



Habitats Regulations Assessment of the Bradford Core Strategy Partial Review

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Summary

This report is the Habitats Regulations Assessment (HRA) of the Bradford Metropolitan District Core Strategy Partial Review. This HRA report has been prepared by Footprint Ecology, on behalf of Bradford Metropolitan District Council. 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. European sites include Special Protection Areas (SPAs), which are classified for their bird populations of European interest, and Special Protection Areas (SACs), which are designated for habitats and species of European interest. The legislation sets out a clear step by step approach for decision makers considering any plan or project.

In this instance the HRA is undertaken on the Partial Review of the Core Strategy, as it is a plan being prepared by a public body. When undertaking a HRA of a plan that is prepared over time, the HRA process is iterative and is refined alongside the plan.

The first stage is a screening stage, whereby each aspect of the plan is checked to establish whether there are any risks to the European sites. Any identified likely significant effects, or where there is uncertainty, leads to the appropriate assessment stage. This is a more detailed analysis of the nature of the potential risks and what the consequences may be for the habitats and/or species that are interest features of the European sites.

At Preferred Options stage, or Regulation 18 stage in plan making, a record of screening of the entire document, ready for consultation, is provided within this report. After the consultation, the HRA will progress with further detailed evidence gathering and assessment, and this will inform the preparation of the plan at Regulation 19 stage. The screening of the plan has identified the following themes for more detailed assessment:

Recreation pressure - The impact of recreation on the nearby moorland European sites has already been recognised in previous HRA work and the identification of recreation pressure is noted within the screening table as a key theme for the appropriate assessment. This will include development of a strategic approach to mitigating for recreation pressure, using a suite of on and off-site measures to manage increased access to the moors.

Urbanisation effects - 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.

Water issues - These include water quality and water quantity (i.e. water availability), and flood management. Impacts can result in increased nutrient loads and contamination of water courses that are hydrologically linked to European sites. Abstraction and land management can influence water flow and quantity, resulting in reduced water availability at certain periods or changes in the flow.

Reductions in air quality – This impact is 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. Consideration of traffic increases on any roads near to a European site sensitive to air pollution is an important part of appropriate assessment.

At this point in time, the partial review of the Bradford Core Strategy does not present any potential risks to European sites that it is considered are not capable of being mitigated for. However, it is essential that detailed appropriate assessment is undertaken to inform the plan and give certainty to the Council as the competent authority that adverse effects on European site integrity can be ruled out. This report will therefore be updated and expanded accordingly to inform the next stage of plan making.

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1. Introduction and Background Information

Context

- 1.1 This report is the Habitats Regulations Assessment (HRA) of the Bradford Metropolitan District Core Strategy Partial Review. This HRA report has been prepared by Footprint Ecology on behalf of Bradford Metropolitan District Council. It has been written with the benefit of ongoing discussions with planning officers within Bradford Council, and forms part of the evidence base for review of the Core Strategy, which will lead to the adoption of a new Core Strategy for the Bradford District, covering the period 2020 to 2037. The current Core Strategy covers a plan period from 2013 up to 2030. It was adopted in July 2017. Local planning documents are regularly reviewed to ensure that they remain up to date in terms of evidence underpinning the identified growth needs, and national policy, particularly planning policy.
- 1.2 Plan making undertaken by a local planning authority proceeds through a number of stages, which include public consultations. These are set out within the Town and Country Planning (Local Planning) (England) Regulations 2012. The current stage of plan making identified preferred options in light of the emerging evidence base and is known as the 'Regulation 18' stage. The evidence base will be expanded, and the plan further developed and refined at Regulation 19 stage, before being submitted for Examination in Public, a process overseen by the Planning Inspectorate. The appointed Examining Inspector will assist the authority to ensure that the plan is sound through a series of public Hearing Sessions. Any modifications required will be consulted upon again before the plan is finally adopted. HRA is a key piece of evidence to support a plan and is similarly added to and refined throughout the plan making process, informing and informed by the developing plan.
- 1.3 This section provides the background context for this HRA. This report is a HRA of the emerging Bradford District Core Strategy, which forms part of the Bradford District Local Plan. A Local Plan can be made up of a number of planning documents, and the Core Strategy will work alongside a forthcoming Land Allocations Development Plan Document (DPD), which will be prepared in the near future. This HRA is not a single report, rather it is a report that will be updated as the preparation of the Core Strategy progresses.
- 1.4 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 also described in greater detail in Appendix 1.

- 1.5 The Bradford District lies on the edge of the Pennines and is in close proximity to the City of Leeds, falling within the Leeds Strategic Housing Market Area and therefore being an important area of focus for housing and economic growth. Spatial planning for the District is closely aligned with that of the neighbouring authorities.
- 1.6 Within the District Boundary, and therefore the jurisdiction of the Local Plan, there is a combination of the densely populated City of Bradford, with a large expanse of the internationally important Pennine Moorland habitat to the west. This immediately presents very differing characteristics of the District as it runs from east to west, and clear challenges for spatial planning. There are a number of additional towns and villages forming smaller but still significant settlements also located in close proximity to the moors.
- 1.7 The Core Strategy Partial Review highlights that there are approximately 217,000 households within the District, and the Partial Review proposes the delivery of 28,951 dwellings over the new plan period of 2020 to 2037. This represents approximately 12% increase in dwellings, for which there may be a number of consequential risks to the moorland habitats and other biodiversity features, both within and in close proximity to the District. The increase in dwellings will therefore be an important factor to consider as this HRA progresses. All dwelling types are relevant in terms of potential impacts, including gypsy and traveller pitches.
- 1.8 The methodology for calculating housing growth requirements is explained within the housing section Core Strategy Partial Review consultation document as following the Government policy for assessing housing need as set out in the NPPF and the Planning Practice Guidance (NPPG). This is driven by a key piece of new evidence, which is the Strategic Housing Market Assessment (SHMA) 2019. This document will inform the Land Allocations DPD in due course.
- 1.9 In addition, the plan seeks to deliver a minimum of 60ha of employment land, which accords with the Economic Growth Strategy for the District. Whilst the majority of economic growth will be focussed within the City, potential impacts need to be checked and this document will be considered as part of the appropriate assessment. Key infrastructure projects such as the Northern Powerhouse Rail will also be checked.
- 1.10 There are also a number of other documents that make up the Bradford Local Plan, including Area Action Plans for Bradford City Centre and the Shipley and

Canal Road Corridor. As a Metropolitan District, Bradford is also responsible for waste management, and a Waste Management DPD is also in place. These documents will all be checked as this HRA progresses and the appropriate assessment undertaken.

Habitats Regulations Assessment process

- 1.11 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.
- 1.12 The relevant European legislation is the Habitats Directive 1992¹ and the Wild Birds Directive 2009², which are transposed into domestic legislation through the Conservation of Habitats and Species Regulations 2017, as amended. These Regulations are normally referred to as the 'Habitats Regulations' and the most recent update consolidates previous versions and corrects some minor errors in transposition. The 2017 Regulations have not changed any of the requirements in relation to European sites. Further minor amendments were undertaken in 2018.
- 1.13 European sites include Special Protection Areas (SPAs), which are classified for their bird populations of European interest, and Special Protection Areas (SACs), which are designated for habitats and species of European interest. 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) 2019³. 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

² Council Directive 2009/147/EC

¹ Council Directive 92/43/EEC

³ https://www.gov.uk/government/publications/national-planning-policy-framework--2

'European sites' for assessment purposes, as the legislation is applied to all such sites, either directly or as a result of policy.

- 1.14 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.'
- 1.15 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.
- 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.
- 1.17 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.
- 1.18 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.

European sites

1.19 In undertaking 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 District 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.

- 1.20 In assessing the implications of any plan or project for 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.
- 1.21 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. Also relevant to the HRA is the consideration of how a plan or project may affect the achievement of conservation objectives for each European site. 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 conservation objectives and key considerations are explained in Appendix 2. Appendix 3 sets out the site interest features for each European site. Additional supplementary advice for each European site has been prepared by Natural England, and this will be considered within the appropriate assessment.
- 1.22 European sites within 20km are shown in Map 1 (SPAs) and Map 2 (SACs).
- 1.23 In considering the sites, their distance from the District and their sensitivities and interest features, the majority of European sites within 20km have been ruled out from further consideration due to distance. These sites are as follows:
 - Craven Limestone Complex SAC
 - North Pennine Dales Meadows SAC
 - Denby Grange Colliery Ponds SAC
 - Rochdale Canal SAC
 - Peak District Moors (South Pennine Moors Phase I) SPA
 - Malham Tarn Ramsar site.
- 1.24 Table 1 lists the European sites deemed to be of relevance to this HRA due to their proximity to and within the Bradford District, and the sensitivity of the species and habitats for which they are designated and classified. Full details of the interest features and current pressures/threats for each of these sites are summarised in Appendix 3. These European sites are the subject of the

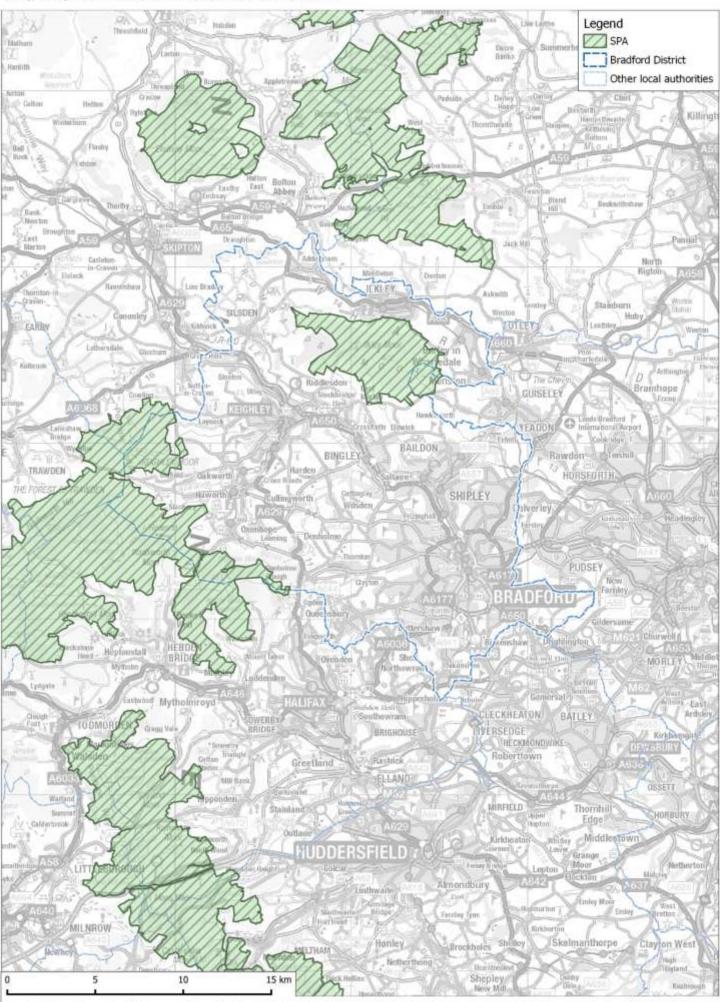
assessment within this HRA, both at the screening for likely significant effects stage and the subsequent appropriate assessment stage.

Table 1: European Sites with potential impact pathways of relevance to the HRA

SAC	SPA
South Pennine Moors SAC	South Pennine Moors Phase II SPA
North Pennine Moors SAC	North Pennine Moors SPA

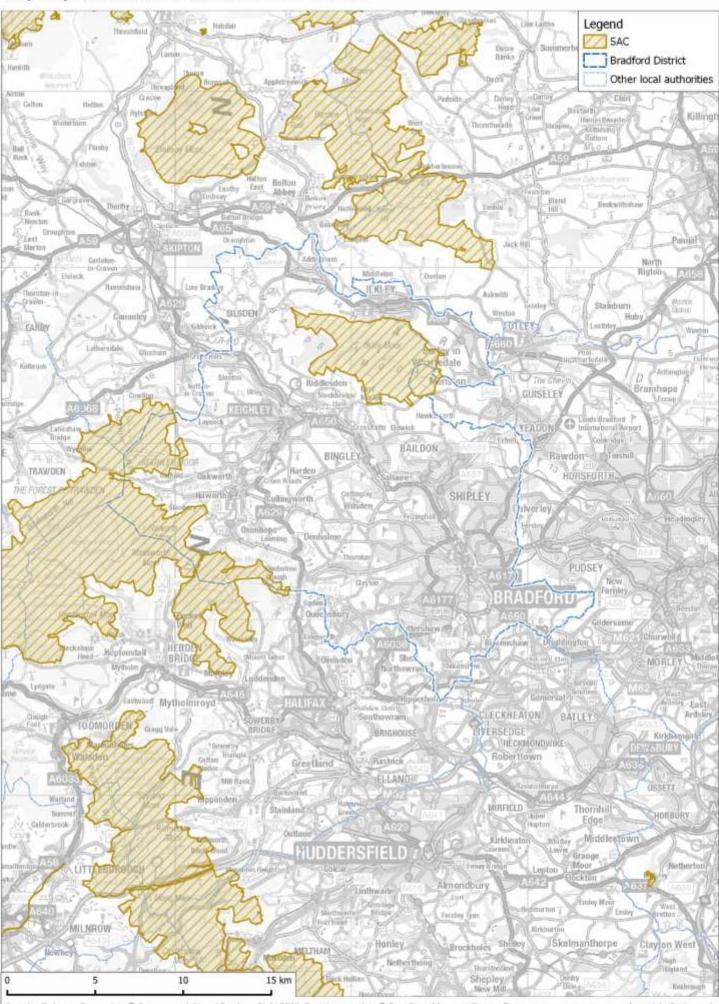
- 1.25 When referring to the South Pennine Moors SAC and the South Pennine Moors Phase II SPA together, this report refers to the South Pennine Moors SPA/SAC.
- 1.26 The Habitats Directive requires competent authorities to 'maintain and restore' European sites. Where sites are meeting their conservation 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.
- 1.27 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. These will be reviewed to inform the appropriate assessment within this HRA report.

Map 1: Special Protection Areas around Bradford.



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Map 2: Special Areas of Conservation around Bradford.



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The relevance of HRA for the Bradford Core Strategy Partial Review

- 1.28 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 2019 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 plan⁴ 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.
- 1.29 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,'5 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.
- 1.30 Alongside its strategy for growth, the emerging Core Strategy Partial Review also has a significant focus on the natural environment and there is a clear recognition of the integral value of biodiversity as part of sustainable development. Protective policies have been included within the Core Strategy Partial Review, which are proposed in response to the significant focus on biodiversity within the NPPF. As this HRA progresses, the importance of protecting, enhancing and restoring biodiversity as a whole, both within and outside designated wildlife sites will be recognised within the appropriate

⁴ https://www.gov.uk/government/publications/25-year-environment-plan

⁵ https://www.gov.uk/government/news/making-space-for-nature-a-review-of-englands-wildlife-sites-published-today

assessment section, particularly in relation to biodiversity gains through planning.

1.31 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 the previous HRA for the current documents that form the existing Bradford District Local Plan. 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 and other relevant HRA work is also provided in this section below.

Previous HRA work and other evidence and assessment

1.32 The following documents are of relevance to this HRA due to their consideration of the natural environment and resources, and also the historic HRA work for the documents that form the currently adopted Local Plan.

The adopted Core Strategy HRA

- 1.33 This HRA for the adopted Core Strategy was undertaken by Urban Edge Environmental Consulting in 2015 and is available as part of the evidence base for the existing Core Strategy. The HRA highlighted a number of potential risks to European sites arising from the quantum of growth proposed within the Core Strategy. This included a focus on the potential impact of increased recreation pressure on the South Pennine Moors Special Protection Area and Special Area of Conservation (SAC). These are the key European sites of consideration in this report. Further information on the relevant European sites is provided below.
- 1.34 The HRA draws on evidence relating to potential impacts, and in addition to recreation, assessed the potential risks relating to water demand and water quality, air quality, urbanisation effects, loss of habitat that supports species outside the European site boundaries, and potential fatalities from development such as wind turbines.
- 1.35 For recreation the HRA considered the data collected during visitor surveys conducted on the South Pennine Moors in 2013. Visitor survey data can help to identify the extent to which people are travelling to the European site. The 2013 data concluded that the majority of visitors were travelling under 7km, and this distance was therefore used on the Core Strategy as a 'zone of influence' within which additional housing may add to the visitor pressure on the moorlands.

- 1.36 The HRA concluded that measures would be required to mitigate for the recreational impact of the residential development coming forward. The HRA recommended that a range of measures should be developed, the provision of alternative natural greenspace for recreation and visitor management at the European sites. These recommendations are set out within existing Core Strategy Policy and it is now timely that this HRA for the Partial Review develops the strategy in more detail. The development of the strategy will be a key aspect of the appropriate assessment in due course.
- 1.37 This HRA report will be followed by a HRA for the Land Allocations DPD. The emerging land allocations will inform the mitigation strategy in terms of where growth will be located and what measures may therefore be most appropriate to manage any increase in recreation.
- 1.38 The current Core Strategy also recognises that SPA qualifying bird features will move in and out of the European site boundary. SPA birds will regularly use habitat outside the SPA boundary, for example for additional food sources, and this habitat may therefore be of significance in maintaining SPA bird populations, i.e. it is 'functionally linked.' A zone of 2.5km is therefore referenced within the current Core Strategy as a zone within which functionally linked land could be present and needs to be checked for at the development project proposal stage.
- 1.39 Map 3 shows the 7km zone of influence identified by the 2013 visitor survey work, as referenced within the current Core Strategy, and the 2.5km zone within which the potential for habitat supporting the SPA birds outside the site boundary must be checked.
- 1.40 Since the adoption of the Core Strategy, a number of housing proposals have come forward which have been the subject of project level HRA. These HRAs will be assessed as part of the development of the mitigation strategy and discussed further within the appropriate assessment.

Core Strategy Partial Review Scoping Report

1.41 In embarking on a Partial Review of the Core Strategy, Bradford Metropolitan District Council prepared a brief scoping report in January 2019 to set out the key considerations for HRA. This report identifies the same four European sites of concern as those in Table 1 above and highlights a number of key principles in relation to HRA, along with recent case law of relevance. The appropriate assessment will include a section relating to relevant guidance, case law and authoritative decisions. This scoping report sets the foundation for this HRA report, which will now continue to be updated and expanded as the Partial Review progresses, informing and informed by each plan making stage.

Developing a Recreation Mitigation Strategy

1.42 A strategic approach to mitigating for cumulative recreation pressure arising from new growth is a means by which sustainable housing growth can be delivered, whilst adequately protecting European wildlife sites. By developing an approach at a plan wide level, the strategy will provide a solution to the additional recreation pressure through an integrated suite of avoidance and mitigation measures that are supported by comprehensive evidence and experience gained from other European site mitigation strategies. The mitigation strategy is being prepared by Footprint Ecology and is being developed on the basis of housing numbers and spatial distribution, having regard for the increased housing numbers and locations for growth identified within the emerging plan. Further analysis of housing growth will form part of the appropriate assessment within this HRA report.

Sustainability Appraisal for the emerging Local Plan

- 1.43 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).
- 1.44 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. The sustainability appraisal will include biodiversity objectives and a number of indicators that relate to European sites. The recommendations of this HRA will need to link into the sustainability appraisal in due course.

Map 3: Combined European Sites around Bradford District with a 2.5 and 7 km buffer around sites.



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Identifying impact pathways

- 1.46 All aspects of the emerging plan that influence sustainable development for the Bradford District are checked through this assessment for risks to European sites. 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.
- 1.47 All policies are checked as part of HRA, but of particular relevance is the quantum and location of proposed growth. For this reason, it will be important that this HRA considers the overall quantum and broad locations for growth set out in the Partial Review, and then this is followed up with more detailed analysis within the HRA of the Land Allocations DPD.
- 1.48 Table 2 provides an initial summary of all potentially relevant impact pathways, having regard for available information in relation to the European sites. These impact pathways are precautionary, i.e. they are assumed and used to inform the screening for likely significant effects, and then the more detailed appropriate assessment will consider whether they are a risk to European site interest features. These impact pathways are discussed briefly in the introductory section to the appropriate assessment, and will be described in more detail, including relevant local and wider evidence of relevance.

Table 2: Summary of potential impact pathways – i.e. potential mechanisms whereby the different European sites could be impacted

Site	Recreation	Air quality	Water quality	Water abstraction	Urban effects
South Pennine Moors SAC	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
North Pennine Moors SAC	\checkmark	\checkmark	\checkmark	\checkmark	
South Pennine Moors Phase II SPA	\checkmark	✓	\checkmark	\checkmark	\checkmark
North Pennine Moors SPA	\checkmark	\checkmark	\checkmark	\checkmark	

2. Screening for Likely Significant Effects

- 2.1 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 within the 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.
- 2.2 The Bradford Core Strategy Partial Review is being undertaken to steer sustainable development in the Bradford District, 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.
- 2.3 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.
- 2.4 For the Bradford Core Strategy, Bradford 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?

2.5 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 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 effects 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.

- 2.6 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.
- 2.7 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.
- 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' case⁷ refers to "no reasonable scientific doubt" and the 'Sweetman' case⁸ 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".
- 2.9 An additional recent European Court of Justice Judgment in 2018 (Case C-323/17) clarified that the need to carefully explain actions taken at each HRA stage,

⁶ Article 191 of the Treaty on the Functioning of the EU. Previously Article 174 of the Treaty of the EC.

⁷ European Court of Justice case C - 127/02

⁸ European Court of Justice case C - 258/11

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.

- 2.10 Table 3 below records the conclusions drawn and recommendations made on a policy by policy check for likely significant effects of the Partial Review of the Core Strategy at Preferred Options or Regulation 18 stage of plan making. Potential risks are highlighted. For a number of policies, particularly those related to overall quantum of growth, the screening identified likely significant effects.
- 2.11 The screening table below provides a record of screening of the entire document at consultation stage for the Preferred Options. After the consultation, the HRA will progress with further detailed evidence gathering and assessment, and this will inform the preparation of the plan at Regulation 19 stage. A re-screen of the plan at this stage will be undertaken, and the appropriate assessment prepared. There may also be a need to undertake further screening on any proposed modifications which arise during the Examination of the plan, prior to adoption. This ensures that the final adopted Bradford Core Strategy has an up to date HRA report.

Table 3: Screening for likely significant effects – at Preferred Options Regulation 18 stage. To be re-screened at Final Draft Local Plan (Regulation 19)

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
Introduction	No LSE – text is for information and clarity, explaining the reasons for the Partial Review of the CS, which covers updates to: strategic policies, economy, housing, transport, environment, implementation and delivery policies. The new plan period of 2020 to 2037 is now stated and views are invited on the plan period. No LSE – the plan period does not alter HRA assessment or outcomes, as long as any mitigation required is planned for over the new plan period.	Reference to changes within the new NPPF for biodiversity are already referenced. Importance of the HRA as part of the evidence based is already referenced.	No further recommendations – policy/text does not have HRA implications.	
Background and context	No LSE – this section does not contain policies. It provides an overview of national policy and evidence, and local evidence being used to inform the new local policies within the CS.	N/A	No further recommendations – policy/text does not have HRA implications.	
Strategic Core Policies				
Spatial vision and objectives	Vision only includes a change to the plan period - No LSE – the plan period does not alter HRA assessment or outcomes, as long as any mitigation required is planned for over the new plan period.	Policy already provides strong protection and a positive approach to the natural environment	No further recommendations. Re-check for any changes at final plan stage for any additional risks.	

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
	Strategic objectives – No LSE – additions strengthen the objectives in relation to natural environment protection and enhancement.			
SC1 Overall Approach and Key Spatial Priorities	No LSE – Policy update expands on environmental protection and wider sustainability	Policy already updated to improve environmental protections	No further recommendations. Re-check for any changes at final plan stage for any additional risks.	
SC2 Climate Change and Resource Use	No LSE - Policy updated to include strengthened focus on green infrastructure and air quality improvements, which accord with recent increased emphasis nationally.	Policy already updated to improve environmental protections	No further recommendations – an environmentally positive policy.	
SC5 Location of Development	No LSE - Policy updates are minimal in terms of HRA. Reference to removing Green Belt site prioritisation and an update movement hierarchy	N/A	No further recommendations. Re-check for any changes at final plan stage for any additional risks.	
SC6 Green Infrastructure	No LSE - Policy update strengthens GI by directing development to consider how gaps in the GI network could be filled with new GI associated with development, to increase connectivity.	N/A	No further recommendations – an environmentally positive policy.	
SC7 Green Belt and safeguarded land	No LSE – Policy includes reference to safeguarded land, which will come forward as part of the site allocations DPD. Policy amendments does not alter previous conclusions of no LSE.	Site allocations may pose risks to European sites, and these will be assessed as part of the Land Allocations DPD HRA	No further recommendations. Re-check for any changes at final plan stage for any additional risks.	
SC8 Protecting the South Pennine Moors	No LSE – policy updates are minimal and for clarification purposes. The	This policy is based on evidence available at the time of the adoption of the CS. As	No further recommendations.	

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
and their Zone of Influence	policy provides strong protection of the South Pennine Moors SPA/SAC.	part of this HRA, a review will be undertaken of the mitigation needs for the South Pennine Moors, and the mitigation approach updated accordingly	Refinement of the mitigation strategy will inform recommendations for Reg 19 stage. Assessment of other potential impact pathways (water, air, urbanisation) may lead to further amendments to policy.	
SC10 Creating Healthy Places	New Policy drafted for the CS partial review, to maximise health and wellbeing consideration in new development. No LSE – does not have any implications for European sites	There is an opportunity to further strengthen this policy by more clearly making the linkages between wellbeing and biodiversity, in terms of the benefits that being in natural greenspaces brings.	Consider additional policy strengthening for Reg 19 to incorporate linkages between health and biodiversity, to encourage biodiversity initiatives in new development, particularly in urban areas.	
Sub-area Policies				
BD1 The Regional City of Bradford including Shipley and Lower Baildon	Policy updated to reflect the new plan period and the proposed number of houses to come forward within the City of Bradford, based on up to date housing evidence and national methodologies for calculating housing need. LSE – based on the need to undertake more detailed assessment of the impacts of overall housing numbers within the plan	Whilst the City of Bradford is some distance from the South Pennine Moors SPA/SAC, additional residential development has the potential to add to recreation pressure on the moors. The current approach to mitigating for impacts on the SPA/SAC is being reviewed as part of this HRA. Other impact pathways from new development include:	Review and update of the mitigation approach to recreation pressure on the South Pennine Moors SPA/SAC will be undertaken prior to the Reg 19 consultation. This will inform any policy requirements at Reg 19 stage. Other impact pathways will be assessed at appropriate	
	nousing numbers within the plan	development include: Water quality and resources air quality urbanisation impacts	assessed at appropriate assessment.	

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
BD2: Investment Priorities for the Regional City of Bradford including Shipley and Lower Baildon	Policy updated to reflect the current investment priorities, to bring the policy up to date. No LSE – referenced infrastructure projects will proceed through their own plan level and project level HRA	Check that relevant and appropriate HRA work informs the referenced infrastructure projects	The appropriate assessment will check the HRAs for the referenced infrastructure projects.	
AD1: Airedale	Policy updated to reflect the new plan period and the proposed number of houses to come forward within Airedale, based on up to date housing evidence and national methodologies for calculating housing need. LSE – based on the need to undertake more detailed assessment of the impacts of overall housing numbers within the plan	Additional residential development has the potential to add to recreation pressure on the South Pennine Moors SPA/SAC. The current approach to mitigating for impacts on the SPA/SAC is being reviewed as part of this HRA. Other impact pathways from new development include: Water quality and resources air quality urbanisation impacts	Review and update of the mitigation approach to recreation pressure on the South Pennine Moors SPA/SAC will be undertaken prior to the Reg 19 consultation. This will inform any policy requirements at Reg 19 stage. Other impact pathways will be assessed at appropriate assessment.	
AD2: Investment Priorities for Airedale	Policy updated to reflect the current investment priorities, to bring the policy up to date. No LSE – referenced projects will proceed through their own plan level and project level HRA	Check that relevant and appropriate HRA work informs the referenced water resources and waste-water infrastructure projects	The appropriate assessment will check the HRAs for the referenced water resources and waste-water infrastructure projects.	
WD1: Wharfedale	Policy updated to reflect the new plan period and the proposed number of houses to come forward within Wharfdale, based on up to date housing evidence and national methodologies for calculating housing need.	Additional residential development has the potential to add to recreation pressure on the South Pennine Moors SPA/SAC. The current approach to mitigating for impacts on the SPA/SAC is being reviewed as part of this HRA.	Review and update of the mitigation approach to recreation pressure on the South Pennine Moors SPA/SAC will be undertaken prior to the Reg 19 consultation. This will inform any	

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
	LSE – based on the need to undertake more detailed assessment of the impacts of overall housing numbers within the plan	Other impact pathways from new development include: Water quality and resources air quality urbanisation impacts	policy requirements at Reg 19 stage. Other impact pathways will be assessed at appropriate assessment.	
WD2: Investment Priorities for Wharfedale	Policy updated to reflect the current investment priorities, to bring the policy up to date. No LSE – referenced projects will proceed through their own plan level and project level HRA	Check that relevant and appropriate HRA work informs the any referenced projects	The appropriate assessment will check the HRAs for the referenced projects.	
PN1: South Pennine Towns and Villages	Policy updated to reflect the new plan period and the proposed number of houses to come forward within the South Pennine towns and villages, based on up to date housing evidence and national methodologies for calculating housing need. LSE – based on the need to undertake more detailed assessment of the impacts of overall housing numbers within the plan	The South Pennine towns and villages are in close proximity to the South Pennine Moors SPA/SAC. Additional residential development has the potential to add to recreation pressure on the South Pennine Moors SPA/SAC. The current approach to mitigating for impacts on the SPA/SAC is being reviewed as part of this HRA. Other impact pathways from new development include: Water quality and resources air quality urbanisation impacts	Review and update of the mitigation approach to recreation pressure on the South Pennine Moors SPA/SAC will be undertaken prior to the Reg 19 consultation. This will inform any policy requirements at Reg 19 stage. The appropriate assessment will consider both the overall quantum and the proximity of new growth to the SPA/SAC. Other impact pathways will be assessed at appropriate assessment.	
PN2: Investment Priorities for the Pennine Towns and Villages	Policy updated to reflect the current investment priorities, to bring the policy up to date.	Check that relevant and appropriate HRA work informs the any referenced projects	The appropriate assessment will check the HRAs for the referenced projects.	

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
	No LSE – referenced projects will proceed through their own plan level and project level HRA			
Economy				
EC1: Creating a successful and competitive Bradford District economy within the Leeds City Region	This policy has been updated to reflect the key priorities for economic growth and regeneration for the Bradford District, as part of the Leeds City Region. The key themes are high level, and describe what will be the focus of the economic needs over the plan period. No LSE – the policy does not promote development that has recognised impact pathways.	Any future site allocations may pose risks to European sites, and these will be assessed as part of the Site Allocations DPD HRA	No further recommendations. Re-check for any changes at final plan stage for any additional risks.	
EC2: Employment land, jobs and skills requirements	This policy has been re-worded and updated to set out the strategic locations for employment growth within the District. No LSE – the policy does identify an overall area of employment land to be allocated, but this will be set out as allocations in the forthcoming DPD.	Any future site allocations may pose risks to European sites, and these will be assessed as part of the Land Allocations DPD HRA	No further recommendations. Re-check for any changes at final plan stage for any additional risks.	
EC3: Employment Land and skills delivery	Policy updated and re-worded to follow on from EC2 – providing the types of employment land uses and general approach to identifying land.	Any future allocations may pose risks to European sites, and these will be assessed as part of the Land Allocations DPD HRA	No further recommendations. Re-check for any changes at final plan stage for any additional risks.	

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
	No LSE – no allocations, policy sets out an approach for the allocations DPD			
EC5: City, Town, District and Local Centres	No LSE - The very minor changes to policy relate to the updated evidence base and national policy changes.	N/A	No further recommendations – policy/text amendments do not have HRA implications.	
Transport and Movement				
TR1: Traffic reduction and modal shift	No LSE - Policy updated with a greater focus on air quality improvements and sustainable transport, in line with national focus on reducing air pollution.	N/A	No further recommendations – an environmentally positive policy.	
TR2: Parking policy	No LSE – minor policy updates to add in electric vehicle infrastructure, park and ride etc, all of which improve transport sustainability.	N/A	No further recommendations – policy/text amendments do not have HRA implications.	
TR3: Integrating sustainable transport and development	No LSE – a high level policy that sets the requirements for sustainable transport solutions as an integral part of site allocations, which will come forward in the site allocations DPD. A qualitative policy.	N/A	No further recommendations – policy/text amendments do not have HRA implications.	
TR5: Strategic transport delivery	Sets out a programme of strategic transport improvements and investment priorities. No LSE – referenced projects will proceed through their own plan level and project level HRA	Check that relevant and appropriate HRA work informs the any referenced projects	The appropriate assessment will check the HRAs for the referenced projects.	

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
TR6: Freight	Sets out a programme of facilitating freight movement No LSE – referenced projects are focussed within Bradford and away from the European sites. These will proceed through their own plan level and project level HRA	Check that relevant and appropriate HRA work informs the any referenced projects	The appropriate assessment will check the HRAs for the referenced projects.	
Housing				
HO1: The District's housing requirement	Policy updated to reflect the new plan period and the proposed number of houses to come forward within the District, based on up to date housing evidence and national methodologies for calculating housing need (as described in supporting text). LSE – based on the need to undertake more detailed assessment of the impacts of overall housing numbers within the plan	Additional residential development has the potential to add to recreation pressure on the South Pennine Moors SPA/SAC. The current approach to mitigating for impacts on the SPA/SAC is being reviewed as part of this HRA. Other impact pathways from new development include: Water quality and resources air quality Urbanisation impacts	Review and update of the mitigation approach to recreation pressure on the South Pennine Moors SPA/SAC will be undertaken prior to the Reg 19 consultation. This will inform any policy requirements at Reg 19 stage. Other impact pathways will also be assessed at appropriate assessment	
HO2: Strategic sources of housing supply	Policy updated to explain how housing need will be met over the plan period, including general locations and SUEs. LSE – based on the need to undertake more detailed assessment of the impacts of overall housing numbers within the plan, and to assess proposed housing locations in relation to the South Pennine Moors SPA/SAC.	Additional residential development has the potential to add to recreation pressure on the South Pennine Moors SPA/SAC. The current approach to mitigating for impacts on the SPA/SAC is being reviewed as part of this HRA. Other impact pathways from new development include: Water quality and resources Air quality	Review and update of the mitigation approach to recreation pressure on the South Pennine Moors SPA/SAC will be undertaken prior to the Reg 19 consultation. This will inform any policy requirements at Reg 19 stage.	

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
		Urbanisation impacts	Other impact pathways will also be assessed at appropriate assessment	
HO3: Distribution of housing development	Policy updated to set out where housing need will be met over the plan period, including the hierarchy of settlements. LSE – based on the need to undertake more detailed assessment of the impacts of overall housing numbers within the plan, and to assess proposed housing locations and numbers in relation to the South Pennine Moors SPA/SAC.	Additional residential development has the potential to add to recreation pressure on the South Pennine Moors SPA/SAC. The current approach to mitigating for impacts on the SPA/SAC is being reviewed as part of this HRA. Other impact pathways from new development include: Water quality and resources Air quality Urbanisation impacts	Review and update of the mitigation approach to recreation pressure on the South Pennine Moors SPA/SAC will be undertaken prior to the Reg 19 consultation. This will inform any policy requirements at Reg 19 stage. Other impact pathways will also be assessed at appropriate assessment	
HO4: Managing housing delivery	Updated policy sets the principles for allocating sites within the forthcoming Land Allocations DPD. No LSE – a qualitative policy that provides criteria for assessing site allocations, does not itself promote development.	N/A	No further recommendations – policy/text amendments do not have HRA implications.	
HO5: Density of housing schemes	Updated policy sets minimums for residential development density, i.e. number of houses per ha. No LSE – the policy is a requirement for development but does not alter the overall number of houses being promoted by the plan.	N/A	No further recommendations – policy/text amendments do not have HRA implications.	
HO6: Maximising the use of previously developed land	No LSE - Minor policy changes to increase the percentage targets for development on previously used	N/A	No further recommendations – policy/text amendments do not have HRA implications.	

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
	land. Policy does not affect overall housing delivery numbers.			
HO8: Housing mix	Qualitative policy in relation to the mix of housing types. This does not alter the overall number of housing coming forward. No LSE – qualitative policy.	N/A	No further recommendations – policy/text amendments do not have HRA implications.	
HO9: Housing quality	Qualitative policy in relation to the mix of housing accessibility. This does not alter the overall number of housing coming forward. No LSE – qualitative policy.	N/A	No further recommendations – policy/text amendments do not have HRA implications.	
HO11: Affordable housing	Qualitative policy in relation to the levels of affordable housing within developments. This does not alter the overall number of housing coming forward. No LSE – qualitative policy.	N/A	No further recommendations – policy/text amendments do not have HRA implications.	
HO12: Sites for Travellers and Travelling Showpeople	Policy sets the quality of pitches requited to Travellers and Travelling Showpeople needs. LSE – based on the need to undertake more detailed assessment of the impacts of overall housing numbers (including traveller and travelling show people pitches) within the plan, and to assess proposed housing locations and numbers in relation to the South Pennine Moors SPA/SAC.	Additional residential development has the potential to add to recreation pressure on the South Pennine Moors SPA/SAC. The current approach to mitigating for impacts on the SPA/SAC is being reviewed as part of this HRA. Other impact pathways from new development include: water quality and resources air quality urbanisation impacts	Review and update of the mitigation approach to recreation pressure on the South Pennine Moors SPA/SAC will be undertaken prior to the Reg 19 consultation. This will inform any policy requirements at Reg 19 stage. Other impact pathways will also be assessed at appropriate assessment	
Environment				

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
EN2a: Biodiversity and geodiversity	Policy wording added to strengthen the policy in terms of protection and enhancement of the natural environment, setting out the hierarchy of designations and protections from international to local, and the hierarchy, relating to national legislation and policy. No LSE – policy is strongly protective of biodiversity assets, both European sites and wider assets that underpin European sites.	This is an important policy for European sites and the wider biodiversity that underpins them. This policy will be reviewed after the HRA has progressed through appropriate assessment and the recreation mitigation strategy is assessed and updated. Any further opportunities to strengthen the policy in light of these will be made for Reg 19 stage.	No further recommendations – an environmentally positive policy. Revisit after HRA and mitigation strategy work has progressed.	
EN2b: Biodiversity and development	New policy wording to set out the requirement for development to provide as net gain for biodiversity, in accordance with the NPPF and forthcoming legislation relating to mandatory biodiversity net gain. No LSE – policy is strongly protective of biodiversity assets, particularly wider biodiversity that underpins European sites.	As with ENV2a, this is an important policy for European sites and the wider biodiversity that underpins them. This policy will be reviewed after the HRA has progressed through appropriate assessment and the recreation mitigation strategy is assessed and updated. Any further opportunities to strengthen the policy in light of these will be made for Reg 19 stage.	No further recommendations – an environmentally positive policy. Revisit after HRA and mitigation strategy work has progressed.	
EN5: Trees and woodland	Policy updated to give treater focus on expansion of trees and woodland through development, and a presumption in favour of retention of trees contributing to landscape and biodiversity. No LSE – policy is strongly protective of biodiversity assets	N/A	No further recommendations – an environmentally positive policy.	

Policy (Final Draft Local Plan reference)	LSE screening	Potential risks or opportunities	Recommendations and actions at Reg 18 stage	Recommendations and actions taken for Reg 19 Final Draft Local Plan
EN6: Energy	Minor policy updates to cover decentralised energy provision in new development No LSE – Qualitative policy requiring assessment of impacts from any energy proposal on the SPA/SAC.	N/A	No further recommendations - Re-check for any changes at final plan stage for any additional risks	
EN7: Flood risk	Policy updates reflect legislation and national policy on the need for floor risk assessments as part of new development proposals, and to cover surface water management. No LSE – policy is strongly protective of biodiversity assets.	N/A	No further recommendations – an environmentally positive policy.	
EN8: Environmental protection	Minor amendments to policy, along with the addition of contribution towards good ecological status of waterbodies. No LSE – policy is strongly protective of biodiversity assets	N/A	No further recommendations – an environmentally positive policy.	
Implementation and delivery				
ID2: Viability	Policy wording relates to the plan led viability assessment, and cases where project level viability assessment will be required. No LSE – qualitative policy	There is a risk that contributions towards any mitigation requirements for European sites may be challenged on viability grounds	Appropriate assessment to cover a brief note on viability in relation to the application of the Habitats Regulations.	

3. Appropriate Assessment of Impact Pathways

- 3.1 The screening table has flagged key topics for more in-depth consideration within an appropriate assessment. These impact pathways will now be assessed in detail to form the appropriate assessment and to inform the Regulation 19 stage of plan making. 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. This evidence will be reviewed as part of the appropriate assessment, where links between housing, development and nature conservation impacts are demonstrated.
- 3.2 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.
- 3.3 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.
- 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.
- 3.5 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

whether 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.

Appropriate assessment topics

3.6 The following appropriate assessment chapters will be prepared to cover the following impact pathways identified within this report and by the screening for likely significant effects:

Recreation

3.7 The impact of recreation on the moorland European sites has already been recognised in previous HRA work and the identification of recreation pressure is noted within the screening table. Previous HRA work has identified the South Pennine Moors SPA/SAC as sensitive to increased recreation. The appropriate assessment will also check whether there are similar concerns for the North Pennine Moors SPA/SAC.

Other urbanisation effects

This will include checking whether the direction of development will be in close proximity, leading to any urbanisation risks other than recreation. 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. A number of European sites have a 400m zone around the boundary where there is a presumption of no further development (net increase in residential properties). 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 Core Strategy currently includes reference to this zone, and this will require more detailed consideration in the appropriate assessment.

Water resources, water quality and flood risk

3.9 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. These impact pathways are most relevant to the overall quantum of

development, and a check needs to be made of the relevant documentation, including specialist studies commissioned by the Council and those published by water utility companies, to have confidence that that risks to European sites can be eliminated.

Air Quality

3.10 This impact pathway relates to traffic increases on roads in close proximity to European sites is an important aspect of HRA. 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. Any transport assessment work will therefore be considered within the appropriate assessment.

Biodiversity net gain

3.11 Ensuring that wider biodiversity is adequately protected underpins European site protection and long-term maintenance. 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. The National Planning Policy Framework sets out comprehensive requirements for the protection, restoration, enhancement and expansion of biodiversity. A Local Plan should include protecting, enhancing and improving biodiversity, and moving from a net loss of biodiversity to achieving net gains. Wider biodiversity policies will therefore be considered within the appropriate assessment.

4. Conclusions

- This HRA report is the start of the HRA process for the assessment of the Bradford Core Strategy Partial Review. It has been undertaken at the Regulation 18 stage of plan making, when preferred options are explored and reasonable alternatives identified. The consultation version of the plan, highlights the proposed changes to existing policy wording within the Core Strategy, with changes being primarily made to ensure that the Core Strategy is up to date in terms of promoting the right housing numbers in response to assessed need, using up to date national assessment methodologies. Additionally, the recent publication of a revised NPPF has identified a number of key policy areas that need updating, including in relation to biodiversity. This in turn strengthens the ecological networks that underpin the European sites.
- 4.2 The screening for likely significant effects has not identified any individual policy issues that pose a risk to European sites, rather the screening has flagged that the overall quantum of development, particularly housing development, will need further detailed assessment to consider the implications of growth for the South Pennine Moors SPA/SAC.

Recreation pressure

4.3 The Council has already started to establish measures to protect the Moors from additional recreation pressure, and this approach will be reviewed and revised to develop a new strategic level mitigation strategy for recreation pressure. This will be informed by evidence including drawing on good practice from similar strategies elsewhere, having regard for emerging monitoring from similar strategies elsewhere, applying locally relevant evidence, seeking the advice of Natural England as the statutory nature conservation adviser, and seeking the opinion of local stakeholders.

Other impact pathways

- The appropriate assessment will cover a number of additional impact pathways, as described above, which again don't specifically relate to individual developments, but rather to the combined effect of the overall quantum of development. These impact pathways will include the following:
- 4.5 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.

- 4.6 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 but will also include any habitat sensitive to water reductions.
- 4.7 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. Consideration of traffic increases on any roads near to a European site sensitive to air pollution is an important part of appropriate assessment, particularly since this impact pathway has been the topic of a number of recent European Court cases and domestic authoritative decisions.
- 4.8 At this early stage in plan development, and particularly given the initial focus on policy wording updates only, the screening undertaken is an initial assessment that is appropriate to the nature of the consultation document. This HRA will be updated and greater detail added in terms of review of evidence and expert opinion, development of the recreation mitigation strategy, and appropriate assessment of all identified impact pathways.
- 4.9 At this point in time, the partial review of the Bradford Core Strategy does not present any potential risks to European sites that it is considered are not capable of being mitigated for. However, it is essential that detailed appropriate assessment is undertaken to inform the plan and give certainty to the Council as the competent authority that adverse effects on European site integrity can be ruled out. This report will therefore be updated and expanded accordingly to inform the next stage of plan making.
- 4.10 It should be noted that the HRA process is iterative and this report will continue to be updated at any further stages until the plan is adopted. This may include any modifications to the plan that are proposed as a result of the Examination. These are likely to require a final check for HRA compliance and a final HRA record before adoption of the plan will be made.

5. Appendix 1 - The Habitats Regulations Assessment Process

- 5.1 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. A further update was made in 2018.
- 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.
- 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.
- 5.4 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

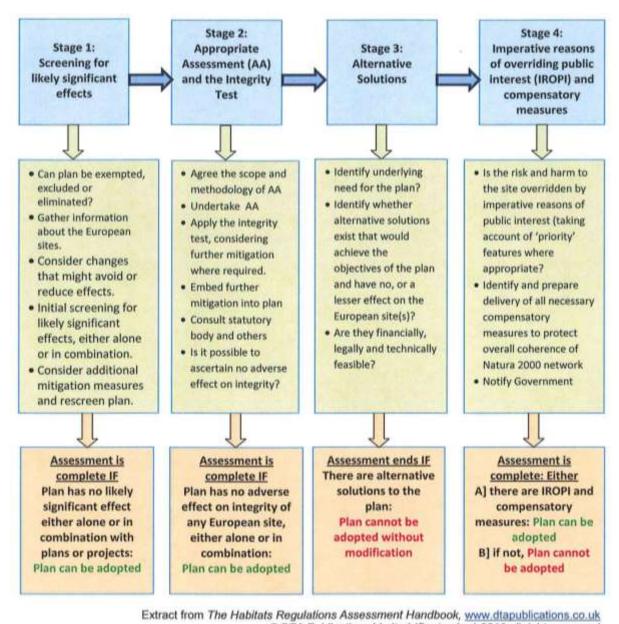
requirements of the Convention, the UK Government expects all competent authorities to treat listed Ramsar sites as if they are part of the suite of designated European sites, as a matter of government policy, as set out in Section 118 of the National Planning Policy Framework. Most Ramsar sites are 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.

- 5.5 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.
- 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.
- 5.7 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
- 5.8 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.

- 5.9 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.
- 5.10 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.
- 5.11 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.
- 5.12 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.
- 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.



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Figure 1: Outline of the assessment of plans under the Habitat Regulations

6. Appendix 2 – Conservation Objectives

- 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.
- 6.2 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 HRA s 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.
- 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, is nearing completion and is now providing much more site-specific information, and this detail will play a fundamental role in informing HRAs, and importantly will give greater clarity to what might constitute an adverse effect on a site interest feature. Natural England advises that HRAs should be supported by comprehensive and up to date background information that is locally relevant.
- 6.4 For SPAs, the overarching objective is to:
- 6.5 '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.'
- 6.6 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.
- 6.7 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.'

- 6.8 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.
- 6.9 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.

7. Appendix 3 – The Nature Conservation Interest of the European Sites

7.1 The relevant European sites are summarised in Table 6 below, where the interest features, threats and pressures and links to the relevant conservation objectives are listed.

Table 4: Summary of relevant European sites, their interest features and relevant pressures/threats. Pressures/threats are taken from the Site Improvement Plans (SIPs).

Site	Reason for designation (# denotes UK special responsibility)	Relevant actions in response to pressures and threats
South Pennine Moors Phase 2 SPA	A222(B) Asio flammeus: Short-eared owl A160(B) Numenius arquata: Eurasian curlew A162(B) Tringa totanus: Common redshank A275(B) Saxicola rubetra: Whinchat A277(B) Oenanthe oenanthe: Northern wheatear A282(B) Turdus torquatus: Ring ouzel A367(B) Carduelis flavirostris: Twite A466(B) Calidris alpina schinzii: Dunlin A168(B) Actitis hypoleucos: Common sandpiper A153(B) Gallinago gallinago: Common snipe Breeding bird assemblage: A098(B) Falco columbarius: Merlin A140(B) Pluvialis apricaria: European golden plover A142(B) Vanellus vanellus: Northern lapwing	Implement a co-ordinated approach across Local Authorities, covering the South Pennine Moors SPA Phase 2, to evaluate the 'in combination effects at a site level' when considering/developing local Development frameworks, infrastructure programmes and evaluating planning permissions. This needs to consider both land which is covered by the SPA and land which is functionally linked (e.g. adjacent feeding habitats for SPA birds). Establish and monitor cumulative impacts of development on South Pennine Moors SPA Phase 2 bird populations.
South Pennine Moors SAC	H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> H4030 European dry heaths H7130# Blanket bogs H7140 Transition mires and quaking bogs H91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles	Control, reduce and ameliorate atmospheric nitrogen impacts. Monitor sensitive Natura features where disturbance is a factor (or a potential factor) to discern trends and refine advice on recreational activities. Manage erosion issues away from Public Rights of Way Act (PROW), caused by public access (open access desire lines and informal paths), by installing flagstone paths and stabilising and restoring adjoining bare peat on SAC blanket bog sites.

Site	Reason for designation (# denotes UK special responsibility)	Relevant actions in response to pressures and threats
		Develop and implement habitat and species management plans in relation to specific disturbance issues, potentially as part of a public access management plan.
		Increase awareness of the importance of the sites in terms of SAC/SPA designation (including Habitats Regulations) and the impact of potentially disturbing activities (including open access) on them, through access and community projects. Develop and implement a Peak Park events webbased application system.
North Pennine Moors SPA	A082(B) Circus cyaneus: Hen harrier A098(B) Falco columbarius: Merlin A103(B) Falco peregrinus: Peregrine falcon A140(B) Pluvialis apricaria: European golden plover	Pre-application discussions to minimise/remove impacts on designated features. Work with owners and planning authorities to ensure applications are dealt with through correct processes and not double-handled. Review the impacts of existing and future public access on SPA and SAC features.
North Pennine Moors SAC	H6130 Calaminarian grasslands of the <i>Violetalia calaminariae</i> H6210# Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>) H7220# Petrifying springs with tufa formation (<i>Cratoneurion</i>) H6150 Siliceous alpine and boreal grasslands H7130# Blanket bogs H7230 Alkaline fens H8110 Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae and Galeopsietalia ladani</i>) H8210 Calcareous rocky slopes with chasmophytic vegetation H8220 Siliceous rocky slopes with chasmophytic vegetation	Pre-application discussions to minimise/remove impacts on designated features. Work with owners and planning authorities to ensure applications are dealt with through correct processes and not double-handled. Review the impacts of existing and future public access on SPA and SAC features. Control, reduce and ameliorate atmospheric

Site	Reason for designation (# denotes UK special responsibility)	Relevant actions in response to pressures and threats
	H91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles S1528 <i>Saxifraga hirculus</i> : Marsh saxifrage H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> H4030 European dry heaths H5130 Juniperus communis formations on heaths or calcareous grasslands	