensure that there will not be likely significant effects as a result of air pollution on the qualifying habitats or species within the River Wye SAC. However, it is recommended that HRA screening for the Hereford Area Plan should revisit the screening conclusion regarding the potential for likely significant effects arising from air pollution on the qualifying habitats and species within the River Wye SAC, once more detail about the proposed route for the relief road should be available, and to ensure any more detailed specific mitigation requirements for the relief road are included." No further action for the 2014 HRA Report is required. The fourth bullet point has been addressed in the Assumptions and information currently available relating to Water Pollution section in Chapter 2 of the 2014 HRA Report. (The number of new houses has not changed for the market towns and rural areas.) The fifth bullet point has been addressed in the updated section on Potential in-combination effects in Chapter 3 of the 2014 HRA Report.
Here for Hereford	There is no up-to-date Habitats Regulations Assessment of the proposed Relief Road (including Appropriate Assessment) in the current package of evidence base documents. English Heritage has already pointed out that any new road infrastructure must be robustly appraised as to potential	A separate HRA report was prepared for the route options considered for the Hereford Relief Road ³⁵ , and the findings of that work have also informed the HRA of

³⁵ Hereford Relief Road Habitats Regulations Assessment – Route Corridor Options Screening Report. Hyder Consulting (UK) Limited, April 2011.

Consultee	Response	Action/Justification
	impacts on the historic environment. Natural England expressed concern that 'in combination' effects were not fully considered in the HRA Note August 2011, yet the Council's updated HRA Report (March 2013) still argues that the 'in combination' effects of the proposed Relief Road can be left to the Hereford Area Plan stage. Natural England considers that the HRA process needs to be completed early enough for its conclusions to shape and inform the Core Strategy and that this 'shaping' has to go beyond simple alterations to policy wording. The failure to provide an upto-date assessment of the proposed Western Relief Road, at this Core Strategy consultation stage, risks the Local Plan still being found to be unsound.	the overall Core Strategy where relevant.
		Natural England appears to be satisfied with the HRA work undertaken in relation to the Relief Road. Natural England's response to the Draft Core Strategy (and SA and HRA Reports) states (in relation to the Hereford Movement Policy HD2):
		"The Council is aware that Natural England does not support the relief road proposal. We maintain our view that transport investment should focus on managing demand and prioritising environmentally sustainable, low carbon modes and technologies.
		Irrespective of this, we welcome the inclusion of the requirement within HD2 for any western relief road to be developed in a way which avoids and mitigates adverse impacts on the River Wye SAC, and note that this point has been included upon the recommendation of the Habitat Regulations Assessment and in line with our previous recommendation.
		We note that the HRA Report highlights the need for further investigation into the potential for air quality impacts on the interest features of the River Wye SAC as a result of the construction and operation of the western portion of the relief road (paragraph 2.63).
		The road has the potential to impact upon the wider natural environment (not only the River Wye SAC). The Core Strategy should include a suitable 'hook' to ensure that the design and delivery of a western relief road minimises impacts upon the natural environment, including habitats, species and the landscape.
		We note that further detail on the relief road will emerge through the Hereford Area Plan."

Consultee	Response	Action/Justification
Here for Hereford	I am extremely concerned that there appears to be no up-to-date Habitats Regulations Assessment of the proposed western road. Both English Heritage and English Nature assert that this should be undertaken to a sufficient level of detail to inform the process of developing the Core Strategy and yet the Council's updated Habitats Regulations Assessment argues that the combination of effects of the proposed road can be left to the Hereford Area Plan - this is utterly inadequate, and further risks the plan and process being found to be unsound at Examination in Public.	A separate HRA report was prepared for the route options considered for the Hereford Relief Road ³⁶ , and the findings of that work have also informed the HRA of the overall Core Strategy where relevant. The HRA Report for the Core Strategy does not state that the combination of effects of the proposed road can be left to the Hereford Area Plan; it has highlighted some potential for significant effects on the River Wye SAC associated with the relief road, but concludes that sufficient safeguards are contained in the Core Strategy to avoid these significant effects occurring. However, it recommends that when the Hereford Area Plan is subject to screening under the Habitats Regulations, that this conclusion is reviewed, as more detail regarding the specific route and design of the relief road and construction practices and phasing etc. will be known.

³⁶ Hereford Relief Road Habitats Regulations Assessment – Route Corridor Options Screening Report. Hyder Consulting (UK) Limited, April 2011.

Table 2: Responses relating to the Habitats Regulations Assessment Report for the Pre-Submission Core Strategy (May 2014)

Consultee	Response	Action/Justification		
General Comments				
Natural England	Natural England is satisfied that the HRA Report is appropriate. As a technical point, the HRA concludes that there would be no likely significant effects on European sites. However, it is Natural England's view that the Core Strategy has likely significant effects on the River Wye SAC as a result of the additional waste water discharges into the river and the Hereford relief road. The local planning authority has undertaken significant work to understand the nature of the potential effects and has secured appropriate mitigation through the Core Strategy policies. We are therefore satisfied that whilst the HRA Screening for the Core Strategy would have to conclude that there are likely significant effects, the subsequent appropriate assessment of the pre-submission Core Strategy can conclude that there are no adverse effects on the integrity of European sites as a result of the plan. We note the requirement for further HRA of lower tier plans and projects.	The HRA report has been amended to more clearly distinguish where likely significant effects relating to water quality at the River Wye SAC could not be ruled out at screening stage, and therefore where Appropriate Assessment was required. The conclusions of the HRA report have not changed.		