Habitats Regulations Assessment of the new Stafford Borough Local Plan 2020-2040: Issues and Options

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Summary

This report is the Habitats Regulations Assessment (HRA) of the new Stafford Borough Local Plan 2020-2040 at Issues and Options stage. A plan level HRA considers the implications of a plan or project for European wildlife sites, in terms of possible harm to the habitats and species that form an interest feature of the European sites in close proximity to the proposed plan. This HRA report draws on a range of background evidence, understanding of the European sites, and the mitigation strategy currently in place for Cannock Chase SAC.

All aspects of the emerging plan that influence sustainable development for the Stafford Borough are checked for risks to European sites. Risks need to be identified in order to inform the screening for likely significant effects, which is an initial stage of assessment to establish whether there is any possibility of the implementation of the plan causing significant effects on any European site. Where the potential for significant effects is identified, or there are uncertainties, a more detailed appropriate assessment is made. As this HRA progresses it will have regard for relevant case law, including a European Court of Justice Judgment that highlights the need for appropriate use of avoidance and mitigation measures at the correct stage of HRA. This HRA at Issues and Options stage includes an initial check of the issues raised for the Borough and options presented for comment for a potential development strategy. A formal screening for likely significant effects will be undertaken when the plan is more advanced. This early HRA report highlights the European sites at potential risk and recommends a number of themes for more detailed appropriate assessment. This HRA also highlights the importance of biodiversity net gain, i.e. contributions to nature conservation as a result of development, as an integral part of a plan led approach to nature conservation.

The appropriate assessment, a detailed assessment of identified risks to European sites, is undertaken once potential impacts on European sites are identified. Possible key themes are highlighted at this early stage, but the appropriate assessment sections will be prepared as the plan progresses. The potential impact themes for appropriate assessment are air quality changes from increased road traffic, recreation pressure, water quality and resources, and urbanisation effects in close proximity (fire risk, lighting, noise etc). At later stages of plan making, the appropriate assessment will also include consideration of emerging site allocations.

Early consideration of potential risks ensures that the Stafford Borough Local Plan is developed with the necessary awareness of potential issues to be addressed. The HRA conclusion at this stage is that there are likely significant effects, and these need to be assessed within the appropriate assessment as part of further iterations of HRA when additional detail relating to the Local Plan is known and further information and evidence has been assessed. However, at this early stage this HRA notes the progression of measures in relation to recreation and also potentially air quality, giving confidence that there may be solutions to be further assessed at later iterations of this HRA report.
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Acknowledgements

Footprint Ecology is grateful to the planning officers at Stafford Borough Council. This report also has the benefit of various discussions over time with the Cannock Chase SAC team and Natural England officers, who have provided helpful discussion in relation to European site sensitivities both before and during the preparation of this HRA report. As this HRA progresses there will be further acknowledgements added.
1. **Introduction and Background Information**

**Context**

1.1 This report is the Habitats Regulations Assessment (HRA) of the emerging new Stafford Borough Local Plan 2020-2040. This early HRA report is prepared to support the Issues and Options consultation, which is an early stage in plan making for local planning authorities. This HRA report has been prepared by Footprint Ecology on behalf of Stafford Borough Council. A HRA assesses the implications of a plan for legally protected European wildlife sites.

1.2 This HRA report has been written with the benefit of discussions with planning officers within the Borough Council, and forms part of the evidence base for the new Local Plan at Issues and Options stage. This introductory section sets the context for the HRA.

1.3 Local plan making is undertaken by local planning authorities in accordance with the Town and Country Planning (Local Planning) (England) Regulations 2012 (as amended). The Regulations include an amendment in 2017 that requires local planning authorities to review their local plan every 5 years. This HRA report will be expanded and updated with new information as the new Stafford Borough Local Plan progresses through the various stages of plan making. At this early stage, the Issues and Options consultation gives an overview of the key issues for the Stafford Borough in terms of sustainable development needs and goes on to provide possible options for the policy direction for the plan, including options relating to growth. Consultation responses will then inform what the preferred options may be, and the Council will develop a strategy for growth that accords with both consultation and the emerging evidence base such as the sustainability appraisal (SA).

1.4 This section of the HRA report provides the background context for this HRA. At this current stage, this HRA provides background context, consideration of sources of evidence to be pursued, and includes a high-level screening of the Issues and Options set out within the plan for likely significant effects. A more detailed appropriate assessment follows this initial screening stage, and again is a high-level overview of the key themes identified as posing risks to the European sites. The appropriate assessment will be expanded further as the plan progresses and will in turn help to inform the refinement of the plan and its policies. The key themes within the appropriate assessment will be updated at both the Regulation 18 and the later Regulation 19 consultation stages of the plan, before it is considered ready for submission for Examination in Public.
1.5 A HRA considers the implications of a plan or project for European wildlife sites in terms of any possible harm to the habitats and species that form an interest feature of the European sites in close proximity to the proposed plan or project, which could occur as a result of the plan or project being put in place. In this instance, the HRA is undertaken at plan level. HRA will also be required for development projects coming forward in the future in accordance with the Local Plan. An explanation of the HRA assessment process is summarised in this section below and is also described in greater detail in Appendix 1.

1.6 Stafford Borough is within central Staffordshire, with the town of Stafford being its main settlement. Outside Stafford and Stone, the second largest settlement, the borough is essentially rural, with attractive landscapes and natural features such as woodland and river corridors, and the Cannock Chase heathlands found amongst what is otherwise expansive farmland. The borough benefits from a number of wildlife and landscape designations protecting its most important natural assets, and Cannock Chase Area of Outstanding Natural Beauty (AONB) has a wide visitor draw. Within the AONB is the European wildlife designation of Cannock Chase Special Area of Conservation (SAC). A number of other European sites, as discussed below, are also found within the borough.

1.7 The borough lies within areas of more concentrated development to the north and south, with the North Staffordshire conurbation of Stoke on Trent and Newcastle under Lyme to the north and Birmingham city Region to the south. Within these areas are higher population levels and consequently Cannock Chase has a large draw from outside the borough as well as within. A summary of the key aspects of the emerging Stafford Borough Local Plan in terms of issues, opportunities and growth objectives over the plan period is provided in this introductory section below.

1.8 This section also provides an overview of the HRA process and how this links with other aspects of the Local Plan relating to the natural environment. HRA is one part of a wider and interconnected approach to planning for the restoration, maintenance and reconnection of biodiversity assets as an integral part of local planning and should not be considered in isolation. HRA is a formal requirement that checks that a local plan does not have negative implications for European wildlife sites, but these sites are ecologically reliant upon the interconnected ecosystems across the borough and beyond and cannot exist without the supporting function of wider ecological networks and processes that underpin their biodiversity.

1.9 When embarking on new HRA work, it is important to take stock and consider how well the measures recommended or put in place to protect European site interest in previous plan iterations have progressed, and what evidence there is available to support the continuation of such measures, or to indicate that they
may need modification. This HRA therefore looks at the measures that were recommended by previous and current HRAs of relevance. In order to protect European sites, and any changes in circumstances, evidence, statutory advice or local understanding of the issues needs to be considered. A summary of previous HRA work is also provided in this section below.

**Habitats Regulations Assessment process**

1.10 A ‘Habitats Regulations Assessment,’ normally abbreviated to HRA, is the step by step process of ensuring that a plan or project being undertaken by, or permitted by, a public body will not adversely affect the ecological integrity of a European wildlife site. Where it is deemed that adverse effects cannot be ruled out, a plan or project must not proceed, unless exception tests are met. This is because European legislation, which is transposed into domestic legislation and policy, affords European sites the highest levels of protection in the hierarchy of sites designated to protect important features of the natural environment.

1.11 The relevant European legislation is the Habitats Directive 1992\(^1\) and the Wild Birds Directive 2009\(^2\), which are transposed into domestic legislation through the Conservation of Habitats and Species Regulations 2017, as amended.

1.12 The legislation sets out a clear step by step approach for decision makers considering any plan or project. In England, those duties are also supplemented by national planning policy through the National Planning Policy Framework (NPPF) 2019. This national planning policy also refers to Ramsar sites, which are listed in accordance with the international Ramsar Convention. The NPPF requires decision makers to apply the same protection and process to Ramsar sites as that set out in legislation for European sites. Formally proposed sites, i.e. sites proposed for European designation and going through the designation process, and those providing formal compensation for losses to European sites, are also given the same protection. This report refers to all the above sites as ‘European sites’ for assessment purposes, as the legislation is applied to all such sites, either directly or as a result of policy.

1.13 It should be noted that the European Directives operate on the basis that sites are in place to serve as an ecologically functioning network, and ultimately it is the preservation of that network as a whole that is the overall aim of the European Directives. The network is often referred to as the Natura 2000 Network or ‘N2K.’

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\(^1\) Council Directive 92/43/EEC  
1.14 The duties set out within the Habitats Regulations apply to any public body or individual holding public office with a statutory remit and function, referred to as ‘competent authorities.’ The requirements are applicable in situations where the competent authority is undertaking or implementing a plan or project, or authorising others to do so. A more detailed guide to the step by step process of HRA is provided in this report at Appendix 1.

1.15 In assessing the implications of any plan or project, in this case a local plan, for European sites in close proximity, it is essential to fully understand the sites in question, their interest features, current condition, sensitivities and any other on-going matters that are influencing each of the sites. Every European site has a set of ‘interest features,’ which are the ecological features for which the site is designated or classified, and the features for which Member States should ensure the site is maintained or, where necessary restored. Each European site has a set of ‘conservation objectives’ that set out the objectives for the site interest, i.e. what the site should be achieving in terms of restoring or maintaining the special ecological interest of European importance. These objectives are set by Natural England and published for each European site in high level generic form and then with supplementary advice that relates to the interpretation of these at each individual site.

1.16 The site conservation objectives are relevant to any HRA, because they identify what should be achieved for the site, and HRA may therefore consider whether any plan or project may compromise the achievement of those objectives. A summary of relevant European sites is provided within this section below. Further information on European site interest and links to the conservation objectives can be found at Appendix 2 of this report. The European sites of relevance to this HRA are discussed below and in Appendix 3.

The natural environment considerations for Local Plan

1.17 A local plan is produced by a local planning authority to set the quantum and direction of sustainable development for the forthcoming plan period. The NPPF states that sustainable development is the achievement of social, economic and environmental aspirations, and these three dimensions of sustainable development are mutually dependant. For the natural environment, the NPPF advises that sustainable development should include protecting, enhancing and improving biodiversity, and moving from a net loss of biodiversity to achieving net gains. The recently published Defra 25 year plan[^3] sets out an ambitious programme for improving the natural environment, including the achievement

of environmental net gains through development, of which biodiversity is an important part.

1.18 The Defra strategy follows on from the review of England’s wildlife sites and ecological network, set out in the report to Defra in 2010 entitled ‘Making Space for Nature,’ which was prepared by a group of national experts chaired by Professor Sir John Lawton. Within this report, it is identified that in order to make our ecological networks and wildlife sites capable of future resilience, there is a need for more wildlife sites, and that existing networks need to be bigger, better and more connected. The future health of designated sites is very much dependant on the future health of wider biodiversity and the ecological networks that sustain them. In planning for the long-term sustainability of designated sites, it is therefore necessary to protect and enhance wider biodiversity through the planning system as well as the designated sites. This HRA recognises this need within the appropriate assessment section in relation to biodiversity gains through planning.

1.19 Local plans are required by the NPPF to make provision for the protection and enhancement of the natural environment. The new NPPF published in 2019 gives significant weight to the role of spatial planning in not only protecting the natural environment, but also restoring, enhancing and increasing natural capital. There is a clear opportunity for local plans to move from a purely protective approach to one where sustainable development is about high quality environmental gains as well as social and economic. Making the links between designated sites and the wider environment that underpins and supports them is critical to the long-term maintenance of our most important wildlife sites.

1.20 The Government has recently prepared a new Environment Bill, which reached its second reading in Parliament in October 2019. After a pause in progression due to the 2019 General Election, the Bill has now regained traction, and its importance within the newly elected Government’s legislative programme was confirmed in late December with the new Queen’s speech following the General Election. Within this Bill, it is proposed that there is a mandatory requirement for biodiversity net gain as part of new development.

The adopted Stafford Borough Local Plan

1.21 The Stafford Borough Local Plan 2020-2040 is being undertaken to ensure that the Local Plan for the Borough remains up to date in terms of government policy

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and guidelines in relation to economic and housing needs, and up to date in terms of supporting evidence and assessment. A Local Plan continues to provide for sustainable development, and should have regard for up to date information, national policy and guidance in relation to all aspects of sustainable development; environment, economy and community.

1.22 The current Plan for Stafford Borough is in two parts. Part 1 was adopted in June 2014 sets out the strategic aspects of the Local Plan for the Borough in terms of the vision and spatial principles, that then lead into policies for the Borough over the plan period of 2011 to 2031. Furthermore Part 1 sets out an adopted scale and distribution of housing for the Borough that strongly favours the majority of housing in Stafford, followed by Stone. At the time of adoption this represented the most sustainable approach for the development strategy. Part 2 provides more detailed matters in relation to settlement and development site boundaries. This was adopted in January 2017.

1.23 Since the adoption of the Plan for Stafford Borough, a number of Neighbourhood Plans have also been adopted for key settlement areas. These are Gnosall, Eccleshall, Colwich, Barlaston and Hixon.

1.24 Masterplans are also in place for the key Stafford development areas being taken forward as part of the existing adopted Local Plan. These masterplans cover the land to the north of Stafford and land west of Stafford. These masterplans are informing the delivery of the main apportionment of new development for Stafford within the adopted Local Plan.

1.25 The new Stafford Borough Local Plan will replace both of the adopted parts and will provide for one new Local Plan document that will cover the period of 2020 to 2040. This will include a newly refreshed vision for the Stafford Borough and provide a delivery strategy that accords with national policy and guidance, whilst having regard for local needs. The scale and location of development is yet to be determined and the Issues and Options consultation allows for a range of options to be responded to.

1.26 Importantly, the methodology for establishing housing need has been revised by Government in recent years and is now set out in the new National Planning Policy Framework 2019 and National Planning Practice Guidance 2019. This new direction has been finalised after the publication of the initial Scoping the Issues document for the Stafford Borough Local Plan, which was prepared in 2018.

1.27 Following the initial Scoping the Issues consultation, the Borough Council commenced work on the key themes and issues for the Borough, looking at housing delivery, economic development needs, social infrastructure and the natural and historic environment. This work now frames the chapters within the
Issues and Options consultation document, each of which provide the background context for consultees to respond to in terms of possible settlement hierarchy, how the natural and historic environment might be protected, and how the Borough needs to prepare for climate change and reduce its carbon footprint. The Issues and Options consultation provides questions for consultees within each chapter.

1.28 At this early stage, the plan is not yet developed into specific policies or site allocations. This HRA therefore does not yet provide a detailed commentary on each aspect of the plan in terms of policy, supporting text and allocations. This work will come later in the plan making process. Rather, this HRA at Issues and Options stage supports the development of the Stafford Borough Local Plan by highlighting key areas for consideration and further work under each of the chapter headings.

Relevant evidence documents to date

1.29 The following documents are of relevance to this new HRA of the emerging Stafford Local Plan.

The adopted Plan for Stafford Borough HRA

1.30 The adopted Plan for Stafford Borough 2011-2031 is supported by HRA reports that have been developed alongside a number of additional pieces of evidence commissioned by the Borough Council and its neighbouring local planning authorities. The currently adopted Plan is supported by HRA reports that conclude that the plan will not result in adverse effects on site integrity for any European sites.

1.31 The HRA report for Part 1 identifies Cannock Chase SAC as the site for which likely significant effects were identified as arising as a result of the Local Plan. Impacts relate to recreation from increased visitors with new housing growth, air quality from increased traffic emissions on roads in close proximity, and potential hydrological changes as a result of abstraction of water from bore holes adjacent to the SAC. The HRA concludes, based on available evidence at the time, that traffic emissions from new growth are not sufficient to result in adverse effects in terms of Nitrogen deposition in heathland vegetation. It further concludes, using information from the Environment Agency, that water abstraction will not result in adverse effects on Cannock Chase SAC vegetation due to the license reductions at two bore holes in close proximity.

1.32 For recreation impacts, the HRA is developed alongside and informed by a number of evidence documents that have been commissioned by the Cannock Chase SAC Partnership. At the time of preparation of the adopted Local Plan
HRAs, a partnership had been formed to specifically work through the potential impacts from increased visitor levels arising from new growth in the areas around Cannock Chase SAC, encompassing a number of local planning authority areas and including the Birmingham Housing Market Area. The evidence is discussed in further detail within this new HRA report in relation to emerging themes for appropriate assessment.

The HRA reports for the adopted Plan for Stafford Borough conclude that a strategic approach to mitigating for recreation pressure on Cannock Chase SAC is in development and provides the necessary protection for the SAC.

The HRA also concludes that Policy N5, Sites of European, National and Local Nature Conservation Importance, along with Policy N6 Cannock Chase Special Area of Conservation (SAC) together provide the protection necessary to protect Cannock Chase SAC.

Once Part 2 of the Local Plan was being prepared, the Council sought advice from Natural England in relation to the potential assessment requirements for Cannock Chase SAC. Natural England supported the Council's conclusions (in a letter dated 13th July 2015) that the HRA work for Part 1 adequately provided a mitigation approach, being developed by the Cannock Chase SAC Partnership, that enabled Part 2 to rely upon the HRA conclusions for Part 1.

**Sustainability Appraisal Scoping Report**

A sustainability appraisal is undertaken by local planning authorities on local planning documents to assess whether the economic, environmental and social needs of the local area are being met. The appraisal runs alongside the preparation of a local plan, appraising the options being taken forward and whether alternatives might have a greater positive or lesser negative effect on economic, environmental and social objectives. Sustainability appraisal also incorporates the requirements of the European Strategic Environmental Assessment Directive (2001/42/EC).

There are some elements of cross over between HRA and the sustainability appraisal. The appraisal will consider environmental sustainability in terms of natural resources such as air and water, and how they may be affected by the plan. These are similarly important supporting aspects of European site ecological integrity.

It may be necessary for any mitigation measures to be cross referenced in the sustainability appraisal, to confirm that the measures represent the most sustainable option for mitigating any impacts. This is particularly relevant where the mitigation forms part of a strategic approach to European site protection,
which has a number of sustainability benefits over a project by project approach.

1.39 The SA Scoping Report for the emerging Stafford Borough Local Plan was prepared prior to the Scoping the Issues consultation. It identifies climate change as a fundamental issue for the SA, along with the protection of ecosystem services provided by soil and water. Biodiversity is also identified as a key theme and these topics will be used to appraise the emerging Local Plan options. This HRA will therefore ensure linkages to the SA as both documents are progressed.

Stafford Assessment of Reasonable Alternatives for Delivering Growth

1.40 This emerging evidence document has been commissioned to provide an independent assessment of the potential strategic growth options to deliver housing need for the new Stafford Borough Local Plan. It is recognised that in order to meet housing need, it is possible that some housing delivery will need to be in the form of a mix of one or more major urban extensions and/or new settlements. The assessment of reasonable alternatives looks at possible sites for strategic-scale urban extensions and new communities. The more favourable sites are set out within the Issues and Options consultation document. As the plan is refined, the preferred sites for strategic growth will be narrowed down.

1.41 At this stage, this HRA report provides a high-level indication of potential areas for further consideration in terms of possible European sites impacts, in relation to the strategic areas.

Forthcoming evidence documents for the emerging Local Plan

1.42 There are a number of evidence documents for the Local Plan Review that are of relevance to the HRA. These are prepared or in progress and are informing the plan review. As these documents are finalised the appropriate assessment sections of this HRA developed, these evidence documents will be referenced:

- Economic and Housing Development Needs Assessment (identifying Stafford Borough as a single Housing Market Area)
- Strategic Development Options Study
- Stafford Borough Nature Recovery Network Report
- Strategic Flood Risk Assessment Level 1 and Level 2
- Water Cycle Study
- Strategic Housing and Employment Land Availability Assessment
- Climate Change Strategy.
2. 

**European sites**

2.1 In undertaking an HRA it is necessary to gather information on the European sites that could be potentially affected by the plan or project. A 20km buffer from the edge of the Borough was used to initially identify sites that may be potentially affected. This buffer is used by Footprint Ecology for local plan HRAs as it is deemed precautionary enough to capture most potential impact pathways (i.e. the means by which a European site may be affected) between plan implementation within a local planning authority’s administrative area. The list of European sites within 20km was then evaluated in terms of relevant threats, vulnerabilities and current issues.

2.2 European sites within 20km are shown in Maps 1 for SACs and Map 2 for SPAs, and Ramsar sites. The maps show a number of SACs within the Borough boundary, and some wetland sites that form part of the Midland Meres and Mosses series of Ramsar sites. These wetlands are part of a wider group of small sites within the Midlands Meres and Mosses series, which can be seen on Map 2 to the north west of the Borough. Outside the Borough there are also a number of additional SAC’s and the Peak District Moors to the north, classified as a SPA as part of the wider South Pennine Moors Phase I SPA.

2.3 The isolated nature of the Meres and Mosses, and their localised hydrological support, means that impacts are generally seen in close proximity rather than at a distance. The sites within the borough boundary are therefore of potential concern and need to be considered within this HRA in terms of any local growth proposals. The Peak District Moors are at too greater distance to realise any impacts, other than a contribution to the national draw of the Peak District area as a visitor location. National Park management is therefore ultimately the most appropriate means of considering these impacts, which are national in nature.

2.4 Two of the SAC sites that lie outside the Borough: Mottey Meadows (partly within and mainly outside the boundary) and Cannock Extension Canal are in closer proximity, and their location is such that the distribution of growth and potential increases in traffic commuting into and out of the Borough could pose potential risks. These two sites are therefore included in this HRA and further analysis will be undertaken to examine potential impacts.

2.5 Sites to be included within the HRA are listed in Table 1. Full details of the interest features and current pressures/threats for each site are summarised in Appendix 3.
2.6 In assessing the implications of any plan or project on European sites, it is essential to fully understand the ecology and sensitivity of the sites, in order to identify how they may be affected. Every European site has a set of ‘interest features’ which are the ecological features for which the site is designated or classified, and the features for which Member States should ensure the site is maintained or, where necessary restored.

2.7 Each European site also has a set of ‘conservation objectives’ for the site interest, i.e. what the site should be achieving in terms of restoring or maintaining the special ecological interest of European importance. These objectives are set by Natural England and published for each European site in high level generic form and then with supplementary advice that relates to the interpretation of these at each individual site.

2.8 The site conservation objectives are relevant to any HRA, because they identify what should be achieved for the site, and a HRA may therefore consider whether any plan or project may compromise the achievement of those objectives. The background to the conservation objectives and key considerations are explained in Appendix 2. Appendix 3 sets out the site interest features for each European site.

2.9 The Habitats Directive requires competent authorities to ‘maintain and restore’ European sites. Where sites are meeting their conservation objectives, the requirement is to maintain this position and not allow deterioration. Where a site requires restoration, competent authorities should work to bring site interest features back to a status that enables conservation objectives to be met.

2.10 In addition to conservation objectives, Natural England produces Site Improvement Plans (SIPs) for each European site in England as part of a wider programme of work under the ‘Improvement Programme for England’s Natura 2000 sites.’ Each plan includes a set of actions for alleviating issues that are impeding the delivery of conservation objectives, with lead delivery bodies identified and indicative timescales. The SIPs can provide an additional useful reference for HRA work, identifying where there are site sensitivities. The SIPs help to inform what the key threats are and where these may originate from development, having regard for the interest features listed in Appendix 3. These will be reviewed to inform the appropriate assessment set out within this report.

**European sites to be considered in the screening of the plan**

2.11 The preparation of the Stafford Borough Local Plan is at an early stage. Once it has progressed to a more advanced stage, a more accurate assessment of impacts against interest features for the European sites can be undertaken, and this will be presented in a screening assessment, i.e. checking each emerging
policy or site allocation for potential risks to European sites. At this point in time, consideration of the Issues and Options document enables identification of which European sites need to be included in further iterations of the HRA. On a precautionary basis, at this stage this report highlights which European sites could potentially be affected by growth within the Borough. Location, type and extent of growth will become more refined as the plan review progresses. At this point in time, potential risks are simply highlighted, and these sites will be the subject of more detailed assessment in the future, which may rule out potential impacts.

2.12 The West Midlands Mosses SAC, also part of the Midland Meres and Mosses Phase 1 Ramsar site, is highly sensitive to deterioration in water quality, and is primarily threatened by diffuse pollution from agricultural land, although residential development in close proximity will contribute to the threat where septic tanks are present. Water run-off and urbanisation impacts in close proximity to Mottey Meadows may also present potential risks.

2.13 There is established evidence of recreation impacts for Cannock Chase SAC, as discussed further in the appropriate assessment sections of this report, and there are some concerns relating to water quality and air quality in relation to the Cannock Extension Canal and Pasturefields Salt Marsh SACs, both of which have been highlighted by Natural England to Stafford Borough Council and neighbouring local planning authorities.

2.14 Mottey Meadows (partly within and mainly outside the boundary) and Cannock Extension Canal are outside the Borough but are in relatively close proximity, and their location is such that the distribution of growth and potential increases in traffic commuting into and out of the Borough could pose potential risks. These two sites are therefore included in this HRA and further analysis will be undertaken to examine potential impacts.

2.15 Sites to be included within the HRA are listed in Table 1. Full details of the interest features and current pressures/threats for each site are summarised in Appendix 3.
## Table 1: European Sites for inclusion within the HRA

<table>
<thead>
<tr>
<th>SAC</th>
<th>Ramsar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chartley Moss, part of the West Midlands Mosses SAC</td>
<td>Chartley Moss, part of Midland Meres and Mosses Phase I</td>
</tr>
<tr>
<td>Cannock Chase</td>
<td>Aqualate Mere Mere, part of Midland Meres and Mosses Phase II</td>
</tr>
<tr>
<td>Mottey Meadows</td>
<td>Cop Mere, part of Midland Meres and Mosses Phase II</td>
</tr>
<tr>
<td>Pasturefields Salt Marsh</td>
<td></td>
</tr>
<tr>
<td>Cannock Extension Canal</td>
<td></td>
</tr>
</tbody>
</table>
3. **Screening for likely significant effects**

3.1 HRA is a step by step process, with the competent authority required to undertake screening for likely significant effects on European sites, after determining that the plan or project in question is not one that is entirely necessary for site management. Once relevant background information and potential impact pathways are understood, the HRA can progress to the screening for likely significant effects stage, fully informed by the background research undertaken. The screening for likely significant effects is undertaken on all policies and site allocations within an emerging Local Plan. It is an initial check, made on a precautionary basis, to determine whether any part of the plan poses a risk to European sites in terms of its future implementation.

3.2 The Stafford Borough Local Plan is being prepared to steer sustainable development in the Borough, and whilst protection and enhancement of the natural environment is an integral part of sustainable development, the plan is not singularly focussed on European site management. The screening for likely significant effects is therefore undertaken.

3.3 When a HRA is being undertaken on a plan or project that is initiated by the competent authority themselves, there is greater opportunity to identify potential issues arising from the plan or project in the initial stages of design or preparation. Where a competent authority is approving a project being proposed by another party, the application for permission is usually made when the proposal has already been designed and all details finalised, thus the opportunity to identify issues early on is more limited unless an applicant chooses to hold early discussions with the competent authority.

3.4 For the Stafford Borough Local Plan, the Council is both the plan proposer and the competent authority, thus allowing the HRA to influence the plan in its earlier stages, at later refining stages and up to submission for Examination.

**What constitutes a likely significant effect?**

3.5 At the screening stage of HRA, there is the opportunity to identify changes to the plan that could be made to avoid risks to European sites. Any requirement for assessing the effectiveness of changes should be made at the appropriate assessment stage. The screening for likely significant effects is an initial check to identify risks or uncertainties in policy wording and recommend any obvious changes that can avoid those risks with clarifications, corrections or instructions for development at project level HRA. Any recommendations that need to be justified in terms of effectiveness and applicability should be considered within the appropriate assessment stage of HRA. As described in Appendix 1,
screening for likely significant effect is an initial check to identify risks and uncertainties that could potentially be significant for the European sites, and to recommend any obvious changes that can avoid those risks. Where risks cannot be avoided with simple clarifications, corrections or instructions for project level HRA, a more detailed assessment is undertaken to gather more information about the likely significant effects and give the necessary scrutiny to potential mitigation measures. This is the appropriate assessment stage of HRA.

3.6 The screening check of each aspect of the plan is essentially looking for two things to enable a conclusion of no likely significant effect;

- Whether it is possible to say with certainty that there are no possible impacts on European sites, or
- Whether, in light of a potential risk, simple clarifications can be built into the policy and/or its supporting text, which serve to avoid any likely impacts.

3.7 If one of these can be met, it enables a competent authority to screen out from further stages of assessment. Where there is the potential for European sites to be affected, or mitigation measures need to be checked to ensure they are effective and appropriate, more detailed consideration is required and this then screens those aspects of the plan into the appropriate assessment.

3.8 A likely significant effect could be concluded on the basis of clear evidence of risk to European site interest, or there could be a scientific and plausible justification for concluding that a risk is present, even in the absence of direct evidence. The latter is a precautionary approach, which is one of the foundations of the high-level of protection pursued by EU policy on the environment, in accordance with the EU Treaty. The precautionary principle should be applied at all stages in the HRA process and follows the principles established in case law relating to the use of such a principle in applying the European Directives and domestic Habitats Regulations. In particular, the European Court in the ‘Waddensee’ case\(^6\) refers to “no reasonable scientific doubt” and the “Sweetman’ case\(^7\) the Advocate General identified that a positive conclusion on screening for likely significant effects relates to where there “is a possibility of there being a significant effect”.

3.9 An additional and relatively recent European Court of Justice Judgment in 2018 (Case C-323/17) clarified the need to carefully explain actions taken at each HRA

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\(^5\) Article 191 of the Treaty on the Functioning of the EU. Previously Article 174 of the Treaty of the EC.

\(^6\) European Court of Justice case C - 127/02

\(^7\) European Court of Justice case C - 258/11
stage, particularly at the screening for likely significant effects stage. The Judgment is a timely reminder of the need for clear distinction between the stages of HRA, and good practice in recognising the function of each. The screening for likely significant effects stage should function as a screening or checking stage, to determine whether further assessment is required. Assessing the nature and extent of potential impacts on European site interest features, and the robustness of mitigation options, should be done at the appropriate assessment stage.

3.10 The Habitats Regulations require the screening for likely significant effects to consider potential risks alone or in-combination. European sites are often affected by development over a wide area or ‘zone of influence.’ The European sites screened into this assessment have identified sensitivities and impact pathways that can originate from development at considerable distance away, particularly in relation to traffic emissions and water enrichment as a result of discharges from waste-water treatment works. These impact pathways are indirect, i.e. they arise as a result of actions relating to the ‘operation’ of the development by end users rather than directly as a result of the development being in place. They are relevant for sites such as Pasturefields Saltmarsh and Cannock Extension Canal.

3.11 Where identified, likely significant effects may also be amplified by similar growth in neighbouring local planning authorities, as discussed in the appropriate assessment sections. Recreation pressure on Cannock Chase SAC stems from a large zone of influence that encompasses several local planning authority areas. The combined effect of development over multiple Local Plans is therefore of relevance to this HRA.

Emerging themes at Scoping the Issues stage

3.12 The consultation responses from the Scoping the Issues consultation in 2018 highlighted that consultees strongly supported protection and enhancement of biodiversity within the Stafford Borough.

3.13 Natural England provided a response that raised the requirements of the NPPF in terms of biodiversity net gain, green and blue infrastructure, and ancient woodland. Natural England highlighted the importance of a strong evidence base in relation to Cannock Chase SAC, and the positive work of the Cannock Chase SAC partnership in this regard in terms of recreation pressure, and also the emerging need to consider potential air quality impacts, notably in relation to European and domestic case law on this matter. The Environment Agency highlighted the need for an updated Water Cycle Study to support the emerging Stafford Borough Local Plan, and the importance of properly assessing flood risk.
3.14 These responses support the proposed approach to the appropriate assessment set out within this early HRA, to be progressed alongside the Stafford Borough Local Plan stages.

Checking the Stafford Borough Local Plan at Issues and Options stage

3.15 Screening for likely significant effects is normally recorded within a table as this provides a clear and easily interpreted means of conveying the screening considerations on a policy by policy or site allocation by site allocation basis. A screening table will be developed at the Preferred Options stage of plan making, when the plan will contain the preferred strategy for the locations and proportions of growth. Screening for likely significant effects is to highlight where there is the potential for risks to European sites.

3.16 At this stage, for the Issues and Options consultation, a plan chapter by chapter approach is taken to highlight key matters for consideration as the plan is developed. Potential risks are highlighted for a number of emerging policy areas, particularly those related to housing growth. Where consultation questions are pertinent to the natural environment and designated sites, responses are given.

Vision and Strategic Objectives

3.17 The chapter asks for comments on the current Vision within the adopted Plan for Stafford Borough and highlights the opportunity to update the Vision to ensure it remains relevant for the Borough up to 2040.

3.18 The Vision provides positive references to the natural environment, but there is the opportunity to strengthen the wording in relation to the long-term maintenance of biodiversity assets, including facilitating the adaptation of the natural environment to climate change. Clear reference to biodiversity net gain for development, and securing meaningful gains for local biodiversity, could also be added.

3.19 Question 3.C asks whether the Vision should more explicitly respond to climate change, and here there is the opportunity to secure the natural environment as fundamental to long term sustainability, but referencing climate change in the wider context of the ecosystem services that the natural environment provides, and how these may be affected by climate change.

3.20 As with the Vision, the update to the Local Plan objectives again provides an opportunity to make reference to the long-term maintenance and ecological viability of biodiversity assets, particularly in the face of climate change.
3.21 The Objectives can also be enhanced by placing emphasis on the integrated benefits of the natural environment for health, economic and social wellbeing.

**Sustainability and climate change**

3.22 This chapter sets out the opportunity for the Stafford Borough Local Plan to positively influence the future of the Borough to negate the implications of climate change. The chapter is focussed on positive action to cut emissions enable behavioural change and increase resilience through new development. It is suggested that this needs to be expanded to increased resilience of the natural environment as well as the built environment. The future resilience of designated wildlife sites is reliant upon the continued provision of robust ecological corridors that facilitate species movement and genetic dispersal. A strong interconnected network of ecological assets will strengthen the resilience of local biodiversity to climatic changes. Supporting habitats such as heathland sites in the vicinity of Cannock Chase SAC will become increasingly important for the long term ecological viability of designated sites.

3.23 The new Climate Change Strategy for the Borough should incorporate these key messages, to align it with the natural environment resilience that is suggested for this chapter in the Local Plan. Questions 4.A and 4.C in the consultation provide opportunities for new policies to make reference to climate change adaptation for the natural environment, and for large scale proposals such as renewable energy projects to make a contribution to this.

**The Development Strategy**

3.24 Chapter 5 of the Issues and Options consultation document sets out the range of options for a development strategy for the Borough. At this early stage in plan making, the specific annual housing growth need is not specified, rather a range of options with varying calculation methodologies is provided for comment. Once a housing figure is presented, this HRA will consider the implications of this for European sites. In particular, how the overall housing number influences the strategic approach to mitigating for recreation pressure at Cannock Chase SAC.

3.25 The settlement hierarchy will be developed in time, and site allocations will be presented to fit the hierarchy, including a range of small-scale development sites. It will be important to consider how small-scale sites will be accounted for in the full quantum of potential impacts and strategic mitigation approaches for European sites.

3.26 The chapter highlights at paragraph 5.30 that consideration of the potential development scenarios will ultimately lead to difficult decisions as locations for new development can be emotive for local residents. It is important to note that
the effects of development on assets such as the natural environment can in turn be emotive for local residents. The importance of biodiversity assets relates to the value placed on them by people as well as their intrinsic nature conservation value.

3.27 Figure 5.1 within the Issues and Options consultation illustrates the range of potential development scenarios for the Borough. The sustainability credentials of these will continue to be appraised through the SA process, and similarly this HRA will assess the options as more detail emerges as the plan develops.

3.28 The options include provision of new development sites either focusses at Stafford and Stone or more widely dispersed. The options also include provision to be made for one or more Garden Communities within the Borough. A Garden Community, as defined by Government\(^8\) is a purpose-built new settlement, or large extension to an existing town that has a clear identity and attractive environment. There is a particular emphasis on greenspaces and public realm, as well as high levels of sustainability in terms of transport, housing provision and community facilities. The consultation document initially suggests several locations for large scale new communities of settlement extensions.

3.29 A range of initial potential sites to facilitate the range of options for spatial scenarios is provided within the consultation document and illustrated on Map 3. As noted earlier within this HRA the assessment of reasonable alternatives looks at possible sites for strategic-scale urban extensions and new communities. This assessment, the SA and consultation responses, along with other key evidence documents for the Local Plan, will refine the options for the next stage of the Local Plan at Preferred Options. For this HRA, it will be necessary to undertake more in-depth assessment of the options prior to and to inform the preferred options.

3.30 A key action prior to the next iteration of the HRA is for the HRA consultants to work with the Council to assess issues and opportunities relating to European sites and their supporting wider habitats for the different options for growth and strategic sites, linking to the reasonable alternatives assessment and the SA.

3.31 Proximity of European sites to settlements where growth could take place, such as Stafford, Weston and Hixon highlight areas for further work, but do not necessarily mean that development in these locations will lead to European site issues. Opportunities presented by development sites are also important to

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consider and develop as part of a plan led approach to nature conservation and enhancement.
Delivering economic prosperity

3.32 The Issues and Options document, at this early stage, does not clarify the extent or locations necessary to meet employment need alongside housing growth. The HRA will need to provide a narrative on employment options to ensure that Preferred Options presented at the next stage of plan making are supported within the accompanying HRA report, in due course.

3.33 This chapter also includes reference to the visitor economy and whether policies need to be updated and refined to better cover this aspect of the economy for the Borough. Where policies specifically promote tourism that has the potential to lead to increased pressure on European sites this will need to be assessed.

Delivering town centres that address future needs

3.34 Town centre development is less likely to be of particular concern for the HRA, but policies will need to be checked within the screening for likely significant effects, along with all other policies within the plan.

Delivering housing

3.35 This chapter sets out the need to deliver high quality homes that meet the needs of everyone. Effective use of land will need to consider what supporting function development sites may play for designated sites, in terms of priority habitats and species present, hydrological linkages or other functions, and how any biodiversity interest links into wider ecological networks.

3.36 Differing housing types and tenure will not necessarily alter the potential impact they may have on European sites, and it is therefore imperative that the overall impact of development is accounted for in any mitigation approaches. Affordable housing, gypsy and traveller pitches and student accommodation, for example, could all result in a recreation impact.

Delivering quality development

3.37 The inclusion of this section provides a positive message relating to the importance of non-built areas as part of sustainable development. Here there are a number of key areas for policy development that will be relevant to European site protection and long-term maintenance. It is recommended that biodiversity protection is expanded to more comprehensively encompass the principles set out within the Making Space for Nature Report, an independent

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review of wildlife sites in England by Professor Sir John Lawton. Improving the quality of designated sites, the extent of designated sites, and increasing the extent and connectivity of wider habitat are concluded to be essential for the long-term ecological viability of designated sites. As the HRA progresses recommendations will be made for developing policy relating to the natural environment, including consideration of key evidence documents such as the Stafford Borough Nature Recovery Network report.

3.38 Question 9.O relates to the provision of greenspace and there is an opportunity here to consider how greenspace provision can link with ecological networks as well as reducing recreation pressure on European sites.

Environmental quality

3.39 This chapter within the Issues and Options consultation document again provides a valuable opportunity to make linkages between the natural environment and social and economic wellbeing. Air quality will be an important theme for this HRA to consider in terms of how new growth may increase, or provide opportunities to decrease pollutants from traffic emissions that may have implications for sensitive habitats such as the Cannock Chase heathlands.

3.40 Question 10.B asks whether policy wording in relation to mitigating the impacts of nitrogen deposition should be included within the Local Plan. This HRA will recognise that air quality is a threat to a number of European sites, as described in supplementary advice and SIPs, and is likely to make recommendations to assist the Council in developing suitable policy wording to progress measures to mitigate for air quality impacts on European sites.

Health and wellbeing

3.41 It would be beneficial for this chapter to continue to expand on the positive wording in relation to the linkages between green infrastructure, biodiversity and health and wellbeing.

Connections

3.42 This chapter primarily focusses on transport connections. It would be beneficial to recognise that connections can be multi-functional and ecological corridors can be provided alongside these connections. New transport connections will need to be considered within this HRA in terms of potential impacts on European sites, both directly and indirectly.
Viability and delivery of development

3.43 Viability considerations are likely to be raised where the Council requires contributions or actions to mitigate for ecological impacts, either for designated sites or wider biodiversity. It will therefore be beneficial to be prepared for these concerns as part of the whole plan viability work.

Monitoring and review

3.44 Local Plan monitoring for the natural environment will be most useful if it considers positive gains rather than being confined to any losses.

Summary of recommendations from initial consideration of European site issues

3.45 Table 2 below provides a summary of the considerations given on a chapter by chapter check of the Issues and Options document, which at the next iteration of the HRA will develop into a more comprehensive screening for likely significant effects.
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Potential risks</th>
<th>Potential opportunities</th>
<th>Recommendations for HRA progression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision and Strategic Objectives</td>
<td>N/A</td>
<td>make reference to the long-term maintenance and ecological viability of biodiversity assets, particularly in the face of climate change. Recognise integrated benefits biodiversity brings for society and the economy</td>
<td>N/A</td>
</tr>
<tr>
<td>Sustainability and climate change</td>
<td>Lack of consideration of the natural environment when there are European sites that are vulnerable to climate change</td>
<td>Recognise climate change resilience needs for the natural environment. Ensure that the new Climate Change Strategy for the Borough incorporates this theme</td>
<td>Links from HRA to the Climate Change Strategy Consideration of climate change for European sites, particularly Cannock Chase</td>
</tr>
<tr>
<td>The Development Strategy</td>
<td>Implications of the location and quantum of development for European sites needs to be assessed for Preferred Options</td>
<td>Opportunities for long term maintenance and enhancement through the development strategy, particularly strategic sites</td>
<td>HRA will consider the implications of employment and housing numbers, settlement hierarchy and the development strategy for European sites</td>
</tr>
<tr>
<td>Delivering town centres that address future needs</td>
<td>To check at next stage</td>
<td>To check at next stage</td>
<td>To check at next stage</td>
</tr>
<tr>
<td>Delivering housing</td>
<td>Risks to supporting habitat through development allocations. All housing types are not fully considered in term of potential impacts</td>
<td>Improvement of supporting habitat functionality for European sites</td>
<td>Ensure that potential impacts from the full quantum of all housing types are assessed and mitigated for</td>
</tr>
<tr>
<td>Delivering quality development</td>
<td>Policies are too heavily focussed on protection and not opportunities</td>
<td>Incorporate the principles set out within the Making Space for Nature Report</td>
<td>Working with the Council to progress policy wording for the natural environment</td>
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<td>-------------------------------</td>
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</tr>
<tr>
<td>Environmental quality</td>
<td>Air quality is not fully covered by policies in relation to impacts on the natural environment as well as human health</td>
<td>Opportunity to consider a strategic and policy led approach to preventing air quality impacts on European sites</td>
<td>HRA to assess potential air quality impacts and consider strategic options for mitigating for air quality impacts</td>
</tr>
<tr>
<td>Health and wellbeing</td>
<td>N/A</td>
<td>Promote linkages between green infrastructure, biodiversity and health and wellbeing.</td>
<td>N/A</td>
</tr>
<tr>
<td>Connections</td>
<td>Potential impacts as a result of new or enhances transport connections</td>
<td>Connections can be multi-functional and ecological corridors can be provided alongside</td>
<td>Assess potential impacts of new connections promoted by the plan</td>
</tr>
<tr>
<td>Viability and delivery of development</td>
<td>Viability arguments create challenges to biodiversity requirements within development, for both designated and non-designated biodiversity</td>
<td>Make preparations with good information provision in relation to viability considerations where biodiversity requirements may be set</td>
<td>Work with the Council to ensure that designated site mitigation requirements are deliverable.</td>
</tr>
<tr>
<td>Monitoring and review</td>
<td>Data is not meaningful</td>
<td>Set natural environment monitoring that focusses on positive gains rather than being confined to any losses</td>
<td>HRA to ensure that monitoring in relation to European sites is positive and meaningful.</td>
</tr>
</tbody>
</table>
4. **Key themes for the HRA**

4.1 There is now a strong body of evidence showing how increasing levels of development, even when well outside the boundary of protected wildlife sites, can have negative impacts on the sites and their wildlife interest. The research particularly includes work on heathlands (Ralph T. Clarke, Liley, Sharp, & Green, 2013; R.T. Clarke & Liley, 2013; R.T. Clarke, Sharp, & Liley, 2008; D Liley & Clarke, 2006; Mallord, 2005; Sharp, Clarke, Liley, & Green, 2008; J. C. Underhill-Day, 2005) and coastal sites (R.T. Clarke et al., 2008; D Liley, 2008; Durwyn Liley & Sutherland, 2007; Randall, 2004; Saunders, Selwyn, Richardson, May, & Heeps, 2000; Stillman et al., 2009) where links between housing, development and nature conservation impacts are demonstrated.

4.2 Once a likely significant effect has been identified, the purpose of the appropriate assessment is to examine evidence and information in more detail to establish the nature and extent of the predicted impacts, in order to answer the question as to whether such impacts could lead to adverse effects on European site integrity.

4.3 An appropriate assessment should be based on evidence, and that can take different forms (direct evidence, comparable evidence, modelling, expert opinion, Natural England’s advice etc). In reality however, appropriate assessments at the plan stage are often undertaken with enough evidence to give confidence in potential mitigation options, but that project level HRAs remain critical in determining the detail of such mitigation. The assessment at plan level is therefore often drawing on the knowledge and experience of the assessors, to make scientifically justified decisions about eliminating risk whilst recognising the need for further detailed considerations.

4.4 The ‘precautionary principle’ is described in the screening section. It is equally relevant for the appropriate assessment as it is for screening likely significant effects. It is an accepted principle that is embedded within the wording of the legislation, and latterly within case decisions, both European and domestic. Essentially, the appropriate assessment stage is, in accordance with the Habitats Regulations, an assessment that enables a competent authority to only give effect to a plan or authorise/undertake a project after having ascertained that it will not adversely affect the integrity of the European site.

4.5 It is for the competent authority to gather the information and evidence necessary for the appropriate assessment to give them certainty that adverse effects will not occur. Fundamentally that therefore means that in the absence of certainty, the plan or project should not normally proceed (subject to the
further exceptional tests explained in Appendix 1). Hence the precaution is in the competent authority's duty to only allow plans or projects to proceed where there is certainty and to apply a precautionary approach where uncertainties remain. Competent authorities should have enough evidence to satisfy themselves that there are feasible measures to prevent adverse effects. These should be feasible in terms of cost, practical implementation, timeliness and attributing responsibility.

**Impact pathway themes from the Issues and Options**

4.6 This HRA is in its early stages of preparation and a formal screening for likely significant effects, to inform an appropriate assessment, is not yet possible in the absence of preferred policy approaches.

4.7 However, consideration of the chapters from the Issues and Options document that will develop into policy areas for the Local Plan, experience elsewhere and consideration of previous HRA work enables initial themes for appropriate assessment to be identified. Early recognition of potential issues can prevent policies being pursued that pose potential risks to European sites and can help to establish the necessary policy wording to protect and enhance the natural environment as an integral part of the plan with relevant links across policies. When protective measures are developed at a late stage in plan making, they can often be difficult to fully integrate.

4.8 European sites are at risk if there are possible means by which any aspect of a plan can, when being taken forward for implementation, pose a potential threat to the wildlife interest of the sites. This is often referred to as the ‘impact pathway’ as it is an identifiable means by which the plan or project could potentially affect the European site.

4.9 The impact pathways are explored in the screening for likely significant effects, and where, on a precautionary basis, the possibility of an impact is highlighted, this is assessed further within the appropriate assessment. It is suggested that the following themes are likely to be assessed as part of the appropriate assessment sections of this HRA report:

- Air Quality – consideration of traffic increases in close proximity to European sites as a result of site allocations and growth
- Recreation – additional recreation use of European sites as a result of housing growth.
- Urbanisation effects – checking development locations in close proximity for any urbanisation risks other than recreation, such as lighting and noise disturbance.
- Water – a re-check of previous conclusions from earlier HRA work and review of any new evidence, including any information from water companies and the Environment Agency
- Direction of growth and emerging site allocations for both housing and employment – the emerging development strategy including strategic sites for large scale growth, and the implications for European sites. Detailed consideration of all allocations as the plan progresses
- Biodiversity net gain – ensuring that wider biodiversity is adequately protected, and contributions are made through spatial planning to biodiversity restoration. This underpins European site protection and long-term maintenance.

**Air Quality**

4.10 Atmospheric pollutants of concern to sensitive habitats that are derived from vehicles include oxides of nitrogen (NO\textsubscript{x}), ammonia (NH\textsubscript{3}) and the consequential deposition of nitrogen (N) and acid on habitat, which can then lead to changes in species composition. It is known that traffic emissions lead to an increase in Nitrogen and other pollutants, and that this presents a major concern for sensitive habitats.

4.11 Reductions in air quality associated with increased traffic are primarily as a result of increased nitrogen deposition but are also related to increases in both sulphur and ammonia. Traffic generated air quality reductions can impact on vegetation communities (Bobbink, Hornung, & Roelofs, 1998; Stevens et al., 2011).

4.12 The main impacts of NO\textsubscript{x} and NH\textsubscript{3} are through N deposition and acidification. N deposition can lead to an increase in N loving species at the expense of other species; an increased risk of frost damage in spring, increased sensitivity to drought; increased incidence from pest and pathogen attack and direct damage to sensitive species. The impacts of acid deposition are often indirect, resulting from a change of pH in soils and water. Chemical changes lead to nutrient deficiencies, release of toxins and changes in microbial N transformations. Heathlands such as those at Cannock Chase are naturally low-nutrient systems and therefore particularly susceptible to nutrient enrichment via N deposition, but other habitats are also sensitive, and the rare inland saltmarsh at Pasturefields is of concern, and potentially other wetland habitats within the Midland Mere and Mosses series.

4.13 The Design Manual for Roads and Bridges (DMRB) currently advises that the effect of traffic emissions is focussed on the first 200m to the side of a road. There is a declining effect out to 200m and beyond this it is currently agreed that the effects are *de minimis*, i.e. of no consequence against background levels.
Following a recent case decision from Ashdown Forest (Wealden v SSCLG 2017) it is essential that air quality considerations have appropriate regard given to them for any impacts that may act in-combination in HRA work. An appropriate assessment of air quality should be undertaken with regard for the principles of this recent case.

4.14 Map 4 shows where roads are within 200m of European sites, focussing on those European sites within or relatively close to the Stafford Borough. Map 4 shows that there are a small number of A and B roads within 200m of European sites, at the northern end of Cannock Chase SAC, and by the Cannock Extension Canal SAC.

4.15 The appropriate assessment section of the HRA will consider this issue in more depth and draw on available evidence as well as the advice of Natural England.
Map 4: Roads within 200m of European sites
Recreation

4.16 With a rising human population, areas that are important for nature conservation are often important for a range of other services, including providing space for recreation ranging from the daily dog walk to extreme sports. A challenging issue for UK nature conservation is how to accommodate increasing demand for access without compromising the integrity of protected wildlife sites.

4.17 There is now a strong body of evidence showing how increasing levels of access can have negative impacts on wildlife. Issues are varied and include disturbance, increased fire risk, contamination and damage (D. Liley et al., 2010; Lowen, Liley, Underhill-Day, & Whitehouse, 2008; Ross et al., 2014; for general reviews see J. C. Underhill-Day, 2005)

4.18 The issues are not however straightforward. It is now increasingly recognised that access to the countryside is crucial to the long term success of nature conservation projects and has wider benefits such as increasing public awareness of the natural world, as well as health benefits (Alessa, Bennett, & Kliskey, 2003; Moss, 2012; Pretty et al., 2005) and economic benefits (e.g. Bennett, Tranter, & Blaney, 2003; Downward & Lumsdon, 2004). Nature conservation bodies are trying to encourage people to spend more time outside and government policy (for example through extending coastal paths) is promoting access. Furthermore, access to many sites is a legal right, with an extensive Public Rights of Way network and open access to many sites through the Countryside and Rights of Way Act (2000). Therefore, a difficult balancing act is required to resolve impacts associated with recreation, complying with legislation without compromising the ability of people to be outside enjoying sites for recreation.

4.19 Recreation impacts are particularly relevant to Cannock Chase SAC, and this principle has been established within previous HRA work for the adopted Plan for Stafford Borough. The Cannock Chase SAC Partnership has commissioned various studies to inform the now established strategic approach to mitigating for recreation pressure. These studies have demonstrated the impacts associated with access and the links with housing (Hoskin, Lake, Underhill-Day J., & Panter, 2017; Hoskin & Liley, 2017; D Liley, 2012; D Liley & Lake, 2012; Liley, D, Underhill-Day, J, White, J, & Sharp, J, 2009; Panter, Underhill-Day J., Weitowitz, & Liley, 2018; J. Underhill-Day & Liley, 2012; White, Underhill-Day, & Liley, 2009). Particular concerns relate to trampling, erosion, spreading of pathogens (e.g. phytophora), increased fire risk and nutrient enrichment (from dog fouling). Recreation pressure and the impacts for the SAC have long been a concern (Bostock, 1981; e.g. Burton & Muir, 1974). Cannock Chase is a popular visitor
destination, providing a significant greenspace within easy access of a relatively large population.

**Strategic approach to mitigation for Cannock Chase SAC**

4.20 The Cannock Chase SAC Partnership comprises six local planning authorities as the competent authorities (including Stafford Borough Council), Staffordshire County Council, Natural England, and a number of key stakeholders. The Partnership brings the planning authorities together, with other key stakeholders, to fulfil their duties to the SAC through a collaborative and coordinated approach. The strategic mitigation in place for Cannock Chase SAC to mitigate for recreation impacts operates through financial contributions as an alternative to developers providing project level HRA information to inform mitigation so as to prevent harm to the SAC.

4.21 Mitigation measures are then funded by the contributions, focussed around access management and monitoring in and around the SAC. The measures include a project officer and an engagement officer, the production of various strategies that set out detailed mitigation approaches for site users (path management, interpretation, signage etc.), and management of car-parking. Monitoring is also included as part of the mitigation.

4.22 In 2017 the Cannock Chase SAC stage 1 of the planning evidence base review was undertaken (Hoskin & Liley, 2017) to review the approach to mitigation. The report identified the need for medium to long term checks, review and potential for expansion of the mitigation approach, due to a number of factors greatly increasing the scale and rate at which housing development was likely to come forward.

4.23 The Planning Evidence Base Review (Hoskin & Liley, 2017) checks whether the Cannock Chase strategic approach is still fit for purpose in light of predicted housing delivery as part of the current local plans in the vicinity of the SAC. The report concludes that whilst there are some aspects that should now be focussed on to update the strategy in the near future, it remains fit for purpose for the currently adopted local plans, and the local authorities can continue to have confidence that adverse effects from predicted housing growth figures can still be adequately mitigated for.

4.24 The SAC partnership is planning to commission a further evidence review in 2020. This review is envisaged to provide:

- A review of the existing Zone of Influence for recreational pressure from housing and related development on Cannock Chase SAC in light of the 2018 Cannock Chase Visitor Survey;
• A comprehensive review of the existing Cannock Chase SAC Strategic Access Management and Monitoring Measures (the SAMMM) in light of the new Zone of Influence and projected housing and related development within this Zone;
• A review and update of the current mitigation measures to create a robust program for the mitigation of increasing visitor pressures on the SAC from new development, to form the basis for planning policies to be adopted by the relevant Local Planning Authorities in their Local Plans.

4.25 The HRA will be informed by the new evidence review, and the progression of mitigation measures. The HRA will need to confirm that the strategic approach remains fit for purpose for the new growth proposed within the Stafford Borough Local Plan, and whether the approach fully mitigates for impacts particularly where there may be a large concentration of growth such as within a new Garden Community.

**Water Issues**

4.26 Water issues include water quality and water quantity (i.e. water availability), and flood management. Run-off, outflow from sewage treatments and overflow from septic tanks can result in increased nutrient loads and contamination of water courses. Abstraction and land management can influence water flow and quantity, resulting in reduced water availability at certain periods or changes in the flow. Such impacts particularly relate to aquatic and wetland habitats.

4.27 Assessment of water related issues are primarily a check that the overall quantum of growth can be accommodated without compromising the ecological integrity of hydrologically sensitive European sites. Key evidence includes the water cycle study, strategic flood risk assessment, and where necessary, discussion with the Environment Agency and water utility companies. Consideration of Local Plan consultation responses from these agencies is also important. The HRA will check previous HRA findings and update conclusion from a review of available evidence.

**Urbanisation effects**

4.28 Urban effects relate to issues where development is close to the European site boundary and is an umbrella term relating to impacts such as cat predation, fly tipping, increased fire risk and vandalism (see J. C. Underhill-Day, 2005 for review). Urban effects are closely linked to recreation, which we have treated separately; some authors treat recreation as part of general urban effects.
Where strategic mitigation schemes are in place elsewhere, a number of European sites\(^{10}\) have a 400m zone around the boundary where there is a presumption of no further development (net increase in residential properties). This primarily relates to heathland sites and this presumption reflects the issues with urbanisation and the lack of suitable mitigation and avoidance measures. For example, for development so close to the European sites the options to divert access or provide suitable alternatives are very limited. The choice of 400m is based on the literature (summarised in J. C. Underhill-Day, 2005) and to some extent is a pragmatic choice. Studies of cat roaming behaviour have shown 400m to be an appropriate buffer width to limit cats in very urban environments (Thomas, Baker, & Fellowes, 2014), however in more rural areas cats can roam considerably further and some studies have suggested ranges over 2km for more rural situations (Hall et al., 2016; Metsers, Seddon, & van Heezik, 2010). Studies of fire incidence have shown that heathland sites with high levels of housing within 500m of the site boundary have a higher fire incidence (Kirby & Tantram, 1999). Fires can start in a range of ways, including deliberate arson, children playing, campfires, barbeques, sparks from vehicles, discarded cigarettes etc.

Where housing is directly adjacent to sites, access can occur directly from gardens and informal access points. Parking areas can be used as residential parking and access can include short-cuts and a range of other uses that are not necessarily compatible with nature conservation. Fly-tipping and dumping of garden waste can be more common. Where residential development in close proximity consists of apartments without gardens, use of the site can become a ‘garden extension’ for socialising, barbeques, children’s play and daily toileting for pet dogs. As such managing and looking after such sites can be more challenging.

Urban issues are perhaps most relevant to sites that are vulnerable to fire, nutrient enrichment and have sensitive ground-nesting birds. Urban effects are however relevant to other habitats, and similar issues may be seen with urbanisation in close proximity to other habitat types such as aquatic habitat, where increased dumping, run off and the introduction of invasive species from gardens or purposeful introduction of aquatic species if moved from garden ponds could be an issue.

As the plan progresses, checks will be made, and recommendations given for any emerging options for site allocations in close proximity to European sites.

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\(^{10}\) E.g. the Thames Basin Heaths, the Dorset Heaths, the East Devon Pebblebed Heaths
Biodiversity Net Gain

4.33 With a growing momentum for biodiversity net gain across the UK there is an opportunity to recognise the fundamental importance of wider biodiversity to the long-term integrity of designated sites. The HRA will continue to check the development of all aspects of the plan in relation to the natural environment, to ensure that opportunities are taken to contribute to the long-term ecological viability of European sites through wider biodiversity restoration and reconnection.

4.34 Links to climate change adaptation for the natural environment are also recommended and this theme will be revisited at the next iteration of the HRA.
5. Conclusions and Next Steps

5.1 This HRA report is an early indication of forthcoming issues and opportunities for European sites within the new Stafford Borough Local Plan. HRA is an iterative process and early identification of potential issues is beneficial in ensuring that the natural environment is an integral part of the Local Plan, in terms of both protection and opportunities for enhancement and expansion. This HRA report will continue to be refined at each plan making stage and will be expanded to include the formal assessment stages of screening for likely significant effects and appropriate assessment, having regard for best practice and case law.

5.2 The HRA will particularly assess the current, in progress or the need for new mitigation measures for European sites. As this HRA report is updated it is intended that the recommendations made at each stage will enable the Stafford Borough Local Plan to proceed to Examination in Public with confidence that the plan will not adversely affect European sites. Where this is not possible, alternative options for the plan may need to be considered. Importantly the HRA will provide the evidence and justifications for any conclusions drawn and recommendations made.
6. References


7. **Appendix 1 - The Habitats Regulations Assessment Process**

7.1 The designation, protection and restoration of European wildlife sites is embedded in the Conservation of Habitats and Species Regulations 2017, as amended, which are commonly referred to as the ‘Habitats Regulations.’ The most recent version of the Habitats Regulations does not affect the principles of European site assessment as defined by the previous Regulations, and which forms the focus of this report. Regulation numbers have changed from the 2010 Regulations.

7.2 The Habitats Regulations are in place to transpose European legislation set out within the Habitats Directive (Council Directive 92/43/EEC), which affords protection to plants, animals and habitats that are rare or vulnerable in a European context, and the Birds Directive (Council Directive 2009/147/EC), which originally came into force in 1979, and which protects rare and vulnerable birds and their habitats. These key pieces of European legislation seek to protect, conserve and restore habitats and species that are of utmost conservation importance and concern across Europe. Although the Habitats Regulations transpose the European legislation into domestic legislation, the European legislation still directly applies, and in some instances, it is better to look to the parent Directives to clarify particular duties and re-affirm the overarching purpose of the legislation.

7.3 European sites include Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) classified under the Birds Directive. The suite of European sites includes those in the marine environment as well as terrestrial, freshwater and coastal sites. European sites have the benefit of the highest level of legislative protection for biodiversity. Member states have specific duties in terms of avoiding deterioration of habitats and species for which sites are designated or classified, and stringent tests have to be met before plans and projects can be permitted, with a precautionary approach embedded in the legislation, i.e. it is necessary to demonstrate that impacts will not occur, rather than they will. The overarching objective is to maintain sites and their interest features in an ecologically robust and viable state, able to sustain and thrive into the long term, with adequate resilience against natural influences. Where sites are not achieving their potential, the focus should be on restoration.

7.4 The UK is also a contracting party to the Ramsar Convention, which is a global convention to protect wetlands of international importance, especially those wetlands utilised as waterfowl habitat. In order to ensure compliance with the
requirements of the Convention, the UK Government expects all competent authorities to treat listed Ramsar sites as if they are part of the suite of designated European sites, as a matter of government policy, as set out in Section 118 of the National Planning Policy Framework. Most Ramsar sites are also a SPA or SAC, but the Ramsar features and boundary lines may vary from those for which the site is designated as a SPA or SAC.

7.5 It should be noted that in addition to Ramsar sites, the National Planning Policy Framework also requires the legislation to be applied to potential SPAs and possible SACs, and areas identified or required for compensatory measures where previous plans or projects have not been able to rule out adverse effects on site integrity, yet their implementation needs meet the exceptional tests of Regulation 64 of the Habitats Regulations, as described below.

7.6 The step by step process of HRA is summarised in the diagram below. Within the Habitats Regulations, local planning authorities, as public bodies, are given specific duties as ‘competent authorities’ with regard to the protection of sites designated or classified for their species and habitats of European importance. Competent authorities are any public body individual holding public office with a statutory remit and function, and the requirements of the legislation apply where the competent authority is undertaking or implementing a plan or project, or authorising others to do so. Regulation 63 of the Habitats Regulations sets out the HRA process for plans and projects, which includes development proposals for which planning permission is sought. Additionally, Regulation 105 specifically sets out the process for assessing emerging land use plans.

7.7 The step by step approach to HRA is the process by which a competent authority considers any potential impacts on European sites that may arise from a plan or project that they are either undertaking themselves or permitting an applicant to undertake. The step by step process of assessment can be broken down into the following stages, which should be undertaken in sequence:

- Check that the plan or project is not directly connected with or necessary for the management of the European site
- Check whether the plan or project is likely to have a significant effect on any European site, from the plan or project alone
- Check whether the plan or project is likely to have a significant effect on any European site, from the plan or project in-combination with other plans or projects
- Carry out an Appropriate Assessment
- Ascertain whether an adverse effect on site integrity can be ruled out

7.8 Throughout all stages, there is a continual consideration of the options available to avoid and mitigate any identified potential impacts. A competent authority may consider that there is a need to undertake further levels of evidence.
gathering and assessment in order to have certainty, and this is the Appropriate Assessment stage. At this point the competent authority may identify the need to add to or modify the project in order to adequately protect the European site, and these mitigation measures may be added through the imposition of particular restrictions and conditions.

7.9 For plans, the stages of HRA are often quite fluid, with the plan normally being prepared by the competent authority itself. This gives the competent authority the opportunity to repeatedly explore options to prevent impacts, refine the plan and rescreen it to demonstrate that all potential risks to European sites have been successfully dealt with.

7.10 When preparing a plan, a competent authority may therefore go through a continued assessment as the plan develops, enabling the assessment to inform the development of the plan. For example, a competent authority may choose to pursue an amended or different option where impacts can be avoided, rather than continue to assess an option that has the potential to significantly affect European site interest features.

7.11 After completing an assessment, a competent authority should only approve a project or give effect to a plan where it can be ascertained that there will not be an adverse effect on the integrity of the European site(s) in question. In order to reach this conclusion, the competent authority may have made changes to the plan, or modified the project with restrictions or conditions, in light of their Appropriate Assessment findings.

7.12 Where adverse effects cannot be ruled out, there are further exceptional tests set out in Regulation 64 for plans and projects and in Regulation 107 specifically for land use plans. Exceptionally, a plan or project could be taken forward for imperative reasons of overriding public interest where adverse effects cannot be ruled out and there are no alternative solutions. It should be noted that meeting these tests is a rare occurrence and ordinarily, competent authorities seek to ensure that a plan or project is fully mitigated for, or it does not proceed.

7.13 In such circumstances where a competent authority considers that a plan or project should proceed under Regulations 64 or 107, they must notify the relevant Secretary of State. Normally, planning decisions and competent authority duties are then transferred, becoming the responsibility of the Secretary of State, unless on considering the information, the planning authority is directed by the Secretary of State to make their own decision on the plan or project at the local level. The decision maker, whether the Secretary of State or the planning authority, should give full consideration to any proposed ‘overriding reasons’ for which a plan or project should proceed despite being unable to rule out adverse effects on European site interest features, and ensure
that those reasons are in the public interest and are such that they override the potential harm. The decision maker will also need to secure any necessary compensatory measures, to ensure the continued overall coherence of the European site network if such a plan or project is allowed to proceed.
Figure 1: Outline of the assessment of plans under the Habitat Regulations, taken from The Habitats Regulations Handbook produced by DTA Publications
8. **Appendix 2 – Conservation Objectives**

8.1 As required by the Directives, ‘Conservation Objectives’ have been established by Natural England, which should define the required ecologically robust state for each European site interest feature. All sites should be meeting their conservation objectives. When being fully met, each site will be adequately contributing to the overall favourable conservation status of the species or habitat interest feature across its natural range. Where conservation objectives are not being met at a site level, and the interest feature is therefore not contributing to overall favourable conservation status of the species or habitat, plans should be in place for adequate restoration.

8.2 Natural England has embarked on a project to renew all European site Conservation Objectives, in order to ensure that they are up to date, comprehensive and easier for developers and consultants to use to inform project level HRAs in a consistent way. In 2012, Natural England issued now a set of generic European site Conservation Objectives, which should be applied to each interest feature of each European site. These generic objectives are the first stage in the project to renew conservation objectives, and the second stage, which is to provide more detailed and site-specific information for each site to support the generic objectives, is now underway.

8.3 The new list of generic Conservation Objectives for each European site includes an overarching objective, followed by a list of attributes that are essential for the achievement of the overarching objective. Whilst the generic objectives currently issued are standardised, they are to be applied to each interest feature of each European site, and the application and achievement of those objectives will therefore be site specific and dependant on the nature and characteristics of the site. The second stage, provision of the more supplementary information to underpin these generic objectives, provides much more site-specific information, and this detail plays an important role in informing HRAs, giving greater clarity and local detail to what might constitute an adverse effect on a site interest feature.

8.4 In the interim, Natural England advises that HRAs should use the generic objectives and apply them to the site-specific situation. This should be supported by comprehensive and up to date background information relating to the site.

8.5 For SPAs, the overarching objective is to:

8.6 ‘Avoid the deterioration of the habitats of qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is
maintained and the site makes a full contribution to achieving the aims of the Birds Directive.’

8.7 This is achieved by, subject to natural change, maintaining and restoring:
- The extent and distribution of the habitats of the qualifying features.
- The structure and function of the habitats of the qualifying features.
- The supporting processes on which the habitats of the qualifying features rely.
- The populations of the qualifying features.
- The distribution of the qualifying features within the site.

8.8 For SACs, the overarching objective is to:

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

8.9 This is achieved by, subject to natural change, maintaining and restoring:
- The extent and distribution of the qualifying natural habitats and habitats of qualifying species.
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species.
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely.
- The populations of qualifying species.
- The distribution of qualifying species within the site.

8.10 Conservation objectives inform any HRA of a plan or project, by identifying what the interest features for the site should be achieving, and what impacts may be significant for the site in terms of undermining the site’s ability to meet its conservation objectives.
9. Appendix 3 – The Nature Conservation Interest of the European Sites

9.1 The relevant European sites are summarised in Table 3 below, where the interest features, threats and pressures and links to the relevant conservation objectives are listed.
Table 3: Summary of relevant European sites, their interest features and relevant pressures/threats. Pressures/threats are taken from the site improvement plans (SIP) and are listed in priority order. Hyperlinks in the first column link to the relevant site page on the Natural England or JNCC website, providing details of the site's conservation objectives, citation etc.

<table>
<thead>
<tr>
<th>Site</th>
<th>Reason for designation (# denotes UK special responsibility)</th>
<th>Pressures and threats (from relevant SIP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannock Chase SAC</td>
<td>H4010 Northern Atlantic wet heaths with <em>Erica tetralix</em> H4030 European dry heaths</td>
<td>Undergrazing, drainage, hydrological changes, disease, air pollution (risk of atmospheric nitrogen deposition), wildfire/arson, invasive species.</td>
</tr>
<tr>
<td>Cannock Extension Canal SAC</td>
<td>S1831 <em>Luronium natans</em>: Floating water-plantain</td>
<td>Water pollution, invasive species, air pollution (risk of atmospheric nitrogen deposition).</td>
</tr>
<tr>
<td>Mottey Meadows SAC</td>
<td>H6510 Lowland hay meadows (<em>Alopecurus pratensis, Sanguisorba officinalis</em>)</td>
<td>Water pollution, hydrological change, water abstraction, change in land management.</td>
</tr>
<tr>
<td>Pasturefields Salt Marsh SAC</td>
<td>H1340# Inland salt meadows</td>
<td>None.</td>
</tr>
<tr>
<td>West Midlands Mosses SAC (this SAC is comprised of four SSSIs,)</td>
<td>H3160 Natural dystrophic lakes and ponds H7140 Transition mires and quaking bogs</td>
<td>Water pollution, hydrological change, air pollution (risk of atmospheric nitrogen deposition), inappropriate scrub control, game management (pheasant rearing), forestry and woodland management, habitat fragmentation.</td>
</tr>
<tr>
<td>Site</td>
<td>Reason for designation (# denotes UK special responsibility)</td>
<td>Pressures and threats (from relevant SIP)</td>
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<td>------</td>
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<td>including Chartley Moss</td>
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</table>
| **Midlands Meres and Mosses**  
**Phase I Ramsar**  
(this site includes Chartley Moss SSSI) | Ramsar criterion 1: The site comprises a diverse range of habitats from open water to raised bog;  
Ramsar criterion 2: Supports a number of rare species of plants associated with wetlands including five nationally scarce species together with an assemblage of rare wetland invertebrates (three endangered insects and five other British Red Data Book species of invertebrates). | |
| **Midlands Meres and Mosses**  
**Phase II Ramsar**  
(this site includes Cop Mere and Aqualate Mere SSSIs) | Ramsar criterion 1: The site comprises a diverse range of habitats from open water to raised bog;  
Ramsar criterion 2: Supports a number of rare species of plants associated with wetlands including five nationally scarce species together with an assemblage of rare wetland invertebrates (three endangered insects and five other British Red Data Book species of invertebrates). | |