HEREFORDSHIRE COUNCIL

Shaping our Place 2026

Local Development Framework

Core Strategy:
Developing Options Paper
Habitat Regulation Assessment Screening Report

June 2008

Contents

Appendices

Non-Technical Summary

Herefordshire Council is required under the Planning and Compulsory Purchase Act, 2004 to undertake a Habitat Regulation Assessment (HRA) to ensure that its plans do not adversely affect a European important site. European Sites are designated for their habitat, flora, fauna or birds under the Habitats Directive or the Birds Directive, respectively. The purpose of this report is to establish which European Sites may be affected by the Core Strategy, the first Development Plan Document to be produced under the Local Development Framework.

A total of 18 European Sites have been identified through the screening stage of the HRA. In the case of only one of these sites was it considered clear that there would not be any adverse effects on them as a result of the contents of the Core Strategy Developing Options Paper, this was Lyppard Grange Ponds in Worcestershire designated for its Great Crested Newts. It was considered that because it is located in a built up residential area, 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. As a result this site will not be taken through to the next assessment stage.

The remaining 17 European Sites have been taken onto the second stage of the HRA, the Appropriate Assessment (AA). There was not enough evidence to rule out likely significant effects on these remaining 17 European Sites, because of the strategic level of the Core Strategy Objectives and Strategic Options. Screening any of them out at this stage was considered inappropriate. The Precautionary Principle was considered necessary to ensure that all these remaining 17 European Sites were assessed more fully through Appropriate Assessment.

It is expected that between the consultation on the Core Strategy Developing Options Paper, June 2008 and its accompanying Sustainability Appraisal and this report on Habitat Regulation Assessment, that further details will be received from Natural England and Countryside Council for Wales on Conservation Objectives on some of the European Sites in order to complete Appendix 3 on the description of the European Sites. Other evidence base studies expected for the Core Strategy, which is likely to assist the HRA, should also be received between consultation and Preferred Options and this will assist further in the HRA. Furthermore a workshop group of external key stakeholders will be brought together to discuss and agree the factors affecting each of the 17 European Sites and to assess the Core Strategy Objectives and Strategic Options for any likely significant effects on the European Sites.

1. Introduction

1.1 Herefordshire Council is required under the Planning and Compulsory Purchase Act, 2004 to produce a Local Development Framework (LDF). Part of this process involves undertaking a Habitat Regulation Assessment (HRA) on the LDF to ensure that internationally important nature conservation sites are safeguarded. The HRA is legally required and this legislation is described in section 5.

2. Purpose of the Report

2.1 The purpose of this report is to document the process and results of the HRA. This report is the first in a series of HRA documents that will be written through the production of Herefordshire Council's Core Strategy. The Core Strategy will guide growth and change in the County over the next 20 years and will replace the existing adopted Unitary Development Plan, March 2007.

2.2 This first volume of the HRA Report is the first stage in the process, the screening stage and accompanies the Core Strategy Developing Options Paper, June 2008 and Sustainability Appraisal Report. It aims to ensure that the Core Strategy complies with the requirements of the Habitats Directive by identifying whether the emerging Strategic Options in the Core Strategy require an Appropriate Assessment. To ensure that the HRA criteria are being met the Council has used criteria set out in the European Commission Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites, November 2001. Appendix 4 sets out these requirements and reviews this report and indicates which section in this document covers the relevant criteria for the Directive.

3. Habitat Regulation Assessment (HRA)

3.1 The Habitat Regulations Assessment, Screening Stage, has been undertaken in accordance with the European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Fauna and Flora (the Habitats Directive), relevant to Special Areas of Conservation (SACs). This protects habitats and non-avian species of European importance. The HRA has also been undertaken in accordance with the European Directive (79/409/EEC) on the Conservation of Wild Birds (Birds Directive), relevant to Special Protection Areas (SPAs), which protects bird species of European importance.

3.2 SACs and SPAs are a network of European Sites designated for their ecological status. They are referred to as Natura 2000 Sites or European Sites. Article 6(3) and 6(4) of the Habitats Directive (transposed into UK law in part IV of the Habitats Regulation (The Conservation (Natural Habitats, & c) (amended) (England and Wales) Regulations 2007), explains the circumstances in which "Appropriate Assessments" of plans and projects are required. The UK Government Guidance on HRA from the Department of Communities and Local Government, August 2006 states that areas designated as globally important wetlands under the Ramsar Convention (1971) should also be given the same level of protection as SACs and SPAs designations in the HRA process. Given this, this report collectively refers to SACs, SPAs and Ramsar sites as "European Sites".

3.3 Appropriate Assessment is one stage of the process by which the impacts of a plan or project are assessed against the conservation objectives of a European Site, in order to identify whether there are likely to be any adverse effects on site integrity and site features. Where significant negative effects are identified, alternative options should be examined to avoid any potential damaging effects. The scope of the HRA is dependant on the location, size and significance of the proposed Plan.

3.4 The Appropriate Assessment stage aims to gather further information about the proposed options and policies in order to decide if the Core Strategy, if carried out, will harm a European protected site. If the option and/or policies are found to have an adverse affect, the option and policies can only continue and be adopted by the Council if: the identified option and policies are changed so that they can not harm the site; appropriate mitigation measures that will counteract any harmful affects; or if it is deemed that the policy represents a development which is of over-riding public interest. In the later case the West Midlands Government Office must be consulted and the Secretary of State for Communities and Local Government will inform the European Commission about the compensatory measures adopted.

3.5 The following is a list of guidance used in the assessment process:

- European Commission DG Environment, Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites Methodological Guidance on the provisions of Article 6(3) and 6(4) of the "Habitats" Directive 92/43/EEC, November 2001;
- Managing Natura 2000 Sites The provisions of Article 6 of the "Habitats" Directive 92/43/EEC, European Communities 2000;
- Department for Communities and Local Government, Planning for the Protection of European Sites: Appropriate Assessment, August 2006;
- Appropriate Assessment of Plans, September 2006, Scott Wilson *et al*; and
- The Appropriate Assessment of Spatial Plans in England A guide to why, when and how to do it, The Royal Society for the Protection of Birds, August 2007.

Verbal guidance from the Planning Advisory Service (PAS) has also been utilised throughout the process.

4. Methodology

4.1 In accordance with guidance and advice the following methodology was adopted by Herefordshire Council for the screening report:

Step 1: Site Identification

4.2 The first step in the assessment process was to identify which European Sites were found within the County and within a 15km boundary of the County that may be affected by Herefordshire Council's Core Strategy. Appendix 2 lists those European Sites in each neighbouring County. The map in Appendix 2A also graphically identifies where the screened European Sites are located and usefully shows them in relation to one another.

Step 2: Site Information

4.3 Appendix 3 shows all the information that has been gathered to undertake the screening stage of Herefordshire Council's Core Strategy Developing Options Paper, June 2008. It was completed with the assistance of several sources of information that are listed below:

- The Joint Nature Conservation Committee (JNCC) website detailed what features had been notified for each European Site.
- The original Natura 2000 notification form provided additional information on the factors affecting the sites.
- Natural England (NE) were consulted in developing the screened sites and asked to confirm some of the Conservation Objectives, these will be notified during the formal consultation period.
- Countryside Council for Wales (CCW) were also consulted on the list of screened sites and have indicated that some of the sites listed may be withdrawn at the next stage as they consider that Herefordshire Council's Core Strategy is unlikely to have a significant effect on their site integrities.
- CCW also provided some of the Conservation Objectives of the European Sites that are in Wales.
- Herefordshire Council's Planning Ecologist also provided additional general information on the environmental conditions needed to support site integrity that accompanies information on site vulnerabilities from the original Natura 2000 notification form.
- The Environment Agency were contacted with regards to Review of Consents and although the report is not yet available, it will be taken into account when it becomes available and integrated into the Preferred Options stage.

Step 3: Screening Assessment

4.4 The factors affecting individual European Sites, as set out in Appendix 3, were considered against the Core Strategy Objectives and Strategic Options using a methodology in the European Commission publication Managing Natura 2000 Sites, see Appendix 4 (It shows the screening stage in blue and the Appropriate Assessment, to be completed at Preferred Options stage, in green).

4.5 When undertaking this assessment it became clear that because of the high level nature of the Strategic Options and lack of detail and insufficient evidence at this early stage, assessment of the likely significant effects on the European Sites' integrities were difficult to ascertain. In light of this the precautionary principle has been used and except for the SAC designation at Lyppard Grange Ponds in Worcester, the Developing Options Paper is considered to have the potential to have a significant effect upon all the other sites.

4.6 Lyppard Grange Ponds is located in a residential area in Worcestershire and is designated for its Great Crested Newts. Any development in Herefordshire is unlikely to adversely affect the Great Crested Newt, as these specie vulnerabilities are recreational pressure, fish introductions and control of Stickleback, which are unlikely to be altered by options for growth in Herefordshire.

4.7 It is proposed to carry all these screened sites, except Lyppard Grange Ponds, to the next HRA stage of Appropriate Assessment. Although it should be noted that the CCW have indicated that some of the screened European Sites that are in Wales are unlikely to be adversely affected by proposals in Herefordshire and will therefore be removed prior to the next stage, this will be reported on in the next HRA report, at Preferred Options, once confirmation has been received.

Step 4: Assessment of In-Combination Affects

4.8 Appendix 1 lists all those plans and programmes that were reviewed from the General Scoping Report for the Sustainability Appraisal of the Local Development Framework, June 2007. This highlights those that are considered to potentially have in-combination effects with the Herefordshire Core Strategy, for the purposes of the HRA.

Step 5: Assessment of Likely Significant Effects

4.9 Following consultation on the Core Strategy Developing Options Paper and on receipt of a complete set of evidence base and prior to the Preferred Options Paper being published, workshops will be held with key stakeholders. The factors affecting each of the European Sites screened for the Appropriate Assessment will be agreed and the likely significant effects of the Core Strategy Objectives and Strategic Options will be discussed. The policies in the Core Strategy will also be considered. The results of these assessments will be published in the next volume of the HRA report at Preferred Options.

5. Consultation

5.1 Herefordshire Council has consulted Natural England, Countryside Council for Wales, the Planning Advisory Service, Environment Agency and the Royal Society for the Protection of Birds throughout the preparation of this screening report and has also communicated with other Authorities on their methodology to date. Although formal consultation on the HRA is not required until Preferred Options, it was considered best practice to consult key stakeholders and the public on this screening report to ensure a more inclusive Core Strategy.

6. Conclusions and Recommendations

6.1 Herefordshire Council as the responsible authority has undertaken a screening assessment of the Core Strategy Developing Options Paper, June 2008. Only one of the European Sites screened was ruled out as not having any likely significant effects and the precautionary principle was used for the remaining 17 European Sites screened because likely significant effects upon them could not be ruled out. These will be assessed in more detail in the next stage of the HRA, the Appropriate Assessment, as more information becomes available.

6.2 In the next HRA report, expected at Preferred Options, the European Sites to be assessed will be confirmed following the consultation on screening. The Appropriate Assessment will be detailed in this next report and the Core Strategy Objectives, Strategic Options and Core Policies will be assessed to

establish any likely significant impacts upon the identified protected sites. If necessary, the Objectives and Core Policies wording will be amended and the outcomes will guide the development of the Preferred Option to ensure that impacts are avoided in the first instance. Appendix 4 includes the methodology for the Appropriate Assessment.

Glossary of Terms

Appropriate Assessment (AA) - The process under Article 6(3) of the Habitats Directive by which the potential effects of a plan or project upon a Special Protection Area or Special Area of Conservation are assessed to determine whether an adverse effect can be avoided.

Birds Directive – The European Union Directive that introduced the Special Protection Area designation to ensure the protection of areas of habitat of key importance to protect certain rare, vulnerable and/or migratory European bird species.

Compensatory Measures – A requirement set out in Article 6(4) where damage to a European site has been justified for imperative reasons of over-rding public interest (IROPI – see below). The Government must ensure all necessary compensation measures are provided that protect the overall coherence of the Natura 2000 network. This is normally through the creation of appropriate habitat as close as possible to where the damage will occur and fully functioning before the damage occurs.

Core Strategy – The Core Strategy sets out the key elements of the planning framework for the area. It is comprised of a spatial vision and strategic objectives for the area; a spatial strategy; core policies; and a monitoring and implementation framework, with clear objectives for achieving delivery. Once adopted, all other planning must be in conformity with it.

Development Plan – The statutory development plan is the starting point in the consideration of planning applications for the development plan will consist of the West Midlands Regional Spatial Strategy prepared by the West Midlands Regional Planning Body, and Development Plan Documents prepared by the Council.

Evidence Base - The information and data gathered by local authorities to justify the 'soundness' of the policy approach set out in Local Development Documents, including physical, economic and social aspects of the area.

Flora and Fauna - Wild flowers, wild animals and native trees of the United Kingdom of Great Britain and Northern Ireland.

General Scoping Report - The General Scoping Report provides a general framework for the Sustainability Appraisal of future documents being produced as part of a new planning system for Herefordshire. The existing scoping report represents the first stage in an iterative process of sustainability appraisal of the Council's Core Strategy.

Habitats Directive – The European Union Directive that introduced the Special Area of Conservation designation to ensure the protection of species and habitats of European Community interest.

Habitats Regulation – The Conservation (Natural Habitats & c) Regulations 1994 (SI 1994 no. 2716) is the mechanism by which the UK Government has implemented the Habitats Directive in England, Scotland and Wales.

Imperative Reasons of Overriding Public Interest (IROPI) – A requirement set out in Article 6(4), in limited circumstances, permits a plan or project to go ahead even after an AA has identified an adverse effect to a European site.

Local Development Framework (LDF) - The Local Development Framework is not a statutory term, however, it sets out, in the form of a 'portfolio/folder', the Local Development Documents which collectively deliver the spatial planning strategy for a local planning authority's area. These are replacing the Unitary Development Plan.

Mitigation - Measures taken to reduce adverse impacts e.g. changing the way development is carried out to minimise adverse effects through appropriate methods or timing.

Natura 2000 Network – The EU network of designated sites comprising Special Areas of Conservation and Special Protection Areas.

Precautionary Principle – Where there is incomplete information about the nature or extent of an effect the precautionary principle requires action to be taken to prevent harm in the absence of complete certainty about the adverse effects.

Screening – This process is used to determine whether an AA is needed. This term is also used for similar procedures in EIA and SEA.

Special Areas of Conservation (SAC) - SACs are sites designated under the Habitats Directive (Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora). Together with Special Protection Areas they will form the Natura 2000 network of sites.

Special Protection Areas (SPA) – Special Protection Areas are sites designated under the Birds Directive (Directive 79/409/EEC on the conservation of wild birds). Together with Special Areas of Conservation they will form the Natura 2000 network of sites.

Stakeholders - Groups, individuals or organisations, which may be affected by, or have a key interest in, a development proposal or planning policy. They may often be experts in their field or represent the views of many people.

Sustainability Appraisal (SA) - The Planning and Compulsory Purchase Act (2004) requires Local Development Documents to be prepared with a view to contributing to the achievement of sustainable development. Sustainability appraisal is a systematic appraisal process. The purpose of sustainability appraisal is to appraise the social, environmental and economic effects of the strategies and policies set within a Local Development Document from the outset of the preparation process. This will ensure that decisions are made that accord with sustainable development.

Appendix 1 - Review of Plans, Programmes and Policy Objectives

			Implications for HRA
European Noise Directive 2002/49/EC	The most relevant objectives of the Directive are: • Informing and consulting the public about noise exposure, its effects and the measures considered to address noise.	The Directive states that Member States must draw up action plans to manage noise issues and effects, including noise reduction by 18th July 2008. However, the Directive does not set 'ideal' noise limits or targets to be met by 2008.	Noise can impact upon habitats and particularly some species and therefore should be considered when assessing the effects of the Core Strategy on European Sites.
European Sustainable Development Strategy (ESDS) 2001	The ESDS focuses on four key priorities: 1. Limiting climate change and increasing the use of clean energy; and 2. Managing natural resources more responsibly.	The ESDS sets a number of headline indicators to meet its priorities. These are: 1. Limit climate change and increase the use of clean energy; and 2. Manage natural resources more responsibly.	Climate change and natural resources may have an effect on designated sites and therefore these aspects will need to be considered when assessing the effects of the Core Strategy on European Sites.
Water Framework Directive 2000/60/EC	Promote sustainable water use based on a long-term protection of available water resources; Contribute to mitigating the effects of floods and droughts; and ensure the progressive reduction of pollution of groundwater and prevent its further pollution.	All inland waters to reach good ecological and chemical status by 2015. By 2010 ensure adequate contribution from key sectors to the recovery of costs of water services.	Water issues whether its use or protection may have an effect of designated sites and therefore this directives objectives should be considered when assessing the effects of the Core Strategy on European Sites.
Kyoto Protocol to the	The ultimate objective of the Convention is	Does not include any targets.	Atmospheric conditions

			Implications for HRA
UN Framework Convention on Climate Change 1999	"to achieve stabilisation of atmospheric concentrations of greenhouse gases at levels that would prevent dangerous anthropogenic (human-induced) interference with the climate system".		have a bearing on European Designated Sites and therefore the objectives of this directive need to be considered when assessing the effects of the Core Strategy.
European Biodiversity Strategy 1998	Aims to anticipate, prevent and attack the causes of significant reduction or loss of biodiversity at the source. A range of objectives is identified under four themes: 1. Conservation and sustainable use of biological diversity; 2. Sharing of benefits arising out of the utilisation of genetic resources; 3. Research, identification and monitoring of information; and 4. Education, training and awareness.	No specific targets identified.	Sustainable biodiversity is key to European Designated Sites and therefore the objectives of this directive will need to be considered when assessing the HRA of the Core Strategy.
Air Quality Framework Directive 96/62/EC	The Directive seeks to define and establish objectives for ambient air quality to avoid, reduce or prevent harmful effects on human health and the environment as a whole.	Prescribes limit values for certain pollutants that all member states must meet. These targets must be adopted into UK legislation.	European Designated Sites may be impacted upon by air quality and there the objectives of this directive need to be considered when assessing the impacts of the HRA of the Core Strategy.
EC Directive on the Conservation of Natural Habitats of	The aim of the Habitats Directive is to create a coherent European ecological network known as Natura 2000. This will	Concerns flora, fauna and natural habitats of EU importance. Seeks to establish a framework of	The Habitats Directive is the reason why the HRA on the Core

			Implications for HRA
Wild Fauna and Flora (Directive 92/43/EC) 1992	consist of a series of Special Areas of Conservation (SACs), which will protect habitats and species of Community interest.	protected areas and ensure biodiversity.	Strategy is to be done and therefore must be in conformity with it.
The UK Government Sustainable Development Strategy: Securing the Future, DTI – March 2005	The following objectives are considered to be the most relevant for the HRA: Living within environmental limits – respecting the limits of the planet's environment, resources and biodiversity, to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations. Using sound science responsibly – ensuring policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the precautionary principle) as well as public attitudes and values.	The Strategy introduces a set of high-level indicators; the *UK Framework Indicators* to give an overview of sustainable development and priority areas shared across the UK. There will also be a mix of indicators, targets and performance measures in the individual strategies for the UK Government.	The relevant objectives' of this Plan identify what is needed to achieve sustainability within the natural environment. These objectives should be followed during the production of the HRA of the Core Strategy.
The Planning Response to Climate Change, ODPM – September 2004	Provides planning professionals with an overview of current thinking and state of knowledge on planning response to climate change. It aims to stimulate planners to look for new strategies to respond to climate change in partnership with developers and the wider community. It aims to strengthen policies that will mitigate and reduce greenhouse gas	The main relevant targets for HRA are as follows: LPA's must be familiar with the UK's commitment to its climate change programme. Recognise the availability of water resources in formulating development plans. Include climate change sensitive policies on biodiversity and	The impacts of climate change could have implications for European Designated Sites and therefore an understanding, and where appropriate, implementation of the programme's objectives from the

			Implications for HRA
	emissions.	landscape. Set a context in which there is less need for travel. Set out a framework for minimising greenhouse gas emission.	ODPM should be considered during the production of the HRA for the Core Strategy.
Rural Strategy 2004, DEFRA – July 2004	The strategy reviews the Rural White Paper, 2000 after the creation of DEFRA in 2001. It sets out a new devolved and targeted approach to rural policy and delivery over the next 3-5 years. There are three priorities for rural policy of which one is relevant for the purposes of the HRA, this is: ▪ Enhancing the value of our countryside – protecting the natural environment.	The target most relevant for the HRA is to, make the countryside more accessible and promote sustainable tourism.	The relevant objective and associated target of this strategy may have impacts on designated sites and therefore these should be considered when assessing the HRA of the Core Strategy.
The First Soil Action Plan for England: 2004-2006, DEFRA – 2004	Contains 52 sections, ranging from soil management on farms to soils in the planning system, soils & biodiversity, contamination of soils & the role of soils in conserving cultural heritage & landscape. All actions make a step towards more sustainable soil use and protection.	No specific targets. This is partly due to there being no right or wrong type of soil, for national targets to be set against.	Soils can have a significant impact on designated sites and as such the objectives of this Plan need to be taken into consideration when conducting the HRA of the Core Strategy.
Common Agricultural Policy (CAP) Reforms	Agenda 2000: ▪ Further reduction in intervention support; ▪ Introduced the Rural Development Regulation. 2004 Reforms: ▪ Encourage farmers to produce what the market wants, getting away from	Reform will happen by: ▪ Taking away the incentive to 'farm for the subsidy' – via decoupling; ▪ Committing the farmer to environmental stewardship – via cross compliance;	Agricultural practices may have a significant impact on designated sites and therefore the objectives and targets of this Plan should be considered when

			Implications for HRA
	'farming for subsidies'; ▪ Remove the environmentally negative incentives; ▪ Improve and provide encouragement for more sustainable farming practices. Provide more money for rural development.	▪ Maintaining some form of income support – via the single farm payment (SFP); Divert part of farmers SFP to rural development funds.	assessing the HRA for the Core Strategy.
Energy White Paper, DTI – Feb 2003	Energy White Paper proposes to ensure that a strategic approach to energy is developed and implemented in each region. It is based on four goals and the following is the most relevant in terms of the HRA: ▪ Cut the UK's carbon dioxide emissions by 60% by 2050.	Achieve carbon cuts of between 15-25 million tonnes of carbon in 2020. UK has a Kyoto Protocol commitment to reduce greenhouse gas emissions by 12.5% below 1990 levels by 2008-12.	Carbon dioxide could have an impact on designated sites and therefore the objective and targets mentioned in this Plan should be considered when assessing the HRA for the Core Strategy.
Working with the Grain of Nature: A Biodiversity Strategy for England, DEFRA – 2002	The Strategy builds on the Biodiversity Action Plan, 1994 and aims to embed biodiversity in policy and decisions and society as a whole. The most relevant issues it addresses for the purposes of the HRA are as follows: Agriculture – encouraging the management of farmland and agricultural land so as to conserve and enhance biodiversity. Water – whole catchment approach to wise, sustainable use of water and wetlands. Woodland – management and extension of woodland to promote and enhance biodiversity and quality of life.	Strategy aims to ensure biodiversity considerations are embedded in all sections of public policy. Sets out key species for concern in different environments. Aims to bring 95% of SSSIs into favourable condition by 2010. Aims to reverse the decline of farmland birds.	Agriculture, water and woodland environments are all important aspects for consideration when assessing the core strategy in terms of the HRA. Many European Designated Sites are made up of SSSIs and therefore the target on favourable condition will be directly relevant. All these points should be taken into consideration when

			Implications for HRA
			carrying out the HRA of the Core Strategy.
Directing the Flow – Priorities for Future Water Policy (Nov 2002)	Sets out what the priorities for policy on water should be in England over the longer term. These include: ▪ Prudent use of water resources and keeping its use within the limits of its replenishment; ▪ Tackling agricultural and urban diffuse pollution of water; ▪ Achieving better integration between water and other policies and between different aspects of water policy.	The document sets out a number of priorities for water but these mainly outline future actions and strategies rather than targets.	These Plan's objectives may be key in the protection of European Designated Sites and as such need to be incorporated into the HRA of the Core Strategy.
Countryside Rights of Way Act 2000 (CROW)	The Act makes provision for public access to the countryside and to enable traffic regulation orders to be made for the purpose of conserving and enhancing areas natural beauty and to further protect the AONB.		There is potential for European Designated Sites to be located in or near to an AONB and therefore the objectives of this Plan need to be considered when carrying out the HRA of the Core Strategy.
Air Quality Strategy for the UK, Working together for clean air, DETR – Jan 2000	Aims to improve and protect ambient air quality in the UK in the medium term. Sets objectives for 8 main air pollutants to protect health. Performance against these objectives will be regularly monitored.	Contains a number of national air quality targets that were updated by DEFRA in August 2002.	Air quality is an important element of the protection of European Designated Sites. Although these objectives mention pollutants to protect human health, these improvements will also

			Implications for HRA
			contribute to better environmental health for flora and fauna. As such this Plan should be considered when carrying out the HRA of the Core Strategy.
PPS1 Delivering Sustainable Development, ODPM – 2005	Sustainable development is identified as the key principle underlying planning. Planning is charged with addressing sustainable development in 5 key ways, the following is the most relevant of these in terms of HRA: ▪ Protecting and enhancing the natural and historic environment, the quality and character of the countryside and existing communities.	No specific targets.	By fulfilling this objective protection is likely for European Designated Sites and therefore it should be considered when carrying out the HRA of the Core Strategy.
PPS7: Sustainable Development in Rural Areas, ODPM – 2004	Key national objectives: To raise the quality of life and the environment in rural areas that are 7 main elements of promotion, 3 of these are relevant for the purposes of the HRA, these are: ▪ Good quality, sustainable development that respects local distinctiveness and the intrinsic qualities of the countryside; and ▪ A high level of protection for our most valued landscapes and environmental resources. ▪ To promote sustainable, diverse and adaptable agricultural sectors.	No specific targets.	These 3 objectives of the Plan may have significant impacts on European Designated Sites and therefore they need to be considered when carrying out the HRA of the Core Strategy.

			Implications for HRA
PPG8: Telecommunications, ODPM – 2001	Overall objective is to facilitate the growth of new communications systems in order to provide people with a wider choice, while protecting human health and keeping environmental impact to a minimum.	No specific targets.	Telecommunication services may be located in or near to a European Designated Site and as such the Plans objective needs to be considered during the HRA of the Core Strategy.
PPS9: Biodiversity and Geological Conservation, ODPM – 2005	The Government's objectives for conserving and enhancing biological diversity are to promote sustainable development, conserve, enhance and restore the diversity of England's wildlife and geology and contribute to rural renewal and urban renaissance by enhancing biodiversity in green spaces and ensuring that developments take account of the role and value of biodiversity.	No specific targets.	Biological and geological diversity may have an impact on European Designated Sites and as such the Plans objective(s) need to be considered in the HRA of the Core Strategy.
PPS12: Local Development Frameworks, ODPM 2004	The policies in PPS12 focus on procedural policy and the process of preparing Local Development Documents (these will comprise the Local Development Framework). The Core Strategy should set out key elements of the planning framework for the area, the long-term spatial vision and the strategic policies required to deliver that vision. The Core Strategy Development Plan Document should draw on any strategies of the local authority and other organisations that have implications for the	No specific targets.	This Plan identifies the process for the preparation of the Core Strategy and identifies the need for such Plans to carry out HRA amongst others. The production of a HRA therefore must be in conformity with the Plan.

			Implications for HRA
	development and use of land.		
PPS22: Renewable Energy, ODPM – 2003	The Government's policy on renewable energy will contribute to sustainable development objectives, the most relevant of these for the HRA ensures: • Reductions in emissions of greenhouse gases and thereby reducing the potential for the environment to be affected by climate change. Government objectives in relation to renewable energy are set out in full in the Energy White Paper.	The Government has set a target to generate 10% of UK electricity from renewable energy sources by 2010 and 20% by 2020.	By creating more sources of renewable energy, reductions in greenhouse gases can be predicted, which will benefit the European Designated Sites. This objective should be considered when undertaking the HRA for the Core Strategy.
PPS23: Planning and Pollution Control, ODPM, 2004	In accordance with national policies, the Government expects LPA's to adopt a strategic approach to integrate their land use planning processes with plans and strategies for the control, mitigation and removal of pollution, as far as it is possible and practicable to do so. The overall aim of planning and pollution control policy is to ensure the sustainable and beneficial use of land (and in particular encouraging reuse of previously developed land in preference to greenfield sites). Within this aim, polluting activities that are necessary for society and the economy should also be so sited and planned, and subject to such planning conditions, that their adverse effects are minimised and	No specific targets.	Regard for the programmes objectives is required when undertaking the HRA of the Core Strategy to ensure the safeguarding of European Designated Sites as they could be adversely affected by pollution.

			Implications for HRA
	contained to within acceptable limits. Opportunities should be taken wherever possible to use the development process to assist and encourage the remediation of land already affected by contamination.		
PPG24: Planning and Noise, ODPM – 1994	The planning system should ensure that, wherever practicable, noise-sensitive developments are separated from major sources of noise (such as road, rail and air transport and certain types of industrial development). It is equally important that new development involving noisy activities should, if possible, be sited away from noise-sensitive land uses. Where it is not possible to achieve such a separation of land uses, local planning authorities should consider whether it is practicable to control or reduce noise levels, or to mitigate the impact of noise.	No specific targets.	Noise can affect habitats and the species that occupy them and as such under the objective that refers to development away from noise sensitive land uses, the natural environment, including European Designated Sites, are included here. As such the objectives of this Plan should be taken into account when undertaking the HRA of the Core Strategy.
Regional Sustainable Development Framework Jun 06	There a 4 main objectives of this Regional Plan, the following 2 are those most relevant in terms of the HRA: • Ensure natural resource protection and environmental enhancement • Reduce overall energy use and increase use of renewable sources.	No specific targets.	Protecting natural resources and using energy more efficiently could both have significant impacts on European Designated Sites. As such these objectives should be

			Implications for HRA
			considered when carrying out the HRA of the Core Strategy.
Restoring the Region's Wildlife: The Regional Biodiversity Strategy for the West Midlands, Final Draft, January 2005	Maintaining and improving the condition of habitats, species and ecosystems developing an area based approach to restoring wildlife. • Further develop a coordinated and integrated spatial framework, incorporating other aspects such as landscape and historic elements as appropriate • Establish spatial biodiversity objectives for the region, linking to the habitat targets. • Monitoring the condition of habitats, species and ecosystems	Twenty-three UK priority habitats occur in the West Midlands, and a much larger number of priority species, and each of these has targets for their maintenance, restoration and creation or expansion. A set of regional habitat targets has been included in the RSS and the West Midlands Biodiversity Partnership is continuing to work with local biodiversity partnerships to further develop these.	The European Designated Sites will form part of this Regional Biodiversity Strategy and therefore the Plans objectives need to be considered when undertaking the HRA of the Core Strategy.
A Water Resources Strategy for the West Midlands, Environment Agency 2005	Underpinning principles: • prudent and sustainable use of natural resources • to seek the efficient use of water while bringing forward timely proposals for resource development (the 'twin-track' approach) • the need for the strategy to be robust to uncertainty and change • where there is uncertainty about the consequences of a proposal, decisions taken should ensure that the environment is protected (the	Estimates of reductions in groundwater licences required to achieve sustainable levels of abstraction amount to up to 100 Ml/d region-wide. By 2025, the Agency expects to see water savings of up to 140 Ml/d compared to the highest growth scenario, in addition to water savings through maintaining current active leakage control targets.	European Designated Sites are likely to be significantly affected by water resources. Therefore this Plans objectives need to be considered when carrying out the HRA of the Core Strategy.

			Implications for HRA
	'precautionary principle'). Water abstraction cut-backs are necessary in some areas to improve the environment. Water resource options that are flexible to the possible impacts of climate change are preferred.		
Valuing People and Places: Priorities for Action, Culture West Midlands, June 2005	There are 6 main objectives of this Plan, 3 are considered relevant for the purposes of the HRA, these are as follows: • Improved management and promotion of nationally and internationally significant cultural destinations, for example SSSI's and AONB's • Encouraging partnership working aimed at improving the development and delivery of cultural opportunities, at neighbourhood, local, sub-regional and regional level • Further development of joint working with local services and community groups to improve cultural opportunities in disadvantaged urban and rural areas.		European Designated Sites are covered in this Plan for improvement and promotion; partnership working; and joint working with local community groups and the like. These objectives have an impact on the HRA both in the process followed to assess the Core Strategy (partnership working etc) and through the potential risk that promotion of such sites may have. These objectives should therefore be considered when undertaking the HRA for the Core Strategy.
Enriching our Region: An	There are 35 actions required to achieve the vision for 2025, of these 16 are most		The objectives may have a significant

			Implications for HRA
environmental manifesto for the West Midlands, West Midlands Regional Sustainability Forum, 2005	relevant in terms of the HRA, these are: • Reduce consumption of natural resources • West Midlands to become a leader in energy efficiency • Promoting consumption of local raw materials • Equitable protection from effects of development • Encourage new ways of working • Amended food policy in favour of local producers • Concentrating housing and economic development in urban areas • Design car free communities • No large development in rural areas • Sensitive planning • Greater care of natural assets • Planning policies to recognise and provide for quality, diversity and distinctiveness of landscapes • Radical improvement in air quality • Recovery of threatened wildlife species • Expansion of important habitats • Introduce water conservation measures.		impact on European Designated Sites in one capacity or another. Understanding and acknowledging these will be important in the undertaking of the HRA of the Core Strategy.
Regional Spatial Strategy: West Midlands (formerly	There are 8 main objectives of the RSS and of these 1 is most relevant for the HRA, this is:	The most relevant headline indicator is for: • Changes in the number of	This general objective applies to European Designated Sites and

			Implications for HRA
Regional Planning Guidance – RPG) 11 - June 2004	• To ensure the quality of the environment is conserved and enhanced across all parts of the region.	days (i.e. fewer) with poor air quality.	therefore its aim will need to be considered when carrying out the HRA of the Core Strategy.
West Midlands Regional Energy Strategy – 2004	The energy strategy has 4 main objectives, 2 of these are most relevant for the HRA, these are: • To improve energy efficiency; and • To increase use of renewable energy.	Targets include: • Reducing industrial CO2 emissions by 2.4 Mt (18%) by 2010 and an additional 4.3Mt (32%) by 2020 • Reducing commercial and public sector emissions by 2.0Mt (36%) by 2010, with a 1.5 Mt (26%) reduction by 2020 • Reducing domestic emissions by 2.4Mt (195) by 2010 and an additional 3.7Mt (29%) by 2020 • Stabilise transport emissions by 2010 and reduce by 0.7Mt (7%) by 2020 • Target of 1,000 MWe by 2010 for production of Combined Heat and Power • 10% of electricity consumption by 2010 to be from renewable energy • Production of 460 GWh of liquid biofuels per year by	These objectives are relevant to the HRA in terms of the location of such development and the air quality resulting from them, both these factors could have an impact on a European designated site and as such these objectives need to be considered when undertaking the HRA for the Core Strategy.

			Implications for HRA
		2010.	
West Midlands Regional Forestry Framework 2004: Growing our Future	There are 6 main objectives of this Programme and of these 3 are most relevant for the HRA, these are: • Meet national targets for Sites of Special Scientific Interest (SSSI) and the priority habitats and species of the UK Biodiversity Action Plan (BAP) • Protect and enhance ancient and/or semi-natural woodland • Clarify the contribution of the woodland and forestry sector to air quality, soil quality, protect water quality and conserve water resources both at a national and local level through appropriate woodland creation and management.		The objectives may have a significant impact on European Designated Sites in one capacity or another. Understanding and acknowledging these will be important in the undertaking of the HRA of the Core Strategy.
West Midlands Regional Transport Strategy (see RSS) – 2004	There are 6 main objectives of this Plan, 2 of which are most relevant for the HRA, these are: • Tackling congestion • Protection of the environment.		The impacts of air quality and general environmental conditions on European Designated Sites may be significant and as such will need to be considered when carrying out the HRA of the Core Strategy.
The West Midlands Rural Delivery	There are 3 high level Government's priority strands for rural policy and 1 of	There are 3 main targets within the Plan and again 1 of these is	The Plan's identified objective and target

			Implications for HRA
Framework 2006	these is relevant in terms of the HRA, this is: • Enhancing the value of our countryside, protecting the natural environment for this and future generations.	relevant for the HRA: • All policies and strategies include both mitigation and adaptation measures.	(although in terms of the Habitats Directive and UK Regulations avoidance should be sought prior to the need for mitigation or compensatory measures for European Designated Sites), should be considered when undertaking the HRA of the Core Strategy.
Regional Sustainable Development Strategy Feb 2000	There are 4 main objectives of this Programme, 2 of which are most relevant for the HRA, these are: • Enhance and protect the environment • Ensure prudent and efficient use of natural resources.		These objectives should be considered in the HRA of the Core Strategy as they may have impacts on European Designated Sites.
Herefordshire Community Strategy –June 2006	There are 5 guiding principles of this Plan, 3 of which are considered most relevant for the HRA, these are: • Integrate sustainability into all our actions • Protect and improve Herefordshire's distinctive environment • Build on the achievements of partnership working and ensure continual improvement.		The objectives of this Plan are more procedural than directly applicable to impacts likely on a European designated site. However, the identified guiding principles need to be considered in the undertaking of the

			Implications for HRA
			HRA of the Core Strategy as non-compliance may result in negative impacts on such sites.
Herefordshire Cultural Strategy 2004	There are 10 ambitions of the strategy and 1 of these is considered most relevant in terms of the HRA, this is as follows: • Protect and enhance Herefordshire's distinct environment – promote and preserve the historic and rural landscape, with schemes linked to tourism, distinctiveness and archaeological sites.	There are 8 Key targets for the strategy, 3 are most relevant for the HRA as follows: • To increase visitor numbers to specific sites and activities • Increase the number of people travelling to work or school or for recreation by cycling and walking • Schemes to identify, protect and enhance the County's natural and historic landscape.	The objective and identified targets will need to be considered during the HRA of the Core Strategy as a balance will need to be struck with increases in visitor numbers and their activities. These factors may adversely impact upon European Designated Sites, e.g. effects of trampling, noise and pollution from activities and more vehicles.
Herefordshire Council Corporate Plan 2005/2008 "Action for a better Herefordshire"	The Corporate Plan identifies the need to involve communities in establishing objectives and working in partnership and highlights priorities for Council investment. There are 4 top sustainability objectives for this period within the Plan and 1 of these is relevant for the HRA: • To protect the environment, including by recycling much more waste and significantly reducing carbon emissions.	Numerous detailed targets are identified in the Plan and some of these may be relevant for the purposes of the HRA.	Air and soil quality are important factors in European Designated Sites and therefore this identified objective and any appropriate targets will need to be considered when undertaking the HRA of the Core Strategy.

			Implications for HRA
Herefordshire Council Corporate Environmental Strategy 2005-2011	To meet their commitments Herefordshire Council has identified 8 actions it will do, 6 of these are considered most relevant for the HRA, these are: • Make efficient use of natural resources including water, heat and electricity and promote the use and development of appropriate sources of renewable energy and recycled products • Take action to prevent pollution and minimise environmental risks • Implement a waste strategy to reduce the amount of waste entering the waste stream and increase recycling, while ensuring that all waste generated is dealt with in a way that reduces its impact on the environment • Respond to the challenges posed by climate change by significantly reducing carbon emissions from its own activities and acting, where possible, to address and mitigate wider potential impacts • Protect natural habitats and species to maintain and improve the wealth of biodiversity in the County • Provide a planning system that ensures that development is sustainable.		In the assessment of effects of the Core Strategy on European Designated Sites for the HRA, regard will need to be given to these objectives.

			Implications for HRA
Herefordshire Partnership Climate Change Strategy 2005/6-2011/12	Reduce emissions of carbon dioxide and other greenhouse gases: • Decrease emissions of carbon dioxide equivalent emissions per head of population per year • Reduce the fossil fuel and electricity consumption of operational council properties Support and promote energy efficient measures: • Reduce the average street lamp circuit wattage • Improve the energy efficiency of all housing sectors • Reduce the energy consumption of operational council properties. Support and promote the use of renewable energy: • Support the use of renewable energy sources where they are economically and environmentally sustainable, through the Unitary Development Plan.	• Reduce carbon dioxide equivalent emissions from activities directly controlled by the Council or upon which it has an influence by 1.25% per year to 2012 • To secure 100% renewable electricity for operational council properties.	These objectives appear to be more relevant to the Council as an organisation rather than there implications for the County as a whole, however, there objectives, in principle, will need to be considered when embarking on the HRA of the Core Strategy.
Herefordshire Biodiversity Action Plan, 2005	Protect and enhance the County's biodiversity assets: • Improve the condition of Council owned Sites of Special Scientific Interest (SSSI) • Prepare and implement a Biodiversity Action Plan complete with an effective monitoring, reporting and review system		Some European Designated Sites incorporate SSSIs and any monitoring or enhancements schemes may have an impact on the European Designated Sites. As such the

			Implications for HRA
	• Protect and enhance the biodiversity on Council owned land.		HRA will need to take account of these objectives when assessing the Core Strategy.
Herefordshire Local Transport Plan 2 2006/7- 2010/11	This Plan has 4 main shared priorities in Herefordshire LTP2 objectives, 3 of these are, in part considered appropriate for the HRA, these are: Tackling Congestion: • Reduced congestion • Increased use of sustainable modes of travel. Safer Roads: • Increased use of sustainable modes of travel. Better Air Quality: • Safeguarded environment • Reduced congestion • Increased use of sustainable modes of travel.	• Increasing bus patronage by nearly 80,000 journeys by 2010/11 • Increasing cycling trips by 18% by 2010/11.	Air quality has an impact on European Designated Sites and therefore this Plans objectives will need to be taken into account when carrying out the HRA of the Core Strategy.
Herefordshire Carbon Management Plan, 2005/6 – 2011/12	The broad objectives are: • The adoption of a carbon management hierarchy based on avoidance - minimisation of energy use, efficiency – increased efficiency of energy use and; renewables – switching to renewable energy, including electricity • Alignment of the CMAP with the Herefordshire Partnership Climate	• The Council target is to achieve a 12.5% reduction on the 2002 baseline by 2012 and a total 20% reduction by 2020 • total emissions from waste management are projected to reduce to around 25% of 1990 levels by 2020	Air quality can have a significant impact on European Designated Sites and therefore the objectives of this Plan need to be considered when undertaking the HRA of the Core Strategy.

			Implications for HRA
	Change Strategy, including adoption of targets for Herefordshire Council's contribution to emissions reduction • The identification of changes to Council policies and procedures designed to enable the furtherance of the CMAP, by the adoption of low cost energy measures in corporate buildings and schools.	• Sourcing at least 10% electricity from renewable sources by 31 March 2008, sourcing at least 15% of electricity from Combined Heat and Power (CHP) by 2010.	
Herefordshire Unitary Development Plan 1996 – 2011 – Adopted March 2007	There are 4 main objectives of the UDP that will contribute to the achievement of sustainable development, by developing land use policies and proposals, 2 are appropriate in terms of the HRA and these are to ensure: • effective protection, restoration and enhancement of the environment and of Herefordshire's environmental capacity; and • sustainable use of natural resources.	The Annual Monitoring Report will set out core output indicators, local indicators and significant effects indicators.	The general objectives of this Plan to contribute to sustainable development will impact upon European Designated Sites and therefore these objectives will need to be considered when undertaking the HRA of the Core Strategy.
Malvern Hills AONB Management Plan 2004 - 2009	Future management objectives for the Malvern Hills include: • To prevent encroachments – this principle refers to encroachments resulting from enclosure of land or building. • To keep the Hills open and unbuilt on for the benefit, recreation and enjoyment of the public. To provide opportunities for informal outdoor		Although the Malvern Hills are not designated at a European level it should be accepted that these areas are often passages for wildlife to move from place to place and as such could be

			Implications for HRA
	recreation by the public, both visitor and resident. • To conserve and enhance the character and quality of the existing landscape – this includes all types of natural flora and fauna. To conserve and enhance the existing wildlife of the Hills and Commons. • To protect the interests of the commoners. • To improve the public's knowledge, understanding and respect for the Malvern Hills. • To have regard for the social and economic well-being of the people living in the area in a manner compatible with the conservators' other purposes. • To seek influence on planning control and development in the area to ensure that this is not inconsistent with the objectives of the conservators.		important in the preservation of the European Designated Sites in and around the County. Therefore, the objectives of this Plan should be considered when undertaking the HRA of the Core Strategy.
Wye Valley AONB Management Plan, 2004-2009	• To conserve and enhance, where this is needed, the natural beauty of the landscape in the Wye Valley AONB, with it's natural and cultural features and processes. • To conserve, enhance and restore the characteristic biodiversity. • To conserve and enhance the geodiversity of the AONB.	There are 17 targets / indicators for 2009 14 of which are relevant for the HRA, these are: • 1% of average domestic energy requirement in the AONB generated from renewable sources within the AONB • No new over ground lines	The Wye Valley AONB is not designated at the European level, however similarly to the Malvern Hills AONB it has European Designated Sites within it (important for bats) and furthermore

			Implications for HRA
	• To conserve, safeguard and enhance the historic environment of the AONB, with its wealth of cultural associations. • To foster viable farming enterprises that manage the land in ways that protect the natural resources and distinctiveness of the AONB and to enhance them where need arises. • To ensure woodland throughout the Wye Valley AONB is managed sustainably in a way that protects and enhances the outstanding semi natural wooded character of the area, and provides economic, environmental and social benefits. • That sustainable tourism, based upon the natural beauty and local distinctiveness of the AONB, continues to enrich the lives of visitors, operators and employees while contributing positively to the conservation and enhancement of the area.	affecting skylines or important views • No new aggregate quarries in the AONB • No net loss of tree cover • No decrease in ancient woodland • Increase in farmland and hedgerow trees planted and protected • No loss of habitats or features due to inappropriate agricultural practices • 10% of AONB in higher tier agri-environment schemes • Increase area of farmland under agri-environment schemes and organic farming • No increase in light pollution from within the AONB • Increase in affordable housing in AONB • Increased markets for local organic and woodland produce • Increase in use of renewable energy, such	the area it covers is accepted as potentially being a safe haven for species which may move between natural habitats which may include European Designated Sites. Therefore it is considered necessary to include this Plan when undertaking the HRA for the Core Strategy.

			Implications for HRA
		as wood fuel, and recycling • Increased use of public transport, town and village facilities by recreation users.	

Appendix 2 - European Sites in Herefordshire County and within a 15km Boundary of the County

Herefordshire

River Clun
Downton Gorge
River Wye (shared with Gloucestershire, Monmouthshire and Powys)
Wye Valley Woodlands (shared with Gloucestershire and Monmouthshire)

Worcestershire

Lyppard Grange Ponds (unclear due to scale of map – see Appendix 3A)

Gloucestershire

Wye Valley and Forest of Dean Bat Sites (7 sites within Gloucestershire)
Walmore Common
River Wye (shared with Herefordshire, Monmouthshire and Powys)
Wye Valley Woodlands (Runs from border of Herefordshire and between Monmouthshire and Gloucestershire)
Severn Estuary
Cotswold Beechwoods and Rodborough Common are on GIS map but outside 15km boundary.

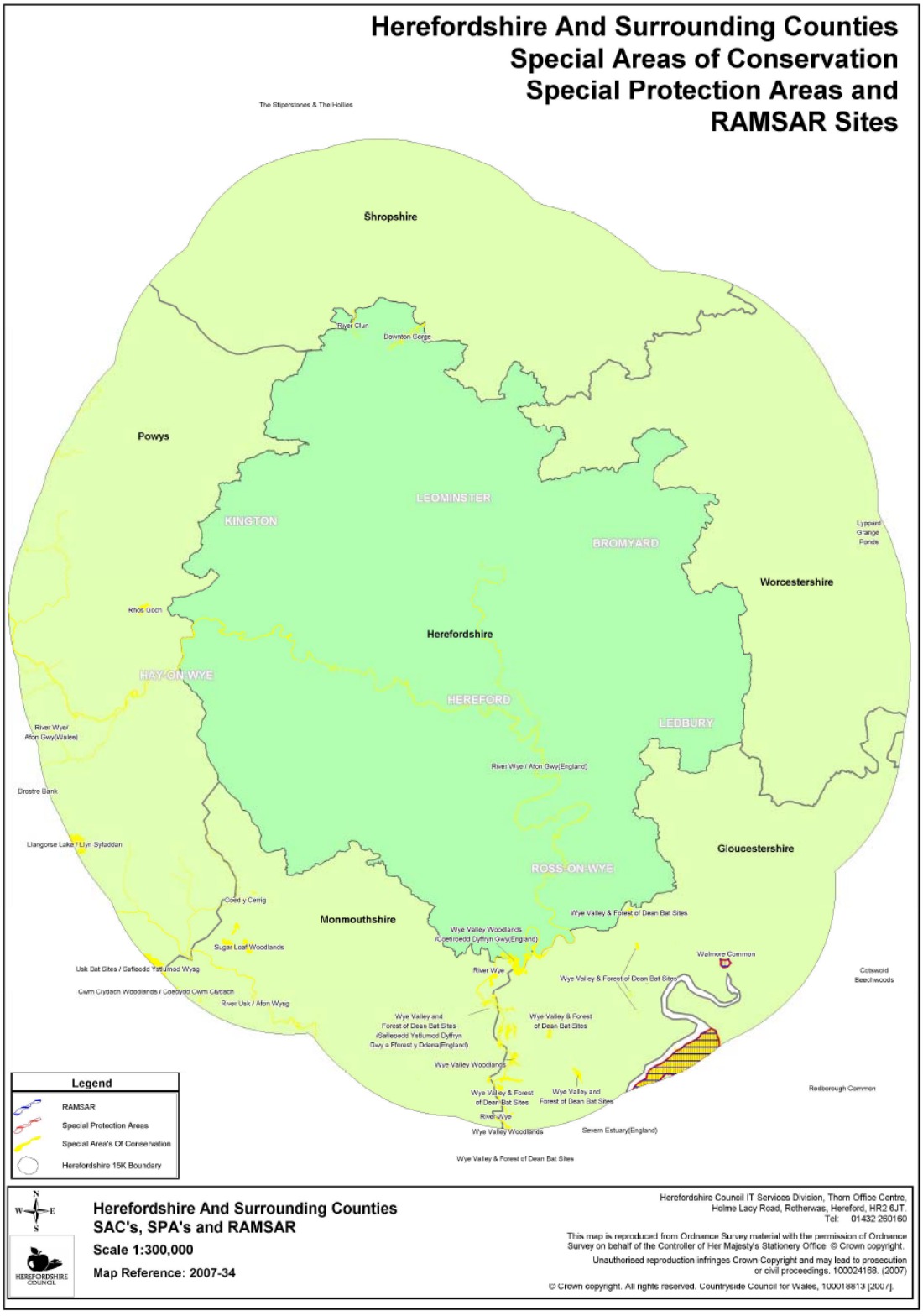
Monmouthshire

Coed y Cerrig
Sugar Loaf Woodlands
River Usk
Cwm Cldach Woodlands
Usk Bat Site (Between Powys and Monmouthshire)
River Wye (shared with Herefordshire, Gloucestershire and Powys)
Wye Valley and Forest of Dean Bat Site
Wye Valley Woodlands (shared with Herefordshire and Gloucestershire)

Powys

Rhos Goch
River Wye (shared with Herefordshire, Gloucestershire and Monmouthshire)
Drostre Bank (unclear due to scale of map – see Appendix 3A)
Llangorse Lake
Usk Bat Sites (shared with Monmouthshire)

Appendix 2A - Map of Screened European Sites



Appendix 3 – Site Descriptions of Screened Natura 2000 Sites Identified for Herefordshire Council's Core Strategy Developing Options Paper

The Habitat Regulation Assessment Screening Stage of Herefordshire Council's Core Strategy Developing Options Paper identified the following European Sites, listed in alphabetical order, as being relevant to the Plan. The following tables provide detailed data on each site including: site name; site description; conservation objectives (where known); site vulnerability; reason for designation; and the environmental conditions needed to support the site integrity. This was used to assess whether the Core Strategy Strategic Options, as set out in the Developing Options Paper, April 2008 version, would be likely to have a significant effect on each of the European Sites. The information has been sourced from the Joint Nature Conservation Committee (JNCC) website, Natural England (NE), Countryside Council for Wales (CCW) and from Herefordshire Council's Planning Ecologist.

Screened European Sites

- Coed y Cerrig
- Cotswold Beechwoods
- Cwm Clydach Woodlands
- Downton Gorge
- Drostre Bank
- Llangorse Lake
- Lyppard Grange Ponds
- Rhos Goch
- River Clun
- River Usk
- River Wye
- Rodborough Common
- Severn Estuary
- Sugar Loaf Woodlands
- Usk Bat Sites
- Walmore Common
- Wye Valley and Forest of Dean Bat Sites
- Wye Valley Woodlands

Table 1: Coed y Cerrig

Site Name: Coed y Cerrig SAC, SO291210, Wales, Monmouthshire
Site Description: Coed y Cerrig (9.1ha) is a good example of alluvial forest in southern Wales. The valley-bottom woodland has a canopy dominated by alder *Alnus glutinosa* with ash *Fraxinus excelsior*, and a rich understorey that includes guelder-rose *Viburnum opulus* and bird cherry *Prunus padus*. The ground flora is characterised by abundant large sedges *Carex* spp., and a wide diversity of wet woodland species. The woodland is continuous with diverse ash-elm *Fraxinus-Ulmus* and oak *Quercus* spp. woodland on the valley sides.
Conservation Objectives: CCW to confirm.
Site Vulnerability: The naturally high, largely spring-fed water table is essential to the ecological character of the site, as is the maintenance of an appropriate woodland management regime. The majority of the site is managed as a National Nature Reserve, the remainder subject to a management agreement; these ensure that there are no current management problems.

Reason for Designation	Environmental Conditions Needed to Support Site Integrity
Annex I habitats that are a primary reason for site selection: Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-padion, Alnion incanae, Salicion albae) (priority feature) (considered to be one of the best areas in the UK).	• Maintain level of water table • Maintain and monitor current management regime

Table 2: Cotswold Beechwoods

Site Name: Cotswold Beechwoods SAC, SO898134, England, Gloucestershire	
Site Description: The Cotswold Beechwoods (585.85ha) represents the most westerly extensive blocks of *Asperulo-Fagetum* beech forests in the UK. The woods are floristically richer than the Chilterns, and rare plants in the wood include red helleborine *Cephalanthera rubra*, stinking hellebore *Helleborus foetidus*, narrow-lipped helleborine *Epipactis leptochila* and wood barley *Hordelymus europaeus*. There is a rich mollusc fauna. The woods are structurally varied, including blocks of high forest and some areas of remnant beech coppice.	
Conservation Objectives: NE to confirm.	
Site Vulnerability: The woodland is being maintained by a variety of silvicultural practices including selective forestry, group fellings and small areas of coppicing. Age-class and structural diversity is being enhanced through a sympathetic Woodland Grant Scheme. Early removal of planted conifers is being encouraged in areas where planting occurred in the 1970's.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats of primary reason for selection of site: *Asperulo-Fagetum* beech forests (this is considered to be one of the best areas in the UK)	• Maintain and monitor current management regime
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) (the area is considered to support a significant presence)	• Control of succession processes to retain diversity of habitats

Table 3: Cwm Clydach Woodlands

Site Name: Cwm Clydach Woodlands SAC, SO207123, Wales, Gwent and Monmouthshire
Site Description: Cwm Clydach Woodlands (28.81ha) is an example of *Asperulo-Fragetum* beech forests close to the northern-western limit of the habitat's UK and European range and at relatively high altitude. The main wood is on a steep valley side, comprising a mature canopy of large trees with abundant dead wood. Transitions occur to more acidic beech woodland. Rare and characteristic plant species at the site include the whitebeam *Sorbus porrigentiformis*, mountain sedge *Carex montana*, yellow bird's-nest *Monotropa hypopitys* and bird's-nest orchid *Neottia nidus-avis*.
Conservation Objectives (Source – CCW): The vision for ***Asperulo-Fagetum* beech forests** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • At least 50% of the canopy forming trees are beech. • The canopy cover is at least 80% (excluding areas of crag) and composed of locally native trees. • The woodland has trees of all age classes with a scattering of standing and fallen dead wood. • Regeneration of trees is sufficient to maintain the woodland cover in the long term.

- The shrub layer and ground flora can be quite sparse, but where present consist of locally native plants such as yew, hawthorn, wych elm, ash, hazel, field maple and elder, bramble, dog's mercury, enchanter's-nightshade, lords-and-ladies, woodruff, male fern, sanicle, wood melick, ivy, false brome, violets, herb robert, wood avens, and tufted hair-grass.
- Scarcer plants, such as soft-leaved sedge and bird's-nest orchid are locally frequent and, more rarely, yellow bird's-nest orchid can be found.
- All factors affecting the achievement of the above conditions are under control.

The vision for **Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrub layer (*Quercion robori-petraeae* or *Ilici-Fagenion*)** is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

At least 75% of the woodland vegetation meets the criteria for intact acid beech wood, where:

- At least 10% of the canopy forming trees are beech.
- The canopy cover is at least 80% and composed of locally native species.
- The woodland has trees of all age classes with a scattering of standing and fallen dead wood.
- Regeneration of trees is sufficient to maintain the woodland cover in the long term.
- The shrub layer and ground flora can be quite, but where present consist of locally native plants.
- Scarcer plants, such as oak fern can be found.
- All factors affecting the achievement of the above conditions are under control.

Site Vulnerability: The woodland was formerly grazed by sheep from the nearby common land, but better fencing here has reduced livestock trespass to a level that does not prevent regeneration of trees and shrubs or damage the woodland ground flora. However, the impact of grazing needs to be monitored and fencing against livestock considered if necessary. Due to the close proximity to urban areas, fly-tipping and vandalism are a particular problem in these woodlands. Rubbish is regularly cleared but an increased wardening effort would be needed to bring these problems under control. The woodlands may be threatened by road improvement plans and associated development but these proposals will be subject to appropriate assessment under the Habitats Regulations 1994. Airborne acid and nutrient deposition are not a significant threat here as most of the woodland soils are well-buffered and nutrient-rich.

Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats that are a primary reason for site selection: *Asperulo-Fagetum* beech forests	• No loss in extent of ancient semi-natural woodland • Monitor and control grazing levels • Limit recreational pressure
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrub layer (*Quercion robori-petraeae* or *Ilici-Fagenion*) (which is considered to be one of the best areas in the UK).	• No loss in extent of ancient semi-natural woodland • Limit recreational pressure

Table 4: Downton Gorge

Site Name: Downton Gorge SAC, SO443743, England, Herefordshire	
Site Description: Downton Gorge (69.3ha) is an example of *Tilio-Acerion* forests in a narrow ravine with a distinctive microclimate and a variety of slopes and aspects. Both small-leaved lime *Tilia cordata* and large-leaved lime *T. platyphyllos* and elm *Ulmus* spp occur. The ground flora includes wood fescue *Festuca altissima* and violet helleborine *Epipactis purpurata*. The gorge cliffs are rich in ferns, reflecting the humidity of the site, with a range of species recorded.	
Conservation Objectives: NE to provide more detail: Maintain the ***Tilio-Acerion*** **ravine forests** in a favourable condition.	
Site Vulnerability: The site is potentially vulnerable to the effects of air and water borne pollution, particularly in respect of its significant lichenological interest. However, these effects are not related to the management of the site.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats that are a primary reason for site selection: *Tilio-Acerion* forests of slopes, screes and ravines (priority feature) (considered to be one of the best areas in the UK).	• Maintain current management regime • Monitoring and control of air and water borne pollution

Table 5: Drostre Bank

Site Name: Drostre Bank SAC, SO096312, Wales, Powys
Site Description: Drostre Bank (12.66ha) is selected for its species-rich example of the typical form of *Molinia caerulea – Cirsium dissectum* fen-meadow. This vegetation is particularly well characterised, having a high frequency of mildly base-demanding species, such as tawny sedge *Carex hostiana*, flea sedge *C. pulicaris*, quaking-grass *Briza media* and marsh valerian *Valeriana dioica*. There are well-displayed transitions to a floristically related form of rush-pasture, as well as to base-rich flush and wet woodland.
Conservation Objectives (Source CCW): The vision for ***Molinia*** **meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • *eu-Molinion* grassland occupies approximately 25% of the total site area. • The remainder of the site supports other semi-natural habitats including woodland and rush pasture. • The following plants will be common in the *eu-Molinion* marshy grassland: purple moor-grass *Molinia caerulea*; meadow thistle *Cirsium dissectum*; devil's bit scabious *Succisa pratensis*; tawny sedge *Carex hostiana*; Flea sedge *Carex pulicaris*; Quaking grass *Briza media*; Marsh Valerian *Valeriana dioica* and Marsh orchids *Dactylorhiza* sp. • Purple moor-grass and rushes are not completely dominant and there is no significant accumulation of dead vegetation from year to year. • Species indicative of agricultural modification, such as perennial rye grass *Lolium perenne* and white clover *Trifolium repens* will be largely absent from the *eu-Molinion* marshy grassland. Scrub species such as willow *Salix* and birch *Betula* will also be largely absent from the *eu-Molinion* marshy grassland. The vision for **Alluvial forests with *Alnus glutinosa* and *Franxinus excelsior* (*AlnoPadion, Alnion incanae, Salicion albae*)** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • Approximately 15% of the site supports alluvial forest (this is 25% of the woodland). • The remainder of the site supports other semi-natural habitats including dry woodland

and marshy grassland. • The tree canopy consists of alder, ash, birch and willow. • Young trees/saplings and/or vegetative regrowth of the above species are present. • The ground flora consists of a variety of wetland plants, including meadowsweet, yellow pimpernel, and remote sedge. • Plants indicative of nutrient enrichment or disturbance such as nettle, cleavers, and rosebay willowherb are nowhere extensively dominant. • Some bare ground is present but it is not extensive. • There is no significant input of nutrient-rich water from ditches and surrounding land. • All factors affecting the achievement of these conditions are under control.	
Site Vulnerability: The fen-meadow community is particularly vulnerable to agricultural improvement in the form of drainage, cultivation, application of herbicides and fertilizers and increased stocking and possibly associated feeding of livestock. Conversely, abandonment of traditional treatment may, through natural succession, result in reversion to rank secondary fen and scrubby woodland. However a management agreement is in force to ensure continuation of the traditional management of light grazing with cattle in late summer through to the early winter. There is a possibility of eutrophication of the site from the inward drainage of water enriched by nitrogenous and phosphatic fertilizers, and also as a result of fertilizer spray drift. Monitoring projects will be initiated to ensure that the fen-meadow community is maintained in a favourable condition.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats of primary reason for designation: *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) (considered to be one of the best areas in the UK)	• Encourage environmentally sensitive agricultural practices on adjacent farm land • Maintain current management agreement
Annex I habitats qualifying feature but not a primary reason for designation: Alluvial forests with *Alnus glutinosa* and *Franxinus excelsior* (*AlnoPadion, Alnion incanae, Salicion albae*) (priority feature) (considered to support a significant presence)	• Encourage environmentally sensitive agricultural practices on adjacent farm land • Maintain current management agreement

Table 6: Llangorse Lake

Site Name: Llangorse Lake SAC, SO131262, Wales, Powys	
Site Description: Llangorse lake (215.64ha) is the largest lake in South Wales and is an example of a northern or western natural eutrophic lake of glacial origin and in this case lying on Old Red Sandstone. Flora is dominated by pondweed, yellow water-lily.*Potamogetonaceae – Nupharetum* associations, and the shoreline flora is a good example of the club-rush, common reed *Scirpo – Phragmitetum* association. It is also richer than Loch Watten (another lake of this type) in more southern elements such as shining pondweed *Potamogeton lucens*.	
Conservation Objectives: CCW to confirm.	
Site Vulnerability: Water quality is of primary importance to the aquatic macrophyte flora. This naturally eutrophic lake entered an algal-dominated hyper-eutrophic state in the late 1970's, following high nutrient loadings from sewage effluent. These inputs were diverted and the aquatic macrophyte recovery monitored. Recovery has been substantial but there is still the potential for a return to an algal-dominated state. Surveillance of the ecosystem continues. Recreational activities on the lake, fisheries operations and agricultural practice within the catchment are potentially influential. The need for further measures to aid the recovery is being kept under review.	
Reason for Designation	**Environmental Conditions**

	Needed to Support Site Integrity
Annex I habitats of primary reason for designation: Natural eutrophic lakes with *Magnopotamion* or *Hydrochartition*-type vegetation (which is considered to be one of the best areas in the UK)	• Control of recreational activities • Monitor and maintain water quality

Table 7: Lyppard Grange Ponds

Site Name: Lyppard Grange Ponds SAC, SO879556, England, Worcestershire	
Site Description: Lyppard Grange Ponds (1.09ha) is located on the outskirts of Worcester, set amongst a recent housing development on former pastoral farmland. The ponds are associated with good quality terrestrial habitats, and are a remnant of a formerly more widespread newt habitat when large numbers of ponds were maintained for agricultural purposes.	
Conservation Objectives: NE to confirm.	
Site Vulnerability: The site is composed of two ponds in an area of public open space surrounded by residential development. The site is vulnerable to the effects of recreational pressure from the public and in particular the introduction of fish, which affect the suitability of ponds as breeding habitats for great crested newts. One of the ponds is currently overrun with stickleback's, which is affecting the long-term survival of the newt population at the current level. A series of measures, including the notification of the site as an SSSI, development of a Management Plan, the implementation of an action plan to remove stickleback and construction of hibernacula and refugia and water management systems, are being undertaken to secure the conservation of the newt population.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex II species that are a primary reason for site selection: Great crested newt *Triturus cristatus* (101-250 residents) (considered to be one of the best areas in the UK)	• Continue implementation and monitor management plan • Control of recreational activities and human influence and disturbance

Table 8: Rhos Goch

Site Name: Rhos Goch SAC, SO197483, Wales, Powys
Site Description: Rhos Goch (67.65ha) consists of a sequence of mire communities developed within a flat valley floor, which crosses the interfluve between the Rivers Wye and Arrow. The site lies at an altitude of 257m and is one of the most southerly raised bogs in the UK. The raised bog interest occupies the north-eastern part of the system and grades to the south-west into an extensive suite of poor-fen and swamp communities (Transition mires and quaking bogs); wet carr woodland (comprising downy birch *Betula pubescens*, grey willow *Salix cinerea* and alder *Alnus glutinosa*) at varying stages of development occupies the relatively intact lagg zone at this site to the north, south and east. The raised bog surface has been much affected by scrub encroachment (now intensively managed) and past influences of peat-cutting and fire. Drier areas dominated by heather *Calluna vulgaris*, cross-leaved heath *Erica tetralix*, purple moor-grass *Molinia caerulea* and a range of hypnoid mosses display a relatively impoverished range and cover of bog-mosses *Sphagnum* spp., although both common cottongrass *Eriophorum angustifolium* and hare's-tail cottongrass *E. vaginatum* are prominent. Numerous hollows and bog pools occur across the surface of the mire, and at least some bear evidence of artificial deepening. These support a flora dominated by carpets of the bog-mosses *Sphagnum cuspidatum* and *S. recurvum*, together with bogbean *Menyanthes trifoliate*, marsh cinquefoil *Potentilla palustris*, bog pondweed *Potamogeton polygonifolius* and occasional royal fern *Osmunda regalis*. The transition mire and quaking

bog at Rhos Goch manifests as a suite of poor-fen swamp communities juxtaposed within the context of a lagg zone between active raised bog and rush pasture. A wide range of communities are present, extending from *Carex rostrata – Potentilla palustris* tall-herb fen and *Carex rostrata – Sphagnum squarrosum* mire through to swamp vegetation more strongly dominated by single species such as bottle sedge *Carex rostrata*, water horsetail *Equisetum fluviatile* and common spike-rush *Eleocharis palustris*.

Conservation Objectives (Source CCW): The vision for **active raised bogs** is for it to be in a favourable conservation status within the site, where all of the following conditions are satisfied:

- Raised bog habitat with only a few scattered trees cover around 20% of the site.
- The bog surface consists of a series of pools and hummocks.
- The drier hummocks support heather, hare's-tail cottongrass, cross-leaved heath and purple moor-grass, while the pools are dominated by common cottongrass and bog-mosses.
- Purple moor-grass is not overwhelmingly dominant on the raised bog.
- Scattered birch trees and willow scrub, where present, do not form a closed canopy.
- There is no significant bracken encroachment around the bog edges or on the bog dome.
- Water levels on the bog remain high throughout the year.
- The vegetation is not affected by atmospheric pollution.
- All other factors affecting the achievement of the foregoing conditions are under control.

The vision for **transition mires and quaking bogs** is for it to be in a favourable conservation status within the site, where all of the following conditions are satisfied:

- "Transition mire", comprising basin bog and swamp vegetation, with some scattered trees and scrub, covers at around 10% of the site.
- There is a broad zone of "transition mire" extending to at least 6ha on the southwest side of the raised bog dome, with smaller patches of similar vegetation close to the main ditches in Portway meadows.
- Areas closest to the raised bog have vegetation that is characteristic of more acidic conditions, with plants such as sedges, common cottongrass, marsh cinquefoil, soft rush, water horsetail and marsh pennywort over carpets of bog-mosses.
- In the central zone of this transition mire, bog-mosses are gradually replaced by others, such as bog groove-moss and spear-mosses, with a greater range of other typical "poor-fen" plants, including bogbean, water mint, bog pondweed, marsh marigold, lesser spearwort, common marsh-bedstraw and forget-me-nots.
- The areas furthest from the raised bog support additional plants that are found in more nutrient-rich swamps, including common spike-rush, bulrush, lesser pond-sedge, greater tussock-sedge, gipsywort and the locally rare greater spearwort. Here the taller swamp plants form a dense canopy during the summer months but the water beneath supports floating plants such as floating club-rush, ivy-leaved duckweed and bladderwort.
- There are large patches of rusty willow scrub but they occupy less than 10% of the south western bog transition zone in total and the willow and birch trees are not encroaching into the open bog and swamp areas.
- Plants indicating high nutrient levels and disturbance, such as floating sweet-grass and creeping buttercup may be prominent at the edges of the common but these plants are uncommon in the central wetland areas.
- There are poached areas with sparse vegetation, where grazing animals roam, but these cover less than 5% of the swamp zone in total.
- Water levels are maintained so that surface water is present throughout the year.
- There is no significant input of nutrient-rich water from ditches and surrounding land.
- All other factors affecting the achievement of the foregoing conditions are under control.
- There are good populations of wetland breeding birds, including water rail, snipe, sedge warbler and reed bunting.

The vision for ***Molinia*** **meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)** is for it to be in a favourable conservation status within the site, where all of the following conditions are satisfied:

- Around 20% of the site supports alluvial forest.
- The majority of this woodland is found in the "lagg zone" of the raised bog around the north-eastern edge of the common. With small patches within the meadows at Portway, Dol-y-cannau and Cefn-y-blean.
- The tree canopy consists of mixtures of downy birch, alder and rusty willow, with some ash and aspen in places.
- The ground flora consists of a variety of wetland plants, including common reed, greater tussock sedge, purple moor-grass, meadowsweet, hemp-agrimony, bittersweet, soft rush, opposite-leaved golden-saxifrage and marsh marigold.
- The woodland is maintained as far as possible by natural processes.
- The canopy is fairly even but there occasional gaps where trees have died.
- The location of open glades varies over time.
- Standing and fallen dead wood is plentiful.
- Non-native trees and shrubs, such as Scots pine and sycamore, are rare.
- Plants indicating high nutrient levels, such as common nettle, bramble, cleavers and creeping buttercup, occur locally but are nowhere overwhelmingly dominant.
- Plants indicating surface drying, such as purple moor-grass, bracken and bramble, do not dominate the woodland ground flora.
- Grazing is light enough to allow regeneration of trees and shrubs.
- Water levels are maintained so that surface water is present throughout the year.
- There is no significant input of nutrient-rich water from ditches and surrounding land.
- All other factors affecting the achievement of the foregoing conditions are under control.
- The woodland supports populations of typical breeding birds.

The vision for **bog woodland** is for it to be in a favourable conservation status within the site, where all of the following conditions are satisfied:

- Around 10 - 15 % of the site supports bog woodland.
- All of this woodland occurs in patches around the edges of the raised bog or in the adjacent "lagg zone" around the north-eastern edge of the common.
- The tree canopy consists of mainly downy birch on the bog surface and mixtures of downy birch, rusty willow and alder in the lagg zone.
- The ground flora generally consists of purple moor-grass and common reed over carpets of bog-mosses. Other typical plants found here include marsh cinquefoil, water horsetail, lady fern, bilberry and velvet bent grass. Royal fern is abundant in some areas.
- The woodland is maintained as far as possible by natural processes.
- The canopy may be fairly open, particularly on the raised bog dome, with large glades.
- The location of open glades may vary over time.
- Standing and fallen dead wood are common in places.
- Non native trees and shrubs, such as Scots pine, are rare.
- Plants indicating high nutrient levels, such as common nettle, bramble, cleavers and creeping buttercup are absent.
- Plants indicating surface drying, such as bracken, do not dominate the ground flora.
- Grazing is light enough to allow some regeneration of trees and shrubs.
- Water levels are maintained so that water table is at or close to the surface throughout the year.
- All other factors affecting the achievement of the foregoing conditions are under control.

The vision for **Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)** is for it to be in a favourable conservation status within the

site, where all of the following conditions are satisfied:

- Species-rich "fen-meadow" vegetation occupies between 6% and 10% of the site in total.
- A large part of Portway meadows support this vegetation and there are other patches on the drier ground at the south-west end of the common, Llanshiver and Cefn-y-blaen.
- The vegetation consists of mixtures of purple moor-grass and sharp-flowered rush, with a wide variety of other plants, including devil's-bit scabious, meadow thistle, fen bedstraw, marsh valerian, flea sedge, quaking grass, cross-leaved heath, tawny sedge and marsh orchids.
- Purple moor-grass and rushes are not completely dominant and there is no significant accumulation of dead vegetation from year to year.
- Plants indicating disturbance and nutrient enrichment, such as Yorkshire fog, floating sweet-grass, rough-meadow grass, marsh thistle, creeping buttercup and cleavers are not prominent in these areas.
- The fen meadow areas may have scattered trees or bushes but are generally free from dense or invading scrub.
- Some bare ground is present but cattle poached areas are not extensive.
- Water levels are maintained so that the water table is close to the surface throughout the year but these areas are not subject to regular flooding.
- There is no significant input of nutrient-rich water from ditches and surrounding land.
- All other factors affecting the achievement of the foregoing conditions are under control.
- There are good populations of wetland breeding birds, such as snipe and lapwing.

Site Vulnerability: The open mire areas are currently threatened by natural succession to willow and birch carr. This is partly a result of a reduction in the numbers of livestock being grazed on the common in summer. The spread of woody species is being monitored and a programme of birch and willow clearance has been initiated. The effects of reduced grazing on the vegetation structure and composition are also being monitored with a view to increasing livestock numbers where appropriate. The spread of soft rush into the swamp and mire communities has been monitored and a programme of experimental cutting has been initiated. The mire communities could also be adversely affected by falling water tables, eutrophication as a result of agricultural intensification on surrounding land, or acidification via rainfall. Current monitoring indicates that all of these influences fall within acceptable limits. Sluices maintain water tables on-site, and a large amount of adjacent unimproved pasture provides a buffer against eutrophication.

Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats of primary reason for selection: Active raised bogs (priority feature) (considered to be one of the best areas in the UK)	• Maintain water table levels • Grazing and management regime • Control of succession processes
Annex I habitats of primary reason for selection: Transition mires and quaking bogs (considered to be one of the best areas in the UK)	• Maintain water table levels • Grazing and management regime • Control of succession processes
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)	• Maintain water table levels • Grazing and

(the area is considered to support a significant presence)	management regime • Control of succession processes
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: Bog woodland (priority feature) (considered to be rare as its total extent in the UK is estimated to be less than 1000ha and the area is considered to support a significant presence)	• Maintain water table levels • Control of succession processes
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) (priority feature) (the area is considered to support a significant presence).	• Maintain water table levels • Control of succession processes

Table 9: River Clun

Site Name: River Clun SAC, SO393754, England, Herefordshire and Shropshire	
Site Description: The River Clun (14.93ha) supports the freshwater pearl mussel *M. margaritifera*, which grows to 140mm in length, and burrows into sandy substrates, often between boulders and pebbles, in fast-flowing rivers and streams. It requires cool, well-oxygenated soft water free of pollution or turbidity. The mussel spends its larval, or glochidial, stage attached to the gills of salmonid fishes. The larvae attach themselves during mid to late summer and drop off the following spring to settle in the riverbed gravel where they grow to adulthood.	
Conservation Objectives: NE to confirm this version and provide further detail if available - According to the EN Conservation Objectives for the River Teme SSSI (part of the River Clun) V4 and 13 March 2006 format version 1.5: Freshwater pearl mussel population density should be 5 mussels per m^2 within a sample transect, age structure should be at least 20% of population c. 65mm and at least 1 mussel c.30mm, fish host populations: juvenile salmonid densities (0+ and 1+ year classes) should be abundant (to be refined following the results of the Life in UK Rivers project on pearl mussel/fish host relationships), river morphology should maintain the characteristic physical features of the river channel, banks and riparian zone, river substrate should maintain very little or no silt and fine sand in substrate, negative indicators include an absence of rainbow trout and brook trout and any other non-native species that may impair juvenile densities of salmon and brown/sea trout, and negative indicators: signs of disturbance being no disturbance of existing mussel beds by in-stream activities.	
Site Vulnerability: Freshwater pearl mussel *Margaritifera margaritifera* is dependent on low sediment and nitrate levels, fast flows of cool water and clean gravels. It also relies on the presence of trout for part of its breeding cycle. Intensification of agriculture across the catchment is a significant threat to the long-term survival of the isolated population at this site i.e. enhanced sedimentation through poor agricultural practice leading to smothering of adult and juvenile mussels; eutrophication of waters through fertilizer run-off from adjacent land. In addition upstream domestic sewage treatment works are believed to give a significant nutrient loading. Recent increases in the occurrence of alder disease also pose a risk through loss of shading bankside tree cover. Some of these issues will be addressed by revised authorisation, Review of Consents /AMP 4 processes. Sustainable agricultural management is being promoted via production of Whole Farm Plans, Environmentally Sensitive Area Agreements and Countryside Stewardship Agreements for landowners within the catchment.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex II species present as a qualifying feature, but not a primary reason for site selection: Freshwater pearl mussel *Margaritifera margaritifera* (considered to support a	• Maintenance of good water quality (limit pollution and sedimentation, particularly from agricultural run-off) • Maintenance of salmonid populations • Maintain riparian vegetation

significant presence)	

Table 10: River Usk

Site Name: River Usk SAC, SO301113, Wales, Newport, Monmouthshire and Powys
Site Description: The Usk is a medium-sized catchment in South Wales, important for its population of sea lamprey *Petromyzon marinus*. Survey of juveniles and observation of spawning adults indicates that this species is mainly restricted to the lower reaches of the catchment. The site supports a range of Annex II fish species. Healthy populations of Brook lamprey *Lampetra planeri* and River lamprey *Lampetra fluviatilis* are considered to provide exceptionally good quality habitat likely to ensure the continued survival of the species in this part of the UK. Twaite shad *Alosa fallax* spawns in the River Usk. The Usk is one of only four sites in the UK where a known breeding population of twaite shad occurs (the River Wye and Twyi are other SAC sites). Water quality and quantity are considered favourable for this species. The main channel is largely unmodified and a variety of aquatic habitats are present, including good quality spawning gravels and deep pools used for cover by adults and fry. However, Trostrey and Rhadyr Weirs may be a barrier to shad migration under low flow conditions. The River Usk is a river famous for its salmon *Salmo salar*, with a high proportion (c. 30-40%) of multi sea winter fish recorded in the rod catch. In 1999 the Usk had highest estimated egg deposition of any British river south of Cumbria, and was one of the few rivers in England and Wales to exceed its spawning target for salmon. The Usk has a mixed catchment with a largely unmodified river channel, no significant obstructions to salmon migration, good quality spawning gravels and a diversity of habitats providing excellent habitat for salmon parr. The most important tributaries for salmon spawning are included within the site boundary. The Usk represents bullhead *Cottus gobio* in the southern part of its range in Wales. It is considered to have exceptionally high-quality habitat with good water quality, abundant cover and a variety of aquatic habitats. Bullhead are widespread throughout the Usk system. The River Usk is also an important site for otters *Lutra lutra* in Wales. They are believed to be using most parts of the main river, from Newport upstream, and in recent years signs of otters have increased. In 1991 an expansion upstream of known otter ranges was recorded on several tributaries, including the Honddu, Senni and Crai. The upper Usk may have acted as a "refuge" during the decline of the 1950s, and had subsequently acted as a "source" population for recolonisation of South-East Wales.
Conservation Objectives (Source CCW): The ecological status of the **watercourse** is a major determinant of favourable condition status for all features. The required conservation objective for the watercourse is defined below: • The capacity of the habitats in the SAC to support each feature at near-natural population levels, as determined by predominantly unmodified ecological and hydromorphological processes and characteristics, should be maintained as far as possible, or restored where necessary. • The ecological status of the water environment should be sufficient to maintain a stable or increasing population of each feature. This will include elements of water quantity and quality, physical habitat and community composition and structure. • Flow regime, water quality and physical habitat should be maintained in, or restored as far as possible to, a near-natural state, in order to support the coherence of ecosystem structure and function across the whole area of the SAC. • All known breeding, spawning and nursery sites of species features should be maintained as suitable habitat as far as possible, except where natural processes cause them to change. • Flows, water quality, substrate quality and quantity at fish spawning sites and nursery areas will not be depleted by abstraction, discharges, engineering or gravel extraction activities or other impacts to the extent that these sites are damaged or destroyed. • The river planform and profile should be predominantly unmodified. Physical modifications having an adverse effect on the integrity of the SAC, including, but not limited to, revetments on active alluvial river banks using stone, concrete or waste materials, unsustainable extraction of gravel, addition or release of excessive quantities of fine sediment, will be avoided. • River habitat SSSI features should be in favourable condition. In the case of the Usk

Tributaries SSSI, the SAC habitat is not underpinned by a river habitat SSSI feature. In this case, the target is to maintain the characteristic physical features of the river channel, banks and riparian zone.

- Artificial factors impacting on the capability of each species feature to occupy the full extent of its natural range should be modified where necessary to allow passage, eg. weirs, bridge sills, acoustic barriers.
- Natural factors such as waterfalls, which may limit the natural range of a species feature or dispersal between naturally isolated populations, should not be modified.
- Flows during the normal migration periods of each migratory fish species feature will not be depleted by abstraction to the extent that passage upstream to spawning sites is hindered.
- Flow objectives for assessment points in the Usk Catchment Abstraction Management Strategy will be agreed between EA and CCW as necessary.
- Levels of nutrients, in particular phosphate, will be agreed between EA and CCW for each Water Framework Directive water body in the Usk SAC, and measures taken to maintain nutrients below these levels.
- Levels of water quality parameters that are known to affect the distribution and abundance of SAC features will be agreed between EA and CCW for each Water Framework Directive water body in the Usk SAC, and measures taken to maintain pollution below these levels.
- Potential sources of pollution not addressed in the Review of Consents, such as contaminated land, will be considered in assessing plans and projects.
- Levels of suspended solids will be agreed between EA and CCW for each Water Framework Directive water body in the Usk SAC. Measures including, but not limited to, the control of suspended sediment generated by agriculture, forestry and engineering works, will be taken to maintain suspended solids below these levels.

The vision for **water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation** is as set out in the rows below:

Favourable Condition Status: The natural range of the plant communities represented within this feature should be stable or increasing in the SAC. The natural range is taken to mean those reaches where predominantly suitable habitat exists over the long term. Suitable habitat and associated plant communities may vary from reach to reach. Suitable habitat is defined in terms of near-natural hydrological and geomorphological processes and forms e.g. depth and stability of flow, stability of bed substrate, and ecosystem structure and functions e.g. nutrient levels, shade. Suitable habitat for the feature need not be present throughout the SAC but where present must be secured for the foreseeable future, except where natural processes cause it to decline in extent.	**Supporting Information / Current Knowledge:** More information is required on the natural range and distribution of this feature in the Usk. Important examples of the feature may be present outside currently known locations. Sympathetic management will be promoted wherever the feature is present. Species indicative of unfavourable condition for this feature e.g. filamentous algae associated with eutrophication, invasive non-native species, should be maintained or restored below an acceptable threshold level, indicative of high ecological status, within the SAC.
Favourable Condition Status: The area covered by the feature within its natural range in the SAC should be stable or increasing.	**Supporting Information / Current Knowledge:** 3 site management units are known to have occurrences of this important feature. Management to maintain or increase the feature within these units will be a priority. Adverse factors may include elevated nutrient levels, shading or altered flow and/or sediment transport regimes.

Favourable Condition Status: The conservation status of the feature's typical species should be favourable. The typical species are defined with reference to the species composition of the appropriate JNCC river vegetation type for the particular river reach, unless differing from this type due to natural variability when other typical species may be defined as appropriate.	**Supporting Information / Current Knowledge:** More information is required on the typical species that are expected to be found within each management unit in the SAC.
The vision for **Sea lamprey *Petromyzon marinus;* Brook lamprey *Lampetra planeri;* River lamprey *Lampetra fluviatilis;* Twaite shad *Alosa fallax;* Atlantic salmon *Salmo salar;* Bullhead *Cottus gobio; and* Allis shad *Alosa alosa*** is for them to be in a favourable conservation status, where all of the following conditions are satisfied as set out in the rows below:	
Favourable Condition Status: The population of the feature in the SAC is stable or increasing over the long term.	**Supporting Information / Current Knowledge:** Entrainment in water abstractions directly impacts on population dynamics through reduced recruitment and survival rates. Fish stocking can adversely affect population dynamics through competition, predation, and alteration of population genetics and introduction of disease.
Favourable Condition Status: The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches where predominantly suitable habitat for each life stage exists over the long term. Suitable habitat is defined in terms of near-natural hydrological and geomorphological processes and forms e.g. suitable flows to allow upstream migration, depth of water and substrate type at spawning sites, and ecosystem structure and functions e.g. food supply. Suitable habitat need not be present throughout the SAC but where present must be secured for the foreseeable future. Natural factors such as waterfalls may limit the natural range of individual species. Existing artificial influences on natural range that cause an adverse effect on site integrity, such as physical barriers to migration.	**Supporting Information / Current Knowledge:** Some reaches of the Usk SAC are more suitable for some features than others e.g. the Senni has important populations of brook/river lamprey and salmon but is not used by shad due to its small size and distance from the estuary. These differences influence the management priorities for individual reaches and are used to define the site units. In general, management for one feature is likely to be sympathetic for the other features present in the river, provided that the components of favourable conservation status for the watercourse are secured. The characteristic channel morphology provides the diversity of water depths, current velocities and substrate types necessary to fulfil the habitat requirements of the features. The close proximity of different habitats facilitates movement of fish to new preferred habitats with age. The presence of hard bank revetments in a number of active alluvial reaches e.g. through Brecon and upstream of Abergavenny, adversely affects the processes that maintain suitable habitat for the SAC features. Hydrological processes in the Usk are currently affected by large abstractions, especially at Prioress Mill and Brecon Weir. However, there are many smaller abstractions not considered to cause a problem at present. Shad and salmon migration can be affected by acoustic barriers and by high sediment loads, which can originate from a number of sources

	including construction works.
Favourable Condition Status: There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.	**Supporting Information / Current Knowledge:** Allis and Twaite shad are affected by range contraction due to artificial barriers to migration in the Usk. It is likely that this loss of habitat affects their maintenance in the SAC on a long-term basis.
The vision for **Otter *Lutra lutra*** is for it to be in a favourable conservation status, where all of the following conditions are satisfied as set out in the below rows:	
Favourable Condition Status: The population of otters in the SAC is stable or increasing over the long term and reflects the natural carrying capacity of the habitat within the SAC, as determined by natural levels of prey abundance and associated territorial behaviour.	**Supporting Information / Current Knowledge:** None
Favourable Condition Status: The natural range of otters in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches that are potentially suitable to form part of a breeding territory and/or provide routes between breeding territories. The whole area of the Usk SAC is considered to form potentially suitable breeding habitat for otters. The size of breeding territories may vary depending on prey abundance. The population size should not be limited by the availability of suitable undisturbed breeding sites. Where these are insufficient they should be created through habitat enhancement and where necessary the provision of artificial holts. No otter breeding site should be subject to a level of disturbance that could have an adverse effect on breeding success. Where necessary, potentially harmful levels of disturbance must be managed.	**Supporting Information / Current Knowledge:** Survey information shows that otters are widely distributed in the Usk catchment. While the breeding population in the Usk is not currently considered to limited by the availability of suitable breeding sites, there is some uncertainty over the number of breeding territories which the SAC is capable of supporting given near-natural levels of prey abundance. The decline in eel populations may be having an adverse effect on the population of otters in the Usk.
Favourable Condition Status: The safe movement and dispersal of individuals around the SAC is facilitated by the provision, where necessary, of suitable riparian habitat, and underpasses, ledges, fencing etc at road bridges and other artificial barriers.	**Supporting Information / Current Knowledge:** Restrictions on the movement of otters around the SAC, and between adjoining sites are currently a particular concern in the reach through Newport as a result of a continued decrease in undisturbed suitable riparian habitat.
Site Vulnerability: The River Usk (1007.71ha) is an excellent habitat for six Annex II freshwater fish. There are some concerns over long-term aquatic and riparian habitat degradation but these are being addressed in the Usk Catchment Management Plan, the Conservation Strategy, the River SSSI Management Plan, and by the Countryside Council for Wales and Environment Agency encouraging owners and occupiers to carry out positive habitat management through agreements and agri-environment schemes. There are few barriers to migration for the anadromous species and where barriers exist, investigation is proposed to analyse for potential impacts and remedy them through multi-species fish passes. Water quality is good throughout the main river, except for localised enrichment from sewage discharges, the effects of which, along with the more significant water abstractions, are being closely monitored by the Environment Agency.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats present as a qualifying feature, but not a primary reason for site	• Maintain water quality, water flows and control water abstractions

selection: Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (the area is considered to support a significant presence).	• Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution
Annex II species that are a primary reason for site selection: Sea lamprey *Petromyzon marinus* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal of barriers to fish migration
Annex II species that are a primary reason for site selection: Brook lamprey *Lampetra planeri* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal of barriers to fish migration
Annex II species that are a primary reason for site selection: River lamprey *Lampetra fluviatilis* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal of barriers to fish migration
Annex II species that are a primary reason for site selection: Twaite shad *Alosa fallax* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal of barriers to fish migration
Annex II species that are a primary reason for site selection: Atlantic salmon *Salmo salar* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal of barriers to fish migration
Annex II species that are a primary reason for site selection: Bullhead *Cottus gobio* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution
Annex II species present as a qualifying feature, but not a primary reason for site selection: Allis shad *Alosa alosa* (the area is considered to support a significant presence)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal of barriers to fish migration
Annex II species that are a primary reason for site selection: Otter *Lutra lutra* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse

	agricultural pollution • Control of human activities and disturbance

Table 11: River Wye

Site Name: River Wye SAC, SO109369, England and Wales, Monmouthshire, Gloucestershire, Herefordshire and Powys
Site Description: The Wye (2234.89ha), on the border of England and Wales, is a large river representative of sub-type 2. It is a geologically mixed catchment, including shales and sandstones, and there is a clear transition between the upland reaches, with characteristic bryophte-dominated vegetation, and the lower reaches, with extensive *Ranunculus* beds. There is a varied water-crowfoot *Ranunculus* flora; stream water-crowfoot *R. penicillatus* ssp. *pseudofluitans* is abundant, with other *Ranunculus* species – including the uncommon river water-crowfoot *R. fluitans* – found locally. Other species, characteristic of sub-type 2 include, flowering-rush *Butomus umbellatus*, lesser water-parsnip *Berula erecta* and curled pondweed *Potamogeton crispus*. There is an exceptional range of aquatic flora in the catchment including river jelly-lichen *Collema dichotum*. The river channel is largely unmodified and includes some excellent gorges, as well as significant areas of associated woodland. The R. Wye system is the best site known in Wales for White-clawed crayfish *Austropotamobius pallipes*. The tributaries are the main haven for the species, particularly at the confluences of the main river and the Edw, Dulas Brook, Sgithwen and Clettwr Brook. Sea lamprey populations are found in the main stem below Llyswen. The site provides exceptionally good quality habitat for sea lamprey and supports a healthy population. Brook and River lamprey populations are widely distributed in the Wye's catchment. The river provides exceptionally good quality habitat for Brook and River lamprey and supports their healthy populations. Twaite shad have long been abundant in the Wye, often spawning at or just above the tidal limit, but in the Wye they migrate over 100km upstream, the highest spawning site being at Builth Wells. Data held by the Environment Agency indicate that, of the three selected rivers, the largest spawning areas for this species occur on the Wye. The river has relatively good water quality, adequate flows through an unobstructed main channel and a wide range of aquatic habitats conducive to supporting this fish species. In particular, there are a number of deep pools essential for congestion before spawning. Historically, the Wye is the most famous and productive river in Wales for Atlantic salmon, with high quality spawning grounds and juvenile habitat in both the main channel and tributaries; and water quality in the system is generally favourable. It is also one of the most diverse river systems in the UK, with a transition from hard geology, high gradients, rapid flow fluctuations and low nutrient content in its upper reaches, to a more nutrient-rich river with lower gradient, more stable flow and softer geology in the lowlands. The effect of river engineering work on migration and spawning has been limited, although there is a localised influence from the Elan Valley reservoirs, through inundation of spawning and nursery habitat and fluctuations in flow and water levels in the Upper Wye. The most important tributaries for spawning are included in the SAC. Although in the past non-native salmon may have been released to the system, the impact of this is likely to have been winter (MSW) fish, a stock component, which has declined sharply in recent years throughout the UK. This pattern has also occurred in the Wye, with a consequent marked decline in the population since the 1980's. However, the Wye salmon population is still of considerable importance in UK terms. With a range of nutrient conditions and aquatic habitats and generally good water quality for fish species, the diversity of habitat types in the Wye means that it is likely to represent most of the habitat conditions in which bullhead occurs in Britain, highlighting the conservation importance of this river. The Wye holds the densest and most well-established otter population in Wales, representative of otters occurring in lowland freshwater habitats in the borders of Wales. The river has bank-side vegetation cover, abundant food supply, clean water and undisturbed areas of dense areas of dense scrub suitable for breeding, making it particularly favourable as otter habitat. The population remained even during the lowest point of the UK decline, confirming that the site is particularly favourable for this species and the population likely to be highly stable.
Conservation Objectives (Source CCW): Conservation Objective for the watercourse • The capacity of the habitats in the SAC to support each feature at near-natural

population levels, as determined by predominantly unmodified ecological and hydromorphological processes and characteristics, should be maintained as far as possible, or restored where necessary.

- The ecological status of the water environment should be sufficient to maintain a stable or increasing population of each feature. This will include elements of water quantity and quality, physical habitat and community composition and structure. It is anticipated that these limits will concur with the relevant standards used by the Review of Consents process.
- Flow regime, water quality and physical habitat should be maintained in, or restored as far as possible to, a near-natural state, in order to support the coherence of ecosystem structure and function across the whole area of the SAC.
- All known breeding, spawning and nursery sites of species features should be maintained as suitable habitat as far as possible, except where natural processes cause them to change.
- Flows, water quality, substrate quality and quantity at fish spawning sites and nursery areas will not be depleted by abstraction, discharges, engineering or gravel extraction activities or other impacts to the extent that these sites are damaged or destroyed.
- The river planform and profile should be predominantly unmodified. Physical modifications having an adverse effect on the integrity of the SAC, including, but not limited to, revetments on active alluvial river banks using stone, concrete or waste materials, unsustainable extraction of gravel, addition or release of excessive quantities of fine sediment, will be avoided.
- River habitat SSSI features should be in favourable condition. Where the SAC habitat is not underpinned by a river habitat SSSI feature, the target is to maintain the characteristic physical features of the river channel, banks and riparian zone.
- Artificial factors impacting on the capability of each species feature to occupy the full extent of its natural range should be modified where necessary to allow passage, e.g. weirs, bridge sills, acoustic barriers.
- Natural factors such as waterfalls, which may limit, wholly or partially, the natural range of a species feature or dispersal between naturally isolated populations, should not be modified.
- Flows during the normal migration periods of each migratory fish species feature will not be depleted by abstraction to the extent that passage upstream to spawning sites is hindered.
- Flow objectives for assessment points in the Wye Catchment Abstraction Management Strategy will be agreed between EA and CCW as necessary. It is anticipated that these limits will concur with the standards used by the Review of Consents process.
- Levels of nutrients, in particular phosphate, will be agreed between EA and CCW for each Water Framework Directive water body in the Wye SAC, and measures taken to maintain nutrients below these levels. It is anticipated that these limits will concur with the standards used by the Review of Consents process.
- Levels of water quality parameters that are known to affect the distribution and abundance of SAC features will be agreed between EA and CCW for each Water Framework Directive water body in the Wye SAC, and measures taken to maintain pollution below these levels. It is anticipated that these limits will concur with the standards used by the Review of Consents process.
- Potential sources of pollution not addressed in the Review of Consents, such as contaminated land, will be considered in assessing plans and projects.
- Levels of suspended solids will be agreed between EA and CCW for each Water Framework Directive water body in the Wye SAC. Measures including, but not limited to, the control of suspended sediment generated by agriculture, forestry and engineering works, will be taken to maintain suspended solids below these levels.

The vision for water courses of **plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation** is for it to be in a favourable conservation status, where all of the following conditions are satisfied, see rows below.

Favourable Condition Status: The natural range of the plant communities represented	**Supporting Information / Current Knowledge:** Stands of this feature are

within this feature should be stable or increasing in the SAC. The natural range is taken to mean those reaches where predominantly suitable habitat exists over the long term. Suitable habitat and associated plant communities may vary from reach to reach. Suitable habitat is defined in terms of near-natural hydrological and geomorphological processes and forms e.g. depth and stability of flow, stability of bed substrate, and ecosystem structure and functions e.g. nutrient levels, shade. Suitable habitat for the feature need not be present throughout the SAC but where present must be secured for the foreseeable future, except where natural processes cause it to decline in extent.	known to be widespread in the Wye SAC including many of the tributaries. However, further information on its natural range, distribution and variation is desirable. Sympathetic management will be promoted wherever the feature is present. Species indicative of unfavourable condition for this feature e.g. filamentous algae associated with eutrophication, invasive non-native species, should be maintained or restored below an acceptable threshold level, indicative of high ecological status within the SAC.
Favourable Condition Status: The area covered by the feature within its natural range in the SAC should be stable or increasing.	**Supporting Information / Current Knowledge:** Adverse factors may include elevated nutrient levels, shading or altered flow and/or sediment regimes. It is possible that reaches with slightly elevated nutrient levels and/or regulated flows may have a higher cover of the feature than under natural conditions, though species composition may also be affected.
Favourable Condition Status: The conservation status of the feature's typical species should be favourable. The typical species are defined with reference to the species composition of the appropriate JNCC river vegetation type for the particular river reach, unless differing from this type due to natural variability when other typical species may be defined as appropriate.	**Supporting Information / Current Knowledge:** More information on the typical species expected within each management unit in the SAC is required. The effects of artificial factors such as flow regulation on species composition should be examined e.g. river jelly lichen may prefer greater flow variability
The vision for **transition mires and quaking bogs** is for it to be in a favourable conservation status, where all of the following conditions are satisfied, see rows below:	
Favourable Condition Status: The natural range of the plant communities represented within this feature should be stable or increasing in the SAC. The natural range is taken to mean those reaches where near-natural hydrological and geomorphological processes and landforms favour the development of this habitat. The feature need not be present in all suitable locations in the SAC but where present must be secured for the foreseeable future.	**Supporting Information / Current Knowledge:** This feature is represented within the SAC at Colwyn Brook Marshes SSSI. Other locations with similar habitat within and adjacent to the SAC are not considered to qualify as examples of this feature e.g. Waen Rhyd SSSI, but may have similar management requirements. Species indicative of unfavourable condition for this feature e.g. invasive native trees and shrubs and non-native species, should be maintained or restored below an acceptable threshold level, indicative of high ecological status within the SAC.
Favourable Condition Status: The area covered by the feature within its natural range in the SAC should be stable or increasing.	**Supporting Information / Current Knowledge:** Adverse factors may include elevated nutrient levels or altered hydrological processes through drainage or groundwater abstraction.

Favourable Condition Status: The conservation status of the feature's typical species should be favourable. The typical species are defined with reference to the species composition of the appropriate NVC type(s), unless differing from this type due to natural variability/local distinctiveness when other typical/indicator species may be defined as appropriate.	**Supporting Information / Current Knowledge:** More information on the typical species expected within each management unit is required. Details to be confirmed.
The vision for **white-clawed (or Atlantic Stream) crayfish Austropotamobius pallipes** is for it to be in a favourable conservation status, where all of the following conditions are satisfied, see rows below:	
Favourable Condition Status: The population of the feature in the SAC is stable or increasing over the long term.	**Supporting Information / Current Knowledge:** Presence of non-native crayfish adversely affects population dynamics through competition, predation and introduction of disease (crayfish plague). This is thought to invariably lead to local extinction of white-clawed crayfish. American signal crayfish are present in the Bachawy and Lugg and Arrow sub-catchments (outside the SAC) and have been reported in the Edw. The release of highly toxic sheep dips into streams has caused mass mortality and local extinction in the SAC from which populations may be very slow to recover.
Favourable Condition Status: The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches where predominantly suitable habitat for each life stage exists over the long term. Suitable habitat is defined in terms of near-natural hydrological and geomorphological processes and forms e.g. substrate type, water hardness and temperature, and ecosystem structure and functions e.g. food supply, absence of invasive non-native competitors. Suitable habitat need not be present throughout the SAC but where present must be secured for the foreseeable future. Natural factors such as waterfalls may limit the natural range of individual species. Existing artificial influences on natural range that cause an adverse effect on site integrity will be assessed.	**Supporting Information / Current Knowledge:** Some reaches of the Wye SAC are more suitable for some features than others e.g. the natural range of white-clawed crayfish may be limited by water hardness and temperature (which may possibly also mediate competition with non-native crayfish to some extent). These differences influence the management priorities for individual reaches and are used to define the site units. Eradication of American signal crayfish, or control of its spread in the Wye catchment is considered essential to the long-term suitability of the SAC for white-clawed crayfish. At present there are no known effective methods for eradication or long-term control of signal crayfish. Prevention of release of toxic sheep dips and other harmful diffuse pollution into watercourses is essential.
Favourable Condition Status: There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.	**Supporting Information / Current Knowledge:** Invasion of American signal crayfish is likely to make existing habitat in the Wye SAC unsuitable for white-clawed crayfish in the long term. There may be a need to translocate white-clawed crayfish to suitable habitat outside its present (and historic) range.

The vision for **Sea lamprey Petromyzon marinus; Brook lamprey Lampetra planeri ; River lamprey Lampetra fluviatilis ; Twaite shad Alosa fallax ; Allis shad Alosa alosa ;Atlantic salmon Salmo salar ; and Bullhead Cottus gobio** is for them to be in a favourable conservation status, where all of the following conditions are satisfied, see rows below:	
Favourable Condition Status: The population of the feature in the SAC is stable or increasing over the long term.	**Supporting Information / Current Knowledge:** Entrainment in water abstractions directly impacts on population dynamics through reduced recruitment and survival rates. Fish stocking can adversely affect population dynamics through competition, predation, introduction of disease and alteration of population genetics.
Favourable Condition Status: The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches where predominantly suitable habitat for each life stage exists over the long term. Suitable habitat is defined in terms of near-natural hydrological and geomorphological processes and forms e.g. suitable flows to allow upstream migration, depth of water and substrate type at spawning sites, and ecosystem structure and functions e.g. food supply. Suitable habitat need not be present throughout the SAC but where present must be secured for the foreseeable future. Natural factors such as waterfalls may limit the natural range of individual species. Existing artificial influences on natural range that cause an adverse effect on site integrity, such as physical barriers to migration, will be assessed.	**Supporting Information / Current Knowledge:** Some reaches of the Wye SAC are more suitable for some features than others e.g. the Edw has important populations of salmon but is not used by shad due to its small size. These differences influence the management priorities for individual reaches and are used to define the site units. In general, management for one feature is likely to be sympathetic for the other features present in the river, provided that the components of favourable conservation status for the watercourse are secured. The characteristic channel morphology provides the diversity of water depths, current velocities and substrate types necessary to fulfil the habitat requirements of the features. The close proximity of different habitats facilitates movement of fish to new preferred habitats with age. Hydrological processes in the Wye are affected by abstraction and regulation releases from the Elan Valley reservoirs. While these effects cannot practicably be removed any adverse effects on the integrity of the SAC should be minimised as far as possible. Extensive coniferous forestry plantations in the upper catchment, including the Irfon catchment, adversely affect the run-off and sediment characteristics and water quality of the river. Measures should be taken to restore the hydrological characteristics of headwater areas including wetland functions. Shad and salmon migration can be affected by acoustic barriers and by high sediment loads, which can originate from a number of sources including construction works.
Favourable Condition Status: There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.	**Supporting Information / Current Knowledge:** None

<table>
<tr><td colspan="2">The vision for Otter Lutra lutra is for it to be in a favourable conservation status, where all of the following conditions are satisfied, see rows below.</td></tr>
<tr><td>Favourable Condition Status: The population of otters in the SAC is stable or increasing over the long term and reflects the natural carrying capacity of the habitat within the SAC, as determined by natural levels of prey abundance and associated territorial behaviour.</td><td>Supporting Information / Current Knowledge: None</td></tr>
<tr><td>Favourable Condition Status: The natural range of otters in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches that are potentially suitable to form part of a breeding territory and/or provide routes between breeding territories. The whole area of the Wye SAC is considered to form potentially suitable breeding habitat for otters. The size of breeding territories may vary depending on prey abundance. The population size should not be limited by the availability of suitable undisturbed breeding sites. Where these are insufficient they should be created through habitat enhancement and where necessary the provision of artificial holts. No otter breeding site should be subject to a level of disturbance that could have an adverse effect on breeding success. Where necessary, potentially harmful levels of disturbance must be managed.</td><td>Supporting Information / Current Knowledge: Survey information shows that otters are widely distributed in the Wye catchment. However, an assessment of otter breeding habitat has indicated that there may be a shortage of suitable habitat around the middle reaches of the river, which may affect the long-term viability of the population. This should be addressed by habitat enhancement including stock exclusion from suitable woodlands near to the river but outside the floodplain.

The decline in eel populations may be having an adverse effect on the population of otters in the Wye.</td></tr>
<tr><td>Favourable Condition Status: The safe movement and dispersal of individuals around the SAC is facilitated by the provision, where necessary, of suitable riparian habitat, and underpasses, ledges, fencing etc at road bridges and other artificial barriers.</td><td>Supporting Information / Current Knowledge: Road and bridge improvement schemes within the catchment should take appropriate measures towards achievement of this objective.</td></tr>
<tr><td colspan="2">Site Vulnerability: Water quality impacts arising from changing agricultural land-use within the catchment are having direct and indirect effects on the SAC interests through effects of diffuse pollution such as nutrient run-off and increased siltation. Natural England and the Countryside Council for Wales are seeking to address such issues through improved targeting of existing and new agri-environment schemes and through improvements in compliance with agricultural Codes of Practice. Water quality is also affected by synthetic pyrethroid sheep-dips and by point-source discharges within the catchment. The impact of sewage treatment works on the SAC is being addressed through the Asset Management Plan process and review under the Habitats Regulation. Loss of riparian habitat is occurring as a result of changes in agricultural land-use practices and other factors, including riverside development and the loss of alder tree-cover through disease. These impacts and concerns over water quality will be identified and actions recommended within the joint Natural England / Environment Agency / Countryside Council for Wales conservation strategy for the river. Fishing activities are implicated in the decline of the salmon; initiatives such as the Wye Salmon Action Plan will help to address this issue. There is increasing demand for abstraction from the river for agriculture and portable water. The impact of this is still being investigated by the Environment Agency, but maintenance of water levels and flow will be addressed under the review of consents under the Habitats Regulation. Demand for increased recreational activities is a source of potential concern for the future. Regularisation of the functions of the competent authorities, currently being sought, should reduce the risk of damage to the SAC as a result of developments for such activities.</td></tr>
<tr><td>Reason for Designation</td><td>Environmental Conditions Needed to Support Site Integrity</td></tr>
</table>

Annex I habitats that are a primary reason for site selection: Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (considered to be one of the best areas in the UK)	• Maintain water quality and flow levels • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Control of recreational activities
Annex II habitats present as a qualifying feature, but not a primary reason for site selection: Transition mires and quaking bogs (considered to support a significant presence)	• Maintain water quality • Maintain water table levels
Annex II species that are a primary reason for site selection: White-clawed (or Atlantic Stream) crayfish *Austropotamobius pallipes* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution
Annex II species that are a primary reason for site selection: Sea lamprey *Petromyzon marinus* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal and prevention of barriers to fish migration
Annex II species that are a primary reason for site selection: Brook lamprey *Lampetra planeri* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal and prevention of barriers to fish migration
Annex II species that are a primary reason for site selection: River lamprey *Lampetra fluviatilis* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal and prevention of barriers to fish migration
Annex II species that are a primary reason for site selection: Twaite shad *Alosa fallax* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal and prevention of barriers to fish migration
Annex II species that are a primary reason for site selection: Atlantic salmon *Salmo salar* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal and prevention of barriers to fish migration
Annex II species that are a primary reason for site selection: Bullhead *Cottus gobio*	• Maintain water quality, water flows and control water abstractions

(considered to one of the best areas in the UK)	• Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution
Annex II species that are a primary reason for site selection: Otter *Lutra lutra* (considered to be one of the best areas in the UK)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Control of human activities and disturbance
Annex II species present as a qualifying feature, but not a primary reason for site selection: Allis shad *Alosa alosa* (considered to support a significant presence)	• Maintain water quality, water flows and control water abstractions • Encourage appropriate management of adjacent land to reduce sedimentation and diffuse agricultural pollution • Removal and prevention of barriers to fish migration

Table 12: Rodborough Common

Site Name: Rodborough Common SAC, SO849036, England, Gloucestershire	
Site Description: Rodborough Common (104.26ha) is the most extensive area of semi-natural dry grasslands surviving in the Cotswolds central southern England, and presents CG5 *Bromus erectus – Brachypodium pinnatum* grassland, which is more or less confined to the Cotswolds. The site contains a wide range of structural types, ranging from short turf through to scrub margins, although short-turf vegetation is mainly confined to areas of shallower soils.	
Conservation Objectives: NE to confirm.	
Site Vulnerability: The grassland is dependant upon the maintenance of grazing, and this is co-ordinated through a Commoners Committee. The numbers of cattle grazing has declined with the general decline in the livestock industry. The site owners (National Trust) have developed a project to restore management to the species-rich slopes of the site, and a number of authorities are working together to provide traffic-calming measures on busy through roads to reduce the number of livestock injuries and promote further uptake of common rights. Scrub management is being addressed through the Environmentally Sensitive Areas Scheme. Recreation has an impact on areas accessible by cars, and is causing localised erosion. Management issues are being addressed through continued liason, joint working and a Site Management Statement between English Nature (now Natural England) and the National Trust.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats that are a primary reason for site selection: Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) (for which it is considered to be one of the best areas in the UK)	• Maintain and monitor management regime • Control of recreational activities

Table 13: Severn Estuary (SAC)

Site Name: Severn Estuary SAC, ST321748, England & Wales, Vale of Glamorgan, Cardiff, Newport, City of Bristol, Monmouthshire, Gloucestershire, North Somerset, Somerset and South Gloucestershire	
Site Description: The Severn Estuary is a large estuary with extensive intertidal mudflats and sandflats, rocky platforms and islands. Saltmarsh fringes the coast backed by grazing marsh with freshwater ditches and occasional brackish ditches. The seabed is rock and gravel with subtidal sandbanks. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second-highest tidal range in the world. This tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tidal swept sand and rock. A further consequence of the large tidal range is an extensive intertidal zone, one of the largest in the UK.	
Conservation Objectives: Please refer to Severn Estuary SPA for the Conservation Objectives, however these are only for the SPA and only give general information for the SAC, further information has been requested from NE and CCW for specific Conservation Objectives for the Seven Estuary SAC designation.	
Site Vulnerability: The conservation of the site features is dependent on the tidal regime. The tidal range in the Severn Estuary is the second highest in the world and the scouring of the seabed and strong tidal streams result in natural erosion of the habitats and the presence of high sediment loads. The estuary is therefore vulnerable to large-scale interference, mainly as a result of human actions. These include land-claim, aggregate extraction, physical developments such as barrage construction and other commercial construction activities, flood defences, industrial pollution, oil spillage and tourism-based activities and disturbance. There are several management mechanisms that seek to secure sustainable management of the Severn Estuary and its wildlife interest. A management scheme under Regulation 34 of the Habitats Regulation was established in 2004 in relation to the international bird interest that underpins designation as a Special Protection Area. Conservation advice has been provided under Regulation 33 in relation to conserving the internationally important bird populations. The mechanisms are in place to produce both Regulation 33 advice and a management scheme for the SAC once the site goes forward. The Severn Estuary Partnership is a longstanding partnership whose remit and membership extends beyond the designated area. It predates the European designations and seeks to deliver holistic management of the uses of the estuary. In Wales, Community Strategies and Local Biodiversity Action Plans also contribute to achieving the conservation aims for the Estuary.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats that are a primary reason for site selection: Estuaries (considered to be one of the best areas in the UK)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities
Annex I habitats that are a primary reason for site selection: Mudflats and sandflats not covered by seawater at low tide (considered to be one of the best areas in the UK)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities
Annex I habitats that are a primary reason for site selection: Atlantic salt meadows *Glauca-Puccinellietalia maritimae* (considered to be one of the best areas in the UK)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: Sandbanks, which are slightly covered by sea water all the time (considered to support a significant presence)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities

Annex I habitats present as a qualifying feature, but not a primary reason for site selection: Reefs (the area is considered to support a significant presence)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities
Annex II species that are a primary reason for site selection: Sea lamprey *Petromyzon marinus* (considered to be one of the best areas in the UK)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities
Annex II species that are a primary reason for site selection: River lamprey *Lampetra fluviatilis* (considered to be one of the best areas in the UK)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities
Annex II species that are a primary reason for site selection: Twaite shad *Alosa fallax* (considered to be one of the best areas in the UK)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities

Table 14: Severn Estuary (SPA)

Site Name: Severn estuary SPA, England & Wales, Avon, Gloucestershire, Gwent, Somerset and South Glamorgan
Site Description: The Severn Estuary is a large estuary with extensive intertidal mudflats and sandflats, rocky platforms and islands. Saltmarsh fringes the coast backed by grazing marsh with freshwater ditches and occasional brackish ditches. The seabed is rock and gravel with subtidal sandbanks. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second-highest tidal range in the world. This tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tidal swept sand and rock. A further consequence of the large tidal range is an extensive intertidal zone, one of the largest in the UK.
Conservation Objectives (Source CCW): **Gadwall**: Gadwall is also a qualifying interest feature of the Severn Estuary SPA but does not occur within the European Marine Site. It is found within the SPA, but only above the highest astronomical tide (HAT) and the European Marine Site for which this Regulation 33 advice is written, only extends up to HAT. Consequently, there are no specific conservation objectives within this document for this species. Objectives to maintain this features in favourable condition are identified within English Nature (now Natural England) and the Countryside Council for Wales' conservation objectives for the relevant SSSIs within each European Site boundary, and will be dealt with through procedures outlined in the Conservation (Natural Habitat &c.) Regulations 1994. However, relevant authorities need to have regard to such adjacent interests as they may be affected by activities taking place within, or adjacent to the European Marine Site. **European white-fronted goose**: The conservation objective is to maintain the European white-fronted goose population and its supporting habitats in favourable condition. This conservation objective is subject to review. The interest feature European white-fronted goose will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: (i) the 5 year peak mean population size for the wintering European white fronted goose population is no less than 3,002 individuals (ie the 5 year peak mean between 1988/9-1992/3); (ii) the extent of saltmarsh at the Dumbles is maintained;

(iii) the extent of intertidal mudflats and sandflats at Frampton Sands, Waveridge Sands and the Noose is maintained;
(iv) greater than 25% cover of suitable soft-leaved herbs and grasses is maintained during the winter on saltmarsh areas;
(v) unrestricted bird sightlines of >200m at feeding and roosting sites are maintained;
(vi) aggregations of European white-fronted goose at feeding or roosting sites are not subject to significant disturbance.

Dunlin: The conservation objective is to maintain the dunlin population and its supporting habitats in favourable condition. This conservation objective is subject to review.
The interest feature dunlin will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
(i) the 5 year peak mean population size for the wintering dunlin population is no less than 41,683 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);
(ii) the extent of saltmarsh is maintained;
(iii) the extent of intertidal mudflats and sandflats is maintained;
(iv) the extent of shingle and rocky shore is maintained;
(v) the extent of vegetation with a sward height of <10cm is maintained throughout the saltmarsh;
(vi) the distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained;
(vii) the distribution and abundance of suitable invertebrates in shingle and rocky shore is maintained;
(viii) the extent of strandlines is maintained;
(ix) unrestricted bird sightlines of >200m at feeding and roosting sites are maintained;
(x) aggregations of dunlin at feeding or roosting sites are not subject to significant disturbance.

Bewick's swan: The conservation objective is to maintain the Bewick's swan population and its supporting habitats in favourable condition. This conservation objective is subject to review. The interest feature Bewick's swan will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
(i) the 5 year peak mean population size for the Bewick's swan population is no less than 289 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);
(ii) the extent of saltmarsh at the Dumbles is maintained;
(iii) the extent of intertidal mudflats and sandflats at Frampton Sands, Waveridge Sands and the Noose is maintained;
(iv) the extent of vegetation with an effective field size of >6 ha and with unrestricted bird sightlines > 500m at feeding, roosting and refuge sites are maintained;
(v) greater than 25% cover of suitable soft leaved herbs and grasses in winter season throughout the transitional saltmarsh at the Dumbles is maintained;
(vi) aggregations of Bewick's swan at feeding, roosting and refuge sites are not subject to significant disturbance.

Shelduck: The conservation objective is to maintain the shelduck population and its supporting habitats in favourable condition. This conservation objective is subject to review. The interest feature shelduck will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
(i) the 5 year peak mean population size for the wintering shelduck population is no less than 2,892 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);
(ii) the extent of saltmarsh is maintained;
(iii) the extent of intertidal mudflats and sandflats is maintained;
(iv) the extent of shingle and rocky shore is maintained;
(v) the distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained;
(vi) unrestricted bird sightlines of >200m at feeding and roosting sites are maintained;
(vii) aggregations of shelduck at feeding or roosting sites are not subject to significant disturbance.

Redshank: The conservation objective is to maintain the redshank population and its

supporting habitats in favourable condition. This conservation objective is subject to review. The interest feature redshank will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
(i) the 5 year peak mean population size for the wintering redshank population is no less than 2,013 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);
(ii) the extent of saltmarsh is maintained;
(iii) the extent of intertidal mudflats and sandflats is maintained;
(iv) the extent of shingle and rocky shore is maintained;
(v) the extent of vegetation with a sward height of <10cm throughout the saltmarsh is maintained;
(vi) the distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained;
(vii) the distribution and abundance of suitable invertebrates in shingle and rocky shore is maintained;
(viii) strandlines are not subject to significant disturbance;
(ix) unrestricted bird sightlines of >200m at feeding and roosting sites are maintained;
(x) aggregations of redshank at feeding or roosting sites are not subject to significant disturbance.

Waterfowl assemblage: The conservation objective is to maintain the waterfowl assemblage and its supporting habitats in favourable condition. This conservation objective is subject to review. The interest feature waterfowl assemblage will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
(i) the 5 year peak mean population size for the waterfowl assemblage is no less than 68,026 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);
(ii) the extent of saltmarsh is maintained;
(iii) the extent of intertidal mudflats and sandflats is maintained;
(iv) the extent of shingle and rocky shore is maintained;
(v) extent of vegetation of <10cm throughout the saltmarsh is maintained;
(vi) the distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained;
(vii) the distribution and abundance of suitable invertebrates in shingle and rocky shore is maintained;
(viii) greater than 25% cover of suitable soft leaved herbs and grasses during the winter on saltmarsh areas is maintained;
(ix) strandlines are not subject to significant disturbance;
(x) unrestricted bird sightlines of >500m at feeding and roosting sites are maintained;
(xi) waterfowl aggregations at feeding or roosting sites are not subject to significant disturbance.

Natural processes: Each interest feature is subject to both natural processes and human influences. Human influence on the interest features is acceptable provided that it is compatible with the achievement of the conditions set out under the definition of favourable condition for each interest feature. A failure to meet these conditions, which is entirely a result of natural processes will not constitute unfavourable condition, but will trigger a review of the definition of favourable condition. This qualification is necessary because:
(a) the bird populations themselves are subject to natural factors, many of which arise outside the SPA, such as breeding success and winter temperatures;
(b) the supporting habitats of the birds are influenced by the evolution of the estuary. Natural adjustments within estuaries can take many forms. One important example is the tendency of estuaries to accumulate sediment, thereby changing their form from their original Holocene morphology to a state where tidal energy is dissipated by subtidal and intertidal sediment banks or features. This, with other natural processes, will therefore cause the width and depth of the estuary to change over time, moving towards a state of dynamic equilibrium or 'most probable state'. As part of this process, the location and extent of saltmarshes and mudflats may change, provided there is capacity to accommodate readjustment. However, where this process is constrained, the capacity of habitats to accommodate readjustment may be affected.

Site Vulnerability: The conservation of the site features is dependant on the tidal regime. The range is the second highest in the world and the scouring of the seabed and strong tidal streams result in natural erosion of the habitats. The estuary is therefore vulnerable to large-scale interference, including human actions. These include land-claim, aggregate extraction/dredging, physical developments such as barrage construction flood defences, pollution (industrial, oil spillage), eutrophication and tourism based activities and disturbance. These issues are being addressed through existing control measures and as part of the Severn Estuary Strategy. Since June 1995 the Severn Estuary Strategy has been working towards the sustainability management of the site, through the involvement of local authorities, interested parties and local people. This integrated approach is being further developed in conjunction with the SAC management scheme for the nature conservation interest of the estuary.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I birds and regularly occurring migratory birds not listed on Annex I: Internationally important populations of regularly occurring Annex I species: Gadwall *Anas strepera* 282 Individuals (0.9% of the population, 5 year peak mean 1991/92-1995/96)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities • Protection of bird sites
Annex I birds and regularly occurring migratory birds not listed on Annex I: Internationally important populations of regularly occurring Annex I species: Greater White-fronted Goose *Anser albifrons* 2664 Individuals (0.4% of the population, 5 year peak mean 1991/92-1995/96)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities • Protection of bird sites
Annex I birds and regularly occurring migratory birds not listed on Annex I: Internationally important populations of regularly occurring Annex I species: Dunlin *Calidris alpina* 44624 individuals (3.3% of the population, 5 year peak mean 1991/92-1995/96)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities • Protection of bird sites
Annex I birds and regularly occurring migratory birds not listed on Annex I: Internationally important populations of regularly occurring Annex I species: Beswick Swan *Cygnus columbianus bewickii* 280 individuals (3.9% of the GB population, 5 year peak mean 1991/92-1995/96),	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities • Protection of bird sites
Annex I birds and regularly occurring migratory birds not listed on Annex I: Internationally important populations of regularly occurring Annex I species: Common Shelduck *Tadorna tadorna* 3330 individuals (1.1% of the population, 5 year peak mean 1991/92-1995/96),	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities • Protection of bird sites
Annex I birds and regularly occurring migratory birds not listed on Annex I: Internationally important populations of regularly occurring Annex I species: Common Redshank *Tringa totanus* 2330 individuals (1.3% of the population, 5 year peak mean 1991/92-1995/96).	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational activities • Control of extraction and other industrial activities • Protection of bird sites
Internationally important assemblage of birds, over winter the area regularly supports: 84317	• Maintain tidal regime • Prevention of water and air borne

waterfowl (5 year peak mean 01/04/1998), including all of the above mentioned species.	pollution • Control of recreational activities • Control of extraction and other industrial activities • Protection of bird sites

Table 15: Severn Estuary (RAMSAR)

Site Name: Severn Estuary RAMSAR site, England & Wales, Vale of Glamorgan, Cardiff, Newport, Avon, City of Bristol, Monmouthshire, Gloucestershire, Gwent, North Somerset, Somerset, South Glamorgan and South Gloucestershire	
Site Description: The estuary's classic funnel shape, unique in Britain, is a factor causing the Severn to have the second-largest tidal range in the world (after the Bay of Fundy, Canada). This tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tide swept sand and rock. The species-poor invertebrate community includes high densities of ragworms, lugworms and other invertebrates forming an important food source for passage and wintering waders. A further consequence and annual sea-blite colonise the open mud, with beds of all three species of eelgrass *Zostera* occurring on more sheltered mud and sandbanks. Large expanses of common cord-grass also occur on the outer marshes. Heavily-grazed Saltmarsh fringes the estuary with a range of Saltmarsh types present. The middle marsh sward is dominated by common salt-marsh-grass with typical associated species. In the upper marsh, red fescue and Saltmarsh rush become more prominent.	
Conservation Objectives: Please refer to the Severn Estuary SPA Conservation Objectives, as this provides part of the information needed for this RAMSAR designation. The remaining Conservation Objectives for Lesser black-backed gull *Larus fuscus graellsii;* Ringed plover *Charadrius hiaticula;* Eurasian teal *Anas crecca;* Northern pintail *Anas acuta*; *Alosa alosa; Alosa fallax; Lampetra fluviatilis; and Petromyzon marinus* have been requested from CCW and NE.	
Site Vulnerability: Current recreation and tourism activities, facilities provided and seasonality: walking, dog walking and birdwatching are concentrated along the sea walls all the year round and on the Saltmarsh and sandy beaches. Bathing, beach recreation, including sand yachting and wind surfing are practiced on the sandy beaches, mainly in the summer. There are boat clubs/marinas in the sub-estuaries with sailing, motor boats and jet skiing. Angling is carried out from the shore and small boats. There is a certain amount of bait digging. Wildfowling is carried out from September to February all around the Estuary; consents and further management measures are being addressed. There are agreed refuge areas for the birds. (See the Information Sheet on RAMSAR Wetlands (RIS) for references).	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Under RAMSAR criterion 5 Assemblages of international importance species with peak counts in winter: 70919 waterfowl (5 year peak mean 1998/99-2002/03)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and other human activities • Protection of bird sites
RAMSAR criterion 6 species/populations occurring at levels of international importance and qualifying species/populations (as identified at designation): species with peak counts in winter: Tundra swan *Cygnus columbianus bewickii*, NW Europe, 229 individuals, representing an average of 2.8% of the GB population (5 year peak mean 1998/99-2002/03)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and other human activities • Protection of bird sites
RAMSAR criterion 6 species/populations occurring at levels of international importance and qualifying species/populations (as identified at designation): Greater white-fronted goose *Anser albifrons*, NW	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and

Europe, 2076 individuals representing an average of 35.8% of the GB population (5 year peak mean for 1996/97-2000/01)	other human activities • Protection of bird sites
RAMSAR criterion 6 species/populations occurring at levels of international importance and qualifying species/populations (as identified at designation): Common shelduck *Tadorna tadorna*, NW Europe, 3223 individuals, representing an average of 1% of the population (5 year peak mean 1998/99-2002/03)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and other human activities • Protection of bird sites
RAMSAR criterion 6 species/populations occurring at levels of international importance and qualifying species/populations (as identified at designation): Gadwall *Anas strepera*, NW Europe, 241 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/99-2202/03)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and other human activities • Protection of bird sites
RAMSAR criterion 6 species/populations occurring at levels of international importance and qualifying species/populations (as identified at designation): Dunlin *Calidris alpina*, W Siberia/W Europe, 25082 individuals, representing an average of 1.8% of the population (5 year peak mean 1998/99-2002/03)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and other human activities • Protection of bird sites
RAMSAR criterion 6 species/populations occurring at levels of international importance and qualifying species/populations (as identified at designation): Common redshank *Tringa tetanus*, 2616 individuals, representing an average of 1% of the population (5 year peak mean 1998/99-2002/03)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and other human activities • Protection of bird sites
Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species regularly supported during the breeding season: Lesser black-backed gull *Larus fuscus graellsii*, W Europe/Mediterranean/W Africa, 4167 apparently occupied nests, representing an average of 2.8% of the breeding population (seabird 2000 Census)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and other human activities • Protection of breeding bird sites
Species with peak counts in spring/autumn: Ringed plover *Charadrius hiaticula*, Europe/Northwest Africa, 740 individuals, representing an average of 1% of the population (5 year peak mean 1998/99-2002/03)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and other human activities • Protection of migrating bird sites
Species with peak counts in winter: Eurasian teal *Anas crecca*, NW Europe, 4456 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/99-2002/03)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and other human activities • Protection of over-wintering bird sites
Species with peak counts in winter: Northern pintail *Anas acuta*, NW Europe, 756 individuals, representing an average of 1.2% of the population (5 year peak mean 1998/99-2002/03)	• Maintain tidal regime • Prevention of water and air borne pollution • Control of recreational and other human activities • Protection of over-wintering bird sites

Species occurring at levels of international importance on the site: Fish – *Alosa alosa* (IUCN Red data book – threatened; habitats directive Annex II, Annex V, S1102)	• Maintain tidal regime • Prevention of water and air borne pollution
Species occurring at levels of international importance on the site: *Alosa fallax* (IUCN Red data book – threatened Habitats Directive Annex II, Annex V, S1103)	• Maintain tidal regime • Prevention of water and air borne pollution
Species occurring at levels of international importance on the site: *Lampetra fluviatilis* (IUCN Red data book – threatened; Habitats Directive Annex II, S1099)	• Maintain tidal regime • Prevention of water and air borne pollution
Species occurring at levels of international importance on the site: *Petromyzon marinus* (Habitats Directive Annex II, S1095)	• Maintain tidal regime • Prevention of water and air borne pollution

Table 16: Sugar Loaf Woodlands

Site Name: Sugar Loaf Woodlands SAC, SO295166, Wales, Monmouthshire	
Site Description: Sugar Loaf Woodlands (173.84ha) are the largest example of old sessile oak woods near the south-eastern fringe of the habitat's range in the UK and Europe. The relatively dry situation restricts the development of the Atlantic flora associated with the habitat, but the main floristic components of sessile oak *Quercus petraea* canopy, acidic ground flora (typically of bilberry *Vaccinium myrtillus* and wavy hair-grass *Deschampsia flexuosa*) and extensive fern and bryophyte cover are in place. The woodland is grazed, but regenerates within gaps and at the fringes, where transitions to upland grassland and heath communities occur.	
Conservation Objectives (Source CCW): The vision for Old sessile oak woods with *Ilex* and *Blechnum* is for it to be in favourable conservation status within the site, as a functioning and regenerating oak wood, where all of the following conditions are satisfied: • The wooded area is no less than 122 ha; • The remainder of the site is semi-natural acid grassland, heathland, bracken and scrub, often forming a transition zone at the woodland edge; • Saplings of birch *betula spp,* oak *Quercus petraea,* alder *Alnus glutinosa or* holly *Ilex aquifolium* dominate the tree regeneration; • Young beech *Fagus sylvatica* and sycamore *Acer pseudoplatanus* trees are rare; • The woodland ground flora is composed of a range of typical native plants including bilberry *Vaccinium myrtillus*, wavy-hair grass *Deschampsia flexuosa* and the mosses *Plagiothecium undulatum, Rhytidiadelphus loreus, Dicranum majus* • The liverwort *Bazzania trilobata* to continue to be present in its core area of Unit 1; and • All factors affecting the achievement of these conditions will under control.	
Site Vulnerability: The majority of the woodland is on common land that is grazed by sheep. So long as tree regeneration is sufficient to maintain the canopy, it should not be necessary to control grazing within the majority of the woodland. Part of the woodland is presently subject to livestock exclusion. Removal of non-native trees and shrubs may be necessary in this area. Agri-environment schemes offer the best mechanism for securing favourable management in the longer term. The accumulation of bracken litter on the common poses a fire risk in dry weather. Restrictions on public access could be considered, but it would be very difficult to control most incidents, as they appear to be the result of children deliberately setting fires. Control of bracken in a buffer strip at the wood edges may be a more sensible consideration. Airbourne acid and nutrient deposition may also be a problem, particularly for epiphytic lichens on the oak trees.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats that are a primary reason for site selection:	• Monitor grazing and

Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles (considered to be one of the best areas in the UK).	control if necessary • Control of recreational activities • Secure appropriate management regimes

Table 17: Usk Bat Sites

Site Name: Usk Bat Sites SAC, SO190145, Wales, Monmouthshire and Powys
Site Description: The Usk Valley area (1686.4ha) in South-West Wales contains one of the largest maternity roosts for lesser horseshoe bat *Rhinolophus hipposideros* as well as a number of important hibernacula in caves in the area. The area contains up to 5% of the UK population, though counts in hibernation sites suggest this may be an underestimate.
Conservation Objectives (Source CCW): Vision for **European dry heaths** • The extent, quality and diversity of heath vegetation within the constituent sites is maintained and, where possible, degraded heath is restored to good condition. • The main heathland areas have a varied age structure with a mosaic of young heath, mature heath and degenerate heath. • All factors affecting the achievement of these conditions are under control. Vision for **degraded raised bogs** • The extent, quality and diversity of degraded raised bog vegetation is maintained and, where possible, restored to good condition. • Peat profiles containing important pollen records are maintained. • All factors affecting the achievement of the above conditions are under control. Vision for **blanket bogs** • The extent, quality and species richness of the blanket bog vegetation is maintained and, where possible, degraded bog is restored to good condition. • Peat profiles containing important pollen records are maintained. • All factors affecting the achievement of the above conditions are under control. Vision for **calcareous rocky slopes with chasmophytic vegetation** • Sufficient vegetation within crevices remains free from disturbance to support typical plants, including mosses, ferns and rare hawkweeds (*Hieracium* spp.) and allow them to sustain their populations into the future. • Areas accessible to grazing animals should free from being smothered by ivy or heavily shaded by trees. • All factors affecting the achievement of the above conditions are under control. Vision for **caves not open to the public** • The cave system provides a winter hibernation site for large numbers of lesser horseshoe bats and other bat species, including Brandt's, whiskered, Daubenton's, Natterer's, brown long-eared and, occasionally, greater horseshoe bats. • Numbers of roosting bats are stable or increasing in the system as a whole. • All factors affecting the achievement of the above conditions are under control. The vision for ***Tilio-Acerion*** **forests of slopes, screes and ravines** is for it to be in favourable conservation status within the site, as a functioning and regenerating ash woodland, where all of the following conditions are satisfied: • There are extensive patches of semi-natural woodland on the cliffs of the Langatwg escarpment and hillsides in the Clydach gorge. • The woodland canopy is dominated by locally native species, including lime ash *Fraxinus excelsior, Tilia* spp., pedunculate oak *Quercus robur*, hazel *Corylus avellana,* birch *Betula*

spp., whitebeams *Sorbus* spp. and in the clydach gorge, beech *Fagus sylvatica.*

- Saplings of locally native species dominate the tree regeneration and there is evidence of sufficient regeneration to maintain the canopy in the long term.
- There is an accumulation of standing and fallen dead wood as the woodland develops.
- The woodland ground flora is composed of a range of typical native plants including enchanters-nightshade *Circaea lutetiana,* dog's mercury *Mercurialis perennis,* wood-sorrel *Oxalis acetosella,* hart's-tongue *Phyllitis scolopendrium* and wood *sage Teucrium scorodonia.*
- The populations of rare whitebeams are stable into the future.
- Young beech sycamore *Acer pseudoplatanus* trees are rare, as are beech *Fagus sylvatica* in areas away from the Clydach gorge.
- Plants indicating disturbance and nutrient enrichment, such as nettles, clevers and of weeds, are not dominant in the ground flora of the woodland.
- All factors affecting the achievement of the above conditions are under control.

The vision for **lesser horseshoe bat *Rhinolophus hipposideros*** is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- The site will support a sustainable population of lesser horseshoe bats in the River Usk area.
- The population will viable in the long term, acknowledging the population fluctuations of the species.
- Buildings, structures and habitats on the site will be in optimal condition to support the populations.
- Sufficient foraging habitat is available, in which factors such as disturbance, interruption to flight lines, and mortality from predation or vehicle collision, changes in habitat management that would reduce the available food source are not at levels which could cause any decline in population size or range.
- Management of the surrounding habitats is of the appropriate type and sufficiently secure to ensure there is likely to be no reduction in population size or range, nor any decline in the extent or quality of breeding, foraging or hibernating habitat.
- There will be no loss or decline in quality of linear features (such as hedgerows and tree lines) which the bats use as flight lines - there will be no loss of foraging habitat use by the bats or decline in its quality, such as due to over-intensive woodland management.
- All factors affecting the achievement of the above conditions are under control.

Site Vulnerability: Minimal disturbance is required within the lesser horseshoe bat cave hibernacula. Disturbance has been safeguarded for many years by means of gated cave entrances, permits and promoting a code of conduct. A large coach-house has been renovated by a conservation body to safeguard maternity roost occupiers. Remaining features are on common land with grazing rights that are difficult to control and some reduction in grazing levels and / or change of grazing patterns appears desirable. Past uncontrolled fires and historic atmospheric inputs have affected the condition of blanket bog and degraded raised bog interest. However, the effect of atmospheric inputs is unknown. The blanket bog has been subject to hydrological change as a result of past ditch construction to supply water to reservoirs. With landowner and graziers agreement it may be possible to block up some ditches. The actual benefit of this is unknown and would therefore need prior identification.

Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: European dry heaths (considered to support a significant presence)	• Maintain appropriate grazing levels • Implement and monitor appropriate management regime
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: Degraded raised bogs still capable of natural regeneration (is considered to support a significant presence)	• Maintain appropriate grazing levels • Implement and monitor appropriate management regime • Maintain water-table levels
Annex I habitats present as a qualifying feature,	• Maintain appropriate grazing levels

but not a primary reason for site selection: Blanket bogs (priority feature) (is considered to support a significant presence)	• Implement and monitor appropriate management regime • Maintain water-table levels
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: Calcareous rocky slopes with chasmophytic vegetation (is considered to be rare as its total extent in the UK is estimated to be less than 1000ha and for which the area is considered to support a significant presence)	• Control disturbance • Monitor succession
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: Caves not open to the public (for which the area is considered to support a significant presence)	• Maintain control of access and prevent disturbance
Annex I habitats present as a qualifying feature, but not a primary reason for site selection: *Tilio-Acerion* forests of slopes, screes and ravines (priority feature) (is considered to support a significant presence)	• Control disturbance • Monitor succession
Annex II species of primary reason for site selection: Lesser horseshoe bat *Rhinolophus hipposideros*, UK population 5%, although it is suggested this is an underestimate (is considered to be one of the best areas in the UK)	• Maintain control of access and prevent disturbance • No loss of or damage to roost and hibernation sites • No loss of or damage to foraging areas

Table 18: Walmore Common

Site Name: Walmore Common SPA, England, Gloucestershire	
Site Description: Walmore Common SPA (52.85ha) is located in Gloucestershire, in the west of England, about 10km south-west of Gloucester. It is an area of damp grassland and ditches composed of clayey soils overlying the only significant area of peatland in Gloucestershire. The area is subject to regular winter flooding and this creates suitable conditions for regular wintering by an important number of Beswick's Swan *Cygnus columnianus bewickii*.	
Conservation Objectives: NE to confirm.	
Site Vulnerability: Bewick's swans are attracted for feeding and roosting by the grassland, which is maintained by grazing and the natural winter flooding which is in turn determined by rainfall, runoff and river levels. A water level management plan, currently in preparation, will ensure appropriate conditions are retained for wintering bird interest. The marshy grassland and ditches will be maintained and enhanced by maintaining high water levels from spring to autumn through the implementation of a water level management plan.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Internationally important populations of regularly occurring migratory bird species not listed on Annex I (over winter): Bewick Swan *Cygnus columbianus bewickii* 104 individuals, 1.4% of Great Britain's population, 5 year peak mean 1991/92 to 1995/96	• Maintain water quality and water levels • Grassland management regime

Table 19: Wye Valley and Forest of Dean Bat Sites

Site Name: Wye Valley and Forest of Dean Bat Sites SAC, SO605044, England and Wales, Monmouthshire and Gloucestershire

Site Description: This complex of sites on the border between England and Wales contains by far the greatest concentration of lesser horseshoe bat *Rhinolophus hipposideros* in the UK, totalling about 26% of the national population. It has been selected on the grounds of the exceptional breeding population, and the majority of sites within the complex are maternity roosts. The bats are believed to hibernate in the many disused mines in the area. The site also represents the greater horseshoe bat *Rhinolophus ferrumequinum* in the northern part of its range, with about 6% of the UK population. This specie also uses the site as its main maternity roost and hibernates in the disused mines in the forest.

Conservation Objectives (Source CCW): The vision for **lesser horseshoe bat *Rhinolophus hipposideros*** is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- The site will support a sustainable population of lesser horseshoe bats in the Wye Valley area.
- The population will viable in the long term, acknowledging the population fluctuations of the species.
- Buildings, structures and habitats on the site will be in optimal condition to support the populations.
- Sufficient foraging habitat is available, in which factors such as disturbance, interruption to flight lines, and mortality from predation or vehicle collision, changes in habitat management that would reduce the available food source are not at levels which could cause any decline in population size or range.
- Management of the surrounding habitats is of the appropriate type and sufficiently secure to ensure there is likely to be no reduction in population size or range, nor any decline in the extent or quality of breeding, foraging or hibernating habitat.
- There will be no loss or decline in quality of linear features (such as hedgerows and tree lines) which the bats use as flight lines - there will be no loss of foraging habitat use by the bats or decline in its quality, such as due to over-intensive woodland management.
- All factors affecting the achievement of the foregoing conditions are under control.

The vision for **greater horseshoe bat *Rhinolophus ferrumequinum*** is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- The site will support a sustainable population of greater horseshoe bats in the Wye Valley area.
- The population will viable in the long term, acknowledging the population fluctuations of the species.
- Buildings, structures and habitats on the site will be in optimal condition to support the populations.
- Sufficient foraging habitat is available, in which factors such as disturbance, interruption to flight lines, and mortality from predation or vehicle collision, changes in habitat management that would reduce the available food source are not at levels which could cause any decline in population size or range.
- Management of the surrounding habitats is of the appropriate type and sufficiently secure to ensure there is likely to be no reduction in population size or range, nor any decline in the extent or quality of breeding, foraging or hibernating habitat.
- There will be no loss or decline in quality of linear features (such as hedgerows and tree lines) which the bats use as flight lines - there will be no loss of foraging habitat use by the bats or decline in its quality, such as due to over-intensive woodland management.
- All factors affecting the achievement of the foregoing conditions are under control.

Site Vulnerability: The site is composed of parts of a number of buildings in everyday use (mainly roof-spaces) used by the bats for breeding and a series of mines used by bats for hibernation. Within the roosts the bats are vulnerable to disturbance at critical times, structural alteration and changes in the characteristic ventilation patterns. Any proposed changes which are likely to have an impact on the bat populations within the breeding roosts will be discussed with the relevant owners and occupiers. Where appropriate to any populations potentially damaging works will be addressed through appropriate planning regulation, management agreements and monitoring of individual roosts. Regular liaison takes place with site-owners. The human use of the mine systems (continued mineral working and recreational caving/research) is regulated by Forest Enterprise in consultation with Natural England where appropriate. Site Management Statements have been agreed with the owners of working mines to secure conservation of the populations alongside continued working. In addition, the preparation of Cave Conservation Plans will be promoted to maintain and enhance the underground environment for bats.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex II species that are a primary reason for site selection: Lesser horseshoe bat *Rhinolophus hipposideros* (considered to be one of the best areas in the UK)	• No loss of or damage to roost and hibernation sites • No loss of or damage to foraging areas
Annex II species that are a primary reason for site selection: Greater horseshoe bat *Rhinolophus ferrumequinum* (considered to be one of the best areas in the UK)	• No loss of or damage to roost and hibernation sites • No loss of or damage to foraging areas

Table 20: Wye Valley Woodlands

Site Name: Wye Valley Woodlands SAC, ST530957, England and Wales, Monmouthshire, Gloucestershire and Herefordshire
Site Description: The Wye Valley (916.24ha) contains abundant and near-continuous semi-natural woodland along the gorge. Beech stands occur as part of a mosaic with a wide range of other woodland types, and present the western range of *Asperulo-Fagetum* beech forests. Such a variety of woodland types is rare within the UK. In places lime *Tilia* sp., elm *Ulmus* sp. and oak *Quercus* sp. share dominance with the beech. Structurally the woods include old coppice, pollards and high forest types. Lady Park Wood, one of the component sites, is an outstanding example of near-natural old-growth structure in mixed broad-leaved woodland, and has been the subject of detailed long-term monitoring studies. The woods of the lower Wye Valley on the border of South Wales and England form one of the most important areas for woodland conservation in the UK and provide the most extensive examples of *Tilio-Acerion* forest in the west of its range. A wide range of ecological variation is associated with slope, aspect and landform. The woodland occurs here as a mosaic with other types, including beech *Fagus sylvatica* and pedunculate oak *Quercus robur* stands. Uncommon trees, including large-leaved lime *Tilia platyphyllos* and rare whitebeams such as *Sorbus porrigentiformis* and *S. rupicola* are found here, as well as locally uncommon herbs, including wood barley *Hordelymus europaeus*, stinking Hellebore *Helleborus foetidus*, narrow-leaved bitter-cress *Cardamine impatiens* and wood fescue *Festuca altissima.* Wye Valley is representative of yew *Taxus baccata* woods in the south-west of the habitat's range. It lies on the southern Carboniferous limestone, and yew occurs both as an understorey to other woodland trees and as major yew-dominated groves, particularly on the more stony slopes and crags.

Conservation Objectives to be confirmed with NE and/or CCW: - According to EN's conservation objectives version 1: 26th September 2000 for Wye Valley Woodlands SAC it is composed of component SSSIs in England and Wales; England includes the SSSIs Astridge Wood, Bigsweir Woods, Highbury Wood, Lower Wye Gorge, Shorn Cliff and Caswell Wood, Swanpool Wood and Furnace Grove, The Hudnalls and Upper Wye Gorge (part) and in Wales includes Upper Wye Gorge (part), Blackcliff – Wyndcliff, Cleddon Shoots Woodland, Fiddler's Elbow, Graig Wood, Harper's Grove – Lord's Grove, Livox Wood, Lower Hael Wood and Pierce, Alcove and Piercefield Woods. Bigsweir Woods. The conservation objectives of all these SSSIs, although subject to natural change, are to maintain in favourable condition, the ash-elm-lime woodlands, with particular reference to *Tilio-Acerion* forests of slopes, screes and ravines, to maintain in favourable condition, the beech woodlands, with particular reference to *Asperulo-Fagetum* beech forests, the Yew Woodland with particular reference to *Taxus baccata* woods of the British Isles, the mines with particular reference to their use as a hibernation roosts for lesser horseshoe bats. If the feature is currently in unfavourable condition maintenance also implies restoration.	
Site Vulnerability: Forest Enterprise, the Woodland Trust and County Wildlife Trusts already manage a significant proportion of the SAC sympathetically. Principal pressures are from lack of management (particularly traditional management, e.g. coppice) and inappropriate management proposals that would alter the recognised woodland stand types. Felling licence approval and Forestry Commission consultation with English Nature/Countryside Council for Wales are adequate in addressing the latter issue. Positive management is being promoted through management plans (CCW), Site Management Statements (EN) and management agreements, and the Woodland Grant Scheme (including specialized targeting) is being encouraged where possible and appropriate to return some woods to active management.	
Reason for Designation	**Environmental Conditions Needed to Support Site Integrity**
Annex I habitats that are a primary reason for site selection: Beech forests *Asperulo-Fagetum* (considered to be one of the best areas in the UK)	• Implementation of appropriate management plans
Annex I habitats that are a primary reason for site selection: *Tilio-Acerion* forests of slopes, screes and ravines (priority feature) (considered to be one of the best areas in the UK)	• Implementation of appropriate management plans
Annex I habitats that are a primary reason for site selection: *Taxus baccata* woods of the British Isles (priority feature) (considered to be one of the best areas in the UK)	• Implementation of appropriate management plans
Annex II species present as a qualifying feature, but not a primary reason for site selection: Lesser horseshoe bat *Rhinolophus hipposideros*, 51-100 residents (the area is considered to support a significant presence)	• No loss or damage to hibernation sites • Maintain appropriate woodland management regime

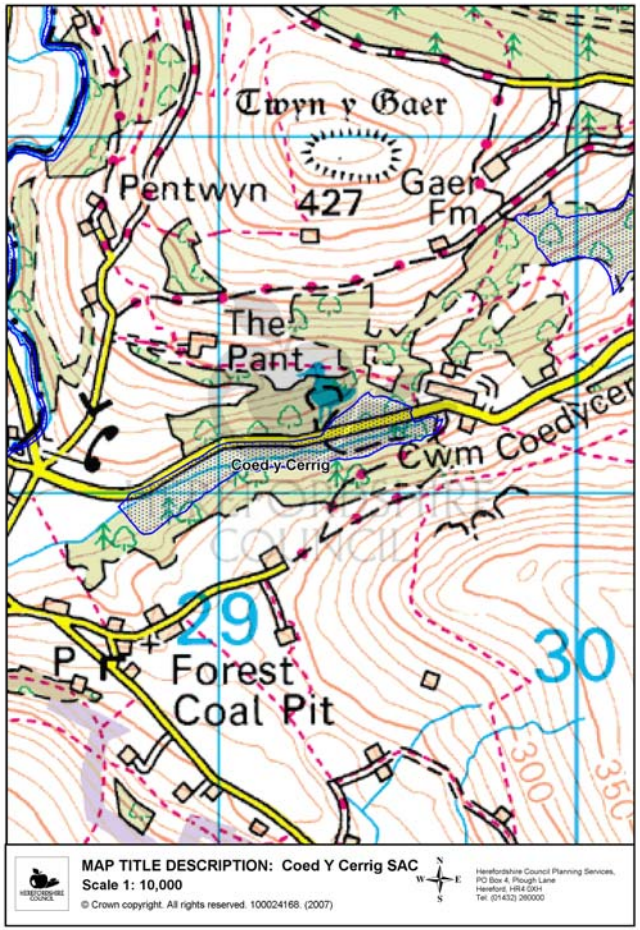
Appendix 3A – Maps of Natura 2000 Sites

Key

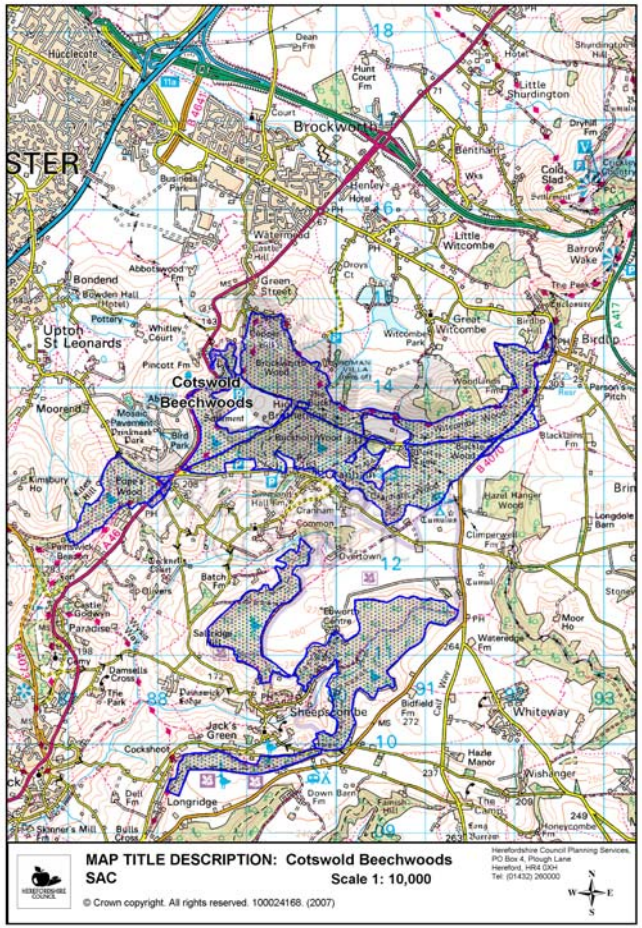
RAMSAR

SPA

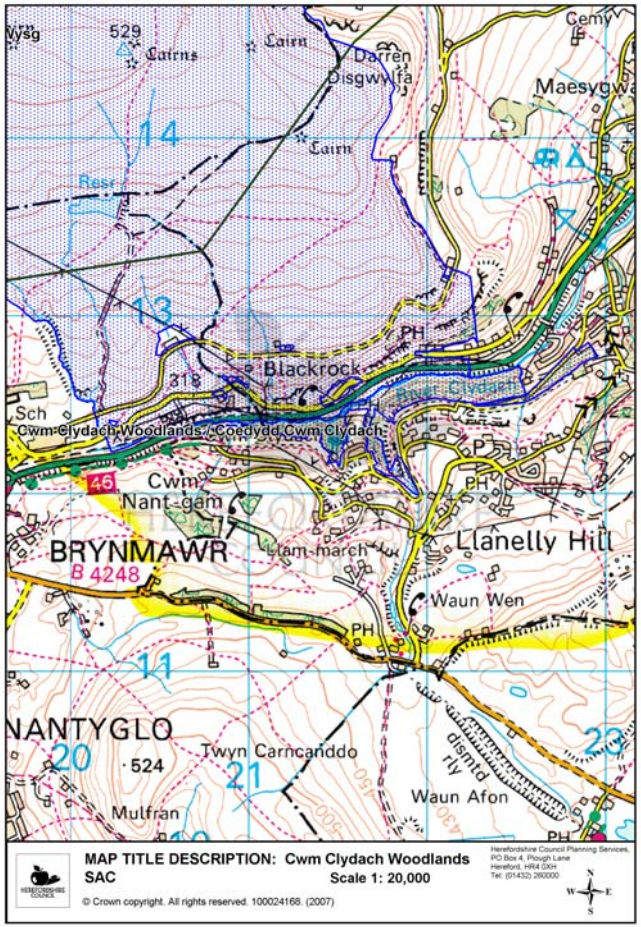
SAC



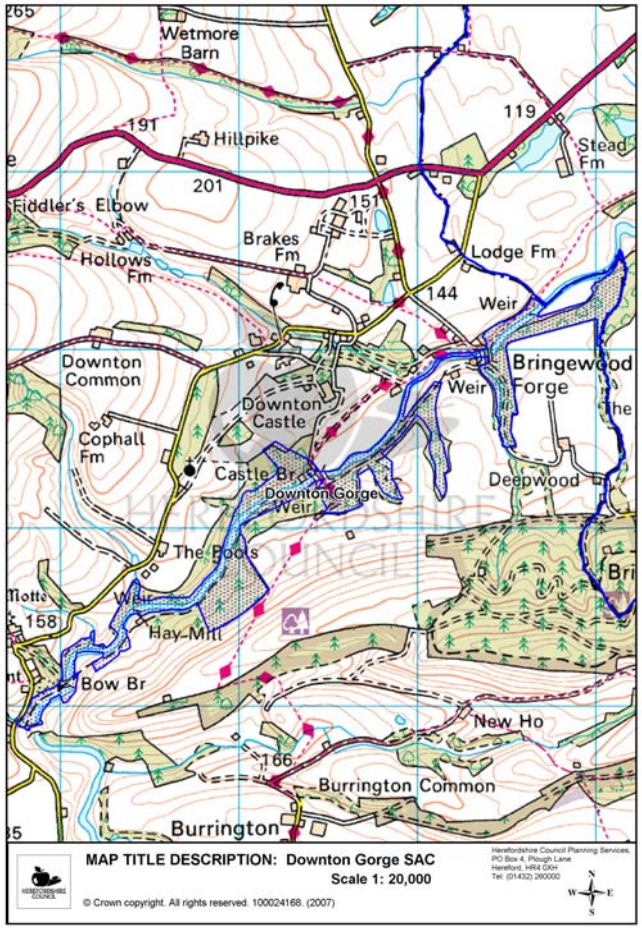
Refer to Table 1



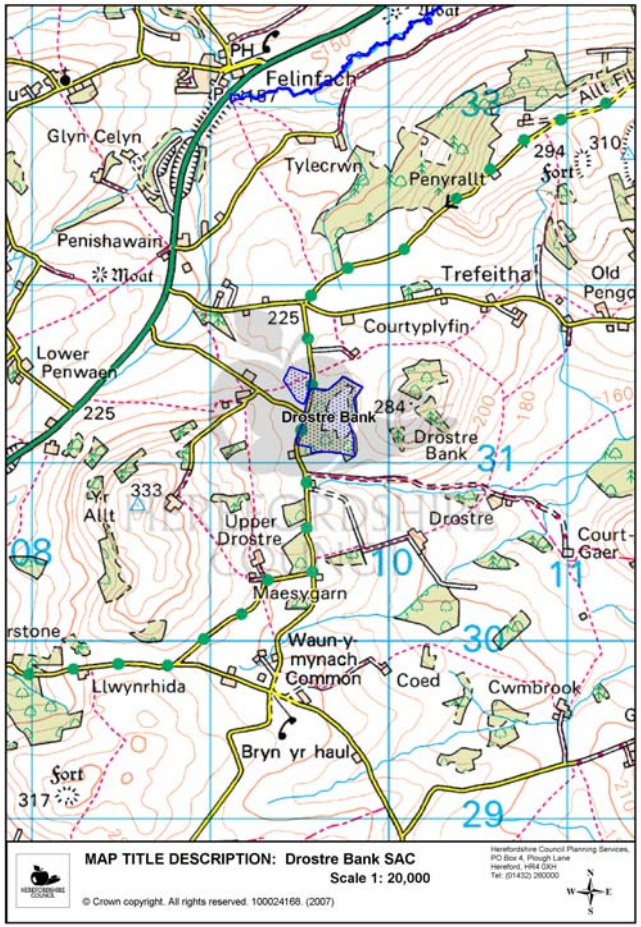
Refer to Table 2



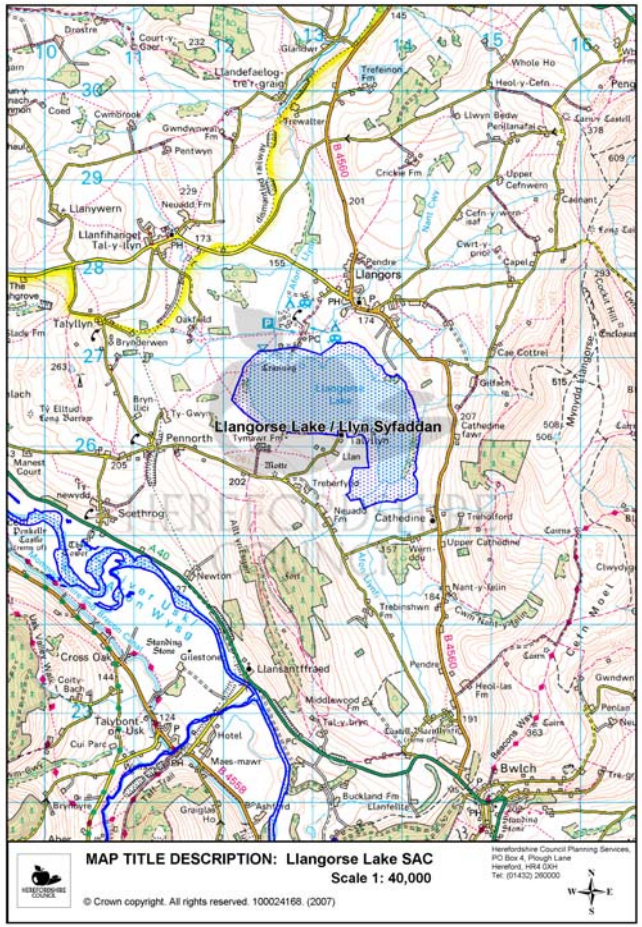
Refer to Table 3



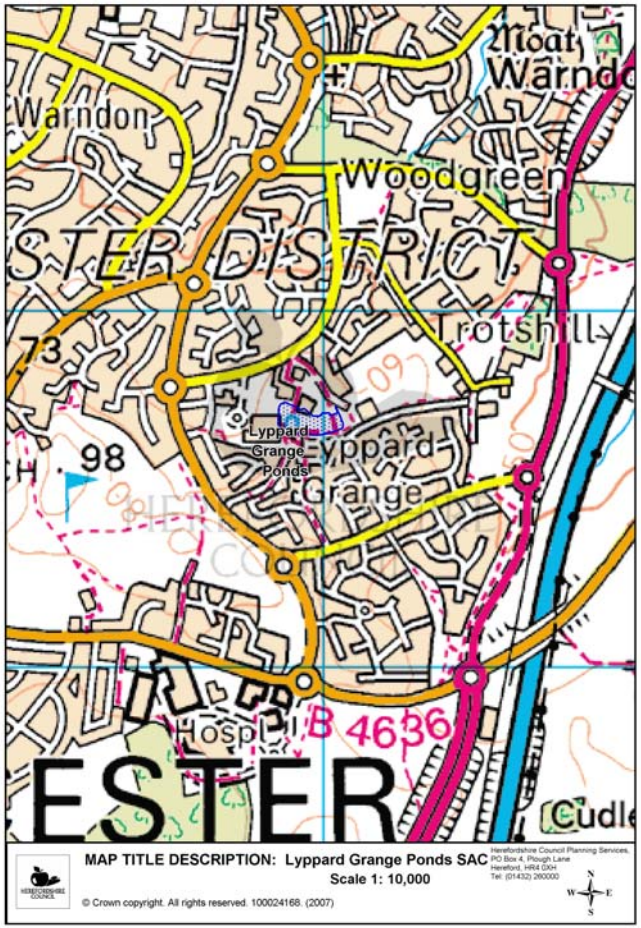
Refer to Table 4



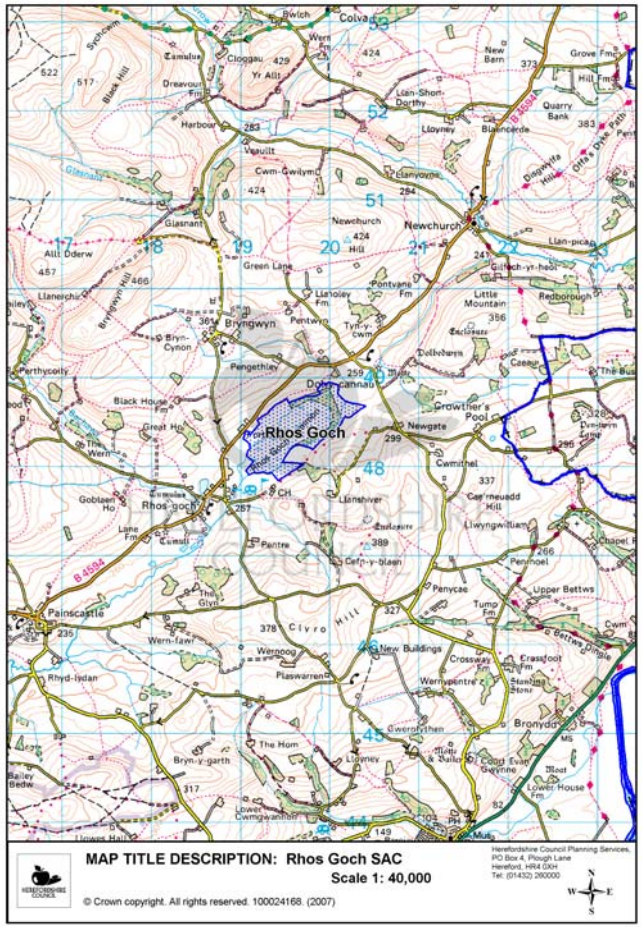
Refer to Table 5



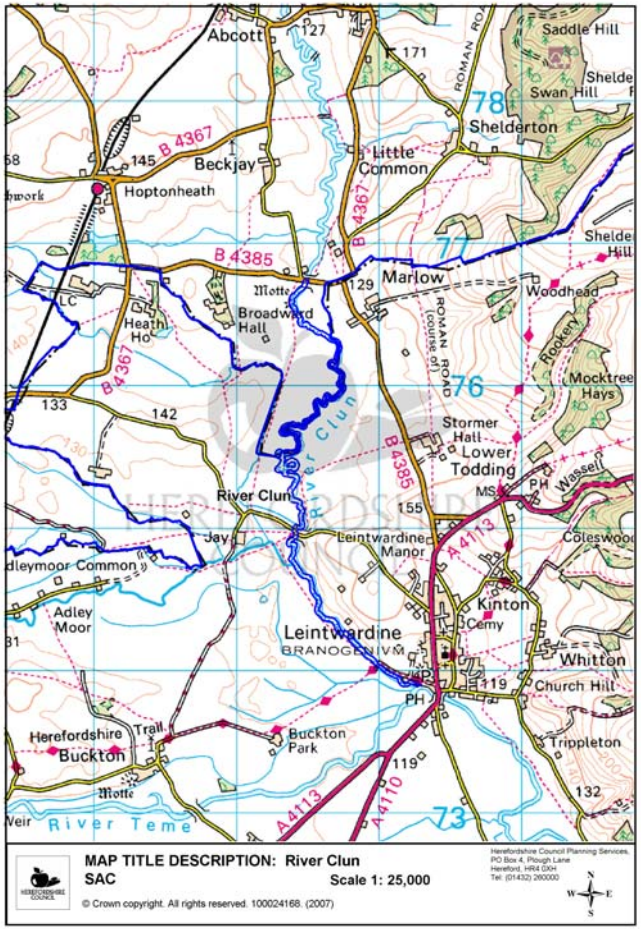
Refer to Table 6



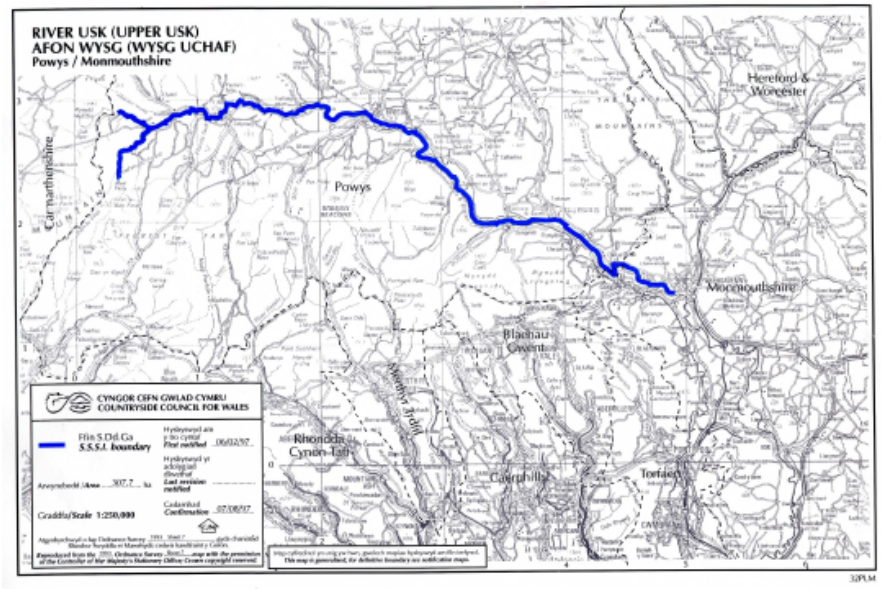
Refer to Table 7



Refer to Table 8

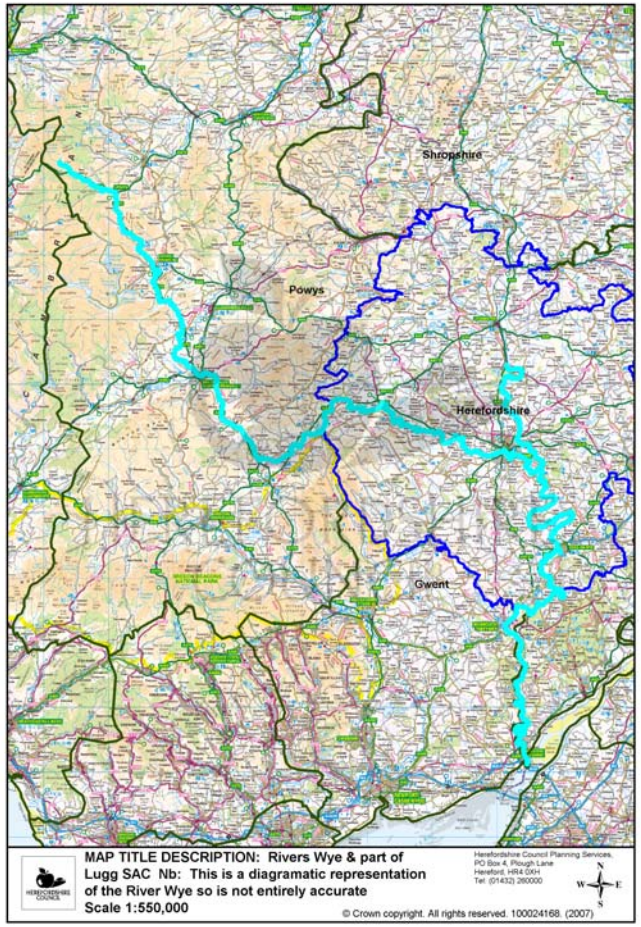


Refer to Table 9

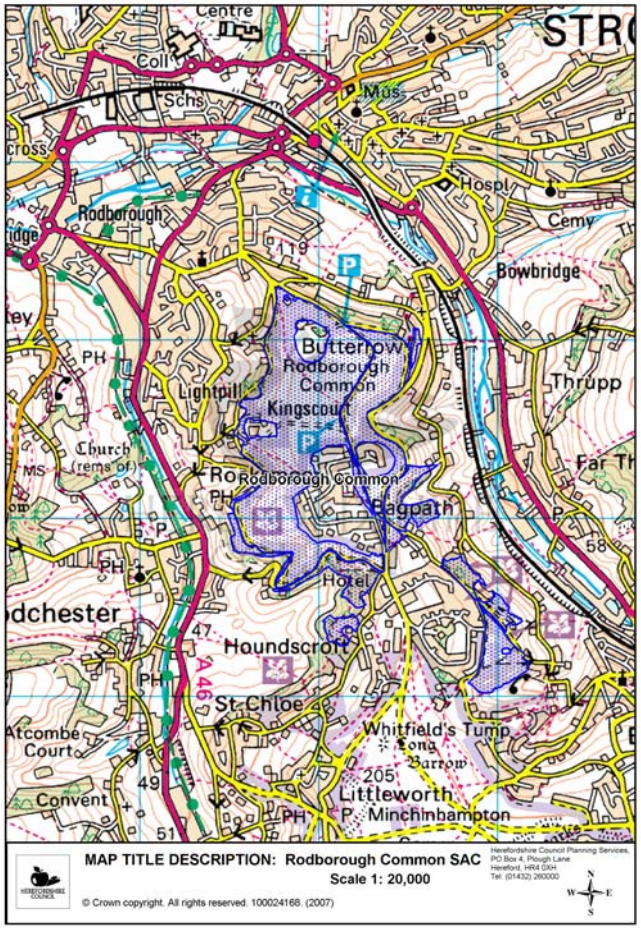


Refer to Table 10

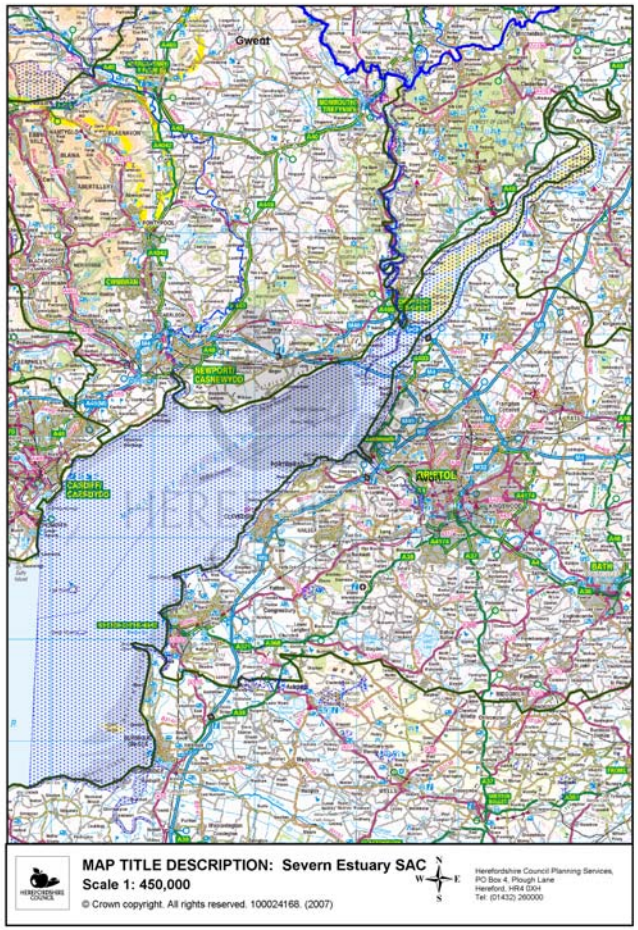
Refer to Table 10



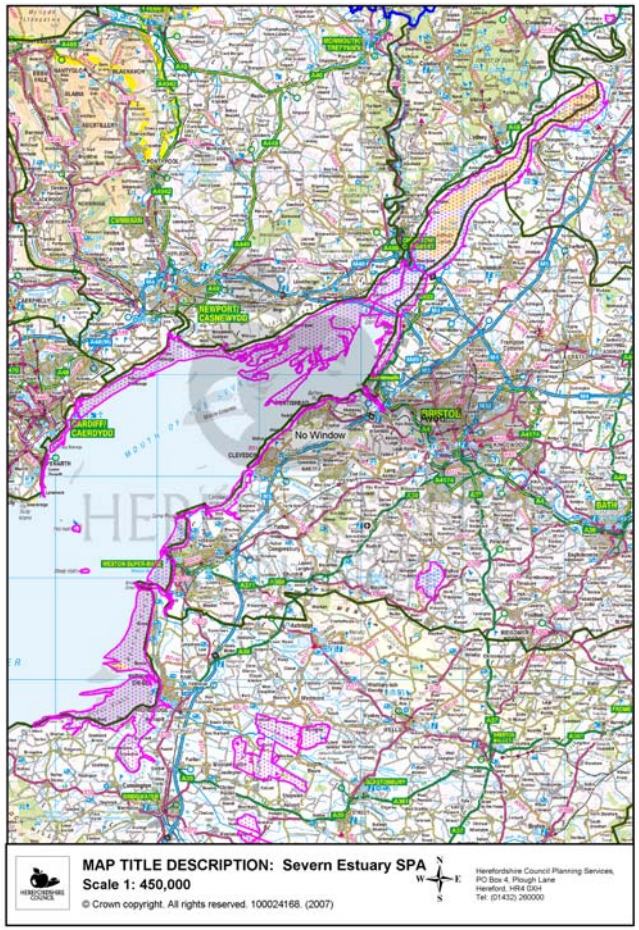
Refer to Table 11



Refer to Table 12

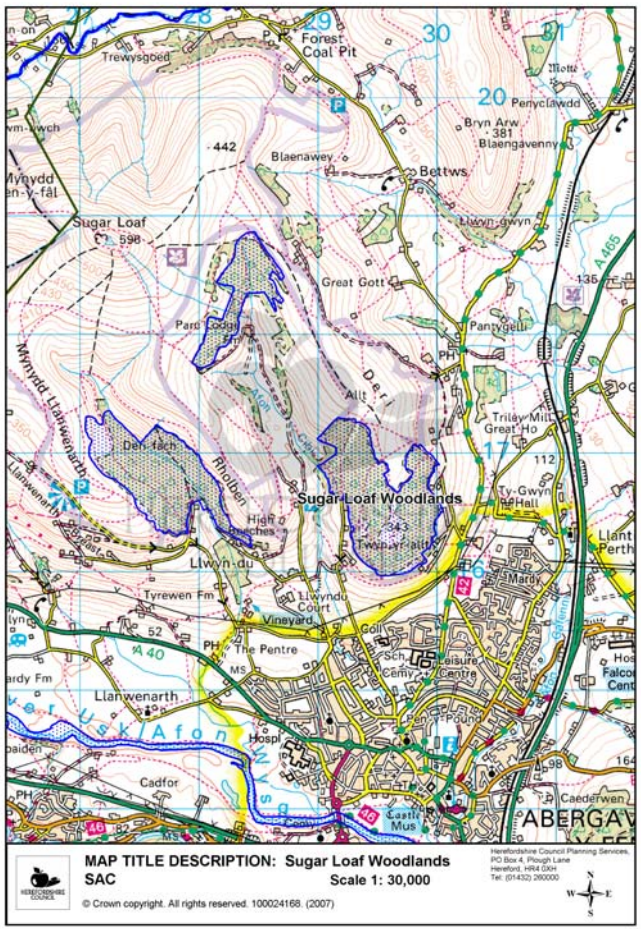


Refer to Table 13

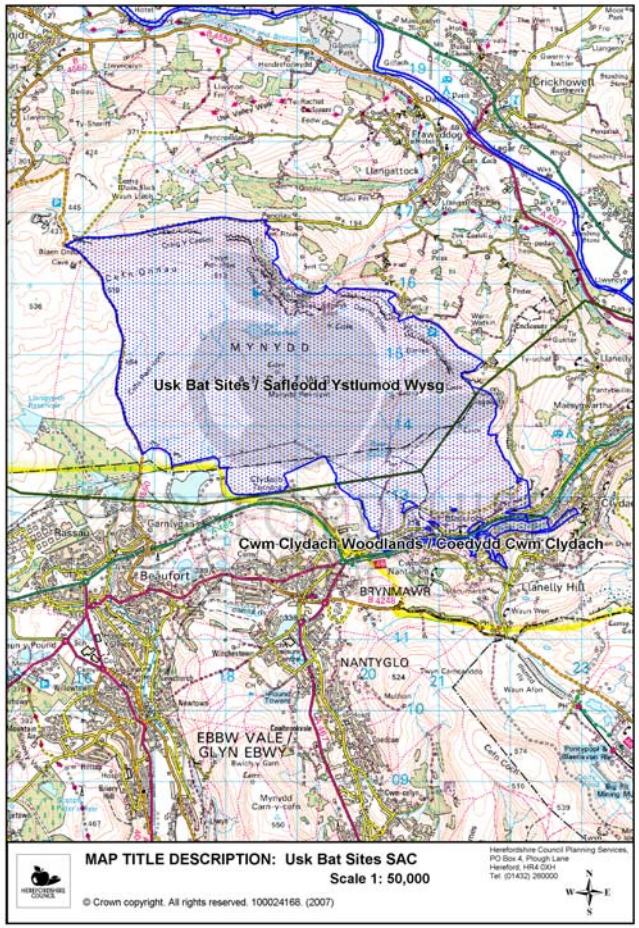


Refer to Table 14

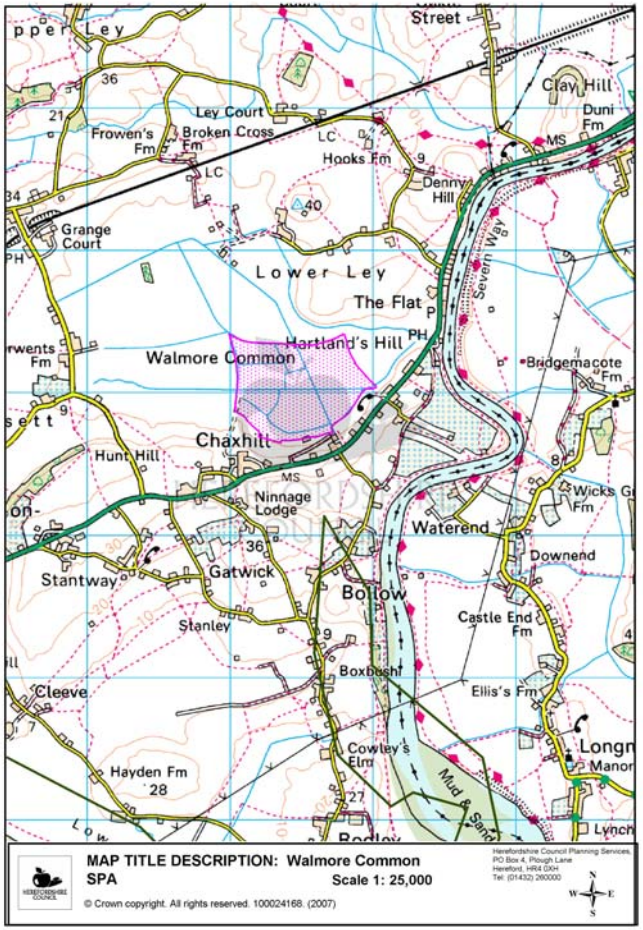
Refer to Table 15



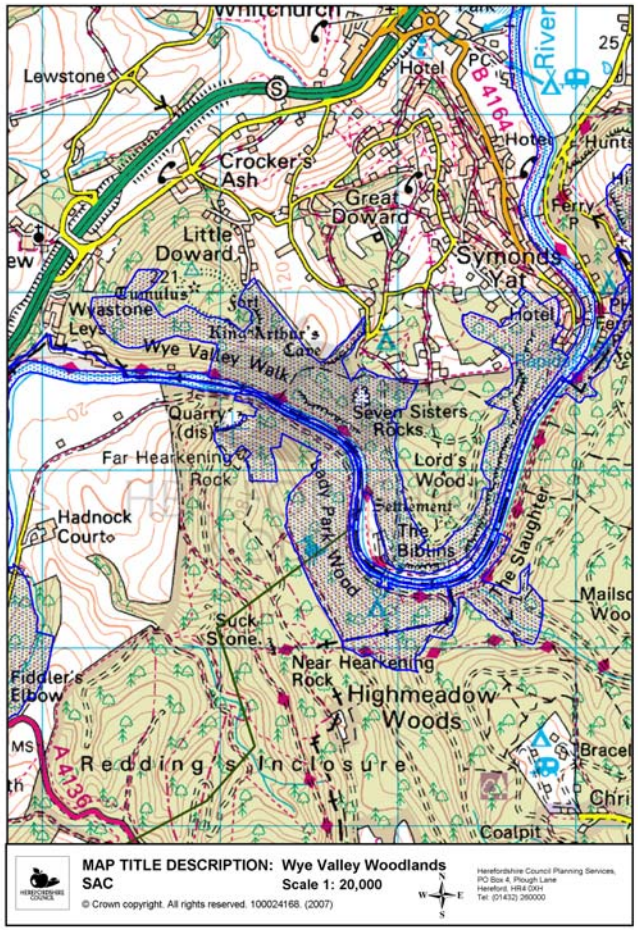
Refer to Table 16



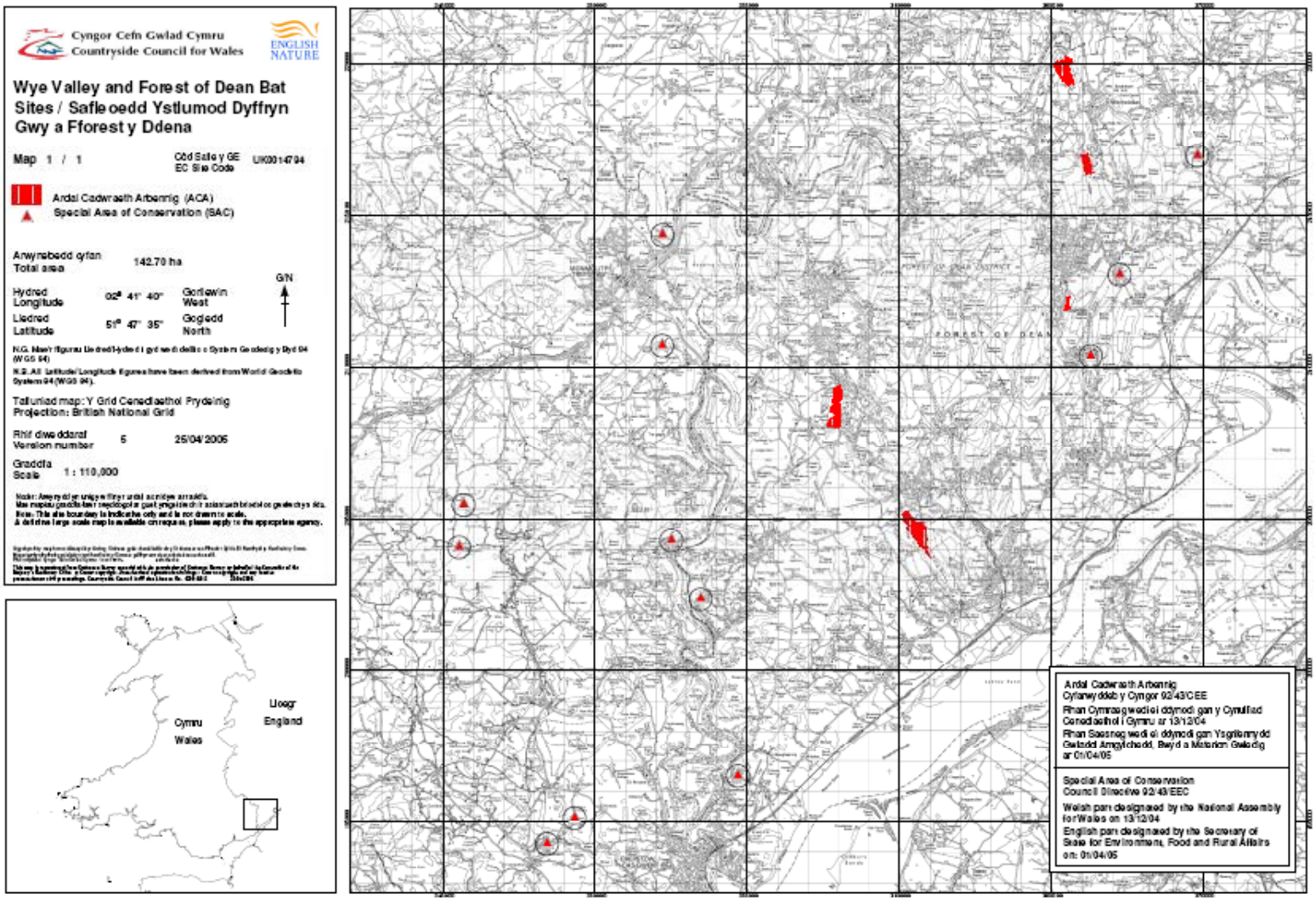
Refer to Table 17



Refer to Table 18



Refer to Table 20



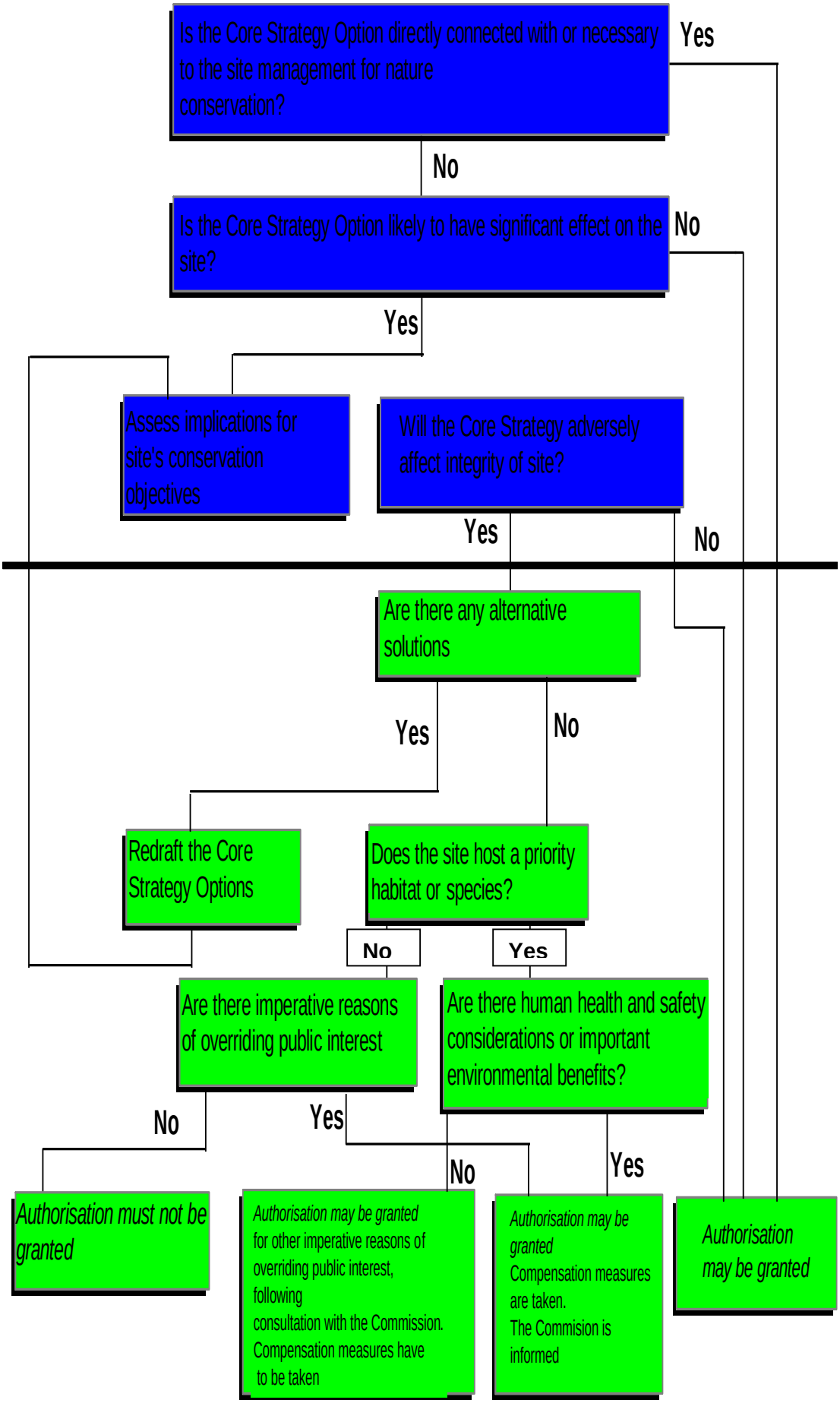
Refer to Table 19

Appendix 4: Methodology for Considering the Core Strategy Objectives and Strategic Options Affecting European Sites

Key:

Stage 1: Screening

Stage 2: Appropriate Assessment


Is the Core Strategy Option directly connected with or necessary to the site management for nature conservation?
Yes
No
Is the Core Strategy Option likely to have significant effect on the site?
No
Yes
Assess implications for site's conservation objectives
Will the Core Strategy adversely affect integrity of site?
Yes
No
Are there any alternative solutions
Yes
No
Redraft the Core Strategy Options
Does the site host a priority habitat or species?
No
Yes
Are there imperative reasons of overriding public interest
Are there human health and safety considerations or important environmental benefits?
No
Yes
No
Yes
Authorisation must not be granted
Authorisation may be granted for other imperative reasons of overriding public interest, following consultation with the Commission. Compensation measures have to be taken
Authorisation may be granted Compensation measures are taken. The Commision is informed
Authorisation may be granted

Appendix 5: Compliance with Habitats Directive

Review Criteria	Comments
1. Features of the Project or Plan	
1.1 The Purpose(s) and objectives of the project or plan are fully explained	Core Strategy Developing Options Paper, June 2008, Section 4
1.2 Plans, diagrams and maps are provided which clearly indentify the location of the proposed project or plan	Core Strategy Developing Options Paper, June 2008, Section 5
1.3 The size, scale, area and land take/cover of the project or plan are fully explained	Core Strategy Developing Options Paper, June 2008, Section 5
1.4 Provides details of the physical changes that will take place during the various stages of implementing the project or plan.	Core Strategy Developing Options Paper, June 2008, Section 5
1.5 Describes the resources requirements for the construction/operation and decommissioning of the project or plan (including water resources, construction material and human presence).	Core Strategy Developing Options Paper, June 2008, awaiting further evidence
1.6 Describes the timescales for the various activities that will take place as a result of implementing the project or plan (including likely start and finish dates).	Core Strategy Developing Options Paper, June 2008, Section 1 – timescale for production of the Plan.
1.7 Describes any wastes arising, or other residues (including quantities), and their means of disposal	Core Strategy Developing Options Paper, June 2008, awaiting further evidence
1.8 Identifies any wastes and other residues (including quantities) that may be of particular concern in the context of the Natura 2000 site.	Habitat Regulation Assessment Appropriate Assessment Report, awaiting further evidence
1.9 Describes any additional services required to implement the project or plan including pipelines, overhead electricity lines etc, their location and means of construction.	Core Strategy Developing Options Paper, June 2008, Section 6 – Delivery.

2. Cumulative Effects	
2.1 Identifies all projects or plans that may in combination with the proposed project or plan, give rise to adverse effects on the Natura 2000 site	Habitat Regulation Assessment Screening Report, Section 6.8 and Appendix 1
2.2 Defines the boundaries used when identifying cumulative effects	Habitat Regulation Assessment Screening Report, Section 6.2 and Appendix 2
2.3 Defines the timescales over which cumulative effects have been considered	Habitat Regulation Assessment Appropriate Assessment Report at next stage
2.4 Identifies the potential cumulative pathways.	Habitat Regulation Assessment Appropriate Assessment Report at next stage
3. Description of the Natura 2000 Site	
3.1 Describes the site in terms of its physical area, habitat types, presence of key species etc.	Habitat Regulation Assessment Screening Report, Appendix 3
3.2 Sets out in full the conservation objectives of the site including the factors that contribute to the conservation value of the site	Habitat Regulation Assessment Screening Report, Appendix 3
3.3 Explains any planned or contemplated nature conservation initiatives likely to affect the site in the future.	Habitat Regulation Assessment Screening Report, Appendix 3
3.4 Explains the existing baseline conditions – including species and habitats dynamics and ecology (including seasonal fluctuations), the physical and chemical composition and the key structural and functional relationships that maintain the site's integrity	Habitat Regulation Assessment Screening Report, Appendix 3
3.5 Provides details of the value of the site to the Natura 2000 network (e.g. 15% of population in the Member State)	
3.6 Provides an indication of how the baseline conditions of the site will change in the future in the absence of the project or plan.	Habitat Regulation Assessment Appropriate Assessment Report at next stage
3.7 Describes the methodologies used to gather information on the baseline conditions of the site.	Habitat Regulation Assessment Screening Report, Section 6 (6.3)

3.8 Identifies the organisations consulted to gather information on the baseline conditions of the site.	Habitat Regulation Assessment Screening Report, Section 6.3
3.9 Provides details of the organisations consulted to gather information on the baseline conditions of the site	

4. Screening	
4.1 Where no significant impacts are predicted on the Natura 2000 Site, a "Finding of No Significant Impacts" statement is provided which clearly sets out why this conclusion has been drawn and provides evidence that the relevant nature conservation agencies and authorities are in agreement with this finding.	Habitat Regulation Assessment Screening Report, Section 6.5 and 6.6
4.2 Where likely significant impacts are identified these are clearly explained and where possible quantified.	Habitat Regulation Assessment Screening Report, Section 6.7
4.3 Evidence is provided of the assessment methodologies used in the screening process.	Habitat Regulation Assessment Screening Report, Section 6.4
4.4 There is clear evidence in the documentation that sufficient account and assessment has been taken of the possibility of cumulative impacts from other projects or plans.	Habitat Regulation Assessment Screening Report, Section 6.2 and 6.8

If you need help to understand this document, or would like it in another format or language, please call the Forward Planning Team on 01432 260000 or send an email to: ldf@herefordshire.gov.uk

HEREFORDSHIRE COUNCIL