Minerals and Waste Joint Plan

Sustainability Appraisal

Habitats Regulations Assessment

October 2016

Minerals and Waste Joint Plan

Habitat Regulations Assessment of Likely Significant Effects

On European Designated Nature Conservation Sites

Contents

1. Introduction

1.1 Purpose of the Minerals and Waste Joint Plan Habitats Regulations Assessment

North Yorkshire County Council (NYCC), the City of York Council (CYC) and the North York Moors National Park Authority (NYMNPA) are working together to produce a Minerals and Waste Joint Local Plan. The purpose of this report is to record and present the findings of a Habitats Regulations Assessment (HRA) undertaken on that Joint Plan. This exercise was also undertaken at the Issues and Options and Preferred Options stages and earlier versions of the HRA report can be viewed here. This report has been carried out to meet the requirements of the 'Conservation of Habitats and Species Regulations, 2010' and provides the competent authorities (in this case NYCC, CYC and NYMNPA) with the information required to establish whether the draft policies and sites presented in the Joint Plan are compliant with the Regulations.

1.2 Requirement to Undertake Habitats Regulations Assessment

The Habitats Directive

The United Kingdom is subject to Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, which is often referred to as the Habitats Directive. The principal aim of the Directive is to promote biodiversity *'by requiring Member States to take measures to maintain or restore natural habitats and wild species listed in the Annexes to the Directive at a favourable conservation status'* (JNCC, 2012a)[1]. Amongst the measures the Directive requires to achieve this is the creation of *'a coherent European ecological network of special areas of conservation'*. This network also includes Special Protection Areas (SPAs) for birds, designated under Directive 79/409/EEC ('The Birds Directive') and is termed the Natura 2000 Network.

Article 6(3) of the Directive puts in place requirements on certain plans and projects:

'Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to ***appropriate assessment*** *of its implications for the site in view of the site's conservation objectives'.*(European Commission, 1992)[2].

The Conservation of Habitats and Species Regulations, 2010 (As Amended)

The Habitats Directive was transposed into UK law in 1994 as the Conservation (Natural Habitats &c) Regulations, 1994. These Regulations were amended on a number of occasions in the years following 1994 and in 2010 the Government chose to consolidate the various amendments to the Regulations via 'the Conservation of Habitats and Species Regulations, 2010'. Paragraph 61 sets out the requirements for the undertaking of appropriate assessment where a plan '*is likely to have a significant effect on a European Site or a European Offshore Marine Site (either alone or in combination with other plans or projects)'.*

[1] jncc.defra.gov.uk/page-1374

[2] European Commission, 1992. Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0043:EN:HTML] (accessed 07/02/2014).

The Regulations also provide clarity on what is meant by 'European Site' under Regulation 8. This includes both terrestrial and marine Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Sites of Community Importance (SCIs)[3] potential SACs (pSACs) and potential SPAs (pSPAs).

The Conservation of Habitats and Species (Amendment) Regulations 2012 update the 2010 Regulations. While this legislation makes significant changes to the implementation of the Birds Directive in the UK, including a requirement for competent authorities to avoid pollution or deterioration of bird habitat wherever it may occur[4], the protocols for undertaking Appropriate Assessment, at least in terms of the Joint Plan, remain the same.

1.3 Minerals and Waste Joint Local Plan

As planning authorities for minerals and waste in each of their areas, NYCC, CYC and the NYMNPA have a responsibility to take decisions on planning applications for these types of development. The three Authorities also have a duty to produce planning policies within a Local Plan to help take those decisions.

NYCC, CYC and the NYMNPA are currently working together to prepare a Minerals and Waste Joint Local Plan which will be prepared under the provisions of the Town and Country Planning (Local Planning) Regulations 2012[5]. The Joint Plan, informed by evidence and consultation, contains the spatial framework for future minerals and waste development across the three authorities and present land use policies and allocations for future minerals and waste development.

The Joint Plan is currently at the Publication stage of preparation.
Table 1 below shows the key stages in the production of the Joint Plan.

Table 1: Key Stages in the Production of the Joint Plan

Stage in plan preparation	**Purpose**
First Consultation (undertaken in Summer 2013)	To obtain views on the issues the Plan should address
Issues and Options (undertaken in late winter 2014)	To present, for consultation, the issues, draft vision and objectives and possible options for policies to address the issues
Preferred Options (undertaken in late Autumn 2015)	To present draft policies for consultation
Publication	To publish the Plan for representations on soundness
Submission and Examination	Independent examination and production of

[3] SCIs are sites that have been adopted by the European Commission but are not yet formally designated by the European Commission.
[4] This requirement will be addressed, where it exists outside of the Natura 2000 / Ramsar network, in the accompanying Sustainability Appraisal to the Joint Plan.
[5] These Regulations build upon the broader system for producing plans set out in the 2004 Planning and Compulsory Purchase Act. For instance, the arrangements for Development Plan Documents are amended and those DPDs are renamed as Local Plans.

	Inspector's report
Adoption	Final Plan adopted by the three authorities

A vision and objectives have been developed in order to give direction to the policies of the Joint Plan. The vision and 12 related objectives which have been proposed as a means of taking the vision forward are underpinned by the following interconnected priorities:

- Delivering sustainable waste management;
- Achieving the efficient use of minerals resources;
- Optimising the spatial distribution of minerals and waste development; and
- Protecting and enhancing the environment and supporting communities and businesses and mitigating and adapting to climate change.

The full vision and objectives can be viewed in the Publication version of the Plan available at www.northyorks.gov.uk/mwconsult.

The Joint Plan policies are presented in 5 chapters in the Joint Plan as follows:

- Minerals;
- Provision of Waste Management Capacity and Infrastructure;
- Minerals and Waste Transport and Other Infrastructure;
- Minerals and Waste Safeguarding; and
- Development Management.

A full list of preferred policies as well as the policies themselves is available in the Publication version of the Plan. **THIS ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS REPORT SHOULD BE READ ALONGSIDE THE PUBLICATION PLAN.**

A Sustainability Appraisal (SA), incorporating the requirements of Strategic Environmental Assessment (SEA), has also been undertaken in relation to the Joint Plan and the Sustainability Appraisal Report relating to the Publication version of the Plan consultation can be viewed at www.northyorks.gov.uk/mwconsult. However, as outlined above, there is also a requirement under European and UK legislation to undertake a Habitats Regulations Assessment on the plan. While SEA is an iterative process that seeks to improve the environmental performance of a plan and reduce or mitigate for any deleterious environmental effects, Habitats Regulations Assessment is a test of the effect of the plan on the integrity of European Nature Conservation Sites (referred to from this point on as 'European sites')[6]. In this sense the objective of the Habitats Regulations Assessment process undertaken in this report is to test whether the Joint Plan is likely to have a significant effect on European Nature Conservation Sites either alone or in combination with other plans or projects and, if so, can that effect be reduced to levels that are below a significant level. This report also describes any avoidance measures or mitigation that could be pursued at an early stage and states whether further appropriate assessment[7] under the Regulations is likely to be necessary.

[6] In this report European Nature Conservation Sites, namely Special Protection Areas and Special Areas of Conservation, are considered alongside international Ramsar Wetland Sites, consistent with UK Government Policy.

[7] See section 2 of this report for an explanation of appropriate assessment.

2. Habitats Regulations Assessment Methodology

2.1 European Sites

As previously stated, plans such as the Joint Plan must be considered for their likely significant effects (alone or in combination with other plans and projects) on European Sites. The Conservation of Habitats and Species Regulations, 2010 (as amended) establishes what is meant by a 'European Site' under Regulation 8. This includes both terrestrial and marine Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Sites of Community Importance (SCIs)[8], potential SACs (pSACs) and potential SPAs (pSPAs). These are described below:

Special Protection Areas (SPAs) are '*strictly protected sites classified in accordance with Article 4 of the EC Birds Directive, which came into force in April 1979. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species*'[9].

Special Areas of Conservation (SACs) are *'strictly protected sites designated under the EC Habitats Directive. Article 3 of the Habitats Directive requires the establishment of a European network of important high quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annex I and II of the Directive (as amended)'*[10].

Potential SACs (pSACs) and potential SPAs (pSPAs) are sites that have been approved by Government and are currently in the process of being classified[11].

Consideration of Ramsar Sites and Other Sites

Unlike European sites, Ramsar sites are sites of international, rather than just European, importance, designated for wetlands. In practice, in the UK most Ramsar sites also receive protection as Special Protection Areas. However, paragraph 118 of the Government's National Planning Policy Framework gives Ramsar sites and proposed Ramsar sites the same protection as European sites. The NPPF also states that potential SACs (pSACs), pSPAs and 'sites identified, or required *as compensatory measures for adverse effects on European sites'* should be given the same protection as European sites. To address this requirement of planning policy all Ramsar sites, where they lie within the Plan Area or a 15km buffer zone applied around its external borders (see Section 3.2), will be considered alongside European sites, terrestrial or marine, in this assessment.

[8] SCIs are sites that have been adopted by the European Commission but are not yet formally designated by the European Commission.
[9] JNCC, undated. Special Protection Areas (Available at: jncc.defra.gov.uk/page-162 [Accessed 07/02/2014]).
[10] JNCC, undated. Special Areas of Conservation (Available at: jncc.defra.gov.uk/page-23 [Accessed 07/02/2014]).
[11] JNCC, undated. Special Protection Areas (Available at: jncc.defra.gov.uk/page-162 [Accessed 07/02/2014]).

At the time of writing there are a number of Ramsar sites within 15km of the study area (see Figure 4).

As previously mentioned, for reasons of brevity, when this report refers to European sites, Ramsar sites are included in that definition.

2.2 A Staged Approach to Appropriate Assessment: Habitats Regulations Assessment

The Habitats Regulations refer to the undertaking of 'appropriate assessment' in relation to plans and projects. However, in practice many organisations have addressed the requirement to undertake appropriate assessment via a series of steps. For instance, it is necessary to first determine the extent to which plans require appropriate assessment before the assessment can practicably proceed, and to do this it is necessary to assess whether significant effects on European sites are likely and to establish what the 'appropriate assessment' itself should focus on. Following this an appropriate assessment report may be drafted that considers the effects of the plan on the integrity of European sites. In some cases, where no alternative solutions can be found, it will be necessary to undertake further work to identity the extent to which a plan should proceed because of imperative reasons of overriding public interest.

Since the 'appropriate assessment' proper is a discreet stage of a potentially multi-staged process, to avoid confusion the process as a whole is usually referred to as Habitats Regulations Assessment.

In this assessment we have divided the full Habitats Regulations Assessment process, including Appropriate Assessment, into 4 key stages, as illustrated in Table 2, below. This report documents the undertaking of Stages 1 and 2 of this Habitats Regulations Assessment process. It also undertakes part 3 in so far as it is relevant to removing uncertainties over the significant effects of policies and sites identified at earlier stages of the assessment process.

Table 2: Habitats Regulations Assessment: Key Stages

Stage 1		**Progress**
Pre Screening and Scoping	A. Identify whether the plan is subject to Habitats Regulations Assessment. B. Identify international sites in and around the plan area. C. Identify the conservation objectives and threats to site integrity of European sites. D. Establish the methodology for undertaking the Assessment.	Undertaken in this Likely Significant Effects report (and previously in the Issues and Options Likely Significant Effects report).
Stage 2		

Screening for likely significant effect	A. Identify potential effects on European sites and the possible way in which this might affect conservation objectives. B. Examine other plans and programmes that could contribute to 'in combination' effects. C. Make a high level assessment of whether significant effects can be ruled out by making adaptations or adjustments to the plan.	Undertaken in this Likely Significant Effects report (and previously in the Issues and Options Likely Significant Effects report). This has been revisited at this Publication stage.
	If no effects are likely – report no significant effects. If effects are judged likely or any uncertainty exists – the precautionary principle applies - proceed to ***Stage 3.***	
Stage 3		
Assessment under Regulation 61 of the Habitat Regulations, 2010: Appropriate Assessment	Consider how the elements of the plan identified as potentially having likely significant effects 'in combination' with other plans and programmes will cause direct and indirect effects on the integrity of European sites in light of their conservation objectives (the 'Appropriate Assessment'). Consider how any effects on the integrity of a site could be avoided by changes to the plan and the consideration of alternatives. Develop mitigation measures (including timescale and mechanisms). Report outcomes of Appropriate Assessment including mitigation measures, consult with Natural England, the Environment Agency and wider (public) stakeholders as necessary.	This has been undertaken to accompany the Publication stage and may be further updated depending on the outcome of that consultation.
	• *If plan will not have an adverse effect on the integrity of European sites alone or in combination with other sites (the AEoI[12] decision) proceed without further reference to Habitat Regulations.* • *If effects or any uncertainty remains following the consideration of alternatives and development of mitigation measures, proceed to* ***Stage 4.***	
Stage 4		
Procedures where adverse	If impacts remain, a plan or programme can only proceed provided a series of 'sequential tests'	Where necessary,

[12] 'The AEoI decision' is used in Defra's draft guidance (The Habitats and Wild Birds Directives in England and its Seas: Core Guidance for Developers, Regulators and Land/Marine Managers, 2012. Defra, London) and refers to deciding whether or not the Plan will result in 'adverse effects on integrity'.

effect on integrity of international site remains (Derogations)[13]	(Habitat Directive's article 6 (4) derogation requirements) are satisfied. These are: Test 1: There must be no feasible alternative solutions to the plan or project which are less damaging to European Sites; Test 2: There must be 'imperative reasons of overriding public interest' (IROPI) for the plan or project to proceed; Test 3: All necessary compensatory measures must be secured to ensure that the overall coherence of the network of European Sites is protected.	this will be undertaken prior to submission stage.

2.3 Source – Pathway – Receptor Approach

A 'source-pathway-receptor' approach is often used in environmental risk management. It is a way of developing a conceptual understanding of how environmental harm can occur and this approach will be followed in this assessment in order to establish whether significant effects will occur or are likely. The broad principles of this approach are described below.

Source-Pathway-Receptor

It stands to reason that if environmental or any other form of hazard is to occur it must come from somewhere. For instance a water pollution incident wouldn't occur unless there is some source or causal agent for that pollution (e.g. agricultural run off or an industrial facility). This is the **source.**

Environmental hazards would not present any problems unless there were a **receptor**, or a place that would be vulnerable to damage, that would be damaged when exposed to whatever hazard originates from the source. So an already sterile water body would be unlikely to be significantly affected by a pollution incident, whereas a freshwater ecosystem that relies on high water quality may be significantly affected by water pollution. However, there may also be secondary environmental effects if the water body drains to a location which is sensitive to pollution.

If, however, a sump or interceptor collected the pollution before it entered the water body receptor then significant effects on any ecosystem would be unlikely to occur. This is because there is no **pathway** by which the hazard (pollution) can reach the receptor (the freshwater ecosystem).

Where the European sites are considered vulnerable to certain impacts those impacts can only be considered possible where there is a source for those impacts and a pathway to the receptor (the European site or species associated with it).

[13] A derogation is a provision that often features in EU legislation that allows part or all of a legal measure to be applied differently or not at all. In the case of the Habitats Directive, the satisfaction of the three tests outlined in Table 1 enable plans or projects to be adopted in spite of a likely effect on European Sites.

Section 3 of this report focuses on the identification of receptors and the extent that they are vulnerable to external impacts, while Section 5 assesses the likelihood of significant effects to those receptors arising from the source (the Joint Plan). In this way it will be possible to consider whether policies or sites in the Joint Plan have the potential to be sources of potential impacts and whether a pathway exists between these potential impacts and European sites.

3. European Sites Scoped into this Assessment and Considerations in Relation to Integrity

3.1 Area of Study

The Plan Area of the Joint Plan is shown in Figure 1 and covers the planning authority areas of North Yorkshire, the City of York and the North York Moors National Park.

Figure 1: Minerals and Waste Joint Plan Area

The European sites to be considered in this assessment, together with Ramsar Sites are shown in Figures 2, 3 and 4 below.

Because impacts from minerals and waste activity have the potential to occur beyond the Plan Area boundary, provided there is a pathway between the source of impacts and a European / Ramsar Site, a 15km buffer has been applied to the outer boundary of the Plan area and the European / Ramsar Sites within that buffer are also considered. However, it should be noted that for certain impacts, longer range pathways may exist. These will be investigated on a case by case basis.

3.2 European and Ramsar Sites

Figures 2 to 4 and Tables 3 to 5 List SACs, SPAs and Ramsar sites considered in this assessment.

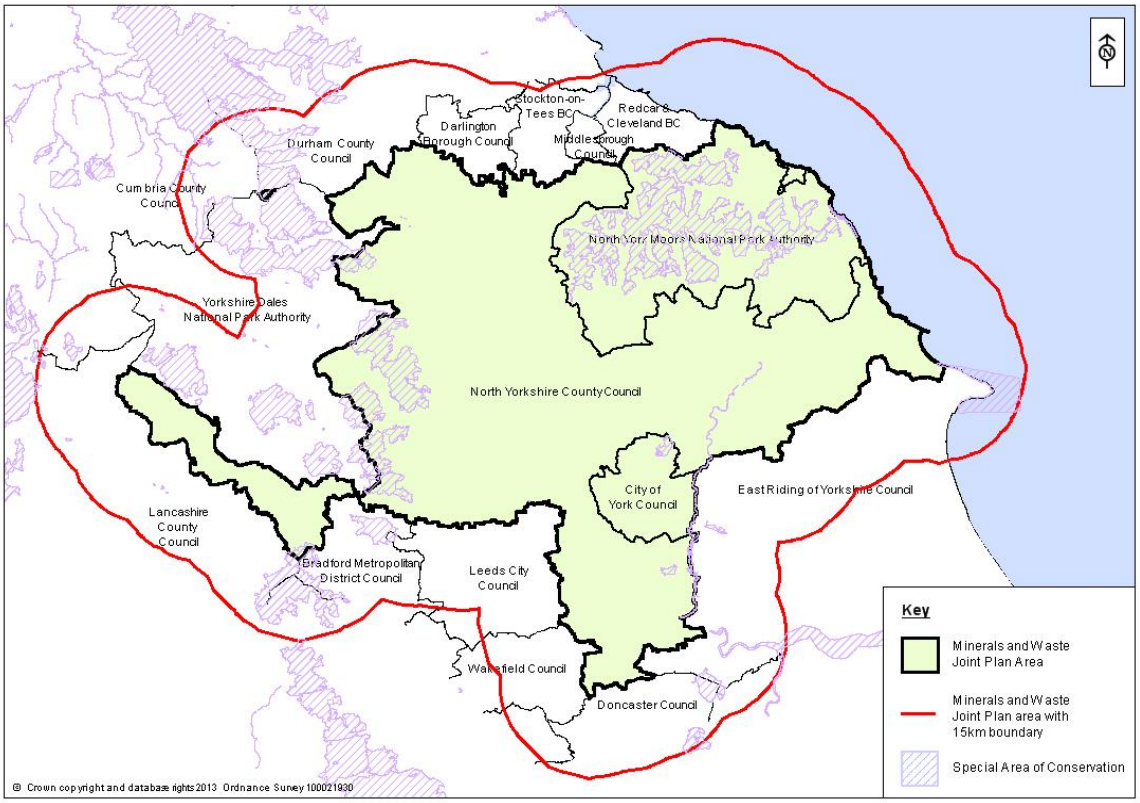

Figure 2: Special Areas of Conservation within the Plan area and a 15 km buffer

Table 3: Special Areas of Conservation within the Plan Area and a 15km buffer

Designation	Sites partly or wholly within Plan area	Sites partly or wholly within 15km buffer
SAC	Arnecliff & Park Hole Woods	Calf Hill and Cragg Woods
	Beast Cliff - Whitby	Craven Limestone Complex
	Ellers Wood and Sand Dale	Hatfield Moor
	Fen Bog	Helbeck and Swindale Woods
	Flamborough Head	Humber Estuary
	Kirk Deighton	Ingleborough Complex
	Lower Derwent Valley	Moor House - Upper Teesdale
	North Pennine Dales Meadows	Morecambe Bay
	North Pennine Moors	Morecambe Bay Pavements
	North York Moors	Ox Close
	River Derwent	River Eden
	Skipwith Common	Thorne Moor
	South Pennine Moors	
	Strensall Common	

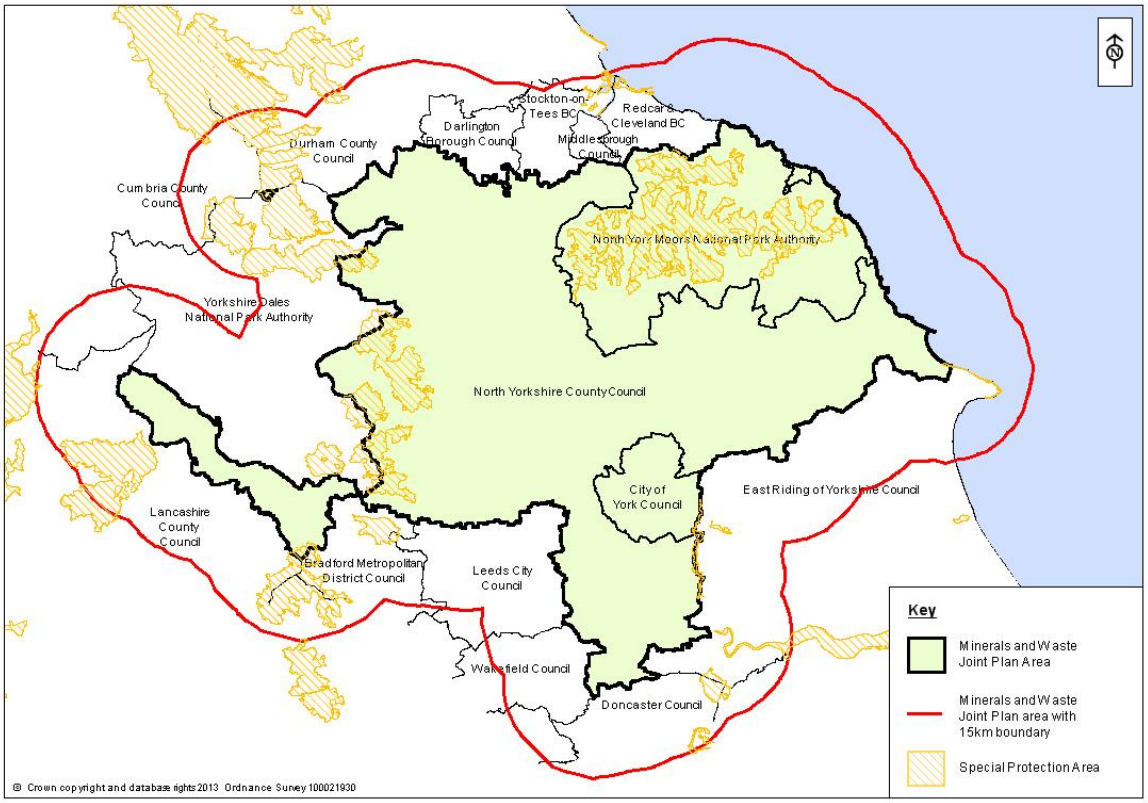

Figure 3: Special Protection Areas within the Plan Area and a 15 km buffer

Table 4: Special Protection Areas within the Plan Area and a 15km buffer

Designation	Sites partly or wholly within Plan area	Sites partly or wholly within 15km buffer
SPA	Flamborough Head & Bempton Cliffs	Bowland Fells
	Lower Derwent Valley	Humber Estuary
	North Pennine Moors	Leighton Moss
	North York Moors	Morecambe Bay
	South Pennine Moors – (Phase 2)	Teesmouth and Cleveland Coast
		Thorne and Hatfield Moors

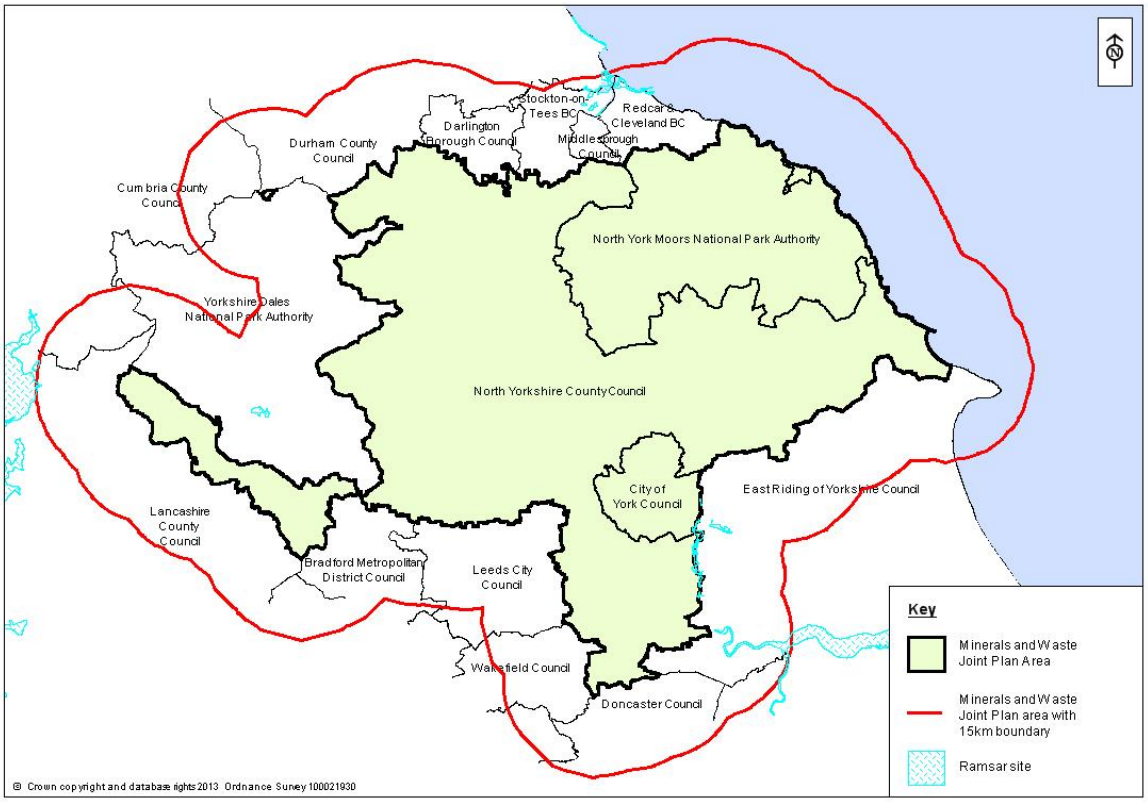

Figure 4: Ramsar sites within the Plan Area and a 15 km buffer

Table 5: Ramsar sites within the Plan Area and a 15km buffer

Designation	Sites partly or wholly within Plan area	Sites partly or wholly within 15km buffer
RAMSAR	Lower Derwent Valley	Humber Estuary
		Leighton Moss
		Malham Tarn
		Morecambe Bay
		Teesmouth and Cleveland Coast

3.3 Identifying the Conservation Objectives and Threats to the Integrity of European / Ramsar Sites

During the preparation of the Issues and Options Likely Significant Effects Report a list was compiled of the European / Ramsar sites contained within the area of study, alongside their qualifying features, conservation objectives and key threats to the integrity of these sites. This can be viewed at Appendix 1 of this report.

Using this information it is possible to begin to identify the sorts of impacts for which each individual site could be a potential receptor (see Section 2.3 for a description of the 'source – pathway- receptor approach used in this assessment).

4. Screening Assessment in Combination with other Plans and Projects

4.1 Potential Sources of Impacts from the Joint Plan

Tyldesley, 2009[14] describes some of the ways in which impacts on European sites may arise at the strategic plan making stage, as summarised in Table 6 below.

Table 6[15]: Possible ways in which a Plan could result in significant impacts upon a European Site

Category of Impact that may Arise from a Strategic Change	How Such Impacts Might Occur
Types of change	A specific policy might be proposed in a plan that might have a significant effect on one or more European sites regardless of the size or location of that change.
Quantity of change	While policies might result in small changes with no real effect, in other cases a significant effect may occur as a result of the amount of change that is likely to occur. So a policy might generate a large amount of traffic on an existing road. While this might not have been a problem in the past, a step change in the level of traffic might result in greater noise or pollution affecting a neighbouring European Site.
Location of change	There may be a strategic need to focus development in a specific area. Where a plan contains policies or proposals that steer an amount or type of development that could be potentially damaging onto or adjacent to a European Site, a direct impact may occur. A plan may also indirectly affect a European Site, where it steers development towards an area that has connectivity to the site (e.g. hydrological connectivity) or where a plan may lead to the generation of other indirect effects (e.g. disturbance due to increased vehicle movements).
Blocking of other proposals or approaches	Future alternative approaches may be blocked by policies in a plan. For instance a non-damaging policy approach may no longer be an option if the plan commits an area to a specific approach that may in the longer term be damaging.
Justifying damaging development	Inclusion within a plan may give justification to interventions that would have otherwise been

Tyldesley, D. 2009. The Habitats Regulations Assessment of Local Development Documents Revised Draft Guidance for Natural England. Natural England, Sheffield.

[15] Categories of impact and source material for the mechanisms by which effects may occur are adapted from text in Tyldesley. D (2009) The Habitats Regulations Assessment of Local Development Documents Revised Draft Guidance for Natural England. Natural England, Sheffield.

	considered on their merits alone. It is therefore important to ensure that only interventions that are consistent with the Habitats Regulations' requirements are included in the Joint Plan.
Combined / cumulative effects	While on their own the policies or proposals of a plan may not be likely to have significant effects, certain policies or proposals may work in combination with other plans and projects in such a way that a significant effect may occur.

4.2 In Combination Impacts: Consideration of other Plans and Projects that may Affect European / Ramsar sites in combination with the Joint Plan

The Habitats Directive requires that all significant effects of plans and projects, whether they are alone or in combination with other plans and projects, be assessed in view of European Sites' conservation objectives. This means that, even where an effect of the plan is deemed not to be significant on its own, it could be significant when added to the effects of one or more other plans and projects.

By the same token, it is important that in-combination assessment remains a manageable exercise. Therefore the focus of in combination assessment in this HRA will be on relevant plans that direct future growth or that seek to manage mineral resources and waste as these plans are considered to be the key sources of potential impacts. During the HRA assessment of individual sites or areas, consideration will be given to potential in combination effects with any specific relevant projects (e.g. major planning applications) where necessary.

All of the development plans in the Plan area and surrounding authorities have been reviewed to give a picture of anticipated levels of development during the timescale of the Joint Plan. Many of the plans that have been reviewed during in combination assessment have been subject to Habitats Regulations Assessments. These HRA documents can be useful in ascertaining the extent to which those plans are expected to impact on European sites.

Table 7 shows the plans that will be considered for in combination impact in this assessment.

Table 7: Plans considered 'in combination' where relevant

Name of Plan	**Plan Type**	**Plan Status[16] (at October 2015)**	**Geographical Scope**
Richmondshire Local Plan:	Land Use Plan	Core Strategy	Richmondshire

[16] Note that plans which are under preparation may still give an indication of the direction of travel of that plan and the possibility of likely significant effects. Plans under preparation are also still likely to be supported by saved policies in earlier local plans. These saved policies will also be reviewed where relevant to the assessment of in combination effects.

Core Strategy		adopted. Work on Delivering Development Plan scheduled to take place between 2017 and 2018.	District
Scarborough Borough Council Local Plan	Land Use Plan	Submitted and currently consulting on 'Main Modifications'	Scarborough Borough
Hambleton Core Strategy, Allocations Development Plan Document (DPD) and Development Policies DPD	Land Use Plan	Core Strategy / supporting DPDs adopted. At time of writing about to commence a 'Preferred Options' Consultation on 'New Local Plan for Hambleton'.	Hambleton District
Selby Sites and Policies Local Plan – PlanSelby	Land Use Plan	Core Strategy adopted; rest of PlanSelby including sites is under preparation.	Selby District
The Ryedale Plan	Land Use Plan	Local Plan Strategy is adopted; Local Plan Sites is under preparation.	Ryedale District
Harrogate Local Plan	Land Use Plan	Core Strategy is adopted; Draft Local Plan expected to be consulted on in late 2016. Sites and Policies DPD has been withdrawn.	Harrogate District
Craven New Local Plan	Land Use Plan	Consulted on Local Plan Text, Policies and Policies Map in spring 2016, and on Preferred Sites for Housing in summer 2016.	Craven District
North York Moors National Park Local Plan	Land Use Plan	Core Strategy and Development Policies DPD adopted in 2008. new Local Plan in production with 'first	North York Moors National Park

		consultation' currently underway.	
York Local Plan	Land Use Plan	Preferred Options Local Plan consulted on in 2013. Preferred Sites Consultation Report published 2016.	City of York Council
County Durham Plan	Land Use Plan including Minerals and Waste	Work underway on new County Durham Plan between 2016 and 2017.	Durham County Council
Stockton on Tees Local Plan	Land Use Plan	Core Strategy adopted. Work underway on emerging Local Plan between 2016 and 2018.	Stockton on Tees
The Tees Valley Minerals and Waste DPDs	Minerals and Waste Plan	Core Strategy and Policies and Sites DPDs adopted.	Five local authority areas of Darlington, Hartlepool, Middlesbrough, Redcar and Cleveland and Stockton-on Tees
East Riding Local Plan	Land Use Plan	Strategy Document and Allocations Document have been adopted.	East Riding of Yorkshire
Joint Waste Local Plan (Hull and the East Riding)	Waste Plan	Second Issues and Options consultation published in 2012.	Hull and the East Riding
Joint Minerals Local Plan (Hull and the East Riding)	Minerals Plan	Second Preferred Approach published summer 2016 with publication expected late 2016.	Hull and the East Riding
Leeds Core Strategy and Site Allocations DPD	Land Use Plan	Core Strategy Adopted and Site Allocations DPD under preparation (Publication Draft consulted on in late 2015).	Leeds Unitary Authority
Leeds Natural Resources and Waste Local Plan	Minerals and Waste Plan	Adopted	Leeds Unitary Authority

City of Bradford Metropolitan District Council Core Strategy and Allocations DPD	Land Use Plan	Core Strategy underwent examination and Inspectors Report issued August 2016 and Holding Direction October 2016. Allocations DPD at Issues and Options Stage.	City of Bradford Metropolitan District
Ribble Valley Core Strategy	Land Use Plan	Adopted	Ribble Valley Borough Council Area
Lancaster Local Plan	Land Use Plan	Core Strategy and Development Management Plan adopted. Local Plan Land Allocations DPD under preparation (Submission expected late 2017).	Lancaster District Council Area
Joint Lancashire Minerals and Waste Local Plan	Minerals and Waste Plan	Adopted (review underway).	Lancashire County Council, Blackburn with Darwen Borough Council and Blackpool Council Areas
Darlington Local Plan	Land Use Plan	Core Strategy Adopted. New Local Plan Issues and Scoping Paper consulted on.	Darlington Borough Council Area
Middlesbrough Local Plan	Land Use Plan	Core Strategy adopted; Regeneration DPD adopted; Housing Local Plan adopted. Work is expected to start on a new Local Plan in late 2016.	Middlesbrough Council Area
Redcar and Cleveland Local Plan	Land Use Plan	Core Strategy adopted. Development Policies DPD adopted – both to be replaced	Redcar and Cleveland Council Area

		by new Local Plan – with Draft Local Plan consulted on in summer 2016.	
Doncaster Core Strategy	Land Use Plan	Core Strategy (adopted), Sites and Policies DPD (withdrawn). New Local Plan Issues and Options consultation undertaken early 2016.	Doncaster Council Area
Pendle Borough Local Plan	Land Use Plan	Core Strategy adopted in December 2015.	Pendle Council Area
Barnsley, Doncaster and Rotherham Joint Waste Plan	Waste Plan	Adopted	Barnsley, Doncaster and Rotherham Council Areas
Wakefield Local Development Framework	Land Use Plan	Core Strategy, Development Policies, Site specific Policies and Waste Document (Adopted)	Wakefield Council Area
Yorkshire Dales Local Plan	Land Use Plan	Under preparation (at examination stage with further work in preparation).	Yorkshire Dales National Park
North Yorkshire Local Transport Plan (LTP)	Transport Plan	LTP4 adopted.	North Yorkshire
City of York Local Transport Plan 3	Transport Plan	Adopted	City of York
Redcar and Cleveland Local Transport Plan 2011 - 2021	Transport Plan	Adopted	Part of National Park in Redcar and Cleveland Borough

5. Screening of Publication Plan Policies and Sites

5.1 Recording the Results of the Screening Assessment

Having established the European Sites of relevance to this assessment and the plans and projects that should be considered in combination with the Joint Plan, all draft policies are here screened in order to establish whether they are likely to have a potentially significant effect on a European Site.

Table 8 below shows the results of this screening exercise for the Joint Plan policies while Table 9 shows the results of the screening exercise for the Joint Plan sites.

Potential effects from all potential objectives and actions are categorised as follows, following Tyldesley, 2009:

-No negative effect: these are elements of the Plan that would have no negative effect on any European Site;

-No significant negative effect: these are elements of the Plan that could have an effect, but the likelihood is there would be no significant negative effect on a European Site either alone or in combination with other plans or projects. This category of effects includes trivial and '*de minimus*'[17] impacts;

-Likely significant effect alone: these elements of the Plan will require full appropriate assessment unless the plan can be modified in a way that reduces the effect to no significant negative effect or no negative effect;

-Likely to have a significant effect in combination: as with the above category, elements of the strategy categorised in this way will be subject to appropriate assessment unless the combined effect can be reduced to no significant negative effect or no negative effect.

Uncertain: this is where it is not possible to make a judgement on the likelihood of significant effects occurring. These impacts will require further investigation via an appropriate assessment if they cannot be clarified.

[17] Insignificant, negligible or of minor importance

Table 8: Screening of Joint Plan Policies

Note: All European sites within the Plan Area and a 15km buffer have been considered in this screening assessment. Further information regarding these European Sites, their features of interest and key threats to site integrity can be viewed in appendix 1

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
M01- Broad geographical approach to supply of aggregates.	This policy is not location specific so effects are uncertain as it depends upon where and how this policy is implemented. However, links to development management policies should minimise effects.	Potentially any European sites which are sensitive to aggregate extraction processes where a pathway exists between the site and aggregate extraction site.	No significant negative effect. Although the policy potentially allows extraction of aggregates from across the Plan Area, with the main focus being outside of designated landscapes, there are protections in the policy such as mitigation for environmental effects in AONBs. In addition, key links are made with the development management policies, including D01 to D10, which includes Policy D07 on biodiversity. This states "*A very high level of protection will be afforded to sites designated at an international or national level, including SPAs, SACs, RAMSAR sites and SSSIs. Development which would have an unacceptable impact on these sites will not be permitted".*	District Level/Unitary Authority Local Plans	No significant negative effect as this policy is unlikely to add to any existing or planned impacts as it links to policy D07.	
M02- Provision of sand and gravel	No possible pathway of impact as this policy relates to the calculation of provision of sand and gravel and no development would take place through the policy itself. Likely significant	None	No negative effect	None	No negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	impacts would therefore not occur as a result of this policy.					
M03- Overall distribution of sand and gravel provision	No possible pathway of impact as no development would take place through this policy itself. Development would take place through Policy M07 'Meeting Concreting Sand Requirements' and M08: 'Meeting Building Sand Requirements' which are both screened below. Likely significant impacts would therefore not occur as a result of this policy.	None	No negative effect	None	No negative in combination effects	
M04- Landbanks for sand and gravel	No direct pathway of impact as no development would take place through this policy itself. Development would take place through Policy M07: 'Meeting Concreting Sand Requirements' and M08: 'Meeting Building Sand Requirements' which are both screened below. Likely significant impacts would therefore not occur as a result of this policy. Indirectly the policy may amplify any impacts (if there are any) as there will be pressure to maintain a landbank.	None	No negative effect	None	No negative in combination effects. Although potentially this policy could amplify effects from MO7 and MO8, no significant effect is noted under those policies.	
M05- Provision of crushed rock	No possible pathway of impact as this policy relates to the calculation of provision of crushed rock and no development would take place through the policy itself. Development would take place through Policy M09: 'Meeting Crushed Rock Requirements' which is screened below. Likely significant impacts would therefore not occur as a result of this policy. Indirectly the policy may amplify any impacts (if there are any) as there will be pressure to maintain a landbank.	None	No negative effect	None	No negative in combination effects. Although potentially this policy could amplify effects from MO9, no significant effect is noted under that policy.	
M06- Landbanks for crushed rock	No possible pathway of impact as no development would take place through this policy itself. Development would take place through Policy M09: 'Meeting Crushed Rock Requirements' which is screened below. Likely significant impacts would therefore not	None	No negative effect	None	No negative in combination effects. Although potentially this policy could amplify effects from MO9, no significant effect is noted under	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	occur as a result of this policy. Indirectly the policy may amplify any impacts (if there are any) as there will be pressure to maintain a landbank.				that policy	
M07- Meeting concreting sand requirements	The main aspect of this policy is the allocation of sites. These have already been assessed in Table 9 (below). It was concluded that no likely significant effect would occur on Natura 2000 sites as a result of MJP21, MJP33, MJP17, MJP06, MJP07 and MJP14. The policy also refers to Areas of Search. Natura 2000 sites are excluded from Areas of Search and no significant effects on Natura 2000 sites were predicted during consideration of Areas of Search via the Sustainability Appraisal, so impacts are not expected	None	No significant negative effect	Harrogate District Core Strategy	No significant negative in combination effects	
M08- Meeting building sand requirements	The main aspect of this policy is the allocation of sites. These have already been assessed in table 9 and it was concluded that no likely significant effect would occur on Natura 2000 sites.	None	No significant negative effect	None	No significant negative in combination effects	
M09- Meeting crushed rock requirements	The main aspect of this policy is the allocation of preferred sites. These have already been assessed in table 9 and it was concluded that no likely significant effect would occur on Natura 2000 sites.	None	No significant negative effect	None	No significant negative in combination effects	
M10- Unallocated extensions to existing quarries	Any unallocated extensions would be required to be consistent with other development management policies in the plan including D07 Biodiversity and Geo-diversity which states that proposals will only be permitted where there will be no unacceptable impacts on biodiversity or geo-diversity including on statutory designated sites. Likely significant impacts would therefore not occur as a result of this policy.	None	No significant negative effect	None	No significant negative in combination effects	
M11- Supply of alternatives to land won primary aggregates	This policy refers to appropriately located sites but does not provide any specific guidance about where these	None	No significant negative effect	District Level/Unitary Authority Local Plans	No significant negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	may occur or what criteria would need to be met. However, the policy links to policy D07 Biodiversity and Geo-diversity which states that proposals will only be permitted where there will be no unacceptable impacts on biodiversity or geo-diversity including on statutory designated sites. Likely significant impacts would therefore not occur as a result of this policy.					
M12- Continuity of supply of silica sand	This policy states that extraction of Silica Sand at Blubberhouses Quarry would only be permitted subject to compliance with the Habitats Regulations. Extraction at both Blubberhouses and Burythorpe would also be required to be consistent with other development management policies in the plan including D07 Biodiversity and Geo-diversity which states that proposals will only be permitted where there will be no unacceptable impacts on biodiversity or geo-diversity including on statutory designated sites. Likely significant impacts would therefore not occur as a result of this policy.	North Pennine Moors SAC/SPA	No significant negative effect	North Yorkshire Local Transport Plan 4 includes reference to upgrading the A59 which runs close to the Blubberhouses Site.	No significant negative in combination effects As the policy does not generate likely significant effects on its own by definition the Plan cannot be said to generate cumulative effects. However, at a project level the potential for cumulative effects from the A59 should be considered for the Blubberhouses site. This issue could be referred to in the supporting text to the policy.	
M13- Continuity of supply of clay	The policy would be partly implemented through allocated sites including MJP45, MJP55 and MJP52. These have been screened in table 9. Proposals would be required to be consistent with other development management policies in the Plan including D07 Biodiversity and Geo-diversity which states that proposals will only be permitted where there will be no unacceptable impacts on biodiversity or geo-diversity including on statutory designated sites. Likely significant impacts would therefore not occur as a result of this policy.	None	No significant negative effect	None	No significant negative in combination effects	
M14- Incidental working of clay in association with other minerals	Incidental working of clay will only be	None	No significant negative	None	No significant negative	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	allowed where it would not significantly increase environmental impacts associated with the primary working. In addition key links with development management policies are noted, including a link to policy DO7: Biodiversity and Geo-diversity. Likely significant impacts would therefore not occur as a result of this policy.		effect		in combination effects	
M15- Continuity of supply of building stone	Generally effects on biodiversity would likely be of low magnitude as the policy is largely focussed on time extensions, re-openings and other smaller scale purposes. However, proposals would be required to be consistent with other (development management) policies in the plan including the requirements for major development in National Parks and AONBs. Likely significant impacts would therefore not occur as a result of this policy. No effects are predicted from site MJP63.	None	No significant negative effect	None	No significant negative in combination effects	
M16- Key spatial principals for hydrocarbon development	Under this policy, surface proposals for exploration, appraisal and production of conventional hydrocarbons and unconventional hydrocarbons will only be permitted where they are outside of SPAs, SACs and Ramsar Sites, while coal mine methane production would be supported on industrial, employment and former coal mining sites. In addition, subsurface proposals, such as lateral drilling will only be permitted where significant harm to the designated asset would not occur. This in effect removes the pathways for significant effects on these receptors to take place.	None	No negative effect	None	No significant negative in combination effects	
M17- Other spatial and locational criteria applying to hydrocarbon development	This policy deals with issues such as transport associated with hydrocarbons development, as well as pipelines. Such features could, through effects such as disturbance and pollution deposition, in theory could	None	No significant negative effect	None	No significant negative in combination effects. In addition, the policy includes specific protection from cumulative impacts	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	impact on Natura 2000 sites if they took place in areas where a 'pathway' to a Natura 2000 site exists. However, the policy includes a strong protection form the impacts of transported gas, which should be via pipelines routed to have least practicable environmental impact, while hydraulic fracturing proposals should reduce the need for transport by also being located close to an adequate water supply. In addition to these protections, the policy includes links to other policies in the Plan (including D07: 'Biodiversity and Geo-diversity'). Likely significant impacts would therefore not occur as a result of this policy.				with other existing, planned or unrestored hydrocarbons development.	
M18 - Other specific criteria applying to hydrocarbon development	This policy relates to the management of waste at hydrocarbon sites as well as decommissioning and restoration. In relation to management of waste, the policy requires that a 'high standard of environmental protection can be demonstrated': such a 'high standard' would be inconsistent with significant effects on Natura 2000 sites. In terms of decommissioning and restoration, these requirements would generally help to reduce any potential effects on the environment (and therefore Natura 2000 sites) and may even ultimately provide additional supporting habitat. However, links to the policies also require that policy D07 'Biodiversity and Geo-diversity' is considered. Likely significant impacts would therefore not occur as a result of this policy.	None	No significant negative effect	None	No significant negative in combination effects	
M19- Carbon and gas storage	Proposals for carbon capture and storage and the underground storage of gas would only be supported where	None	No significant negative effect	None	No significant negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	there would not be unacceptable adverse impacts on the environment. However, links to other policies also require that policy D07 'Biodiversity and Geo-diversity' is considered. Likely significant impacts would therefore not occur as a result of this policy.					
M20- Deep coal and disposal of colliery spoil	This policy requires that the effects of subsidence on environmental designations are monitored and controlled to prevent unacceptable impacts. Proposals relating to the surface development would also need to be consistent with other development management policies in the plan. Links to other policies also require that policy D07 'Biodiversity and Geo-diversity' is considered. Likely significant impacts would therefore not occur as a result of this policy.	None	No significant negative effect	None	No significant negative in combination effects	
M21- Shallow coal	Proposals would need to be consistent with other policies in the plan including D07 'Biodiversity and Geo-diversity' and a high standard of protection would be provided to internationally and nationally important nature conservation designations. Likely significant impacts would therefore not occur as a result of this policy.	None	No significant negative effect	None	No significant negative in combination effects	
M22- Potash and polyhalite supply	Proposals would be required to either meet the criteria for major development or, for surface development and infrastructure, would be required not to have an unacceptable impact on the special qualities of the National Park (in which all of the North York Moors SAC / SPA are contained) and its environment. While the policy has a reasonable likelihood of coinciding with European sites, the link to the development management policies would trigger the requirement to not allow unacceptable	North York Moors SAC / SPA	No significant negative effect.	None	No significant negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	effects at European sites highlighted at policy D07. In addition, subsidence resulting from sub surface activity would be monitored and controlled. Likely significant impacts would therefore be unlikely to occur as a result of this policy.					
M23- Supply of gypsum	Proposals would be required to be consistent with other development management policies in the plan. , including D07 'Biodiversity and Geo-diversity'. Likely significant impacts would therefore not occur as a result of this policy.	None	No significant negative effect	None	No significant negative in combination effects	
M24- Supply of vein minerals	Proposals would be required to be consistent with other development management policies in the plan including D07: 'Biodiversity and Geo-diversity' which states that proposals will only be permitted where there will be no unacceptable impacts on biodiversity or geo-diversity including on statutory designated sites. In addition, the policy requires particular regard for impacts on 'important habitats and species'. Likely significant impacts would therefore not occur as a result of this policy.	Given the location of the resource any impact would be on Natura 2000 sites in the North Pennines.	No significant negative effect	None	No significant negative in combination effects	
M25- Borrow Pits	Key links to other policies include D07: 'Biodiversity and Geo-diversity' which states that proposals will only be permitted where there will be no unacceptable impacts on biodiversity or geo-diversity including on statutory designated sites. Likely significant impacts would therefore not occur as a result of this policy.	None	No significant negative effect	None	No significant negative in combination effects	
W01- Moving waste up the waste hierarchy	No possible pathway of impact as no development would take place through this policy itself. Development would take place through other waste	None	No negative effect	None	No negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	policies, which are all screened below. Likely significant impacts would therefore not occur as a result of this policy.					
W02- Strategic role of the Plan area in the management of waste	No possible pathway of impact as no development would take place through this policy itself. Development would take place through other policies. Likely significant impacts would therefore not occur as a result of this policy.	None	No negative effect	None	No negative in combination effects	
W03- Meeting waste management capacity requirements - Local Authority Collected Waste	No pathways or receptors for effects are predicted from the sites listed in the policy. Other sites are subject to development management policies which would offer protection to European Sites should an impact be possible. In addition, Policy W11 requires that 'in all cases sites will need to be suitable when considered in relation to….environmental…and any cumulative impact from previous waste disposal facilities, in line with national policy'. This would be an added layer of protection for Natural 2000 sites.	None	No negative effect	None	No negative in combination effects	
W04- Meeting waste management capacity requirements – Commercial and Industrial Waste (including hazardous C&I waste)	No pathways or receptors for effects are predicted from the sites for recycling, transfer and treatment of waste listed in the policy. Similarly, providing strategic scale capacity for recovery of energy at Allerton Waste Recovery Park, Southmoor Energy Centre and the former ARBRE Power Station is unlikely to result in significant effects as these sites are distant from Natura 2000 sites. Downwind from the ARBRE site lies Thorne and Hatfield Moors SPA/SAC as well as the Humber Estuary SAC (both sites have already exceeded critical loads for Nitrogen and acidity), though both of these receptors are more than 10km away and pollution impacts are far more likely to come	Thorne and Hatfield Moor SAC/SPA; Humber Estuary SAC/SPA.	No significant negative effect	None	No significant negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	from the nearby motorway network[18]. Southmoor is even more distant, while Allerton Park is around 9km (upwind) from Kirk Deighton SAC with no evident pathways between it and the site. It should also be noted that generating energy from waste would offset the need to acquire energy from power stations (two of which, Eggborough and Drax are closer to the Humber and Thorne / Hatfield Natura 2000 sites). The policy also refers to provision of capacity for management of C&I waste at sites WJP13, WJP18, WJP17, WJP08, WJP15, WJP16, WJP22, WJP19 and WJP11. None of these sites are predicted to have likely significant effects on Natura 2000 sites.					
W05- Meeting waste management capacity requirements - Construction, Demolition and Excavation waste (including hazardous CD&E waste)	The policy seeks to achieve self-sufficiency in capacity for the management of CDE waste, however recycling CDE waste proposals and transfer station capacity must be consistent with policy W11 which requires that 'in all cases sites will need to be suitable when considered in relation to….environmental…and any cumulative impact from previous waste disposal facilities, in line with national policy'. Landfill capacity would need to be consistent with W01 parts 3 and 4 which limits opportunities for this kind of waste management for non-inert waste to where it is the only practicable option and insufficient capacity in the Plan area is not available. Policy WO1 links to policy	Any which are local to a future site.	No significant negative effect. An improbable risk is highlighted as a future CDE waste management site may create some local noise, dust or potentially changes to local hydrology. While in practice effects are unlikely (so this is not a 'likely significant effect') a precautionary measure could be added to remove any possible risk by ensuring that that this policy includes an explicit link	None	No negative in combination effects	

[18] Pollution from energy from waste stacks drops significantly with distance (though dispersion is dependent on a range of factors such as topography, wind speed, stack height etc.) Essex County Council has cited Environment Agency Integrated Pollution Prevention and Control guidance in the Habitat Regulations Assessment of Essex Waste DPD. This states "The Environment Agency guidance on screening point-source pollution emitters (such as larger incinerators) for more detailed assessment lists the presence of a SSSI or Natura 2000 site within 10km as one of the indicators that detailed assessment (i.e. dispersion modelling) may be required. The implication of this is that the emissions of a point source can normally be considered inconsequential on sites located more than 10km distant" (URS Scott Wilson, 2011, Essex Waste Development Document: Preferred Approach – HRA Screening Report [URL: essex.gov.uk/Environment%20Planning/Planning/Minerals-Waste-Planning-Team/Planning-Policy/Documents/Habitat%20Regulations%20Assessment%20-%20Preferred%20Approaches%202011.pdf]

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	D07 which gives protection to designated sites. While in principle this provides sufficient protection, the lack of a direct reference to policy D07 in the key links to other policies may add a small amount of doubt that the CDE waste has the potential to impact on Natura 2000 sites. Effects such as noise and dust pollution are the most likely impacts, though clearly such effects are quite local to any CDE sites, so impacts are in practice highly improbable. Similarly landfill might also lead to effects on the local hydrological regime (though in practice other regulatory controls (licensing) would avoid this risk). A number of allocations (WJP23, WJP08, MJP27, MJP26, WJP10, WJP05) are referred to for recycling of CDE waste, and WJP21, WJP05 and WJP06 are allocated for landfill. None of these allocations are predicted to have likely significant effects on Natura 2000 sites.		to the development management policies for amenity, water and biodiversity (D02; D07 and D09) in the key links to other relevant policies section.			
W06- Managing agricultural waste	Proposals would be required to be consistent with policy W11 which requires that 'in all cases sites will need to be suitable when considered in relation to….environmental…and any cumulative impact from previous waste disposal facilities, in line with national policy'. Likely significant impacts would therefore not occur as a result of this policy. A potential impact that may not be fully appreciated through the planning process is, however, the nutrient enriched run off that may occur from	Humber Estuary Ramsar Site; Humber Estuary SAC; Humber Flats, Marshes and Coast SPA; Lower Derwent Valley SAC; Lower Derwent Valley SPA; Lower Derwent Valley Ramsar Site; Kirk Deighton SAC	No significant negative effect. While a theoretical risk may exist from run off from storage on farm waste, the policy is already considered to be sufficiently protected through links to policy W11 and any risk would most likely, on its own, be negligible.	Application of fertilizers generally within Nitrate Vulnerable Zones.	Uncertain. A cumulative risk to water might be possible in Nitrate Vulnerable Zones which could affect Natura 2000 sites which are susceptible to nutrient enrichment of water bodies. The contribution of the policy is thought to be minimal, given the environmental permitting regime and	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	agricultural waste facilities where agricultural waste is stored, for instance for composting. Consistency with policy W11 should protect against this. But an additional protection could be added through links to the water environment development management policy (D09).				protections already within the policy. However, as an additional measure a link to policy D09 would help reduce impacts to non-significant levels.	
W07- Managing low level (non-nuclear) radioactive waste	Impacts from this are likely to be very small and below any significance threshold. In addition, Policy W11 and other relevant policies in the plan (including the linked biodiversity policy D07) are referenced in the policy.	Hydrologically linked or otherwise sensitive sites.	No significant negative effect	District Level/Unitary Authority Local Plans Waste Plans of surrounding / nearby authorities(where low level (non-nuclear) radioactive waste may be exported to)	No significant negative in combination effects. Earlier assessment considered that it was theoretically possible (though not very likely) that the insignificant effects of this policy could become significant if this policy made a larger site more viable in a location that could impact on a hydrological linked or otherwise sensitive Natura 2000 site (though it is likely that the permitting regime would address this). However the policy now includes links to policy D07, and other relevant policies report no significant effect (e.g. M18, W04) which reduces the possibility of significant in-combination impacts.	
W08- Managing waste water (sewage sludge)	This policy is not location specific (it is not clear where new infrastructure would be located). Effects such as accidental water pollution (e.g. during a flood event) could affect adjacent watercourses. However, proposals for	River Derwent SAC / Humber Estuary SAC/SPA	No significant negative effects	District Level/Unitary Authority Local Plans Waste Water Infrastructure Providers Asset Management Plans	No significant negative in combination effects.	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	new sites would be required to be consistent with policy W11 which requires that 'in all cases sites will need to be suitable when considered in relation to….environmental…and any cumulative impact from previous waste disposal facilities, in line with national policy'. In addition, co-location with anaerobic digestion facilities would need to be compliant with development management policies in the Plan. Likely significant impacts would therefore not occur as a result of this policy.					
W09- Managing power station ash	This policy encourages the use of power station ash as a secondary aggregate thereby reducing the demand for primary materials. Where power station ash cannot be used for beneficial purposes, it will be disposed of in line with current arrangements. Likely significant impacts would therefore not occur as a result of this policy. Neither Gale Common nor Barlow Common has any obvious pathways to Natura 2000 sites.	None	No likely significant negative effect	None	No significant negative in combination effects	
W10- Overall locational principles for provision of new waste capacity	Proposals for development of capacity at new sites would be required to be in line with Policy W11 which states that sites would need to be suitable when considered in relation to environmental constraints. Development within the National Park and AONBs would only be allowed where it would not cause unacceptable harm to the designated area. The policy also maximises capacity at existing sites which should reduce the need for new sites (unless maximising capacity brings its own effects though this is thought unlikely as specific pathways have not been	None	No significant negative effect. Although significant impacts are considered unlikely the policy could be strengthened by the inclusion of links to the development management policy for biodiversity (DO7) in the 'key links to other policies'.	None	No significant negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	identified). Likely significant impacts would therefore not be expected to occur as a result of this policy.					
W11- Waste site identification principles	This policy sets out a number of principles for the identification of new waste site capacity. The policy requires that all sites are suitable when considered in relation to environmental constraints and in line with national policy. Likely significant impacts would therefore not occur as a result of this policy.	None	No significant negative effect	None	No significant negative in combination effects	
I01- Minerals and Waste Transport infrastructure	Although not explicitly stated in the policy, proposals would be required to be consistent with other development management policies in the Plan which would minimise effects from this policy (which is, in any case, indirectly positive as it reduces traffic on roads). There are also links to development management policies such as D02 which would reduce a wide range of environmental effects (such as noise and dust) which would also reduce effects on Natura 2000 sites. In addition, the allocation at MJP09 is considered to have no likely significant effects. Likely significant impacts would therefore not be likely to occur as a result of this policy.	None	No significant negative effect. Although likely significant impacts are considered to not occur the policy could be strengthened by the inclusion of links to the development management policy for biodiversity (DO7) in the 'key links to other policies' section.	None	No significant negative in combination effects	
I02- Locations for ancillary minerals infrastructure	The policy would only allow development of ancillary minerals infrastructure where it does not create significant additional adverse impact on the environment. Likely significant impacts on a Natura 2000 site would therefore not occur as a result of this policy.	None	No significant negative effect	None	No significant negative in combination effects	
S01- Safeguarding Mineral Resources	This policy relates to safeguarding minerals resources (ensuring that they are not sterilised for future use by conflicting developments) rather than promoting their extraction. The NPPF states that there is no presumption that resources defined in safeguarding	None	No negative effect	None	No significant negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	policies will be worked. Likely significant impacts on a Natura 2000 site would therefore not occur as a result of this policy.					
S02- Developments proposed within Minerals Safeguarding Areas	Although there is some overlap between Natura 2000 sites and Minerals Safeguarding Areas (MSA) this policy would only allow prior extraction of the mineral provided that there are no 'unacceptable adverse impacts on the environment'. This should prevent any significant effects on Natura 2000 sites.	Any sites coinciding with a MSA.	No negative effect	None	No significant negative in combination effects	
S03- Waste management facility safeguarding	This policy relates to safeguarding waste management sites ensuring that they are not sterilised for future use by conflicting developments by use of a 250m buffer zone. This policy is likely to prevent incompatible development within 250m of a safeguarded waste site. No safeguarded waste management sites lie within 250m of a Natura 2000 site, and in any case this policy would lessen rather than increase development in that area. No likely significant effects are, therefore, observed.	None	No negative effect	None	No significant negative in combination effects	
S04- Transport infrastructure safeguarding	This policy relates to safeguarding transport infrastructure ensuring that it is not sterilised for future use by conflicting developments by use of a 100m buffer zone. The NPPF states that there is no presumption that resources/infrastructure defined in safeguarding policies will be developed. No safeguarded ancillary infrastructure sites lie within 100m of a Natura 2000 site, and in any case this policy would lessen rather than increase development in that area. Likely significant impacts on a Natura	None	No negative effect	None	No negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	2000 site would therefore not occur as a result of this policy.					
S05- Minerals ancillary infrastructure safeguarding	This policy relates to safeguarding minerals ancillary infrastructure ensuring that it is not sterilised for future use or replaced by conflicting developments. The NPPF states that there is no presumption that resources/infrastructure defined in safeguarding policies will be developed. No safeguarded ancillary infrastructure sites lie within 100m of a Natura 2000 site, and in any case this policy would lessen rather than increase development in that area. Likely significant impacts on a Natura 2000 site would therefore not occur as a result of this policy.	None	No negative effect	None	No negative in combination effects	
S06- Consideration of applications in Consultation Areas	No possible pathway of impact as no development would take place through this policy itself which requires consultation between the district councils and county council. Likely significant impacts on a Natura 2000 site would therefore not occur as a result of this policy.	None	No negative effect	None	No negative in combination effects	
D01- Presumption in favour of sustainable minerals and waste development	This policy reflects the presumption in favour of sustainable development in the NPPF. The NPPF explicitly excludes development that would have an adverse impact on European sites from the presumption in favour of sustainable development. Likely significant impacts on a European Site would therefore not occur as a result of this policy.	None	No significant negative effect	None	No significant negative in combination effects	
D02- Local amenity and cumulative impacts	This is a development management policy. Development would not take place through the policy itself (rather through the relevant minerals, waste or infrastructure policy) and no pathway for likely significant effects on European Sites exists.	None	No negative effect	None	No negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
D03- Transport of minerals and waste and associated traffic impacts	This is a development management policy. Development would not take place through the policy itself (rather through the relevant minerals, waste or infrastructure policy) and no pathway for likely significant effects on European Sites exists.	None	No negative effect	None	No negative in combination effects	
D04- North York Moors National Park and the AONBs	This policy states that major development within the National Park and AONBs will be refused except in exceptional circumstances. Consideration would be given to any detrimental effect on the environment in such exceptional circumstances. All other proposals in National Parks and AONBs would also be required to be consistent with other development management policies in the plan including D07: 'Biodiversity and Geo-diversity' which states that proposals will only be permitted where there will be no unacceptable impacts on biodiversity or geo-diversity including on statutory designated sites. Likely significant impacts would therefore not occur as a result of this policy.	Natura 2000 sites in National Parks	No significant negative effect	None	No significant negative in combination effects	
D05- Minerals and waste development in the Green Belt	This is a development management policy for Green Belt areas. Development would not take place through the policy itself (rather through the relevant minerals, waste or infrastructure policy) and no pathway for likely significant effects on European Sites exists.	Natura 2000 sites in the Green Belt.	No negative effect	None	No negative in combination effects	
D06- Landscape	This is a development management policy. Development would not take place through the policy itself (rather through the relevant minerals, waste or infrastructure policy) and no pathway for likely significant effects on European Sites exists.	None	No negative effect	None	No negative in combination effects	
D07- Biodiversity and geo-diversity	This is a positive development management policy which requires a very high level of protection to be afforded to designated sites and aims	None	No significant negative effect	None	No significant negative in combination effects	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	to achieve net gains for biodiversity and geo-diversity.					
D08- Historic environment	This is a development management policy. Development would not take place through the policy itself (rather through the relevant minerals, waste or infrastructure policy) and no pathway for likely significant effects on European Sites exists.	None	No negative effect	None	No negative in combination effects	
D09- Water environment	This is a development management policy. Development would not take place through the policy itself (rather through the relevant minerals, waste or infrastructure policy) and no pathway for likely significant effects on European Sites exists.	None	No negative effect	None	No negative in combination effects	
D10- Reclamation and after use	This policy in effect requires that restoration and after use proposals should aim to maximise overall benefits and minimise overall adverse impacts. Proposals should also aim to deliver enhancements for biodiversity and improvements to habitat networks and connectivity. It is therefore considered to be a positive development management policy which provides no pathway for likely significant negative effects on European Sites.	None	No significant negative effect	None	No significant negative in combination effects	
D11- Sustainable design, construction and operation of development	This policy outlines design and other qualitative criteria for minerals and waste development and would not itself lead to development. Likely significant negative impacts would therefore not occur as a result of this policy. Indeed the policy is likely to lead to wider scale benefits such as a reduced contribution to climate change, which would have a beneficial effect.	None	No negative effect	None	No negative in combination effects	
D12- Protection of agricultural land and soils	This is a development management policy. Development would not take	None	No negative effect	None	No negative in	

Plan Policy	Possible impact of Policy on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	place through the policy itself (rather through the relevant minerals, waste or infrastructure policy) and no pathway for likely significant effects on European Sites exists.				combination effects	
D13- Consideration of applications in Development High Risk Areas	This is a development management policy. Development would not take place through the policy itself (rather through the relevant minerals, waste or infrastructure policy) and no pathway for likely significant effects on European Sites exists.	None	No negative effect	None	No negative in combination effects	

Table 9: Screening of Joint Plan Sites

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
MJP05 Lawrence House Farm (Jeffries) (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	14km W - North Pennine Moors SPA/SAC	None	As site MJP05 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP06 Langwith Hall Farm (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	10km W- North Pennine Moors SPA/SAC	None	No negative effect	None	No negative in combination effects	
MJP07 Oaklands (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	9.5km W - North Pennine Moors SAC, SPA	None	No negative effect	None	No negative in combination effects	
MJP08 Settrington Quarry (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	3.5km NW- River Derwent SAC	None	No negative effect	None	No negative in combination effects	
MJP09 Barlby Road (ALLOCATED SITE)	This potential allocation is for the continuation of an existing facility; no additional development is proposed. No likely significant effects.	4km NE- Skipwith Common SAC, 7km E- River Derwent SPA/SAC/Ramsar, 11.5km SE - Humber estuary SPA/SAC/Ramsar	None	No negative effect	None	No negative in combination effects	
MJP10 Potgate Quarry (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	8km W - North Pennine Moors SPA/SAC	None	No negative effect	None	No negative in combination effects	
MJP11 Gebdykes (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	6km W- North Pennine Moors SPA/SAC	None	No negative effect	None	No negative in combination effects	
MJP12 Whitewall Quarry (DISCOUNTED SITE)	While the site is relatively close to the River Derwent there is no apparent surface water connectivity. However, the recent nearby application's[19] Committee Report (see references / notes column) highlights concerns raised over pollution of groundwater	1.38km NW- River Derwent SAC	River Derwent SAC	As site MJP12 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			North Yorkshire County Council Planning and Regulatory Functions Committee, 2015. C3/13/00086/CPO- Planning Application for the purposes of the

[19] For an Asphalt Production Plant and the creation of Aggregate Storage Bins

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	due to removal of some of the protection for the aquifer. This may also present a risk to the nearby River Derwent if there is a link between it and underlying groundwater. However, the recommendation made in the Committee Report that the issue for that current application be resolved through an environmental permit and would likely be resolved through routine measures to prevent fuel spills means that impacts at this site are also likely to be readily avoidable. No further pathways have been identified that are likely to give rise to significant effects.						installation of an Asphalt Production Plant and the creation of Aggregate Storage Bins (5 No.) on land at Whitewall Quarry, Whitewall Corner Hill, Norton on behalf of W Clifford Watts Limited (Ryedale District) (Norton Electoral Division): Report of the Corporate Director – Business and Environmental Services
MJP13 Whitewall Quarry- Recycling (DISCOUNTED SITE)	While the site is relatively close to the River Derwent there is no apparent surface water connectivity. However, the recent nearby application's[20] Committee Report (see references / notes column) highlights concerns raised over pollution of groundwater due to removal of some of the protection for the aquifer. This may also present a risk to the nearby River Derwent if there is a link between it and underlying groundwater. However, the recommendation made in the Committee Report that the issue for that application be resolved through an	1.4km W - River Derwent SAC	River Derwent SAC	As site MJP13 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of the Plan. Any planning application at this site would need to be consistent with Plan policies, which include the need for consistency with the Habitats Regulations.			North Yorkshire County Council Planning and Regulatory Functions Committee, 2015. C3/13/00086/CPO- Planning Application for the purposes of the installation of an Asphalt Production Plant and the creation of Aggregate Storage Bins (5 No.) on land at Whitewall Quarry, Whitewall Corner Hill, Norton on behalf of W Clifford Watts Limited (Ryedale

[20] For an Asphalt Production Plant and the creation of Aggregate Storage Bins

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	environmental permit and would likely be resolved through routine measures to prevent fuel spills means that impacts at this site are also likely to be readily avoidable. No further pathways have been identified that are likely to give rise to significant effects.						District) (Norton Electoral Division): Report of the Corporate Director – Business and Environmental Services
MJP14 Ripon Quarry (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	10km W - North Pennine Moors SPA/SAC	None	No negative effect	None	No negative in combination effects	
MJP15 Blubberhouses (DISCOUNTED SITE)	The site lies adjacent to the North Pennine Moors SAC/SPA and is likely to have an impact on this designated site. An Appropriate Assessment is currently underway in order to establish whether this impact will be significant.	North Pennine Moors SAC/SPA adjacent to site to the west, north and south, 8km S- South Pennine Moors SAC/SPA	North Pennine Moors SAC/SPA	As site MJP15 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of the Plan. Any planning application at this site would need to be consistent with Plan policies, which include the need for consistency with the Habitats Regulations.			
MJP17 Land South of Catt Erick (ALLOCATED SITE WITH PART OF SITE EXCLUDED)	No pathways have been identified that are likely to give rise to significant effects.	13km W- North Pennine Moors SPA/SAC	None	No negative effect	None	No negative in combination effects	
MJP21 Killerby (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	14km W - North Pennine Moors SPA/SAC	None	No negative effect	None	No negative in combination effects	
MJP22 Hens all Quarry (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	10km NE- River Derwent SAC, 12km SE - Thorne Moor SAC/SPA, 14.5km E - Humber Estuary Ramsar/SAC/SPA	None	No negative effect	None	No negative in combination effects	
MJP23 Jackdaw Crag (ALLOCATED SITE WITH PART OF SITE EXCLUDED)	No pathways have been identified that are likely to give rise to significant effects.	11km NW- Kirk Deighton SAC	None	No negative effect	None	No negative in combination effects	
MJP24 Darrington Plant (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant	None within 15km	None	No negative effect	None	No negative in combination effects	

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	effects.						
MJP26 Barnsdale Bar- Recycling (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	None within 15km	None	No negative effect	None	No negative in combination effects	
MJP27 Darrington Quarry (recycling) (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	None within 15km	None	No negative effect	None	No negative in combination effects	
MJP28 Barnsdale Bar Quarry (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	None within 15km	None	No negative effect	None	No negative in combination effects	
MJP29 Went Edge Quarry (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	None within 15km	None	No negative effect	None	N No negative in combination effects	
MJP30 West Heslerton Quarry (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	9km W- River Derwent SAC, 10km NW - Ellers Wood and Sand Dale SAC	None	No negative effect	None	No negative in combination effects	
MJP31 Old London Road- Fawcett (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	12km NW- Kirk Deighton SAC	None	As site MJP31 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP32 Barsneb Wood, Hob Green (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	8km NW- North Pennine Moors SPA/SAC	None	As site MJP32 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP33 Home Farm (ALLOCATED SITE WITH PART OF SITE EXCLUDED)	No pathways have been identified that are likely to give rise to significant effects.	10.5km NW- North Pennine Dales Meadows SAC	None	No negative effect	None	No negative in combination effects	
MJP34 – Land between Sandsend and Scarborough (DISCOUNTED SITE)	The site could potentially have effects through processes ranging from land take resulting in habitat loss, subsidence, hydrological effects, smothering from dust etc. However, This site has not been allocated, therefore the scope of the Plan to	North York Moors SAC and North York Moors SPA overlap with part of this large site. Ellers Wood and Sand Dale SAC is 8.6km W.		As site MJP34 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of the Plan. Any planning application at this site would need to be consistent with Plan policies, which include the need for consistency with the Habitats Regulations			

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	affect the development can only be influenced through the wider potash and polyhalite supply policy (M22) as well as other relevant policies in the plan (including for major development in protected landscapes (D04: North York Moors National Park and the AONBs)). Taken together these policies would not allow unacceptable effects on a European Site.						
MJP35 Ruddings Farm (DISCOUNTED SITE)	Kirk Deighton SAC is notified for its breeding population of great crested newt. The site is over 2km away from Kirk Deighton, which is beyond the 500m indicator for ponds and habitat refuges employed by English Nature's Great Crested Newt Mitigation Guidelines, while intervening habitat is generally less favourable (i.e. a large expanse of arable farmland with few hedgerows and barriers such as roads). In terms of hydrology this site is 2.14km away from the SAC meaning that, given the size of the site in terms of output effects are considered unlikely[21].	2.14km SW- Kirk Deighton SAC	Kirk Deighton SAC	As site MJP35 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of the Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			See also Environment Agency, 2013. Swale, Ure, Nidd and Upper Ouse Licensing Strategy [URL: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/307283/lit_7868_513802.pdf] and Wharfe and Lower Ouse Abstraction Licensing Strategy [URL: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/307293/lit_7869_9e54a7.pdf]

[21] The Environment Agency Hydrological Impact Appraisal guidance includes a useful list of default areas for water feature surveys, which suggests that, as a starting point a survey area should be 2km in radius if the amount of water taken out of the aquifer is between 3,000 and 5,000 cubic metres per day, though local conditions should also be considered, particularly if 'sensitive abstractions or environmental features are located just beyond the specified radius; the aquifer is confined; or where there is a high degree of uncertainty about the aquifer characteristics' . In this making this assessment we have compared this site to 2 other sand and gravel sites, Newbold Quarry in Staffordshire where the intention is to extract 13.5 million tonnes of sand and gravel, and Swinderby Airfield quarry, where the intention is to extract 5.76 million tonnes. The former has a predicted extraction of water of 22,257 m3/day, though is clearly over 6 times bigger than this site. The latter, which is around twice as big, would extract 3,400 m3/day. This means that it is not usual for sand and gravel sites of this size to extract several thousand m3/day which could mean that impacts are possible up to 2km. As the Environment Agency guidance suggests extending search areas beyond 2 km for

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	However, local conditions may vary, so considering the source-pathway-receptor approach the hydrological impact on this site should be investigated, or specific policy wording should be formulated to ensure an impact would not occur.						
MJP37 Moor Lane Farm (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	10km SW- Kirk Deighton SAC	None	As site MJP37 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP38 Mill Cottages (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	9km W- North Pennine Moors SPA/SAC	None	As site MJP38 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP39 Quarry House (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	8.5km W- North Pennine Moors SPA/SAC	None	As site MJP39 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP41 Scalibar Farm (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	4.5km SE- Kirk Deighton SAC	None	As site MJP41 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP43 Scruton (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	13.5KM NW- North Pennine Dales Meadows SAC, 13.5km SW- North Pennine Moors	None	As site MJP43 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP44 Land between Great Heck and Pollington Airfield (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	10km SE- Thorne Moor SAC/SPA, 10km NE - River Derwent SAC, 14km E- Humber Estuary	None	No negative effect	None	No negative in combination effects	

sensitive sites just beyond 2km this means that an impact cannot be ruled out until information about both the aquifer characteristics and the expected dewatering rate are clarified. However, it is likely that any impact could be moderated to an insignificant effect through mitigation. (Sources: Environment Agency, 2007. Hydrogeological impact appraisal for groundwater abstractions: Science Report SCO40020/SR2 [URL: gov.uk/government/uploads/system/uploads/attachment_data/file/291083/scho0407bmah-e-e.pdf] / CEMEX, 2014. Water Management Plan for Proposed Quarry at Swinderby Airfield [URL: parishes.lincolnshire.gov.uk/Files/Parish/697/Water_management_plan_v14_1_final.pdf] / Aggregate Industries, 2011, Newbold Quarry Southwest Extension Site Water Management Plan.)

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
		Ramsar/SAC/SPA					
MJP45 Hemingbrough (ALLOCATED SITE)	Although this site lies in relatively close proximity to the River Derwent SAC, no pathways have been identified between MJP45 and this European Site (particularly as clay is an aquitard so impacts from groundwater are considered to be insignificant). Significant impacts are therefore not anticipated.	2km E- River Derwent SAC, 4.8km N- Skipwith Common SAC, 7km SE- Humber Estuary SAC/SPA/Ramsar, 12.5km SE- Thorne Moor SAC/SPA	None	No negative effect	None	No negative in combination effects	
MJP46 Kiplin Plant (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	10KM NW - North Pennine Dales Meadows	None	As site MJP46 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP49 Metes Lane (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	13km SE- Flamborough Head SAC	None	As site MJP49 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP50 Sands Wood (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	4.3km W- River Derwent SAC, 10km N- Ellers Wood and Sand Dale SAC	None	As site MJP50 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP51 Great Givendale (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	12km W- North Pennine Moors SPA/SAC	None	As site MJP51 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP52 Duttons Farm (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	10km NE- Strensall Common SAC, 14.8km SW- Kirk Deighton SAC	None	No negative effect	None	No negative in combination effects	
MJP53 Old London Road- White Quarry Farm (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	11.5km NW- Kirk Deighton SAC	None	As site MJP53 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP54 Mill Balk (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	12km SE- Thorne Moor SPA/SAC, 11.5km NE- River Derwent SAC	None	No negative effect	None	No negative in combination effects	

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
MJP55 Escrick Brickworks (ALLOCATED SITE)	Skipwith Common SAC lies in relatively close proximity to the site and relies on the maintenance of water levels to maintain wet heath communities. Considering the source-pathway-receptor approach it is considered unlikely that there would be a significant impact on this site as the site lies beyond the search area for groundwater impacts associated with withdrawal of up to 5000 m3/day of water and at the outer edge of any search area for water abstractions above 5,000 m3/day[22]. Although any water withdrawal is as yet unknown this should be considered together with the fact that clay is an aquitard with low hydraulic conductivity, so impacts on the water table are likely to be limited. Water impacts are far more likely to be related to surface water and so are considered to be more local in nature.	3.25km SE (from main site) / 3 km from southern outlier site - Skipwith Common SAC, 7km E- Lower Derwent Valley SAC/SPA/Ramsar,	Skipwith Common SAC	No - Effects are seen as highly unlikely based on the information provided (though any planning application should seek to confirm this when hydrology is considered).	None	No negative in combination effects	
MJP58 Old London Road- recycling (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	12km NW- Kirk Deighton SAC	None	As site MJP58 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP59 Spikers Quarry (DISCOUNTED SITE)	Although there is connectivity between MJP59 and the River Derwent (via a steep hill), the River Derwent does not become a European Site until in excess of 20km downstream. It is therefore	12km N - North York Moors SAC, 12km W - Ellers Wood and Sand Dale SAC, 12.5km NE- Beast Cliff-Whitby SAC	None	As site MJP59 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			

[22] Based on the Environment Agency Hydrological Impact Assessment Guidance referred to at footnote 20.

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	considered that dilution effects along with a limited number of sources for pollution (assuming that the environmental permitting process operates effectively) means that likely significant impacts are not anticipated.						
MJP60 Land west of Kirkby Fleetham (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	11km NW- North Pennine Dales Meadows, 15km W- North Pennine Moors SPA/SAC	None	As site MJP60 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP62 Toft Hill (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	8.9km NW- North Pennine Dales Meadows	None	As site MJP62 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
MJP63 Brows Quarry (ALLOCATED SITE)	Due to the limited size of the site and small scale of building stone extraction combined with limited pathways for pollutants (any minor risk from fuel spills could be easily mitigated by existing development management policies and would likely be low scale in any case) it is considered unlikely that there would be a significant impact on the River Derwent SAC. The adjacent site has been quarried previously without impact on the water table[23] and it is thought highly unlikely there would be a hydrological impact on the conservation objectives of the SAC given the very small scale of this site when compared to the large catchment of the Derwent,	River Derwent SAC 260m SE	River Derwent SAC	No (though routine measures to mitigate for the risk of accidental fuel spills should be observed by the Plan).	None	No negative in combination effects	

[23] See North Yorkshire County Council. Planning Application NY/2007/0293/FUL [URL: https://onlineplanningregister.northyorks.gov.uk/register/PlanAppDisp.aspx?recno=5138]

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	and the likelihood that the site would not be worked below the water table.						
MJP64 Cropton Quarry (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	North York Moors is 3.9km N	None	As site MJP64 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
WJP01 Hillcrest, Harmby (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	4km- North Pennine Moors SAC/SPA, 12km North Pennine Dales Meadows SAC/SPA	None	As site WJP01 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
WJP02 Former North Selby Mine (ALLOCATED SITE)	The approved planning application did not identify any significant effects on international sites. No pathways have been identified that are likely to give rise to significant effects	Lower Derwent Valley SAC/SPA/Ramsar is 5km east	None	No negative effect	None	No negative in combination effects	
WJP03 Southmoor Energy Centre, Former Kellingley Colliery (ALLOCATED SITE)	The approved planning application did not identify any significant effects on international sites. No pathways have been identified that are likely to give rise to significant effects.	None within 15km.	None	No negative effect	None	No negative in combination effects	
WJP04 Old London Road (DISCOUNTED SITE)	No pathways have been identified that are likely to give rise to significant effects.	12km NW- Kirk Deighton SAC	None	As site WJP04 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of this Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			
WJP05 Field to North of Duttons Farm (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	10km NE- Strensall Common SAC, 14.8km SW- Kirk Deighton SAC	None	No negative effect	None	No negative in combination effects	
WJP06 Escrick Brickworks (ALLOCATED SITE)	Skipwith Common SAC lies in relatively close proximity to the site and relies on the maintenance of water levels to maintain wet heath	3.5km SE- Skipwith Common SAC, 7km E- Lower Derwent Valley SAC/SPA/Ramsar,	None	No- Effects are seen as highly unlikely based on the information provided (though any planning application should seek to	Selby Core Strategy and Selby Site Allocations Development Plan DPD	No negative in combination effects	

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	communities. Considering the source-pathway-receptor approach it is considered unlikely that there would be a significant impact on this site as the site is a former clay site and clay is an aquitard with low hydraulic conductivity, so impacts on the water table are likely to be limited. In addition, the environmental permitting regime and the strict requirements for lining waste disposal sites and disposing of water means that groundwater impacts are unlikely, and more likely to be related to surface water and so are considered to be more local in nature (as there is no significant surface water connectivity between the site and Natura 2000 sites).			confirm this when hydrology is considered).			
WJP08 Allerton Park (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	9km S- Kirk Deighton SAC	None	No negative effect	None	No negative in combination effects	
WJP09 Whitewall- MRF (DISCOUNTED SITE)	While the site is relatively close to the River Derwent there is no apparent surface water connectivity. However, the recent nearby application's[24] Committee Report (see references / notes column) highlights concerns raised over pollution of groundwater due to removal of some of the protection for the aquifer. This may also present a risk to the nearby River Derwent if there is a link between it and	1.4km W - River Derwent SAC	River Derwent SAC	As site WJP09 has been discounted from site allocations further appropriate assessment for the site is not necessary for the purposes of the Plan. Any planning application at this site would need to be consistent with Plan policies, which require a very high level of protection for SPAs, SACs and Ramsar Sites			North Yorkshire County Council Planning and Regulatory Functions Committee, 2015. C3/13/00086/CPO- Planning Application for the purposes of the installation of an Asphalt Production Plant and the creation of Aggregate Storage Bins (5 No.) on land

[24] For an Asphalt Production Plant and the creation of Aggregate Storage Bins

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	underlying groundwater. However, the recommendation made in the Committee Report that the issue for the current application be resolved through an environmental permit and would likely be resolved through routine measures to prevent fuel spills means that impacts at this site are also likely to be readily avoidable. No further pathways have been identified that are likely to give rise to significant effects.						at Whitewall Quarry, Whitewall Corner Hill, Norton on behalf of W Clifford Watts Limited (Ryedale District) (Norton Electoral Division): Report of the Corporate Director – Business and Environmental Services
WJP10 Went Edge- Recycling (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	None within 15km	None	No negative effect	None	No negative in combination effects	
WJP11 Harewood Whin (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	11km NE- Strensall Common SAC, 13.5km W- Kirk Deighton SAC	None	No negative effect	None	No negative in combination effects	
WJP13 Halton East (ALLOCATED SITE)	Due to the nature of the proposal to continue existing operations it is unlikely that there would be any significant effect.	1.3km - North Pennine Moors SAC/SPA, 7km SE- South Pennine Moors SPA/SAC, 12km NW- Craven Limestone Complex SAC, 10km N- North Pennine Dales Meadows SAC	None	No negative effect	None	No negative in combination effects	
WJP15 Seamer Carr (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	13km SE- Flamborough Head SAC	None	No negative effect	None	No negative in combination effects	
WJP16 Common Lane Burn (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	8.5km NE- Skipwith Common SAC, 7.5km E- River Derwent SAC/SPA/Ramsar, 13km SE- Humber Estuary SAC/SPA/Ramsar	None	No negative effect	None	No negative in combination effects	
WJP17 Skibeden (ALLOCATED SITE)	The distance between this	2.2km- North Pennine	None	No negative effect	None	No negative in	

Site	Possible impact of Site on European Site (sources / pathways)	European Sites within 15km	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
	site and the nearest European Site and the type of development mean that significant impacts are unlikely.	Moors SPA/SAC, 7KM SE- South Pennine Moors SAC/SPA, 12km NW- Craven Limestone Complex SAC, 10km N- North Dales Pennine Meadows				combination effects	
WJP18 Tancred (ALLOCATED SITE)	The distance between this site and the nearest European Site and the type of development mean that significant impacts are unlikely.	6km W- North Pennine Dales Meadows SAC, 13km W- North Pennine Moors SAC/SPA	None	No negative effect	None	No negative in combination effects	
WJP19 Whitby (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	4km SW- North York Moors SAC/SPA, 6.5km SE- Beast Cliff-Whitby SAC	None	No negative effect	None	No negative in combination effects	
WJP21 Brotherton (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	None within 15km	None	No negative effect	None	No negative in combination effects	
WJP22 Land on former Pollington Airfield (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	10km SE- Thorne Moor SAC/SPA, 10km NE- River Derwent SAC, 14km E- Humber Estuary SAC/SPA/Ramsar	None	No negative effect	None	No negative in combination effects	
WJP24 Potgate (former plant site), North Stainley (ALLOCATED SITE)	No pathways have been identified that are likely to give rise to significant effects.	North Pennine Moors SAC / SPA is 9 km W	None	No negative effect	None	No negative in combination effects	
WJP25 Former ARBRE Power Station, Eggborough (ALLOCATED SITE)	The approved planning application did not identify any significant effects on international sites. No pathways have been identified that are likely to give rise to significant effects.	None within 5km. River Derwent is 11.87 km E	None	No negative effect	None	No negative in combination effects	

Table 10: Screening of Areas of Search

Area of Seach	Possible impact of Area of Search on European Site (sources / pathways)	Which European Sites could be affected (receptors)	Is the impact significant	Other plans and projects which might act in combination	Risk of a significant in combination effect	References/ notes
Area A: Area of Search for Sand and Gravel	Sand and gravel sites could potentially be located within the area. However, there are no Natura 2000 sites in the Area and review of SSSI / Natura 2000 Site Impact Risk Zones does not highlight any areas where minerals or other development could potentially lead to effects. No further pathways have been identified that are likely to give rise to significant effects.	None within 5km, North York Moors SPA / SAC is 13.5km NE.	No negative effect	Harrogate Local Plan Hambleton Local Plan	No negative in combination effects	
Area C: Area of Search for Sand and Gravel	Sand and gravel sites could potentially be located within the area. However, there are no Natura 2000 sites in the Area and review of SSSI / Natura 2000 Site Impact Risk Zones does not highlight any areas where minerals or other development could potentially lead to effects. No further pathways have been identified that are likely to give rise to significant effects.	None within 5km. North Pennine Moors is 12 km W.	No negative effect	Harrogate Local Plan	No negative in combination effects	

6. Results of the Screening Assessment

The HRA screening assessment presented in tables 8, 9 and 10 indicates that the large majority of policies, sites and areas of search presented in the Draft Publication Plan document can be progressed in line with the requirements of the Habitats Regulations. At this stage, the large majority of policies and sites and all of the areas of search are considered likely to have no negative effect or no significant negative effect on a European Site.

Of course that does not mean that all planning applications that come forward will in all cases have no effect on the Natura 2000 network. It does, however mean that there is a suitable suite of policies and site allocations to ensure that any planning application would be judged on the likelihood of significant effects occurring, and would be capable of being amended to be consistent with the Habitats Regulations.

One policy, W06 'Managing Agricultural Waste', was highlighted as having an uncertain 'in combination effect' on water bodies, which could include Natura 2000 sites. Section 7 below looks at removing this uncertainty. In addition 4 policies noted that significant effects were unlikely (so likely significant effects were not noted) but the assessment advised some precautionary mitigation to avoid any theoretical effect. These are also explored further in section 7.

Readers will note that several sites considered at preferred options as having uncertain effects now no longer show such effects. This is because they have been discounted from Plan allocations (for a range of reasons other than possible impacts on Natura 2000 sites). Although these site may or may not eventually be the subject of planning applications, the Plan cannot reasonably assess such proposals, and therefore makes no conclusions about their compatibility with the Habitats Regulations. All that can be said is that any proposal that comes forward outside of the allocations process will be subject to the policies in the Joint Plan, which have been tested for consistency with the Habitats Regulation.

7. Further Assessment to Remove Uncertainty or Apply Precautionary Mitigation

As noted in the results section above, one policy, W06 'Managing Agricultural Waste', was highlighted as having an uncertain 'in combination effect' on water bodies, which could include Natura 2000 sites, such as the River Derwent.

In addition 4 policies noted that significant effects were unlikely (so likely significant effects were not noted) but the assessment advised some precautionary mitigation to avoid any theoretical effect.

In terms of W06 a cumulative risk to water might be possible in Nitrate Vulnerable Zones which could affect Natura 2000 sites which are susceptible to nutrient enrichment of water bodies. This is because managing farm waste can, if not properly managed, result in

leachate running off from storage sites and ultimately entering either groundwater or surface water bodies together with nitrates from nearby farms. While the policy itself presents a minimal risk, the policy is already considered to be sufficiently protected through links to policy W11, and thus any risk would most likely, on its own, be negligible as W11 states *"In all cases sites will need to be suitable when considered in relation to physical, environmental, amenity and infrastructure constraints…".* The risk of pollution to a water body would be considered an environmental constraint.

Pathways for impacts may, however, occur where several on-farm waste sites lie close together, and either poor management or a flood event washes nutrient enriched water from sites and into water bodies connected to a Natura 2000 site.

A review of Defra's Magic web map shows that several SACs, SPAs and Ramsar sites lie within Nitrate Vulnerable Zones, though the key sensitivities highlighted at appendix 1 (derived from review of site information including conservation objectives) show that the following sites are sensitive to changes in water quality and lie in, or have possible connectivity to, Nitrate Vulnerable Zones:

- Humber Estuary Ramsar Site
- Humber Estuary SAC
- Humber Flats, Marshes and Coast SPA
- Lower Derwent Valley SAC
- Lower Derwent Valley SPA
- Lower Derwent Valley Ramsar Site
- Kirk Deighton SAC

While the contribution of policy W06 to this possible cumulative effect is minimal It is considered that the risk could only realistically be mitigated through consideration of proposals on a site by site basis; in particular whether storage of waste is likely to be above the maximum flood level and whether on site controls are sufficient to control run off. While to some extent this is likely to be controlled by the environmental permitting regime, a policy regime that reduces the likelihood that any impact could occur from locational factors would be helpful in reducing any residual risk.

To this end it **is proposed that, in the 'key links to other relevant policies and objectives' the policy refers to policies D07 ('Biodiversity and Geodiversity', which affords a very high level of protection to Natura 2000 sites and permits development where there will be no unacceptable impacts on biodiversity) and D09 ('Water Environment', which requires that proposals for minerals and waste development should not have unacceptable impacts on surface or groundwater quality, and requires for development that is not allocated, an unacceptable risk of flooding will not be permitted)**.

In terms of the further precautionary mitigation that could deal with any hypothetical, but not likely, risk from policies, table 10 sets out which policies could benefit from precautionary mitigation and how this should be applied.

Table 11: Precautionary Mitigation Proposed for Policies

Policy Number / Title	Issue	Proposed Precautionary Mitigation
M12 Continuity of Supply of Silica Sand	This policy states that extraction of Silica Sand at Blubberhouses Quarry would only be permitted subject to compliance with the Habitats Regulations. Extraction at both Blubberhouses and Burythorpe would also be required to be consistent with other development management policies in the plan including D07 Biodiversity and Geo-diversity which states that proposals will only be permitted where there will be no unacceptable impacts on biodiversity or geo-diversity including on statutory designated sites. Likely significant impacts would therefore not occur as a result of this policy.	As the policy does not generate likely significant effects on its own, by definition the Plan cannot be said to generate cumulative effects. However the assessment notes that, **at a project level the potential for cumulative effects from the possible future A59 road improvements should be considered for the Blubberhouses site. This issue could be referred to in the supporting text to the policy.**
W05 Meeting Waste Management Capacity Requirements – Construction, Demolition and Excavation Waste (including hazardous CD&E waste)	The policy seeks to achieve self-sufficiency in capacity for the management of CDE waste, however recycling CDE waste proposals and transfer station capacity must be consistent with policy W11 which requires that 'in all cases sites will need to be suitable when considered in relation to….environmental…and any cumulative impact from previous waste disposal facilities, in line with national policy'. Landfill capacity would need to be consistent with W01 parts 3 and 4 which limits opportunities for this kind of waste management for non-inert waste to where it is the only practicable option and insufficient capacity in the Plan area is not available. Policy WO1 links to policy D07 which gives protection to designated sites. While in principle this provides sufficient protection, the lack of a direct reference to policy D07 in the key links to other	An improbable risk is highlighted as a future CDE waste management site may create some local noise, dust or potentially changes to local hydrology. While in practice effects are unlikely (so this is not a 'likely significant effect) a precautionary measure could be added to remove any possible risk by **ensuring that that this policy includes an explicit link to the development management policies for amenity, water and biodiversity (D02; D07 and D09) in the key links to other relevant policies section.**

	policies may add a small amount of doubt that the CDE waste has the potential to impact on Natura 2000 sites. Effects such as noise and dust pollution are the most likely impacts, though clearly such effects are quite local to any CDE sites, so impacts are in practice highly improbable. Similarly landfill might also lead to effects on the local hydrological regime (though in practice other regulatory controls (licensing) would avoid this risk). A number of allocations (WJP23, WJP08, MJP27, MJP26, WJP10, WJP05) are referred to for recycling of CDE waste, and WJP21, WJP05 and WJP06 are allocated for landfill. None of these allocations are predicted to have likely significant effects on Natura 2000 sites.	
W10 Overall Locational Principles for Provision of Waste Capacity	Proposals for development of capacity at new sites would be required to be in line with Policy W11 which states that sites would need to be suitable when considered in relation to environmental constraints. Development within the National Park and AONBs would only be allowed where it would not cause unacceptable harm to the designated area. The policy also maximises capacity at existing sites which should reduce the need for new sites (unless maximising capacity brings its own effects though this is thought unlikely as specific pathways have not been identified). Likely significant impacts would therefore not be expected to occur as a result of this policy.	Although likely significant impacts are considered unlikely **the policy could be strengthened by the inclusion of links to the development management policy for biodiversity (DO7) in the 'key links to other policies'.**
I01 Minerals and Waste Transport Infrastructure	Although not explicitly stated in the policy, proposals would be required to be consistent with other development management policies in the Plan which would minimise effects from this policy	Although likely significant impacts are considered to not occur, **the policy could be strengthened by the inclusion of links to the**

	(which is, in any case, indirectly positive as it reduces traffic on roads). There are also links to development management policies such as D02 which would reduce a wide range of environmental effects (such as noise and dust) which would also reduce effects on Natura 2000 sites. In addition, the allocation at MJP09 is considered to have no likely significant effects. Likely significant impacts would therefore not be likely to occur as a result of this policy.	**development management policy for biodiversity (DO7) in the 'key links to other policies' section.**

8. Conclusion

Broadly this Habitats Regulations Assessment has found that the Joint Plan is consistent with the Habitats Regulations. However, a small amount of cumulative uncertainty was reported in relation to one policy, while 4 other policies were identified as having the potential for further enhancement through precautionary mitigation.

To address these issues recommendations were set out in section 7. Incorporating this mitigation into the Joint Plan would ensure that it is consistent with the Habitats Regulations.

Appendix 1: Natura 2000 Sites and their Qualifying Features, Conservation Objectives and Key Threats to Site Integrity

Table A1 Special Areas of Conservation

Name of Site	**Qualifying features** *(features in bold denote priority natural habitats or species subject to special provisions in the Habitats Directive)*[25]	**Conservation Objectives** (*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 makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features).*	**Key Threats to Site Integrity**
Arnecliff and Park Hole Woods SAC	**Annex II species that are a primary reason for selection:** Killarney fern *Trichomanes speciosum* **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; Western acidic oak woodland	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits of qualifying species; -The supporting processes on which qualifying	- Specimen collecting; - Physical loss of habitat from woodland under and over management (e.g. removal and smothering, fragmentation of habitat); - Pollution (e.g. from iron workings); - Changes in thermal regime; - Physical damage to habitat; - Increase in pH of underlying soils

[25] Of particular note, is Article 6(4) of the Directive, which states *"If in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and / or priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the commission, to other imperative reasons of overriding public interest'.* The Article is transposed via 62 (2) of the 2010 Regulations.

		natural habitats and habitats of qualifying species rely; -The populations of qualifying species; -The distribution of qualifying species within the site	
Beast Cliff – Whitby (Robin Hood's Bay) SAC	**Annex I habitats that are a primary reason for selection:** -Vegetated sea cliffs of the Atlantic and Baltic coasts	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	- Changes in agricultural management (or other operations) leading to impacts such as changes in fertility or agri-chemical contamination, physical loss of habitat (for instance from under or overgrazing) or physical damage to habitat (e.g. from trampling); - Changes in coastal defences which affect natural erosion processes; - Recreational disturbance (leading to physical damage including erosion, habitat fragmentation or fire).
Calf Hill and Cragg Woods SAC	**Annex I habitats that are a primary reason for selection of this site** -Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; Western acidic oak woodland **Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site** **-Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*); alder woodland on floodplains.**	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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.	-Longer term need to control sheep grazing from adjacent fell (though limited grazing is beneficial); -Site needs small scale selective thinning; -Increase in pH may affect species composition -Significant change in flooding regime / water table (may cause drying out and changes in species composition).
Craven Limestone Complex SAC	**Annex I habitats that are a primary**	With regard to the natural habitats and / or species	-Intensive grazing may cause physical loss or damage to habitat;

	reason for selection: -Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.; Calcium-rich nutrient poor lakes, lochs and pools -Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*); Dry grasslands and scrublands on chalk or limestone -*Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*); Purple moor-grass meadows **-Active raised bogs** **-Petrifying springs with tufa formation (*Cratoneurion*); hard-water springs depositing lime** -Alkaline fens; Calcium rich springwater-fed fens **-Limestone pavements** **Annex II species that are a primary reason for selection:** -White-clawed (or Atlantic stream) crayfish *Austropotamobius pallipes* -Bullhead *Cottus gobio* -Lady`s-slipper orchid *Cypripedium calceolus* **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** -Calaminarian grasslands of the *Violetalia calaminariae*; Grasslands on soils rich in heavy metals	for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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.	-Operations such as quarrying which can cause physical loss and damage to habitat (such as through sedimentation, erosion, fragmentation and barrier effects), hydrological change and changes in the thermal regime or turbidity; -Drainage can cause hydrological change leading to drying and fragmentation of habitat; -Runoff from agricultural or industrial processes can cause nutrient enrichment of the habitat; -Recreational disturbance can cause erosion, habitat fragmentation and accidental fires; -Specimen collecting (leading to species loss); -Atmospheric pollution (nutrient enrichment)

	-***Tilio-Acerion*** **forests of slopes, screes and ravines; Mixed woodland on base-rich soils associated with rocky slopes**		
Eller's Wood and Sand Dale SAC	**Annex II species that are a primary reason for selection:** -Geyer`s whorl snail *Vertigo geyeri* **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** **-Petrifying springs with tufa formation (*Cratoneurion*); Hard water springs depositing lime**	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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.	-Intensive grazing or other operations leading to physical loss of habitat and physical damage due to erosion; -Scrub invasion; -Changes in drainage leading to hydrological changes to water level and flow rate, as well as drying and fragmentation
Fen Bog SAC	**Annex I habitats that are a primary reason for selection:** -Transition mires and quaking bogs; Very wet mires often identified by an unstable 'quaking' surface	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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.	-Drainage or other operations leading to hydrological change, and physical loss and damage to habitat (through drying and consequential habitat fragmentation); -Removal of grazing may lead to physical loss of habitat through smothering, and scrub habitat and may also lower the water table; -Any process, such as bracken spraying and agricultural runoff, which may lead to toxic contamination of the habitat; -Upgrading of nearby rail infrastructure is an example of an operation which may lead to physical loss of habitat (through removal and smothering), damage (i.e. through siltation, fragmentation and barrier effects) and changes in turbidity of water; -Peat cutting may also damage the site

			leading to physical damage (through sedimentation and erosion) and changes in turbidity and pH
Flamborough Head SAC	**Annex I habitats that are a primary reason for selection:** • Reefs • Vegetated sea cliffs of the Atlantic and Baltic coasts • Submerged or partially submerged sea caves	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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.	-Fishing or other activities (including recreational diving) leading to physical damage such as erosion and fragmentation of submerged habitats; -Industrial (or any other) discharge leading to raised pollution levels, including acidification of terrestrial habitat from atmospheric deposition and changes in the submerged habitat as a result of sedimentation, changes in turbidity, salinity and changes to the thermal regime); -Changes in agricultural management causing toxic contamination, physical loss (through removal by overgrazing, smothering by under-grazing), physical damage through trampling and nutrient enrichment of the terrestrial habitat; -Changes in coastal defences preventing natural erosion; -Recreational disturbance leading to erosion and fragmentation, accidental fires and reduced bird breeding productivity; -Invasive non-native species; -Changes in biotic conditions.
Hatfield Moor SAC	**Annex I habitats that are a primary reason for selection of this site** • Degraded raised bogs still capable of natural regeneration	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits of qualifying species; -The supporting processes on which qualifying natural habitats and habitats of qualifying species	-Peat cutting (leading to physical loss of habitat); -Water abstraction and agricultural drainage leading to hydrological change (water level and flow rate), physical loss and damage (drying and fragmentation of habitat); -Scrub invasion leading to physical loss of habitat; -Sand and gravel extraction in adjacent sites leading to physical loss of habitat (i.e. through removal and smothering)

		rely; -The populations of qualifying species; -The distribution of qualifying species within the site.	and hydrological change (water level and flow rate); -Recreational disturbance leading to physical damage (erosion and fragmentation, accidental fires). -Pollution deposition leading to changes in nutrient status
Helbeck and Swindale Woods SAC	**Annex I habitats that are a primary reason for selection of this site** • ***Tilio-Acerion* forests of slopes, screes and ravines; Mixed woodland on base-rich soils associated with rocky slopes**	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	-Overgrazing by livestock, or other operations, leading to physical loss (removal), and physical damage (e.g. erosion, habitat fragmentation, and non-toxic contamination through nutrient enrichment)
Humber Estuary SAC	**Annex I habitats that are a primary reason for selection:** • Estuaries • Mudflats and sandflats not covered by seawater at low tide **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** • Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks • **Coastal lagoons**	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	- Coastal development including housing, industrial and commercial development causing loss and degradation of habitat (including pollution, erosion, fragmentation, sedimentation, etc.), impacts on integrity of breeding and wintering population of birds via disturbance (noise, trampling); - Dredging for navigation or aggregates may also have an important detrimental effect upon the animal and plant life of the sediment, and sediment supply and transport; - Flood defence causing loss and

	• Salicornia and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae)* • Embryonic shifting dunes • Shifting dunes along the shoreline with Ammophila arenaria (`white dunes`); shifting dunes with marram • **Fixed dunes with herbaceous vegetation (`grey dunes`); Dune grassland** • Dunes with *Hippophae rhamnoides;* Dunes with sea buckthorn **Annex II species present as a qualifying feature, but not a primary reason for selection:** • Sea lamprey *Petromyzon marinus* • River lamprey *Lampetra fluviatilis* • Grey seal *Halichoerus grypus*		degradation of habitat, fragmentation, barrier effects, changes in hydrology (flow rate and water level), coastal squeeze[26]; - Sewage discharge (domestic and industrial) and agricultural runoff causing eutrophication, sedimentation changes in turbidity and pH, salinity, indirect effects of reduced water quality on food resources. Upstream pollution may cause a barrier to fish migration; - Recreational pressure causing impacts on integrity of breeding and wintering population via disturbance (noise, trampling, presence) Lack of reedbed management causing scrub encroachment;
Ingleborough Complex SAC	**Annex I habitats that are a primary reason for selection:** • Juniperus communis formations on heaths or calcareous grasslands; Juniper on heaths or calcareous grasslands • Alkaline fens; Calcium-rich	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species; -The structure and function (including typical	-Intensive livestock grazing or any operation causing physical loss (removal), physical damage (erosion), nutrient enrichment, or pollution (e.g. though sheep dip) of habitat; -Rabbit grazing causing physical loss (removal), physical damage (erosion), and nutrient enrichment;

[26] Coastal squeeze is cited as 'the biggest threat to the remaining saltmarsh in the Humber Estuary' by the Humber Management Scheme (see: Humber Management Scheme, undated. Humber Estuary European Marine Site [URL: humberems.co.uk/humber/features.php]. It is caused by a defence forming a barrier to landward migration of habitats while water levels rise and cause increasing increasing loss of area on the seaward side

	springwater-fed fens • Calcareous rocky slopes with chasmophytic vegetation; Plants in crevices in base-rich rocks • **Limestone pavements** **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** • Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*); Dry grasslands and scrublands on chalk or limestone; • Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*); Purple moor-grass meadows • **Blanket bogs** • **Petrifying springs with tufa formation (*Cratoneurion*); Hard-water springs depositing lime** • ***Tilio-Acerion* forests of slopes, screes and ravines; Mixed woodland on base-rich soils associated with rocky slopes**	species) of qualifying natural habitats and habits 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	-Limestone quarrying causing physical loss (removal and smothering of habitat) and hydrological change (including changes to water level and flow rate); -Recreational disturbance causing physical damage (erosion and fragmentation, accidental fires); -*Atmospheric pollution (nutrient enrichment)
Kirk Deighton SAC	**Annex I habitats that are a primary reason for selection:** • *Triturus cristus*; Great crested newt	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits of qualifying species;	-Heavy livestock poaching causing physical damage (erosion, habitat fragmentation, siltation); -Introduction of predatory fish causing biological disturbance; - Agricultural, transport and industrial runoff/discharge affecting water quality or causing nutrient enrichment, or causing physical damage (siltation, fragmentation of habitat);

		-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	-Water abstraction causing physical damage (through fragmentation of habitat) and hydrological change to water level and flow rate; -Atmospheric pollution and deposition (e.g. from transport)
Lower Derwent Valley SAC	**Annex I habitats that are a primary reason for selection:** • Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis)* **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** • **Alluvial forests with *Alnus glutinosa* and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*); Alder woodland on floodplains** **Annex II species present as a qualifying feature, but not a primary reason for selection:** • Otter Lutra lutra	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	- Coal mining or other extractive industry causing physical loss of habitat (removal and smothering) or hydrological change (water level and flow rate); - Flood management and tidal barrage causing hydrological change (water level and flow rate) and physical damage (barrier effects and habitat fragmentation); - Domestic and industrial sewage outflow causing phosphorous enrichment; - Intensive agriculture causing physical loss of habitat, physical damage (through erosion, habitat fragmentation or siltation from agricultural runoff), toxic contamination of groundwater (e.g. from sheep dipping) or non-toxic contamination (nutrient enrichment); - Process industry causing impacts such as acidification from sulphur deposition; - Alteration of channel structure (canalisation, artificial barriers, etc.) causing physical loss and damage to habitat (through removal of and damage to riverside woodlands, barrier effects and habitat fragmentation) and hydrological change (water level and flow rate); - Water abstraction causing hydrological change (water level and flow rate) or physical damage (drying and consequential habitat

			fragmentation); - Waste management (such as landfill) causing physical loss of habitat (including removal and smothering of habitat) or hydrological changes to water level and flow rate; - Housing, inappropriate access and other development leading to recreational pressure, causing physical damage (erosion and fragmentation, accidental fires) or disturbance of nesting and/or over-wintering birds
Moor House – Upper Teesdale - SAC	**Annex I habitats that are a primary reason for selection of this site:** • Hard *oligo-mesotrophic* waters with benthic vegetation of *Chara* spp; Calcium-rich nutrient-poor lakes, lochs and pools • Alpine and Boreal heaths; Alpine and subalpine heaths • *Juniperus communis* formations on heaths or calcareous grasslands; Juniper on heaths or calcareous grasslands • *Calaminarian* grasslands of the *Violetalia calaminariae;* Grasslands on soils rich in heavy metals • Siliceous alpine and boreal grasslands; Montane acid grasslands • Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia);* Dry grasslands and scrublands on chalk or limestone • *Molinia* meadows on	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	-Overgrazing causing physical loss and physical damage to habitat (through erosion, habitat fragmentation and nutrient enrichment); -Drainage of bogs causing physical loss of habitat; -Poor muirburn management causing physical loss and damage (e.g. fragmentation) to habitat; -Reservoir construction leading to microclimatic shifts; -Recreational disturbance causing physical damage (erosion and fragmentation); -Operations causing hydrological change

	calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*); Purple moor-grass meadows • *Hydrophilous* tall herb fringe communities of plains and of the montane to alpine levels • Mountain hay meadows • **Blanket bogs** • **Petrifying springs with tufa formation (*Cratoneurion*); Hard-water springs depositing lime** • Alkaline fens; Base rich fens • **Alpine pioneer formations of *the Caricion bicoloris-atrofuscae;* High altitude plant communities associated with areas of water seepage** • Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*); Acidic scree • Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolii*); Base rich scree • Calcareous rocky slopes with chasmophytic vegetation; Plants in crevices in base-rich rocks • Siliceous rocky slopes with chasmophytic vegetation; Plants in crevices on acid rocks **Annex II species that are a primary reason for selection of this site:**		

	• Round-mouthed whorl snail *Vertigo genesii* • Marsh saxifrage *Saxifraga hirculus* **Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:** • European dry heaths • **Limestone pavements**		
Morecambe Bay SAC	**Annex I habitats that are a primary reason for selection of this site:** • Estuaries • Mudflats and sandflats not covered by seawater at low tide; intertidal mudflats and sandbanks • Large shallow inlets and bays • Perennial vegetation of stony banks; Coastal shingle vegetation outside the reach of waves • Salicornia and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae)* • Shifting dunes along the shoreline with Ammophila arenaria (`white dunes`); Shifting dunes with marram • **Fixed dunes with herbaceous vegetation (`grey dunes`); Dune grassland** • Humid dune slacks	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	-Coastal protection and flood defence may prevent natural erosion, or cause loss and degradation of habitat, fragmentation, barrier effects, or changes in hydrology; -Fishing may cause physical damage to submerged habitat (e.g. erosion, fragmentation); -Quarrying may cause physical loss of habitat, physical damage (sedimentation, erosion, fragmentation, barrier effects), hydrological change (water level),and changes in thermal regime and turbidity; -Gas exploration may lead to physical damage to habitat; -Recreational disturbance may cause physical damage (erosion and fragmentation) to habitat. -*Operations causing water pollution

	Annex II species that are a primary reason for selection of this site: • Great crested newt *Triturus cristatus* **Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:** • Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks • **Coastal lagoons** • Reefs • Embryonic shifting dunes • **Atlantic decalcified fixed dunes *(Calluno-Ulicetea*); coastal dune heathland** • Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*); Dunes with creeping willow		
Morecambe Bay Pavements SAC	**Annex I habitats that are a primary reason for selection of this site:** • Hard *oligo-mesotrophic* waters with benthic vegetation of *Chara* spp.; Calcium-rich nutrient-poor lakes, lochs and pools • *Juniperus communis* formations on heaths or calcareous grasslands • Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia)*; Dry grasslands and scrublands on chalk or limestone • **Limestone pavements** • ***Tilio-Acerion* forests of slopes, screes and ravines;**	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	-Agricultural management (e.g. overgrazing) causing physical loss (removal) or physical damage (erosion, habitat fragmentation, nutrient enrichment to habitat; under-grazing may also cause physical loss of habitat as a result of scrub encroachment and smothering; -Poor woodland management causing physical loss of habitat through removal and smothering and physical damage or fragmentation to habitat. -Nutrient enrichment of waterbodies -Operations causing hydrological change

	Mixed woodland on base-rich soils associated with rocky slopes • *Taxus baccata* woods of the British Isles; **Yew-dominated woodland** **Annex II species that are a primary reason for selection of this site:** • Narrow-mouthed whorl snail *Vertigo angustior* **Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:** • European dry heaths • Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; Calcium-rich fen dominated by great fen sedge (saw sedge) • Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; Western acidic oak woodland		
North Pennine Dales Meadows SAC	**Annex I habitats that are a primary reason for selection:** • Mountain hay meadows **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** • *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*); Purple moor-grass meadows	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	Intensive agricultural management on or adjacent to site (particularly use of agrochemicals where they can drift on to sites) leading to physical loss of habitat, physical damage (through erosion, habitat fragmentation, and siltation from and nutrient enrichment from agricultural runoff.

North Pennine Moors SAC	**Annex I habitats that are a primary reason for selection:** • European dry heaths • *Juniperus communis* formations on heaths or calcareous grasslands; Juniper on heaths or calcareous grasslands • **Blanket bogs** • **Petrifying springs with tufa formation (*Cratoneurion*); Hard-water springs depositing lime** • Siliceous rocky slopes with chasmophytic vegetation; Plants in crevices on acid rocks • Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; Western acidic oak woodland **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** • Northern Atlantic wet heaths with *Erica tetralix;* Wet heathland with cross-leaved heath • Calaminarian grasslands of the *Violetalia calaminariae;* Grasslands on soils rich in heavy metals • Siliceous alpine and boreal grasslands; Montane acid grasslands • Semi-natural dry grasslands	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	-Intensive grazing causing physical loss (removal), physical damage (erosion, habitat fragmentation) and nutrient enrichment -Agrochemicals (sheep dip) causing toxic contamination of groundwater; -Agricultural / other operations affecting drainage. This could lead to hydrological change (water level and flow rate) and physical loss and damage to habitat through drying and fragmentation; -Poor muirburn management causing physical loss (removal), damage (habitat fragmentation); -Process industry and waste management (e.g. landfill) / other operations causing acid and nitrogen deposition or physical loss of habitat[27]; -Woodland management causing physical loss (removal and smothering) and physical damage (fragmentation) to habitat; -Recreational disturbance causing physical damage (erosion and fragmentation, accidental fires).

[27] See UKREATE (UK Research on Eutrophication and Acidification of Terrestrial Ecosystems) / Defra, undated. The Impacts of Acid and Nitrogen deposition on: Blanket and Raised Bogs [URL: ukreate.defra.gov.uk/PDFs/Leaflets/Bogs.pdf]

	and scrubland facies: on calcareous substrates (*Festuco-Brometalia);* Dry grasslands and scrublands on chalk or limestone • Alkaline fens; Calcium-rich springwater-fed fens • Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*); Acidic scree • Calcareous rocky slopes with *chasmophytic vegetation;* Plants in crevices in base-rich rocks **Annex II species present as a qualifying feature, but not a primary reason for selection:** • Marsh saxifrage *Saxifraga hirculus*		
North York Moors SAC	**Annex I habitats that are a primary reason for selection:** • Northern Atlantic wet heaths with *Erica tetralix;* Wet heathland with cross-leaved heath • European dry heaths **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** • **Blanket bogs**	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	-Agricultural management (e.g. overgrazing) causing physical loss of habitat, physical damage (erosion, habitat fragmentation and nutrient enrichment of habitat; under-grazing may also cause physical loss (through scrub encroachment and smothering); - Operations affecting hydrology may lead to hydrological change (water level and flow rate), physical loss and damage (drying and fragmentation); -Recreational pressure causing physical damage to habitat (erosion and fragmentation, accidental fires); - Process industry and waste management causing acid or nitrogen deposition or physical loss of habitat;
Ox Close SAC	**Annex I habitats that are a primary reason for selection:**	With regard to the natural habitats and / or species for which the site has been designated (see	-Rabbit grazing is a threat, causing physical loss (removal), physical

	• Calaminarian grasslands of the *Violetalia calaminariae;* Grasslands on soils rich in heavy metals **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** • Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia)*; Dry grasslands on chalk or limestone • ***Tilio-Acerion* forests of slopes, screes and ravines; Mixed woodland on base-rich roils associated with rocky slopes**	Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	damage (erosion) and nutrient enrichment of habitat; -Overgrazing by livestock - Physical loss or physical damage to habitat (through erosion, habitat fragmentation, and nutrient enrichment); -Housing / other development may cause physical loss (removal and smothering) or physical damage (siltation, habitat fragmentation, barrier effects) to habitat; -Recreation – causing erosion -Operations causing nutrient enrichment (e.g. through deposition of N[28][29])
River Derwent SAC	**Annex II species that are a primary reason for selection:** • River lamprey *Lampetra fluviatilis* **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation; Rivers with floating vegetation often dominated by	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species; -The structure and function (including typical species) of qualifying natural habitats and habits of qualifying species; -The supporting processes on which qualifying natural habitats and habitats of qualifying species rely; -The populations of qualifying species;	-Flood management can cause hydrological change (water level and flow rate), physical damage (barrier effects and habitat fragmentation); -Sewage can cause habitat loss (smothering), eutrophication, (leading to changes in species composition); -Siltation (agricultural runoff) can cause physical damage (barrier effects, habitat fragmentation), physical loss (smothering); -Agricultural and industrial outflow (incl. sheep dip) can cause toxic contamination of water, eutrophication,

[28] For impact of N on calcareous grasslands see, for example, Leake, J.R, 2006. Grassland Soil and Vegetation Response Following Nitrogen Saturation at Wardlaw Hay-Cop in UKEATE, 2006. Terrestrial Umbrella Annual Report [URL: ukreate.defra.gov.uk/publications/reports/Annual_report_2006.htm]

[29] Note that acid deposition is not recorded for base rich habitats such as listed here – See APIS, undated. Acid Deposition: Calcareous Grassland [URL: http://www.apis.ac.uk/node/923]: *"Acidifying deposition is generally agreed to have little effect of calcareous grasslands since the calcareous soil provides ample neutralising capacity"*

	water-crowfoot **Annex II species present as a qualifying feature, but not a primary reason for selection:** • Sea lamprey *Petromyzon marinus* • Bullhead *Cottus gobio* • Otter *Lutra lutra*	-The distribution of qualifying species within the site	physical loss or damage (barrier effects); - Alteration of channel structure can lead to hydrological change (flow rate), physical loss and damage (erosion of silt beds); -Artificial barriers (e.g. flood defences) causing physical damage (barrier effects, habitat fragmentation) to the site; -Water abstraction may lead to hydrological change (water level and flow rate); -Waste management may cause physical loss of habitat through removal and smothering, nutrient deposition, acidification, and hydrological change (water level and flow rate)
River Eden SAC	**Annex I habitats that are a primary reason for selection of this site** • Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea;* Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation; Rivers with floating vegetation often dominated by water-crowfoot • **Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae); Alder woodland on**	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	-Agricultural, transport and industrial runoff/discharge may affect water quality via nutrient enrichment, or cause physical damage (siltation) or toxic contamination of groundwater; -Inappropriate woodland management may lead to physical loss (removal and smothering) or physical damage (fragmentation).

	floodplains **Annex II species that are a primary reason for selection of this site** • White-clawed (or Atlantic stream) crayfish *Austropotamobius pallipes* • Sea lamprey *Petromyzon marinus* • *Lampetra planeri* • River lamprey *Lampetra fluviatilis* • Atlantic salmon *Salmo salar* • Bullhead *Cottus gobio* • Otter *Lutra lutra*		
Skipwith Common SAC	**Annex I habitats that are a primary reason for selection:** • Northern Atlantic wet heaths with Erica tetralix; Wet heathland with cross-leaved heath • European dry heaths	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	-Scrub invasion leading to physical loss of habitat via smothering by scrub encroachment; -Deep coal mining causing physical loss of habitat (removal and smothering) and hydrological change (water level and flow rate); -Recreational pressure leading to physical damage (erosion and fragmentation, accidental fires) -Operations likely to increase N or acid deposition to site (nutrient enrichment, change of soil pH)[30]
South Pennine Moors	**Annex I habitats that are a primary reason for selection:** • European dry heaths	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to	-Recreational pressure causing physical damage (trampling, erosion and fragmentation, accidental fires);

[30] JNCC Report No. 426 provides a good overview of the sensitivity of lowland heathland communities to air pollution: "*Heathland communities are very sensitive to acid deposition. The organo-mineral soils and stress tolerant vegetation mean they are sensitive to both acidification and eutrophication……in the UK experimental N additions at a level just above the critical load for N have shown changes in productivity, litter production, N cycling and Lichens in lowland heath… but little evidence of grass invasion was seen unless disturbance accompanied N treatment"* Stevens, C.J. et al, 2009. JNCC Report No. 426: Detecting and attributing air pollution impacts during SSSI condition assessment. JNCC, Peterborough [URL: jncc.defra.gov.uk/pdf/JNCC426web.pdf]

	• **Blanket bogs** • Old sessile oak woods with Ilex and Blechnum in the British Isles **Annex I habitats present as a qualifying feature, but not a primary reason for selection:** • Northern Atlantic wet heaths with *Erica tetralix*; wet heathland with cross-leaved heath • Transition mires and quaking bogs; very wet mires often identifiable by an unstable 'quaking surface'	maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	-Overgrazing by sheep causing physical loss of habitat, physical damage (erosion, habitat fragmentation) and nutrient enrichment; - Poor muirburn management on grouse moors causing physical loss (removal), damage (habitat fragmentation), accidental fires; - Drainage may lead to hydrological change (water level and flow rate), physical loss and damage (drying and fragmentation); - Process and transport industry may lead to atmospheric toxic and non-toxic pollution and deposition; - Fly-tipping can cause physical loss of habitat (smothering), biological damage (introduction of invasive species), nutrient enrichment and possible contamination of land
Strensall Common SAC	**Annex I habitats that are a primary reason for selection of this site** • Northern Atlantic wet heaths with *Erica tetralix;* Wet heathland with cross-leaved heath; • European dry heaths	With regard to the natural habitats and / or species for which the site has been designated (see Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	-Poor muirburn management entailing physical loss of habitat, damage (through habitat fragmentation) and accidental fire spread; -Lack of scrub management causing physical loss (smothering by scrub encroachment); -Overgrazing by sheep causing physical loss (removal), physical damage (erosion, habitat fragmentation) and nutrient enrichment; -Recreational pressure causing physical damage (erosion and fragmentation, accidental fires); -Toxic effects on habitats by herbicides (e.g. from nearby golf course); -Operations likely to increase N or acid deposition to site (nutrient enrichment, change of soil pH)
Thorne Moor SAC	**Annex I habitats that are a primary reason for selection of this site**	With regard to the natural habitats and / or species for which the site has been designated (see	-Peat cutting leading to physical damage to habitat and hydrological

	• Degraded raised bogs still capable of natural regeneration	Qualifying features); subject to natural change, to maintain or restore: -The extent and distribution of qualifying natural habitats and habitats of qualifying species;; -The structure and function (including typical species) of qualifying natural habitats and habits 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	change (groundwater level and flow rate); -Water abstraction / drainage / processes affecting hydrology – leading to hydrological change (groundwater level and flow rate); -Lack of scrub management – leading to physical loss (smothering by scrub encroachment) -Recreational pressure – leading to physical damage (erosion and fragmentation, accidental fires) and disturbance (noise, trampling, presence); -Operations likely to increase N or acid deposition to site (nutrient enrichment, change of soil pH)[31]

Table A2 Special Protection Areas

Name of Site	**Qualifying features**	**Conservation Objectives** (*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 makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features).*	**Key Threats to Site Integrity**
Bowland Fells SPA	Annex 1 birds and regularly occurring migratory birds not listed on Annex 1 • *Circus cyaneus* –Hen harrier - supports 1.3% of the GB breeding population • *Falco columbarius* – Merlin - supports 1.5% of the GB	With regard to the individual species and/or assemblage of species for which the site has been classified; Subject to natural change, to maintain or restore: -The extent and distribution of the habitats of the	-Sheep grazing is seen as threat that could lead to physical loss of habitat (removal), and physical damage (trampling); -Poor muirburn management leading to physical loss of habitat, and damage (such as habitat fragmentation);

[31] As 'ombotrophic' (wholly rain fed) ecosystems lowland raised bogs rely on atmospheric sources of nutrients. This makes them sensitive to increased N deposition which leads to eutrophication. Acid deposition can also result in changes to species composition, particularly declines in species groups such as Sphagnum. (JNCC, 2009)

	breeding population • *Larus fuscus* – Lesser black-backed gull - 7.6% of breeding population Article 4.1 qualification • *Circus cyaneus;* • *Falco columbarius* Article 4.2 qualification • *Larus fuscus*	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.	- Drainage could lead to hydrological change (water level and flow rate), physical loss and damage (drying and fragmentation); - Specimen collecting may lead to biological disturbance (selective extraction of species)
Flamborough Head & Bempton Cliffs SPA	**Annex I birds and regularly occurring migratory birds not listed on Annex 1:** • *Rissa tridactyla* – Black legged Kittiwake - supports 2.6% of the breeding population during the breeding season Article 4.1 qualification • *Rissa tridactyla*	With regard to the individual species and/or assemblage of species for which the site has been classified; Subject to natural change, to maintain or restore: -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.	-Fishing and harvesting aqualtic resources may result in physical damage (erosion, fragmentation of the submerged habitat); -Industrial discharge may lead to toxic contamination as well as sedimentation, changes in turbidity, changes in salinity, or changes in the thermal regime; -Recreational disturbance may lead to physical damage (erosion and fragmentation, accidental fires) as well as reduced bird breeding productivity; -Invasive species; -Reduced fecundity / genetic depression
Humber Flats, Marshes and Coast SPA	**Annex I birds and regularly occurring migratory birds not listed on Annex 1:** • *Anas crecca*; Eurasian Teal • *Anas penelope*; Eurasian Wigeon • *Anas platyrhynchos*; Mallard • *Arenaria interpres*; Ruddy turnstone • *Aythya marila;* Greater scaup • *Botaurus stellaris*; Great bittern • *Branta bernicla bernicla*; Dark-bellied brent goose • *Bucephala clangula;* Common	With regard to the individual species and/or assemblage of species for which the site has been classified; Subject to natural change, to maintain or restore: -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;	-Coastal development such as housing, commercial, and industrial development may lead to physical loss of habitat; -Flood defence could lead to loss and degradation of habitat, fragmentation, barrier effects (including coastal squeeze), changes in hydrology (flow rate and water level); -Sewage discharge (domestic and industrial) could lead to eutrophication, sedimentation, changes in turbidity and pH, salinity, indirect effects of reduced water quality on food resources;

	goldeneye • *Calidris alba*; Sanderling • *Calidris alpina alpine*; Dunlin • *Calidris canutus*; Red knot • *Charadrius hiaticula*; Common ringed plover • *Circus aerouginosus*; Western Marsh-harrier • *Circus cyaneus*; Hen harrier • *Haematopus ostralegus*; Eurasian oystercatcher • *Limosa lapponica*; Bar-tailed godwit • *Limosa limosa islandica*; Black-tailed godwit • *Numenius arquata*; Eurasian curlew • *Numenius phaeopus*; Whimbrel • *Philomachus pugnax*; Ruff • *Pluvialis apricaria;* Golden plover • *Pluvialis squatarola;* Grey plover • *Recurvirostra avosetta*; Pied avocet • *Sterna albifrons*; Little tern • *Tadorna tadorna*; Common shelduck • *Tringa nebularia*; Common greenshank • *Tringa tetanus*; Common redshank • *Vanellus vanellus:* Northern lapwing Article 4.1 qualification -Breeding season • *Botaurus stellaris*; Great Bittern • *Circus aeruginosus*; Eurasian marsh harrier	-The populations of the qualifying features; -The distribution of the qualifying features within the site.	-Recreation pressure may lead to impacts on integrity of breeding and wintering population via disturbance (noise, trampling, presence) - Hydrological changes (such as increased abstraction causing reduced freshwater input); Lack of reedbed management causing scrub encroachment.

	• *Recurvirostra avosatta;* Pied avocet • *Sterna albifrons*; Little tern -Wintering • *Botaurus stellaris*; Great Bittern • *Circus aeruginosus*; Eurasian marsh harrier • *Limosa lapponica*; Bar –tailed godwit • *Pluvialis apricaria*; European golden plover • *Recurvirostra avosetta*; Pied avocet -On passage • *Philomachus pugnax*; Ruff Article 4.2 qualification -Wintering • *Calidris alpina alpina*; Dunlin • *Calidris canutus*; Red knot • Limosa limosa islandica; Black-tailed godiwit • Tadorna tadorna; Common shelduck • Tringa totanus; Common redshank -On passage • Calidris alpina alpina; Dunlin • Calidris canutus; Red knot • Limosa limosa islandica; Black-tailed godwit • Tringa totanus; Common redshank -An internationally important assemblage of birds 153934 waterfowl		
Leighton Moss SPA	**Annex I birds and regularly occurring migratory birds not listed on Annex 1:** • *Botaurus stellaris*; Great bittern • *Circus aeruginosus*; Eurasian	With regard to the individual species and/or assemblage of species for which the site has been classified;	-Contamination may occur due to eutrophication by agrochemicals or through saline incursion -Changes in water levels (including

	marsh harrier Article 4.1 qualification • *Botaurus stellaris*; Great bittern • *Circus aeruginosus*; Eurasian marsh harrier	Subject to natural change, to maintain or restore: -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.	through groundwater extraction) may cause changes in hydrology (flow rate and water levels). Stability during breeding season is particularly important; -Lack of scrub control may lead to physical loss (smothering) of habitat and changes in hydrology -Dead leaf litter accumulation may cause habitat loss due to drying out of reed beds -Recreational disturbance leading to noise, trampling and disturbance.
Lower Derwent Valley SPA	**Annex I birds and regularly occurring migratory birds not listed on Annex 1:** • *Anas clypeata*; Northern shoveler • *Anas crecca*; Eurasian teal • *Anas penelope*; Eurasian wigeon • Bewick's swan (*Cygnus columbianus bewickii)* - regularly supports 0.7% of the GB population • Ruff (*Philomachus pugnax)* - supports 19% of the GB population • Golden plover (*Pluvialis apricaria)* - regularly supports at least 2.4% of the GB breeding population Article 4.1 qualification -Winter • *Cygnus columbianus bewickii*; Bewick's swan • *Philomachus pugnax*; Ruff • *Pluvialis apricaria*; European golden plover Article 4.2 Qualification	With regard to the individual species and/or assemblage of species for which the site has been classified; Subject to natural change, to maintain or restore: -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.	-Dead leaf litter accumulation may cause habitat loss due to drying out of reed bed; -Coal or other extraction industry may cause physical loss of habitat (removal and smothering) or hydrological change (water level and flow rate); -Flood management and tidal barrage may exhibit effects such as hydrological change (water level and flow rate), physical damage (barrier effects and habitat fragmentation); -Domestic and industrial sewage outflow may lead to non-toxic contamination (phosphorous enrichment); -Intensive agriculture may lead to physical loss of habitat (removal), physical damage (erosion, habitat fragmentation, siltation of waterbodies from agricultural runoff), contamination of groundwater (e.g. from sheep dipping) and nutrient enrichment; -Process industry may cause acidification of wetlands from sulphur deposition; -Alteration of channel structure (canalisation, artificial barriers, etc.)

	-Breeding • *Anas clypeata*; Northern shoveler -Wintering • *Anas crecca*; Eurasian teal • *Anas Penelope*; Eurasian wigeon Article 4.2 qualification • 40616 waterfowl, including: • *Cygnus columbianus bewickii* • *Anas Penelope* • *Anas crecca* • *Pluvialis apricaria* • *Philomachus pugnax*		may lead to physical loss and damage (removal of and damage to riverside woodlands, barrier effects and habitat fragmentation), or hydrological change (water level and flow rate); -Water abstraction could cause hydrological change (water level and flow rate) or physical damage (drying and habitat fragmentation); -Waste management (e.g. landfill) may lead to physical loss (removal and smothering), nutrient deposition and acidification, hydrological change (water level and flow rate); -Housing development, inappropriate access and other development could cause recreation pressure leading to physical damage (erosion and fragmentation, accidental fires) and disturbance of nesting and/or over-wintering birds, as well as physical loss of habitat.
Morecambe Bay SPA	**Annex I birds and regularly occurring migratory birds not listed on Annex 1:** • *Anas acuta*; Northern pintail • *Anser brachyrhynchus*; Pink-footed goose • *Arenaria interpres*; Ruddy turnstone • *Calidris alpina alpina*; Dunlin • *Calidris canutus*; Red knot • *Charadrius hiaticula*; Ringed plover • *Haematopus ostragegus*;	With regard to the individual species and/or assemblage of species for which the site has been classified; Subject to natural change, to maintain or restore: -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;	-Land claim for agriculture would lead to physical loss of habitat (removal); -Intensive agriculture leading to physical loss of habitat (removal), physical damage (erosion, habitat fragmentation, siltation from agricultural runoff), toxic contamination of groundwater (sheep dipping), and nutrient enrichment; -Intensive grazing may cause physical loss of habitat (removal), physical damage (trampling); -Coastal protection and flood defence leading to prevention of natural erosion,

	Eurasian oystercatcher • *Limosa lapponica*; Bar-tailed godwit • *Numenius arquata*; Eurasian curlew • *Pluvialis squatarola*; Grey plover • *Sterna sandvicensis*; Sandwich tern • *Tadorna tadorna*; Common shelduck • *Tringa totanus*; Common redshank Article 4.1 qualification -Breeding • *Sterna sandvicensis*; Sandwich tern -Wintering • *Anas acuta*; Northern pintail • *Anser brachyrhynchus*; Pink-footed goose • *Arenaria interpres*; Ruddy turnstone • *Calidris alpina alpina*; Dunlin • *Calidris canutus;* Red knot • *Haematopus ostragegus*; Eurasian oystercatcher • *Limosa lapponica*; Bar-tailed godwit • *Numenius arquata*; Eurasian curlew • *Pluvialis squatarola*; Grey plover • *Tadorna tadorna*; Common shelduck • *Tringa totanus*; Common redshank	-The distribution of the qualifying features within the site.	loss and degradation of habitat, fragmentation, barrier effects, changes in hydrology (flow rate and water level); -Fishing may cause physical damage (erosion, fragmentation); -Quarrying may lead to physical loss of habitat (removal), physical damage (sedimentation, erosion, fragmentation, barrier effects), hydrological change (water level), and changes in thermal regime and turbidity; -Gas exploration may lead to physical damage; -Recreational disturbance may lead to physical damage (erosion and fragmentation)

	-On passage • *Charadrius hiaticula*; Ringed plover Article 4.2 qualification • 61858 seabirds (breeding), including *sterna sandvicensis* • 210668 waterfowl (wintering)		
North Pennine Moors SPA	**Annex I birds and regularly occurring migratory birds not listed on Annex 1:** • *Circus cyaneus* – Hen Harrier - regularly supports 2.2% of the GB breeding population • *Falco columbarius* – Merlin - regularly supports 10.5% of the GB breeding population • *Falco peregrinus* – Peregrine falcon - regularly supports 1.3% of the GB breeding population • *Pluvialis apricaria* – European golden plover - regularly supports at least 6.2% of the GB breeding population Article 4.1 qualification: -Breeding • *Circus cyaneus*; Hen harrier • *Falco columbarius*; Merlin • *Falco peregrinus*; Peregrine falcon • *Pluvialis apricaria*; European golden plover	With regard to the individual species and/or assemblage of species for which the site has been classified; Subject to natural change, to maintain or restore: -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.	-Intensive grazing causing physical loss of habitat (removal), physical damage (erosion, habitat fragmentation) and nutrient enrichment; -Agrochemicals (sheep dip) causing toxic contamination of groundwater; -Agricultural drainage causing hydrological change (water level and flow rate), physical loss and damage (drying and fragmentation); -Poor muirburn management leading to physical loss (removal), damage (habitat fragmentation); -Process industry causing acid and nitrogen deposition; -Waste management (landfill) causing acid and nitrogen deposition, changes in hydrology; -Woodland management may lead to physical loss of habitat (removal and smothering) or physical damage (fragmentation); -Recreational disturbance may lead to physical damage (erosion and fragmentation, accidental fires); disturbance of nesting birds.

	Additional Qualifying features identified by the 2001 UK SPA review[32]: • *Calidris alpina alpina*; Dunlin • *Numenius arquata*; Eurasian curlew		-Loss / improvement of in bye (enclosed) land
North York Moors SPA	**Annex I birds and regularly occurring migratory birds not listed on Annex 1:** • *Falco columbarius*; Merlin • *Pluvalius apricaria*; European golden plover Article 4.1 qualification -Breeding • *Falco columbarius*; Merlin • *Pluvalius apricaria*; European golden plover	With regard to the individual species and/or assemblage of species for which the site has been classified; Subject to natural change, to maintain or restore: -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.	-Agricultural management (e.g. overgrazing) causing physical loss of habitat (removal), physical damage (erosion, habitat fragmentation, and non-toxic contamination (nutrient enrichment); and under-grazing leading to physical loss (smothering, scrub encroachment), this includes improvement of in bye land; -Poor muirburn management may lead to physical loss of habitat (removal) and damage to habitats (e.g. through habitat fragmentation); -Agricultural drainage could cause hydrological change (water level and flow rate), physical loss and damage (drying and fragmentation); -Recreational pressure could cause physical damage (erosion and fragmentation, accidental fires) and disturbance of nesting birds; -Illegal persecution of raptors may cause loss of species, reduced breeding success
South Pennine Moors Phase 2 SPA	**Annex I birds and regularly occurring migratory birds not listed on Annex 1:** • *Asio flammeus* – Short-eared owl - regularly supports at least 0.3% of the GB breeding population • *Falco columbarius* – Merlin - regularly supports at least 2.2% of the GB breeding population	With regard to the individual species and/or assemblage of species for which the site has been classified; Subject to natural change, to maintain or restore: -The extent and distribution of the habitats of the qualifying features; -The structure and function of the habitats of the	-Recreational pressure leading to physical damage (trampling, erosion and fragmentation, accidental fires); -Overgrazing by sheep causing physical loss of habitat (removal), physical damage (erosion, habitat fragmentation), and nutrient enrichment; -Poor muirburn management on grouse moors - physical loss of habitat

[32] Additional qualifying features were added to some SPAs following a review by JNCC published in 2001

	• *Pluvialis apricaria* – European golden plover - regularly supports 1.3% of the GB breeding population Article 4.1 qualification -Breeding • *Asio flammeus*; Short-eared owl • *Falco columbarius;* Merlin • *Pluvalius apricaria*; European golden plover Article 4.2 qualification -An internationally important assemblage of birds including (breeding): • *Actitis hypoleucos*; Common sandpiper • *Calidris alpina schinzill;* Dunlin • *Corduelis flavirostris*; Twite • *Gallinago gallinago;* Common snipe • *Numenius arquata;* Eurasian curlew • *Oenathe oenanthe*; Northern wheatear • *Saxicola rubertra;* Whinchat • *Tringa totanus; Common redshank* • *Turdus torquatus*; Ring Ouzel • *Vanellus vanellus*; Northern Lapwing Additional qualifying features identified by the 2001 UK SPA Review: • *Falco peregrinus*; Peregrine falcon (breeding) • *Asio Flammeus*; Short-eared owl (breeding) • *Calidris alpina schinzii*; Dunlin	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.	(removal), damage (habitat fragmentation), accidental fires; -Agricultural drainage may cause hydrological change (water level and flow rate), physical loss and damage (drying and fragmentation) -Loss / improvement of in bye (enclosed) land

	(breeding)		
Teesmouth & Cleveland Coast SPA	**Annex I birds and regularly occurring migratory birds not listed on Annex 1:** • *Sterna albifrons –Little tern* - regularly supports 1.7% of the GB breeding population • *Sterna sandvicensis –Sandwich tern* - regularly supports 6.8% of the GB breeding population Article 4.1 qualification -Breeding • *Sterna albifrons;* Little tern -On passage • *Sterna sandvicensis*; Sandwich tern Article 4.2 qualification -Wintering: • *Calidris cantutus;* Red knot -On passage: • *Tringa totanus*; Common redshank Over winter the area regularly supports 12312 waterfowl including *Calidris canutus* Additional Qualifying features Identified by the 2001 UK SPA Review: • *Charadrius hiaticula*; Ringed plover (Non breeding)	With regard to the individual species and/or assemblage of species for which the site has been classified; Subject to natural change, to maintain or restore: -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.	-Process industry causing depletion of oxygen in the water, reductions in species, habitat loss; -Flood management leading to hydrological change (water level and flow rate), physical damage (barrier effects and habitat fragmentation); - Alteration of channel structure causing hydrological change (flow rate) and physical loss and damage (erosion of silt beds); -Scrub invasion causing physical loss (smothering by scrub encroachment); -Recreational pressure leading to physical damage (trampling, erosion and fragmentation), impacts on breeding birds due to disturbance (noise, trampling, presence); -Bait gathering resulting in loss of species, reduced breeding success.
Thorne and Hatfield Moors SPA	**Annex I birds and regularly occurring migratory birds not listed on Annex 1:** • *Caprimulgus europaeus;* European nightjar	With regard to the individual species and/or assemblage of species for which the site has been classified; Subject to natural change, to maintain or restore:	-Peat cutting leading to physical damage (loss), hydrological change (groundwater level and flow rate); - Water abstraction causing hydrological change (groundwater level and flow

	Article 4.1 qualification -Breeding • *Caprimulgus europaeus;* European nightjar	-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.	rate); - Lack of scrub management resulting in physical loss (smothering by scrub encroachment); - Recreational pressure leading to physical damage (erosion and fragmentation, accidental fires) and disturbance (noise, trampling, presence).

Table A 1.3 Ramsar Sites

Name of Site	Qualifying features	Conservation Objectives	Key Threats to Site Integrity
Humber Estuary Ramsar	The site qualifies under: **Ramsar criterion 1**: The site is a representative example of a near-natural estuary with the following component habitats: dune systems and humid dune slacks, estuarine waters, intertidal mud and sand flats, saltmarshes, and coastal brackish/saline lagoons. **Ramsar criterion 3**: The Humber Estuary Ramsar site supports a breeding colony of grey seals *Halichoerus grypus* at Donna Nook. It is the second largest grey seal colony in England and the furthest south regular breeding site on the east coast. The dune slacks at Saltfleetby-Theddlethorpe on the southern extremity of the Ramsar site are	For most Ramsar sites interest features are covered by the conservation objectives for the SAC, Special Protection Area or Site of Special Scientific Interest as appropriate. However, in 2003 English Nature published specific advice[33] on conservation objectives for Ramsar criteria[34] at the site. These are: Criteria 3: Subject to natural change, maintain the wetland hosting a breeding colony of grey seals in favourable condition, in particular: -Intertidal mudflats and sandflats Criteria 5: Subject to natural change, maintain the wetland regularly supporting 20,000 or more waterfowl in favourable condition, in particular: -Intertidal mudflats and sandflats;	-Coastal development (housing, commercial, industry) leading to loss and degradation of habitat, (toxic and non-toxic contamination, erosion, fragmentation, sedimentation, etc.) impacts on integrity of breeding and wintering population via disturbance (noise, trampling, presence); -Flood defence leading to loss and degradation of habitat, fragmentation, barrier effects and coastal squeeze, changes in hydrology (flow rate and water level); -Sewage discharge (domestic and industrial) and pollution from fertiliser ingress resulting in eutrophication, sedimentation changes in turbidity and pH, salinity, indirect effects of reduced water quality on food resources.

[33] English Nature, 2003. The Humber Estuary European Marine Site: English Nature's advice given under Regulation 33 (2) of the Conservation (Natural Habitats &c.) Regulations 1994: Interim Advice, April 2003 [URL: humberems.co.uk/downloads/English%20Natures%20Reg%2033%20Advice.pdf]

[34] At the time of publication the Humber Estuary qualified under criteria 2, 3, 5 and 6.

Name of Site	Qualifying features	Conservation Objectives	Key Threats to Site Integrity
	the most north-easterly breeding site in Great Britain of the natterjack toad *Bufo calamita*. **Ramsar criterion 5:** Assemblages of international importance – 153,934 waterfowl, non breeding season. **Ramsar criterion 6:** species / populations at levels of international importance: *- Pluvialis apricaria altifrons (on passage: 2.2% of population)* *- Calidris canutus islandica (on passage: 4.1 %);* *- Calidris alpine alpine (on passage: 1.5 %);* *-Limosa limosa islandica (on passage: 2.6%);* *-Tringa totanus brittanica (on passage*: 5.7%) *-Tadorna tadorna (wintering: 1.5%)* *-Pluvialis apricaria altifrons (wintering:3.8% of population)* *-Calidris canutus islandica (wintering: 6.3%);* *- Calidris alpine alpina (wintering: 1.7%);* *- Limosa limosa islandica (wintering: 3.2%);* *- Limosa lapponica lapponica (wintering: 2.3%);* *- Tringa totanus brittanica (wintering: 3.6%)*. **Ramsar criterion 8:** The Humber Estuary acts as an important migration route for both river lamprey *Lampetra fluviatilis*and sea lamprey *Petromyzon marinus* between coastal waters and their spawning areas.	-Saltmarsh communities; -Tidal reedbeds -Coastal lagoons Criteria 6: Subject to natural change, maintain the wetland regularly supporting 1 percent or more of the individuals in a population of one species or sub-species of waterfowl in favourable condition, in particular: -Intertidal mudflats and sandflats; -Saltmarsh communities; -Tidal reedbeds -Coastal lagoons	Upstream pollution may cause a barrier to fish migration; -Recreation pressure causing impacts on integrity of breeding and wintering population via disturbance (noise, trampling, presence); Hydrological changes (such as increased abstraction causing reduced freshwater input); Lack of reedbed management causing scrub encroachment.

Name of Site	Qualifying features	Conservation Objectives	Key Threats to Site Integrity
Leighton Moss Ramsar	The site qualifies under: **Ramsar criterion 1**: the site is an example of a large reedbed habitat characteristic of the biogeographical region. The site is particularly important for breeding populations of great bittern *Botaurus stellaris,* Eurasian marsh harrier *Circus aeruginosus* and bearded tit *Panurus biarmicus.* **Ramsar criterion 3:** The site supports a range of breeding birds (great bittern *Botaurus stellaris,* Eurasian marsh harrier *Circus aeruginosus* and bearded tit *Panurus biarmicus)* and also nationally important numbers of northern shoveler *Anas clypeata* and water rail *Rallus aquaticus.*	No specific Ramsar conservation objectives have been published for this site. This Ramsar site's interest features are covered by the conservation objectives for the Sites of Special Scientific Interest as appropriate.	- Sedimentation/siltation resulting in increased turbidity and loss of aquatic flora and subsequently decreased quality of bittern habitat. - Pollution (pesticides/agricultural runoff) - slurry from adjacent dairy farm and inorganic compounds from other agricultural sources. - Contamination may occur due to eutrophication by agrochemicals or through saline incursion -Changes in water levels (including through groundwater extraction) may cause changes in hydrology (flow rate and water levels). Stability during breeding season is particularly important; -Lack of scrub control may lead to physical loss (smothering) of habitat and changes in hydrology -Dead leaf litter accumulation may cause habitat loss due to drying out of reed beds -Recreational disturbance leading to noise, trampling and disturbance.
Lower Derwent Valley Ramsar	The site qualifies under: **Ramsar criterion 1**: The site represents one of the most important examples of traditionally managed species-rich alluvial flood meadow habitat remaining in the UK. The river and flood meadows play a substantial role in the hydrological and ecological functioning of the Humber Basin.	No specific Ramsar conservation objectives have been published for this site. This Ramsar site's interest features are covered by the conservation objectives for the SAC, Special Protection Area or Sites of Special Scientific Interest as appropriate.	-Coal or other mineral extraction causing physical loss (removal and smothering), hydrological change (water level and flow rate); -Flood management and tidal barrage leading to hydrological change (water level and flow rate), physical damage (barrier effects and habitat fragmentation); - Domestic and industrial sewage

Name of Site	Qualifying features	Conservation Objectives	Key Threats to Site Integrity
	Ramsar criterion 2: The site has a rich assemblage of wetland invertebrates including 16 species of dragonfly and damselfly, 15 British Red Data Book wetland invertebrates as well as a leafhopper, *Cicadula ornate* for which Lower Derwent Valley is the only known site in Great Britain **Ramsar criterion 4**: The site qualifies as a staging post for passage birds in spring. Of particular note are the nationally important numbers of Ruff, *Philomachus pugnax* and Whimbrel, *Numenius phaeopus*. **Ramsar criterion 5**: Assemblages of international importance – 31942 waterfowl – species with peak counts in winter. **Ramsar criterion 6:** species / populations at levels of international importance: -*Anas Penelope* (2% of GB population); -*Anas crecca* (1% of the population);		outflow causing nutrient / phosphorous enrichment; - Intensive agriculture leading to physical loss of habitat (removal), physical damage (erosion, habitat fragmentation, siltation from agricultural runoff), toxic contamination of groundwater (sheep dipping), and non-toxic contamination (nutrient enrichment); - Process industry causing non-toxic contamination (acidification from sulphur deposition); - Alteration of channel structure (canalisation, artificial barriers, etc.) leading to physical loss and damage (removal of and damage to riverside woodlands, barrier effects and habitat fragmentation), hydrological change (water level and flow rate); -Water abstraction resulting in hydrological change (water level and flow rate), physical damage (drying and habitat fragmentation); - Waste management (including landfill) causing physical loss of habitat (removal and smothering), nutrient deposition and acidification and hydrological change (water level and flow rate); - Housing, inappropriate access and other development leading to recreational pressure may lead to physical damage (erosion and fragmentation, accidental fires); disturbance of nesting and/or over-wintering birds.
Malham Tarn Ramsar	The site qualifies under: **Ramsar criterion 1**: Contains the highest	No specific Ramsar conservation objectives have been published for this site. This Ramsar site's interest features are covered by the conservation	- Process industry leading to acidification of habitat from sulphur deposition;

Name of Site	Qualifying features	Conservation Objectives	Key Threats to Site Integrity
	marl lake in Britain, along with acidophilous bog, calcareous fen and soligenous mire. **Ramsar criterion 2**: Supports the nationally rare alpine bartisia *Bartsia alpina* and narrow small reed *Calamagrostis stricta* and seven nationally scarce species. Supports five listed British Red Data Book invertebrates including the caddis fly *Agrypnia crassicornis*	objectives for the Sites of Special Scientific Interest as appropriate.	- Agricultural drainage causing hydrological change (water level and flow rate); - Recreational pressure may cause physical damage (erosion and fragmentation); - Quarrying could cause physical loss of habitat (removal), physical damage (sedimentation, erosion, fragmentation, barrier effects), hydrological change (water level), and changes in thermal regime and turbidity; - Agricultural and industrial runoff in catchment could lead to non-toxic contamination (nutrient enrichment).
Morecambe Bay Ramsar	The site qualifies under: **Ramsar criteria 4**: The site is a staging area for migratory waterfowl including internationally important numbers of passage ringed plover *Charadrius hiaticula*. **Ramsar criterion 5**: Assemblages of international importance – 223709 waterfowl – species with peak counts in winter. **Ramsar criterion 6**: species / populations at levels of international importance: Regularly supported during breeding season: -*Larus fuscus graellsii* (13.3% of the breeding population) -*Larus argentatus argentatus* (2.8% of the breeding population) -*Sterna sandvicensis sandvicensis* (2.8% of GB population)	No specific Ramsar conservation objectives have been published for this site. This Ramsar site's interest features are covered by the conservation objectives for the SAC, Special Protection Area or Sites of Special Scientific Interest as appropriate.	-Land claim for agriculture may lead to physical loss (removal) of habitat; -Intensive agriculture could cause physical loss of habitat (removal), physical damage (erosion, habitat fragmentation, siltation from agricultural runoff), toxic contamination of groundwater (sheep dipping), and nutrient enrichment of habitats; -Intensive grazing leading to physical loss of habitat and physical damage (trampling); - Coastal protection and flood defence may have the effect of preventing natural erosion, and / or causing loss and degradation of habitat, fragmentation, barrier effects and changes in hydrology (flow rate and water level); -Fishing may lead to physical damage to habitat (erosion, fragmentation); -Quarrying may cause physical loss of habitat, physical damage (sedimentation, erosion, fragmentation, barrier effects), hydrological change

Name of Site	Qualifying features	Conservation Objectives	Key Threats to Site Integrity
	Species with peak counts in spring / autumn: -*Phalacrocorax carbo carbo* (4.2 % of the GB population; -*Tadorna tadorna* (2.3% of the population) -*Anas acuta* (6.2 % of the population -*Somateria mollisima mollisima* (7.7 % of the GB population) -*Haematopus ostralegus ostralegus* (6.5% of the GB population) -*Charadrius hiaticula* (1.4% of the population) -*Pluvalius squatarola* (3.1% of GB population) -*Calidris alba* (3.4%of the GB population) -*Numenius arquata arquata* (4.7% of the population) -*Tringa totanus totanus* (3.5% of the population) -*Arenaria interpres interpres* (1.4% of the population) -*Larus fuscus graellsii* (7.6% of the population) Species with peak counts in winter: -*Podiceps cristatus cristatus* (1.3% of the population) -*Anser brachyrhynchus* (1.5% of the population) -*Anas Penelope* (1.5% of the GB population) -*Bucephala clangula clangula* (1.1% of the GB population) -*Mergus serrator* (3.3% of the GB population) -*Pluvailis apricaria apricaria* (1.6% of the GB population) -*Vanellus vanellus* (1% of the GB		(water level), or changes in thermal regime and turbidity; -Gas exploration may result in physical damage to habitat; -Recreational disturbance may lead to physical damage (erosion and fragmentation)

Name of Site	Qualifying features	Conservation Objectives	Key Threats to Site Integrity
	population) -*Calidris canutus islandica* (14.7% of the population) -*Calidris alpina alpina* (1.9% of the population) -*Limosa lapponica lapponica* (3.8 % of the population)		
Teesmouth & Cleveland Coast Ramsar	The site qualifies under Ramsar criterion 5: Assemblages of international importance - 9528 waterfowl – species with peak counts in winter. Ramsar criterion 6 – species occurring at levels of international importance: Species with peak counts in spring / autumn *Calidris canutus islandica* (0.9% of the GB population) Species with peak counts in winder *Calidris canutus islandica* (0.9% of the GB population)	No specific Ramsar conservation objectives have been published for this site. This Ramsar site's interest features are covered by the conservation objectives for the SAC, Special Protection Area or Sites of Special Scientific Interest as appropriate.	-Process industry could cause depletion of oxygen / eutrophication in the water, reductions in species, habitat loss; -Flood management may cause hydrological change (water level and flow rate) or physical damage (barrier effects and habitat fragmentation); - Alteration of channel structure could lead to hydrological change (flow rate), physical loss and damage (erosion of silt beds); - Scrub invasion may result in physical loss of habitat (i.e. smothering by scrub encroachment); -Recreational pressure could cause physical damage to habitat (trampling, erosion and fragmentation), impacts on integrity of breeding and via disturbance (noise, trampling, presence); -Bait gathering leading to loss of species, reduced breeding success

Contact us

Minerals and Waste Joint Plan Team Planning Services, North Yorkshire County Council, County Hall, Northallerton, North Yorkshire, DL7 8AH

Tel: **01609 780780** Email: **mwjointplan@northyorks.gov.uk**