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Assessment under the Habitats Regulations

Appropriate Assessment

Whitby Business Park Area Action Plan

**North York Moors National Park Authority
Scarborough Borough Council**

Publication – November 2013

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1. Summary

- 1.1 The Screening Assessment undertaken on the Whitby Business Park Area Action Plan revealed that in relation to some policies the possibility of harm to the integrity of Natura 2000 sites could not be ruled out. Therefore under the Habitats Directive an Appropriate Assessment is required.
- 1.2 This Appropriate Assessment has considered in more detail the potential for policies in the Whitby Business Park Area Action Plan to harm the integrity of Natura 2000 sites. This has revealed that increasing the amount of employment space in Whitby and providing uses for visitors may have negative effects on the sites in terms of disturbance and trampling and emissions from vehicles, but that any effects are likely to be negligible. Nevertheless, in addition to existing mechanisms which exist outside of the planning system for controlling visitor activity, mitigation measures were proposed at Draft AAP stage which have been incorporated within the Publication AAP. These relate to clarifying the role of the AAP within the wider planning system.
- 1.3 In light of the findings of this assessment, and following the incorporation of appropriate mitigation measures, the National Park Authority and Scarborough Borough Council are satisfied that the Whitby Business Park Area Action Plan will not lead to harm to the integrity of any Natura 2000 sites.

2. Requirement for an Appropriate Assessment

- 2.1 The Habitats Directive states that '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, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of that assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.'
- 2.2 This Appropriate Assessment therefore aims to ensure there will be no harm to the integrity of Natura 2000 sites. The Screening Assessment report contains more information on the background to Habitats Regulations Assessment.

Screening Assessment

- 2.3 A Screening Assessment was initially undertaken in relation to the Draft Area Action Plan which was consulted on in May and June 2013. This identified that for some of the proposed policies in the Whitby Business Park Area Action Plan, whilst significant effects may not be likely, they could not be ruled out. The Screening Assessment therefore concluded that it is necessary to undertake an Appropriate Assessment of those policies where effects could not be ruled out. The Screening Assessment was reviewed following the amendments made to the Area Action Plan to take into account responses made to the consultation and the mitigation measures recommended in the Sustainability Appraisal Report. The review concluded that the amendments to the Plan did not change the conclusions of the Screening Assessment and therefore the Appropriate Assessment remains relevant to the Publication AAP. This Appropriate Assessment should be read in combination with the Screening Assessment.

3. Appropriate Assessment

- 3.1 The following guidance has been used in undertaking the Appropriate Assessment:
- Planning for the Protection of European Sites: Appropriate Assessment (Draft, DCLG, 2006)
 - Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites' (European Commission, 2001)
 - Habitats Regulations Guidance Notes 1, 3 and 4 (English Nature 1997, 1999 and 2001)
 - The Assessment of Regional Spatial Strategies and Sub-Regional Strategies under the Provisions of the Habitats Regulations (David Tyldesley and Associates for Natural England, 2006)
 - ODPM Circular 06/2005 Biodiversity and Conservation
 - The Appropriate Assessment of Spatial Plans in England – A Guide to How, When and Why to do it (RSPB, 2007)

Level of detail

- 3.2 It is necessary to undertake a more detailed assessment than was conducted for the Screening Assessment. Although the Area Action Plan is allocating land for development, it is not possible to be completely certain about any effects as this will depend upon the types of occupants and the behaviours of their customers and employees.

Information requirements

- 3.3 In order to assess the possible effects of each policy in sufficient detail it is necessary to first establish the level of information that is required.

The following information is required in relation to the SACs and SPAs:

- Location of the site;
- The site's qualifying features;
- Vulnerabilities;
- Conservation Objectives
- The conservation status of the sites

This information is contained, where available, in Appendix 1.

The questions below will help to identify the nature of any effects:

- Will it lead to a loss of habitat?
- Will it lead to fragmentation and isolation of habitats?
- Will it change any key habitat features?
- Will it lead to disturbance of species from noise, light or other visible features?
- Will it affect the quantity or quality of water in the sites?
- Will it affect air quality?

- 3.4 The assessment considers whether these effects are direct or indirect, and whether there are likely to be any cumulative effects. The significance of these effects is considered in relation to their magnitude and permanence. The assessment considers the effects in relation to the sites' qualifying features. In-combination effects were considered as part of the screening process.

- 3.5 The assessment concentrates upon the possible negative effects arising from the policies rather than any positive effects. The Screening Assessment did identify a few areas where positive effects may arise.

Methodology

- 3.6 The assessment has primarily been based upon consideration of the sites' vulnerabilities and reference to published data and reports where these are available, as well as the use of Ordnance Survey maps. Condition assessments are not available for the sites. Natural England has been consulted as part of the Appropriate Assessment.
- 3.8 Table 1 overleaf identifies where policies in the AAP may lead to harm to the integrity of Natura 2000 sites. This is a summarised version of the full detailed assessment which is contained in Appendix 2 this report. Mitigation measures are identified in the table and these are discussed in more detail in section 4 of this report. Two of the mitigation measures identified in the Appropriate Assessment of the Draft AAP related to the inclusion of additional wording in the AAP. This additional wording has been included in the Publication AAP.

Table 1: Assessment of effects

Assessment sheets containing the detailed predicted effects of each individual policy are contained in Appendix 2.

Policy consequence	Potential harm to the integrity of Natura 2000 sites	Relevant AAP policies	Mitigation
<p>Increase in number of vehicle movements along the A169 and A171. (Due to the location of Whitby in relation to the SACs and SPA any new uses of this type in the town would have similar impacts). The increases in vehicle numbers are likely to be relatively small when compared to current traffic levels.</p>	<p>Effects on air quality, including nitrogen deposition, at Fen Bog SAC, North York Moors SAC and North York Moors SPA, which can lead to effects on the vegetation. These are likely to be negligible increases.</p>	<p>Policy 2 , 3 and 4</p>	<p>Policy 7 of the Area Action Plan requires new developments to make provision for more sustainable modes of travel to and from the site including through the use of public transport. A Travel Plan is required for the whole of the Business Park.</p> <p>New uses at the Business Park on the allocated sites would require planning permission. This would provide an opportunity to look more precisely at predicted vehicle movements and seek to mitigate these through the Travel Plan. The need for any site specific Appropriate Assessment would be triggered via the planning application process. Planning permission would not be granted for any development which would harm the integrity of the Natura 2000 sites, in accordance with the Habitats Directive.</p> <p>Following the recommendations in the Appropriate Assessment undertaken on the Draft AAP, paragraph 1.8 of the AAP states that ‘All applications for planning permission would be considered against the adopted policies in Scarborough Borough Council’s Local Plan and the North York Moors National Park Core Strategy and Development Policies, as well as the policies in this Area Action Plan.’ These policies include the requirement to protect designated sites.</p> <p>Core Policy C in the North York Moors Core Strategy and Development Policies states that ‘All developments, projects and activities will be expected to: (1) provide an appropriate level of protection to legally protected sites and species’ and provides cross-reference to DEFRA and ODPM Circular ‘Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System’. Planning permission would not be granted for any development which would harm the integrity of the Natura 2000 sites, in accordance with the Habitats Directive.</p> <p>Policy E9 of the Scarborough Borough Local Plan states ‘On sites which are</p>

Policy consequence	Potential harm to the integrity of Natura 2000 sites	Relevant AAP policies	Mitigation
			<p>designated or proposed to be designated because of their international importance for nature conservation, proposals will normally only be permitted where they are directly connected with or necessary to the management of the site, or, together with other proposals they will not adversely affect the integrity of the site. Proposals which do not meet these criteria will only be permitted where no alternative site exists and there are imperative reasons of over-riding public interest, but where the site hosts a priority habitat or species (as listed in EC Directive 92/43), proposals will only be permitted where they are required for reasons of human health and public safety or will lead to benefits of primary importance to the environment. The designated Special Protection Areas and any proposed Special Area of Conservation form part of the Natura 2000 European network of nature conservation sites wherein, in addition to any mitigation measures necessary to accommodate development within the above terms, special compensatory measures may be required through planning conditions / legal agreement, to maintain the coherence of the network.'</p>
Emissions to the air from new industrial uses	Effects on air quality, including sulphur deposition, at all of the sites which can lead to effects on the vegetation.	Policy 2	<p>New uses at the Business Park on the allocated sites would require planning permission. This would provide an opportunity to look more precisely at any predicted emissions and seek to avoid or mitigate these. The need for any site specific Appropriate Assessment would be triggered via the planning application process. Planning permission would not be granted for any development which would harm the integrity of the Natura 2000 sites, in accordance with the Habitats Directive.</p> <p>Following the recommendations in the Appropriate Assessment undertaken on the Draft AAP, paragraph 1.8 of the AAP states that 'All applications for planning permission would be considered against the adopted policies in Scarborough Borough Council's Local Plan and the North York Moors National Park Core Strategy and Development Policies, as well as the policies in this Area Action Plan.' These policies include the requirement to protect designated sites.</p> <p>Core Policy C in the North York Moors Core Strategy and Development Policies states that 'All developments, projects and activities will be expected</p>

Policy consequence	Potential harm to the integrity of Natura 2000 sites	Relevant AAP policies	Mitigation
			<p>to: (1) provide an appropriate level of protection to legally protected sites and species' and provides cross-reference to DEFRA and ODPM Circular 'Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System'. In addition, Development Policy 1 states that '...Development will only be permitted where: (1) It will not have an unacceptable adverse impact on surface and ground water, soil, air quality and agricultural land.'</p> <p>Policy E9 of the Scarborough Borough Local Plan states 'On sites which are designated or proposed to be designated because of their international importance for nature conservation, proposals will normally only be permitted where they are directly connected with or necessary to the management of the site, or, together with other proposals they will not adversely affect the integrity of the site. Proposals which do not meet these criteria will only be permitted where no alternative site exists and there are imperative reasons of over-riding public interest, but where the site hosts a priority habitat or species (as listed in EC Directive 92/43), proposals will only be permitted where they are required for reasons of human health and public safety or will lead to benefits of primary importance to the environment. The designated Special Protection Areas and any proposed Special Area of Conservation form part of the Natura 2000 European network of nature conservation sites wherein, in addition to any mitigation measures necessary to accommodate development within the above terms, special compensatory measures may be required through planning conditions / legal agreement, to maintain the coherence of the network.'</p> <p>Policy E38 of the Scarborough Borough Local Plan relates to protection of air quality and states 'Development will not be permitted where any resultant deterioration in air quality would directly affect: 1) Residential amenity through smell, dust or in terms of public health; 2) The recreational enjoyment of the coast, the wolds or the North York Moors fringe; 3) Nature conservation interests; 4) The implementation of Local Plan land allocations.'</p> <p>Emissions are also controlled via the Environment Agency's permit system.</p>

Policy consequence	Potential harm to the integrity of Natura 2000 sites	Relevant AAP policies	Mitigation
<p>Increased number of people in the SAC and SPA. The increase is likely to be relatively small when compared to current visitor numbers.</p>	<p>Trampling of vegetation and habitat in any of the sites. Individual incidences of trampling are unlikely to harm the integrity of the sites but cumulative effects may do. All sites contain public rights of way and the North York Moors SAC and North York Moors SPA are largely Open Access land.</p>	<p>Policy 4</p>	<p>Protecting the natural environment of the National Park is embedded within the National Park Authority's activities related to promoting enjoyment and understanding. Below are a number of examples of how this is achieved in practice:</p> <ul style="list-style-type: none"> • Interpretation boards across the Park and interpretation provided at the visitor centres encourage people to act in a way which will not harm the habitats and wildlife. • The Moors Message is widely promoted and, amongst other messages, states 'Tread Gently - despite surviving all sorts of weather, the moors, their plants and animals are fragile and sensitive.' The Moors Message is publicised on the Authority's website, in visitor centres, on signs and in mobile units. • The National Park Authority has powers to impose Traffic Regulation Orders in instances where vehicular use is damaging the National Park's special qualities. • The National Park Authority and Natural England have established an events protocol whereby event organisers must avoid sensitive locations and times. • The National Park Authority's Recreation and Park Management department works closely with environmental and wildlife organisations such as the Hawk and Owl Trust and Butterfly Conservation. <p>In reality, very few visitors to the National Park divert from defined routes. The National Park Authority promotes this behaviour through ensuring that the rights of way network is well managed and well signposted and the Authority produces numerous leaflets promoting specific walks which enable people to enjoy a walk using defined routes. Whilst much of the moorland is defined as open access land evidence suggests¹ that only a small minority make use of this right, and that those who do often stick to surfaced tracks. The Authority is able to undertake works to prevent damage where it is possible it may occur for example by resurfacing the proper route or by putting barriers in place.</p>

¹ A 2008 survey revealed that only 3.7% of users of public rights of way and open access land in locations where open access land exists, used open access land off paths and tracks.

Policy consequence	Potential harm to the integrity of Natura 2000 sites	Relevant AAP policies	Mitigation
			<p>The Recreation and Access Strategy aims to focus recreational activities at existing 'hubs' and states 'Develop a range of recreational opportunities at 'hubs' providing a managed focus for activities that links in with public transport and lower key access opportunities in surrounding areas.' The hubs are not defined in the Recreation and Access Strategy but include the two National Park visitor centres at Sutton Bank and Danby, Dalby Forest, Guisborough Forest and Saltergate. With the exception of Saltergate all of these hubs are located away from SACs and the SPA in the Park. Directing visitors to hubs is therefore likely to relieve pressure from most areas designated as SAC or SPA. This approach is re-emphasised through Management Plan policy U1 which states 'Opportunities for a range of recreational activities will be developed around existing 'hubs''. In relation to Saltergate which is close to the moorland SAC and SPA, the Authority's activities generally revolve around management through signage and boards and information provided in a Mobile Display Unit in the car park which contain the messages listed in the paragraph above.</p> <p>The Recreation and Access Strategy also sets out policy in relation to the moorland which states 'The National Park Authority and its partners need to continue to promote the special qualities of the moorlands as a 'wilderness landscape' and encourage recreational activities appropriate to that special character. This is perhaps particularly important in reaching out to non-traditional users, so that expectations are realistic and pressure for inappropriate infrastructure is resisted. All facilities should be low key and sensitive to the area, and improvement works to e.g. highways should respect the special qualities. The only existing honeypot location is the Hole of Horcum on the edge of the moorlands character area. The development of other honeypots should be resisted so that the sense of tranquillity and unspoilt nature is maintained'.</p> <p>National Park Authority knowledge suggests that any damage and disturbance in the past has been very limited and very localised, and generally visitors are not harming the integrity of the Natura 2000 sites.</p>
	Disturbance to merlin and	Policy 4	Protecting the natural environment of the National Park is embedded within

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	<p>golden plover, qualifying features of the North York Moors SPA.</p> <p>Individual incidences of disturbance are unlikely to harm the integrity of the sites but cumulative effects may do.</p>		<p>the National Park Authority's activities related to promoting enjoyment and understanding. Below are a number of examples of how this is achieved in practice:</p> <ul style="list-style-type: none"> • Interpretation boards across the Park and interpretation provided at the visitor centres encourage people to act in a way which will not harm the habitats and wildlife. • The Moors Message is widely promoted and, amongst other messages, states 'Tread Gently - despite surviving all sorts of weather, the moors, their plants and animals are fragile and sensitive.' The Moors Message is publicised on the Authority's website, in visitor centres, on signs and in mobile units. • Advice to dog owners (which has been produced with Natural England, the Moorland Association and the Kennel Club) is widely publicised, including on the Authority's website, in visitor centres and in mobile units, and states: 'On moorland it's important to keep your dog on a short lead (less than 2 metres) between 1st March and 31st July when rare birds are nesting on the ground' 'In most moorland areas dogs must stay on rights of way. Please keep them on a lead or to heel at all times.' • The National Park Authority has powers to impose Traffic Regulation Orders in instances where vehicular use is damaging the National Park's special qualities. • The National Park Authority and Natural England have established an events protocol whereby event organisers must avoid sensitive locations and times. • The National Park Authority's Recreation and Park Management department works closely with environmental and wildlife organisations such as the Hawk and Owl Trust and Butterfly Conservation. <p>In reality, very few visitors to the National Park divert from defined routes. The National Park Authority promotes this behaviour through ensuring that the rights of way network is well managed and well signposted and the Authority produces numerous leaflets promoting specific walks which enable people to enjoy a walk using defined routes. Whilst much of the moorland is defined as</p>

Policy consequence	Potential harm to the integrity of Natura 2000 sites	Relevant AAP policies	Mitigation
			<p>open access land evidence suggests² that only a small minority make use of this right, and that those who do often stick to surfaced tracks. The Authority is able to undertake works to prevent damage where it is possible it may occur for example by resurfacing the proper route or by putting barriers in place.</p> <p>The Recreation and Access Strategy aims to focus recreational activities at existing 'hubs' and states 'Develop a range of recreational opportunities at 'hubs' providing a managed focus for activities that links in with public transport and lower key access opportunities in surrounding areas.' The hubs are not defined in the Recreation and Access Strategy but include the two National Park visitor centres at Sutton Bank and Danby, Dalby Forest, Guisborough Forest and Saltergate. With the exception of Saltergate all of these hubs are located away from SACs and the SPA in the Park. Directing visitors to hubs is therefore likely to relieve pressure from most areas designated as SAC or SPA. This approach is re-emphasised through Management Plan policy U1 which states 'Opportunities for a range of recreational activities will be developed around existing 'hubs''. In relation to Saltergate which is close to the moorland SAC and SPA, the Authority's activities generally revolve around management through signage and boards and information provided in a Mobile Display Unit in the car park which contain the messages listed in the paragraph above.</p> <p>The Recreation and Access Strategy also sets out policy in relation to the moorland which states 'The National Park Authority and its partners need to continue to promote the special qualities of the moorlands as a 'wilderness landscape' and encourage recreational activities appropriate to that special character. This is perhaps particularly important in reaching out to non-traditional users, so that expectations are realistic and pressure for inappropriate infrastructure is resisted. All facilities should be low key and sensitive to the area, and improvement works to e.g. highways should respect the special qualities. The only existing honeypot location is the Hole of Horcum on the edge of the moorlands character area. The development of</p>

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			<p>other honeypots should be resisted so that the sense of tranquillity and unspoilt nature is maintained'.</p> <p>National Park Authority knowledge suggests that any damage and disturbance in the past has been very limited and very localised, and generally visitors are not harming the integrity of the Natura 2000 sites.</p>

4. Mitigation

- 4.1 Mitigation can be defined as ‘measures that avoid or reduce overall potential adverse effects on the integrity of a Natura 2000 sites and should be taken into account during the Appropriate Assessment of the impacts of a plan or project.’³
- 4.2 Where effects have been identified that would, or could, harm the integrity of Natura 2000 sites within or outside of the National Park it is necessary to identify mitigation measures. These are identified against each effect in Table 1.
- 4.3 Although the Area Action Plan will allocate land for employment, retail and hotel/public house uses, prior to development taking place planning permission will still need to be secured. This will enable the specific nature of the uses proposed, including such issues as traffic and transport and emissions, to be assessed in more detail. Both Scarborough Local Plan and the North York Moors Core Strategy contain policies to protect Natura 2000 sites. The text of these is contained in Table 1.
- 4.4 As a result of the mitigation measures identified in the Appropriate Assessment of the Draft AAP, paragraph 1.8 states ‘All applications for planning permission would be considered against the adopted policies in Scarborough Borough Council’s Local Plan and the North York Moors National Park Core Strategy and Development Policies, as well as the policies in this Area Action Plan.’ This will provide clarification over the relevance and status of the policies contained in these documents.
- 4.5 Also as a result of the mitigation measures identified in the Appropriate Assessment of the Draft AAP, paragraph 1.20 states ‘A Habitats Regulations Assessment has also been carried out as part of production of the Area Action Plan. The conclusions of this assessment should be referred to in the consideration of any planning applications for development at Whitby Business Park.’
- 4.6 In terms of mitigating any effects from increased use of the SACs and SPA for recreation, there are a number of ways in which harm is avoided as set out in Table 1. It is not considered that there is currently any widespread harm to the Natura 2000 sites from disturbance or trampling – any current negative effects are very limited and very localised.

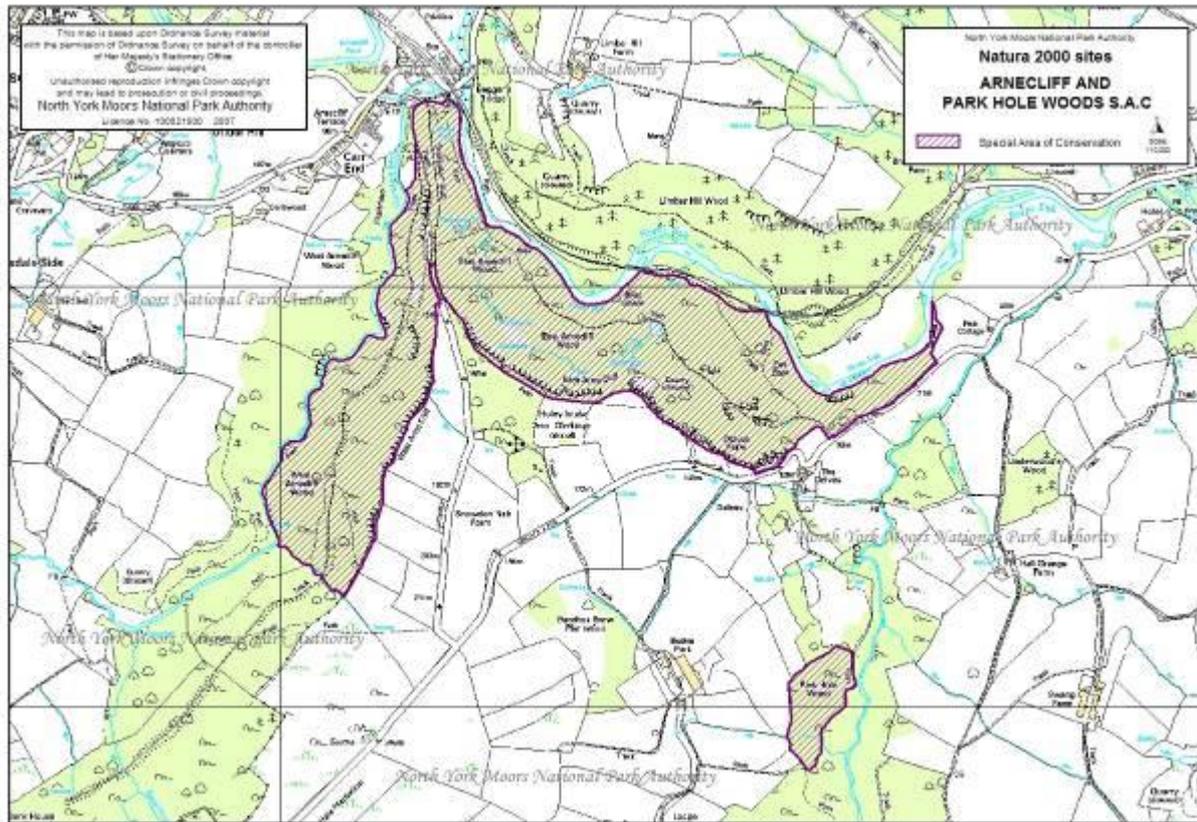
³ The Appropriate Assessment of Spatial Plans in England – A Guide to Why, When and How to do it (RSPB, 2007)

5. Conclusion

- 5.1 Following application of the mitigation measures the Authority is satisfied that the Whitby Business Park Area Action Plan will not give rise to any effects that would harm the integrity of the Natura 2000 sites. The Authority will refer back to the mitigation measures identified in this report in delivering the policies of the Area Action Plan.

Appendix 1: Details and locations of Natura 2000 sites

Arnecliffe and Park Hole Woods SAC Register entry UK0030142



Features of Interest

This habitat type comprises a range of woodland types dominated by Annex 1 old sessile oak woods with holly *Ilex* and hard ferns *Blechnum* which are believed to be virtually confined to the UK and Ireland. This habitat type is not, however, a primary reason for site selection.

The habitat also supports the Annex II species Killarney fern *Trichomanes speciosum*, which is now very rare in the UK. This site has been selected as an SAC to protect this species, as the site contains a greater number of *sporophytes* than found elsewhere in the UK. However the plants are small, and in many cases not fully developed, with mature spore-producing plants extremely rare. The great significance of this site lies in the fact that the *sporophytes* appear to be recently developed from gametophytes, a phenomenon that has only been rarely recorded elsewhere in the United Kingdom.

Vulnerabilities

The main threat to the *Trichomanes speciosum* in the British Isles has been from specimen collecting. However, the species is also vulnerable to physical damage or loss, for example from woodland management, or from any changes to the chemical composition of the water or to its habitat and microclimate, for example from iron workings.

Conservation objectives

The Conservation objectives for the site are, in accordance of the reasons for which the SAC designation was designated, to maintain*, in favourable condition, the:

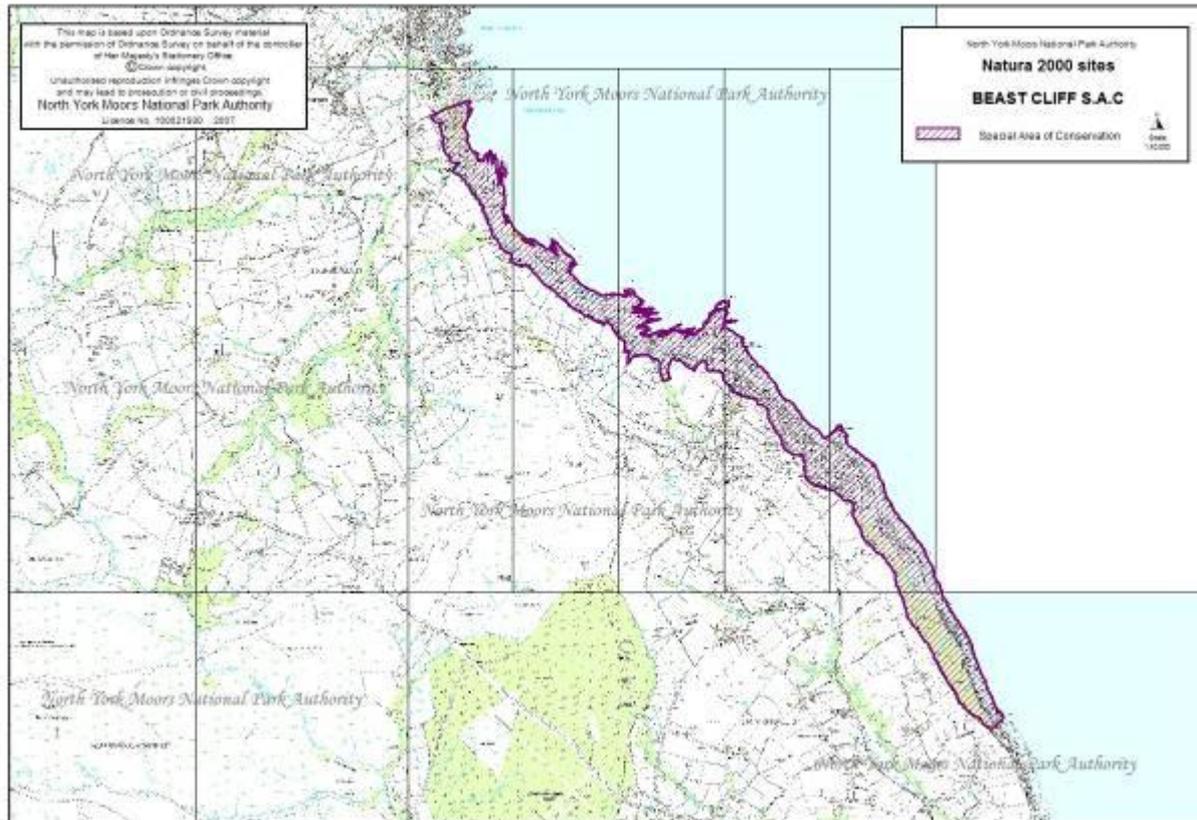
- Old sessile oak woods

And to maintain*, in favourable condition, the:

- Killarney Fern *Trichomanes speciosum*

* maintain implies restoration if the feature is not currently in favourable condition

Beast Cliff – Whitby SAC
Register entry UK0030086



Features of Interest

The combination of geology, topography and plant communities found on the hard and soft cliffs at Robin Hood's bay are unique, and provide one of the best examples of vegetated sea cliffs on the north-east coast of England. These vegetated sea cliffs are the reason Beast Cliff to Whitby has been designated an SAC.

The geology along this coast varies from base poor shales to base sandstones, and this variation plays a major role in creating an exceptionally wide range of habitats and associated communities for this part of the North Sea coast. Vertical hard cliffs support maritime crevice and ledge vegetation, and the more gently sloping parts of Beast Cliff itself are covered by scrub and woodland. Due to the frequent land slippage occurring on the site, the woodland is constantly changing and being rejuvenated with mainly young trees forming secondary woodland. North of Beast Cliff to Ravenscar the vegetation is more open and reflects alternating strata of rich and poor base-status. Areas of calcareous clays support typical calcareous grassland and wet flush plant communities, whereas heathland species occur on more acidic sandstone outcrops. From Ravenscar north to Robin Hood's Bay the cliffs are composed either partly or entirely of soft boulder clay. This clay is continually being eroded by wave action and slippage, and supports pioneer plant communities typical of this changing habitat.

Vulnerabilities

At present the cliffs at Robin Hood's Bay, due to their steep and inaccessible nature, are virtually unmanaged. However, any intensification in management in the future may influence the vegetation communities present and be detrimental to the site. In addition, any increase in recreational disturbance could have a similar impact.

The cliffs are also vulnerable to any coastal protection measures which may interfere with active erosion processes, particularly those areas of soft clay where coastal erosion maintains a cycle of erosion, landslip and colonisation. Quarrying activity nearby could also affect erosion processes.

Changes in agricultural management along the tops of the sea cliffs could also have a detrimental ecological effect if it results in toxic contamination or physical damage, for example from increased grazing near to the cliff edge.

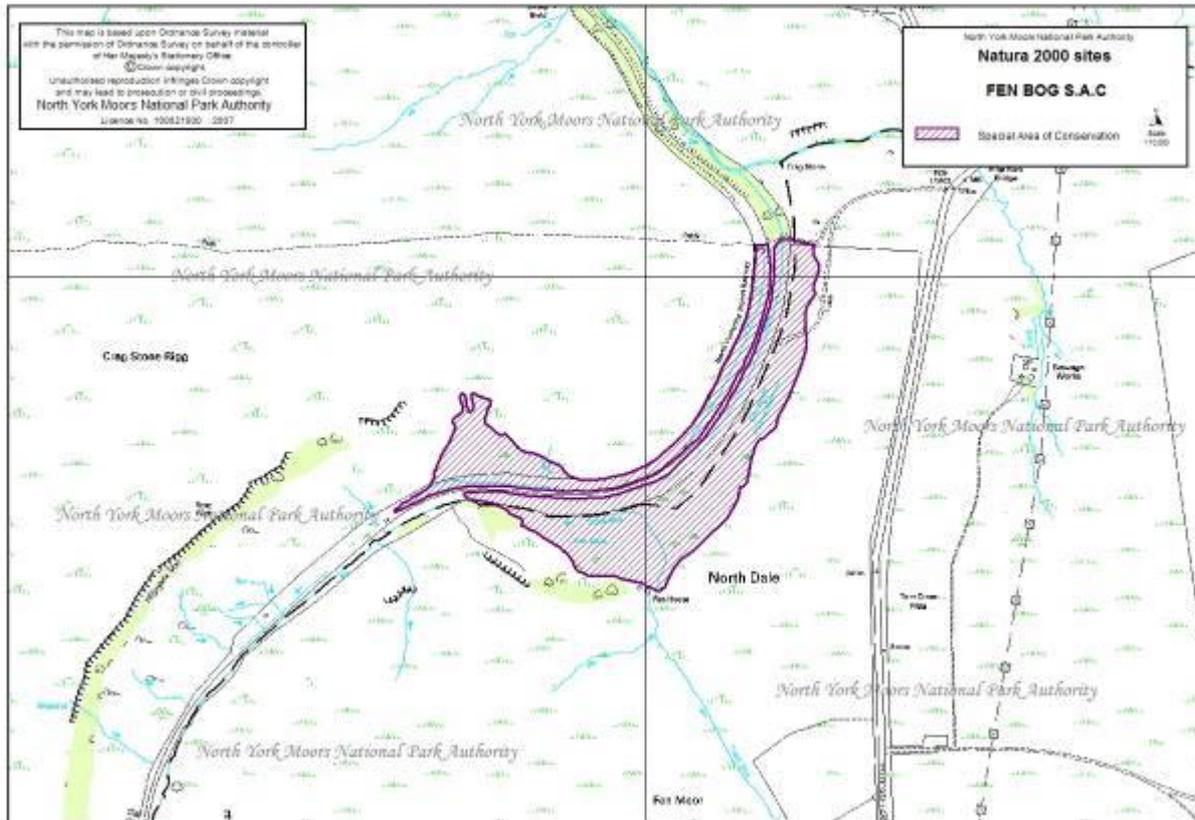
Conservation objectives

The Conservation objectives for the site are, in accordance of the reasons for which the SAC designation was designated, to maintain* in favourable condition, subject to natural change, the:

- vegetated sea cliffs of the Atlantic and Baltic coasts

* maintain implies restoration if the feature is not currently in favourable condition

Fen Bog SAC Register entry UK0030332



Features of Interest

Fen Bog is a large transition mire and quaking bog. The term 'transition mire' relates to vegetation that in floristic composition and general ecological characteristics is transitional between acid bog and alkaline fens, in which the surface conditions range from markedly acidic to slightly base-rich. Transition mire and quaking bogs are an Annex I habitat, and is the primary reason for the selection of this site.

Transition mires and quaking bogs are extremely wet peat-forming systems, and at Fen Bog the peat deposit is up to 18 metres deep. The area is mostly covered with acidophilous mire vegetation that forms a floating mat over the peat. The most abundant plant species at this site are the bog-mosses *Sphagnum papillosum* and *S. capillifolium*, common cottongrass *Eriophorum angustifolium*, deergrass *Trichophorum cespitosum*, purple moor-grass *Molinia caerulea*, cross-leaved heath *Erica tetralix*, bog-myrtle *Myrica gale*, round-leaved sundew *Drosera rotundifolia*, tormentil *Potentilla erecta* and heath milkwort *Polygala serpyllifolia*. White beak-sedge *Rhynchospora alba* is also locally abundant.

One of the important features of this site is the development of lateral water tracks containing a plant association more usually characteristic of mires in oceanic regions. A number of species occurring in these communities at Fen Bog do not occur elsewhere in north-east England and are very locally distributed outside western districts. These soligenous mire associations, some of which show the influence of base-rich water, include the bog-mosses *Sphagnum [auriculatum]* and *S. recurvum*, the sedges *Carex rostrata*, *C. limosa*, *C. echinata* and *C. dioica*, bog pondweed *Potamogeton polygonifolius*, many-stalked spike-rush *Eleocharis multicaulis* and bogbean *Menyanthes trifoliata*.

Vulnerabilities

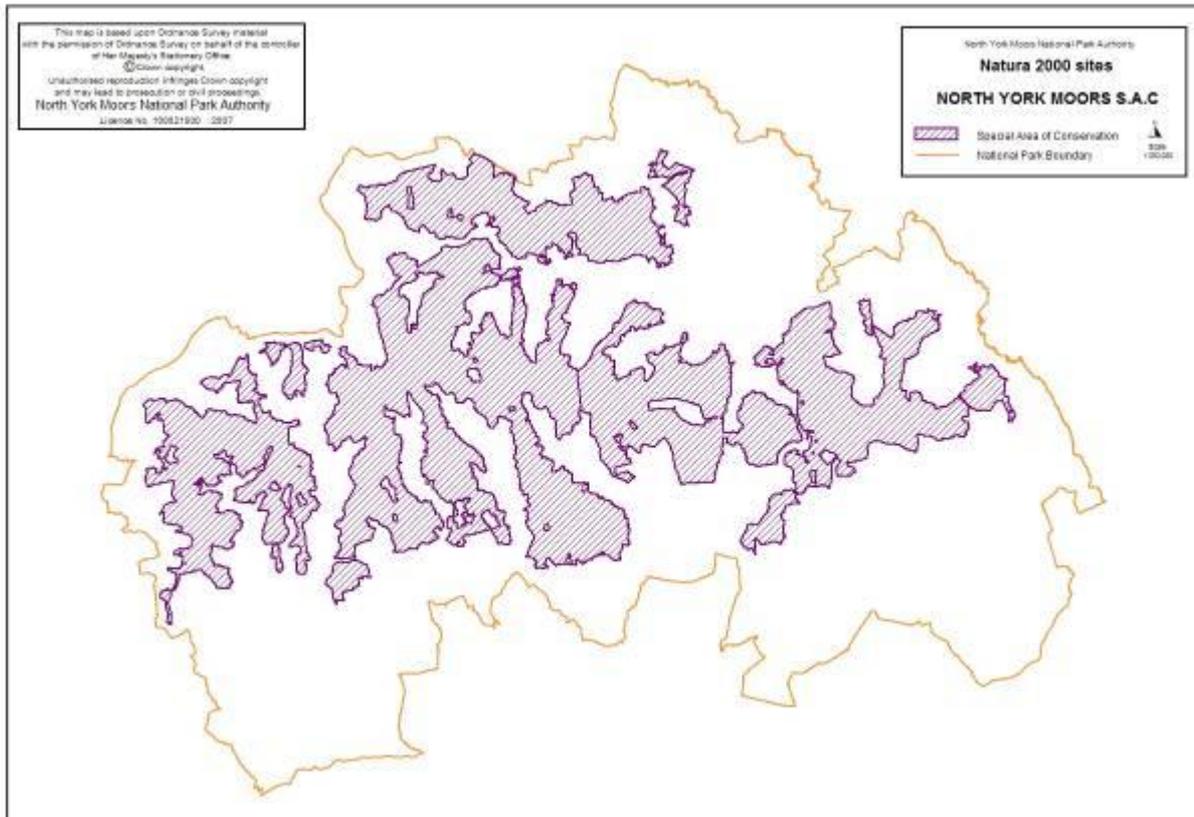
As with all peatland habitats, Fen Bog is particularly vulnerable to hydrological changes that could result in a lowering of the water table and the peat system drying out. This may also initiate erosion and oxidation of the peat. The removal of grazing would also have a significant impact on the mire vegetation, especially if it results in scrub invasion from the surrounding area. Efforts to control bracken spreading, however, could result in toxic contamination of the site. Contamination from agricultural runoff would also be equally detrimental to the ecology of the site.

The site is also vulnerable to any form of development, such as the upgrading of rail infrastructure, which could cause significant hydrological disruption and physical loss. There is also a risk from domestic and commercial peat cutting, which would lead to direct physical damage and non toxic contamination changes in turbidity and pH.

Conservation objectives

Fen Bog has been recently designated as an SAC, and at present no conservation objectives have yet been drawn up.

North York Moors SAC Register entry UK0030228



Features of Interest

This hilly upland landscape is considered to be one of the best areas in the UK for heathland, containing the largest continuous tract of upland heather moorland in England.

In the northern and eastern moors, which are underlain by peat that impedes drainage, the principal type of heathland is the Annex I Northern Atlantic wet heaths with *Erica tetralix*. The most extensive vegetation found on these wet heaths is *Erica tetralix* – *Sphagnum compactum*, although they also support rare species such as the nationally scarce creeping forget-me-not *Myosotis stolonifera*. These wet heaths account for a high proportion of the European distribution of this habitat, and are a primary reason for the selection of this site as an SAC.

Elsewhere, on the western, southern and central moors, the principal type of heathland is Annex I European dry heaths. This reflects the underlying geology of the area, which is predominantly composed of limestone and sandstone that allows the soil to drain freely. These dry heaths exhibit exceptional diversity in comparison with examples found elsewhere in the EU, and are a primary reason for the selection of this site as an SAC.

Interspersed amongst the heathland on the higher plateaus and between river valley catchments, blanket bog is also a significant presence in the North York Moors. Although not a primary reason for the selection of this site as an SAC, blanket bogs are an important priority habitat within the UK due to the abundance of bogs found in the UK compared to their comparative scarcity in the rest of Europe.

Vulnerabilities

This habitat is highly sensitive to any changes to the existing moorland management, which is currently carried out by farmers for sheep and by gamekeepers for the sporting shooting of

grouse. Changes to grazing levels will impact upon the diversity of heather found, with overgrazing leading to direct heather loss and undergrazing allowing scrub to encroach.

In addition the wetter habitats, in particularly blanket bog, are susceptible to changes in drainage, which can lead to a loss in structural diversity as well as the loss of mosses and lichens. These habitats may also be detrimentally impacted upon by overburning or accidental fires which can result from increasing visitor numbers.

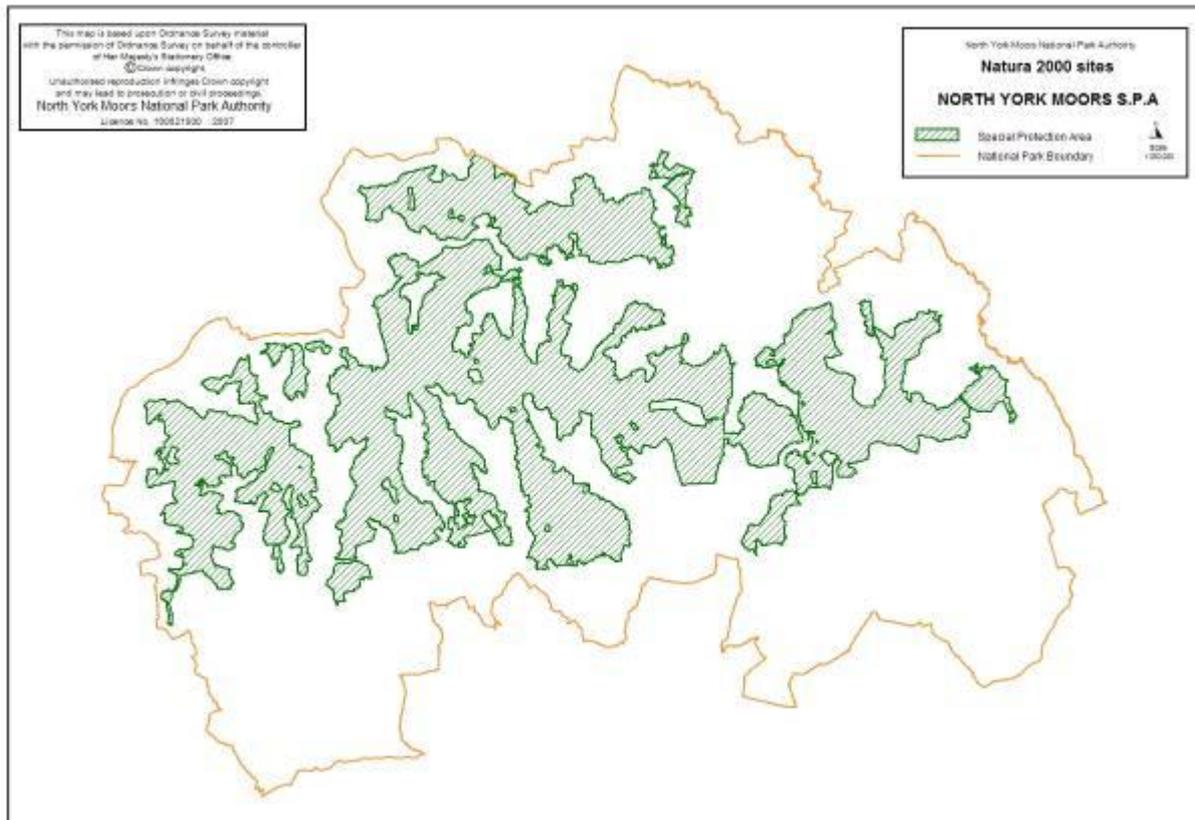
Conservation objectives

The Conservation objectives for the site are, in accordance of the reasons for which the SAC designation was designated, to maintain*, in favourable condition, the:

- Northern Atlantic wet heath with *Erica tetralix*
- European dry heath
- Blanket bog (priority feature)

* maintain implies restoration if the feature is not currently in favourable condition

North York Moors SPA Register entry UK9006161



Features of Interest

The North York Moors supports an intimate mosaic of dry and wet heath interspersed in parts with smaller amounts of blanket bog (see North York Moors SAC). This heathland supports an important assemblage of moorland breeding birds.

In particular, the tall heather is favoured for breeding by populations of merlin *Falco columbarius*, the UK's smallest bird of prey. Merlin are of international importance and are a primary reason for the selection of this site as an SAP. There is also a long recorded history of occupancy of Merlin at this site.

In addition, the diversity of heather of found on these moors as a result of heather management also supports a large population of golden plover *Pluvialis apricaria*, who generally favour the shorter vegetation. Golden plover are also of international importance and are a primary reason for the selection of this site as an SAP.

Vulnerabilities

The value of the North York Moors as a habitat for merlin, golden plover and other breeding birds is dependent upon maintaining the existing levels of moorland management currently carried out by farmers and gamekeepers. Overgrazing or too frequent heather burning (deliberate or accidental) could lead to a loss of structural diversity on the heaths and mires, whilst the removal of grazing could result in large areas of old heather and invasion by bracken. In addition, poor keeping of the moors for grouse may also lead to increasing persecution of raptors, including merlins.

Conservation Objectives

The Conservation objectives for the site are, in accordance of the reasons for which the PSA designation was designated, to maintain*, in favourable condition, the habitats for the populations of Annex 1 species + of European importance, with particular reference to merlin *Falco columbarius* and golden plover *Pluvialis apricaria*:

- Upland moorland

* maintain implies restoration if the feature is not currently in favourable condition

Appendix 2: Detailed assessment of effects on Natura 2000 Sites

Policy 2: Allocation of Additional Employment Land

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
Arnecliff and Park Hole Woods SAC	Old sessile oak woods		Increased emissions from new industrial uses may increase sulphur deposition which is already outwith the critical load. This leads to effects on the vegetation, these effects may be permanent depending upon the degree of harm. Presently, critical loads are being exceeded, with effects on qualifying features being recorded. Emissions from industrial uses (nearby and further afield) account for a fairly large proportion of the emissions ⁴ .	
	Killarney fern		Increased emissions from new industrial uses may increase sulphur deposition which is already outwith the critical load. This leads to effects on the vegetation, these effects may be permanent depending upon the degree of harm. Presently, critical loads are being exceeded, with effects on qualifying features being recorded. Emissions from industrial uses (nearby and further afield) account for a fairly large proportion of the emissions ⁵ .	
Beast Cliff – Whitby SAC	Vegetated sea cliffs		Emissions from new industrial uses may harm the vegetation at Beast Cliff, although the Air Pollution Information System (www.apis.ac.uk) would suggest	

⁴ www.apis.ac.uk – data relates to 2005

⁵ www.apis.ac.uk – data relates to 2005

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			that acidity is not having any effects on the habitat.	
Fen Bog SAC	Transition mires and quaking bogs		Additional traffic movements along the A169 may lead to increased nitrogen deposition in the SAC. Critical loads are currently being exceeded, with 6.1% attributable to road travel. ⁶ This leads to effects on the vegetation, which may be permanent depending upon the degree of harm. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ⁷ .	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
			Increased emissions from new industrial uses may increase sulphur deposition which is already outwith the critical load. This leads to effects on the vegetation, these effects may be permanent depending upon the degree of harm. Presently, critical loads are being exceeded. Emissions from industrial uses (nearby and further afield) account for a fairly large proportion of the emissions ⁸ .	
North York Moors SAC	Northern Atlantic wet heath with <i>Erica tetralix</i> (heather)		Additional traffic movements along the A169 may lead to increased nitrogen deposition in the SAC. Critical loads are	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract

⁶ www.apis.ac.uk – data relates to 2005

⁷ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

⁸ www.apis.ac.uk – data relates to 2005

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			currently being exceeded, with 5.4% attributable to road travel. ⁹ This leads to effects on the vegetation, these effects may be permanent depending upon the degree of harm. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ¹⁰ .	more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
			Increased emissions from new industrial uses may increase sulphur deposition, although current levels are within the critical loads. Emissions from industrial uses (nearby and further afield) account for a fairly large proportion of the emissions ¹¹ .	
	European dry heath		Additional traffic movements along the A169 may lead to increased nitrogen deposition in the SAC. Critical loads are currently being exceeded, with 5.4% attributable to road travel. ¹² This leads to effects on the vegetation, these effects may be permanent depending upon the degree of harm. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.

⁹ www.apis.ac.uk – data relates to 2005

¹⁰ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

¹¹ www.apis.ac.uk – data relates to 2005

¹² www.apis.ac.uk – data relates to 2005

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			from the Business Park will more than double ¹³ .	
			Increased emissions from new industrial uses may increase sulphur deposition, although current levels are within the critical loads. Emissions from industrial uses (nearby and further afield) account for a fairly large proportion of the emissions ¹⁴ .	
	Blanket bog		Additional traffic movements along the A169 and A171 may lead to increased nitrogen deposition in the SAC. Critical loads are currently being exceeded, with 5.4% attributable to road travel. ¹⁵ This leads to effects on the vegetation, these effects may be permanent depending upon the degree of harm. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ¹⁶ .	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
			Increased emissions from new industrial uses may increase sulphur deposition which is already outwith the critical load. This leads to effects on the vegetation. Emissions from industrial uses (nearby and further afield) account for a fairly large proportion of the emissions ¹⁷ .	

¹³ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

¹⁴ www.apis.ac.uk – data relates to 2005

¹⁵ www.apis.ac.uk – data relates to 2005

¹⁶ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

¹⁷ www.apis.ac.uk – data relates to 2005

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
North York Moors SPA	<i>Falco columbaris</i> (Merlin)		Additional traffic movements along the A169 and A171 may lead to increased nitrogen deposition in the SPA. 5.4% of current deposition is attributable to road travel. ¹⁸ This leads to effects on the habitat which may be permanent depending upon the degree of harm. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ¹⁹ .	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
			Increased emissions from new industrial uses may increase sulphur deposition which is already outwith the critical load. This leads to effects on the habitat which may be permanent depending upon the degree of harm. Emissions from industrial uses (nearby and further afield) account for a fairly large proportion of the emissions ²⁰ .	
	<i>Pluvialis apricaria</i> (Golden plover)		Additional traffic movements along the A169 and A171 may lead to increased nitrogen deposition in the SPA. 5.4% of current deposition is attributable to road travel. ²¹ This leads to effects on the habitat, but can have positive impacts on the food supply. Any increases as a result	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.

¹⁸ www.apis.ac.uk – data relates to 2005

¹⁹ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

²⁰ www.apis.ac.uk – data relates to 2005

²¹ www.apis.ac.uk – data relates to 2005

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ²² .	
			Increased emissions from new industrial uses may increase sulphur deposition which is already outwith the critical load. This leads to effects on the habitat which may be permanent depending upon the degree of harm. Emissions from industrial uses (nearby and further afield) account for a fairly large proportion of the emissions ²³ .	

²² Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

²³ www.apis.ac.uk – data relates to 2005

Policy 3: Retail

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
Arnecliff and Park Hole Woods SAC	Old sessile oak woods		None identified	
	Killarney fern		None identified	
Beast Cliff – Whitby SAC	Vegetated sea cliffs		None identified	
Fen Bog SAC	Transition mires and quaking bogs		Additional traffic movements along the A169 may lead to increased nitrogen deposition in the SAC. Critical loads are currently being exceeded, with 6.1% attributable to road travel. ²⁴ This leads to effects on the vegetation. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ²⁵ , of which the retail element is a small proportion.	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
North York Moors SAC	Northern Atlantic wet heath with <i>Erica tetralix</i> (heather)		Additional traffic movements along the A169 may lead to increased nitrogen deposition in the SAC. Critical loads are currently being exceeded, with 5.4% attributable to road travel. ²⁶ This leads to effects on the vegetation. Any increases as a result of development at Whitby Business Park are likely to be negligible	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.

²⁴ www.apis.ac.uk – data relates to 2005

²⁵ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

²⁶ www.apis.ac.uk – data relates to 2005

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ²⁷ , of which the retail element is a small proportion.	
	European dry heath		Additional traffic movements along the A169 may lead to increased nitrogen deposition in the SAC. Critical loads are currently being exceeded, with 5.4% attributable to road travel. ²⁸ This leads to effects on the vegetation. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ²⁹ , of which the retail element is a small proportion.	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
	Blanket bog		Additional traffic movements along the A169 and A171 may lead to increased nitrogen deposition in the SAC. Critical loads are currently being exceeded, with 5.4% attributable to road travel. ³⁰ This leads to effects on the vegetation. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.

²⁷ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

²⁸ www.apis.ac.uk – data relates to 2005

²⁹ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

³⁰ www.apis.ac.uk – data relates to 2005

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			considering that it is predicted that current vehicle movements to and from the Business Park will more than double ³¹ , of which the retail element is a small proportion.	
North York Moors SPA	<i>Falco columbaris</i> (Merlin)		Additional traffic movements along the A169 and A171 may lead to increased nitrogen deposition in the SPA. 5.4% of current deposition is attributable to road travel. ³² This leads to effects on the habitat. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ³³ , of which the retail element is a small proportion.	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
	<i>Pluvialis apricaria</i> (Golden plover)		Additional traffic movements along the A169 and A171 may lead to increased nitrogen deposition in the SPA. 5.4% of current deposition is attributable to road travel. ³⁴ This leads to effects on the habitat, but can have positive impacts on the food supply. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.

³¹ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

³² www.apis.ac.uk – data relates to 2005

³³ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

³⁴ www.apis.ac.uk – data relates to 2005

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			to and from the Business Park will more than double ³⁵ , of which the retail element is a small proportion.	

³⁵ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

Policy 4: Public House and Hotel

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
Arnecliff and Park Hole Woods SAC	Old sessile oak woods		None identified	
	Killarney fern		None identified	
Beast Cliff – Whitby SAC	Vegetated sea cliffs		An increased number of visitors could lead to more instances of trampling of ground flora if people divert from the path which could lead to damage or direct loss of important plant species, albeit probably very localised. It is not likely that the hotel and public house would lead to a significant increase in visitors at the site, which is some way from the Business Park, even with 100% occupancy 365 days per year should all occupants visit Natura 2000 sites this would only represent a 0.4% increase on the total number of visitors to the National Park. Generally visitors are not current causing adverse effects on Natura 2000 sites – any impacts are very limited and very localised.	There may be cumulative effects alongside policies in the National Park Management Plan, the Recreation and Access Strategy and the Public Rights of Way Improvement Plan.
Fen Bog SAC	Transition mires and quaking bogs		Additional traffic movements along the A169 may lead to increased nitrogen deposition in the SAC. Critical loads are currently being exceeded, with 6.1% attributable to road travel. ³⁶ This leads to effects on the vegetation. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.

³⁶ www.apis.ac.uk – data relates to 2005

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ³⁷ , of which the hotel element will be a small proportion.	
			An increased number of visitors could lead to more instances of trampling of ground flora if people divert from the path which could lead to damage or direct loss of important plant species, albeit probably very localised. It is considered that any increase in visitors to the Natura 2000 sites is likely to be negligible and a very small increase on current visitor levels. The site is some way from the Business Park and even with 100% occupancy 365 days per year should all occupants visit Natura 2000 sites this would only represent a 0.4% increase on the total number of visitors to the National Park. Generally visitors are not currently causing adverse effects on Natura 2000 sites – any impacts are very limited and very localised.	There may be cumulative effects alongside policies in the National Park Management Plan, the Recreation and Access Strategy and the Public Rights of Way Improvement Plan.
North York Moors SAC	Northern Atlantic wet heath with <i>Erica tetralix</i> (heather)		Additional traffic movements along the A169 may lead to increased nitrogen deposition in the SAC. Critical loads are currently being exceeded, with 5.4% attributable to road travel. ³⁸ This leads to effects on the vegetation. Any increases as a result of development at Whitby Business Park are likely to be negligible	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.

³⁷ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

³⁸ www.apis.ac.uk – data relates to 2005

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ³⁹ , of which the hotel element will be a small proportion.	
			An increased number of visitors could lead to more instances of trampling of ground flora if people divert from the path which could lead to damage or direct loss of important plant species, albeit probably very localised. Much of the North York Moors SAC is Open Access land, although in practice most users prefer to use rights of way ⁴⁰ . There are also a number of public rights of way that cross the SAC. It is considered that any increase in visitors to the Natura 2000 sites is likely to be negligible and a very small increase on current visitor levels. The site is some way from the Business Park and even with 100% occupancy 365 days per year should all occupants visit Natura 2000 sites this would only represent a 0.4% increase on the total number of visitors to the National Park. Generally visitors are not currently causing adverse effects on Natura 2000 sites – any impacts are very limited and very localised.	There may be cumulative effects alongside policies in the National Park Management Plan, the Recreation and Access Strategy and the Public Rights of Way Improvement Plan.
	European dry heath		Additional traffic movements along the A169 may lead to increased nitrogen	There may be cumulative effects alongside policies in the National Park

³⁹ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

⁴⁰ Recreation and Access Strategy for the North York Moors National Park (North York Moors National Park Authority, 2008)

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			deposition in the SAC. Critical loads are currently being exceeded, with 5.4% attributable to road travel. ⁴¹ This leads to effects on the vegetation. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ⁴² , of which the hotel element will be a small proportion.	Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
			An increased number of visitors could lead to more instances of trampling of ground flora if people divert from the path which could lead to damage or direct loss of important plant species, albeit probably very localised. Much of the North York Moors SAC is Open Access land, although in practice most users prefer to use rights of way ⁴³ . There are also a number of public rights of way that cross the SAC. It is considered that any increase in visitors to the Natura 2000 sites is likely to be negligible and a very small increase on current visitor levels. The site is some way from the Business Park and even with 100% occupancy 365 days per year should all occupants visit Natura 2000 sites this would only represent a 0.4% increase on the total number of visitors to the National Park.	There may be cumulative effects alongside policies in the National Park Management Plan, the Recreation and Access Strategy and the Public Rights of Way Improvement Plan.

⁴¹ www.apis.ac.uk – data relates to 2005

⁴² Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

⁴³ Recreation and Access Strategy for the North York Moors National Park (North York Moors National Park Authority, 2008)

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			Generally visitors are not currently causing adverse effects on Natura 2000 sites – any impacts are very limited and very localised.	
	Blanket bog		Additional traffic movements along the A169 and A171 may lead to increased nitrogen deposition in the SAC. Critical loads are currently being exceeded, with 5.4% attributable to road travel. ⁴⁴ This leads to effects on the vegetation. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ⁴⁵ , of which the hotel element will be a small proportion.	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
			Increasing visitor numbers could lead to more instances of trampling of vegetation thus increasing risk of erosion of the blanket bog. Effects would be classed as permanent as peat bog cannot be quickly recreated. Much of the North York Moors SAC is Open Access land, although in practice most users prefer to use rights of way ⁴⁶ . There are also a number of public rights of way that cross the SAC. It is considered that any increase in visitors to the Natura 2000 sites is likely to be negligible and a very small increase on current visitor levels. The site is some way	There may be cumulative effects alongside policies in the National Park Management Plan, the Recreation and Access Strategy and the Public Rights of Way Improvement Plan.

⁴⁴ www.apis.ac.uk – data relates to 2005

⁴⁵ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

⁴⁶ Recreation and Access Strategy for the North York Moors National Park (North York Moors National Park Authority, 2008)

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			from the Business Park and even with 100% occupancy 365 days per year should all occupants visit Natura 2000 sites this would only represent a 0.4% increase on the total number of visitors to the National Park. Generally visitors are not currently causing adverse effects on Natura 2000 sites – any impacts are very limited and very localised.	
North York Moors SPA	<i>Falco columbaris</i> (Merlin)		Additional traffic movements along the A169 and A171 may lead to increased nitrogen deposition in the SPA. 5.4% of current deposition is attributable to road travel. ⁴⁷ This leads to effects on the habitat. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ⁴⁸ , of which the hotel element will be a small proportion.	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
			Increasing visitor numbers could lead to disturbance of Merlin, particularly an issue during nesting season. It is considered that any increase in visitors to the Natura 2000 sites is likely to be negligible and a very small increase on current visitor levels. The site is some way from the Business Park and even with 100% occupancy 365 days per year should all occupants visit Natura 2000 sites this	There may be cumulative effects alongside policies in the National Park Management Plan, the Recreation and Access Strategy and the Public Rights of Way Improvement Plan.

⁴⁷ www.apis.ac.uk – data relates to 2005

⁴⁸ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			would only represent a 0.4% increase on the total number of visitors to the National Park. Generally visitors are not currently causing adverse effects on Natura 2000 sites – any impacts are very limited and very localised.	
	<i>Pluvialis apricaria</i> (Golden plover)		Additional traffic movements along the A169 and A171 may lead to increased nitrogen deposition in the SPA. 5.4% of current deposition is attributable to road travel. ⁴⁹ This leads to effects on the habitat, but can have positive impacts on the food supply. Any increases as a result of development at Whitby Business Park are likely to be negligible when compared to the total numbers of vehicles using the roads, even considering that it is predicted that current vehicle movements to and from the Business Park will more than double ⁵⁰ , of which the hotel element will be a small proportion.	There may be cumulative effects alongside policies in the National Park Management Plan which aim to attract more visitors to the National Park and the North Yorkshire, York and East Riding Local Enterprise Partnership plan which has an aim for rural growth.
			Increasing visitor numbers could lead to disturbance of Golden plover, particularly an issue during nesting season. It is considered that any increase in visitors to the Natura 2000 sites is likely to be negligible and a very small increase on current visitor levels. The site is some way from the Business Park and even with 100% occupancy 365 days per year should all occupants visit Natura 2000 sites this would only represent a 0.4% increase on the total number of visitors to	There may be cumulative effects alongside policies in the National Park Management Plan, the Recreation and Access Strategy and the Public Rights of Way Improvement Plan.

⁴⁹ www.apis.ac.uk – data relates to 2005

⁵⁰ Based upon information contained in Traffic Impact Assessment – Whitby Business Park (White Young Green Transport Planning, 2010)

SAC / SPA Details		Possible adverse effects on site integrity		
Name	Qualifying features	Direct	Indirect	Cumulative
			the National Park. Generally visitors are not currently causing adverse effects on Natura 2000 sites – any impacts are very limited and very localised.	