



Stockton-on-Tees
BOROUGH COUNCIL

Habitat Regulations Assessment
Gypsy, Traveller and Travelling
Showpeople Site Allocations
Local Development Document

Contents

Contents	3
1. Introduction.....	1
Methodology Used for this Habitat Regulations Assessment	1
2. Initial Screening.....	2
3. Conclusions of Initial Screening	8
4. Screening Analysis of the Gypsy, Traveller and Travelling Showpeople Site Allocations LDD ...	18
Development Proposed in Gypsy, Traveller and Travelling Showpeople Site Allocations LDD.....	18
5. In Combination Assessment	21
6. Conclusions of the Screening Exercise	22
Appendix 1: Favourable Condition Table – Teesmouth Cleveland Coast SPA and Ramsar Site.....	23
Appendix 2: Favourable Condition Table –North York Moors SAC and SPA Site.	26
Appendix 3: Favourable Condition Table – Castle Eden Dene SAC.....	34
Appendix 4: Favourable Condition Table – Thrislington SAC.....	37
Appendix 5: Favourable Condition Table – Durham Coast SAC.....	41
Appendix 6: Favourable Condition Table – Northumbria Coast SPA and Ramsar Site.	44

1. Introduction

- 1.1. The EC Habitats Directive Articles 6.3 and 6.4 require an assessment of the impact of all plans and projects on sites designated as of European importance for their nature conservation value.
- 1.2. The requirement came into force in October 2005 following a ruling by the European Court of Justice. This requirement is included in the Conservation of Habitats and Species Regulations 2010, which consolidates all the amendments made to the Conservation (Natural Habitats &c.) Regulations 1994 for England and Wales.
- 1.3. The Regulations require that “any plan or project not directly concerned 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 and projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives.”
- 1.4. Two types of European site are involved:
 - **Special Protection Areas (SPAs)** - designated under the EC Birds Directive for rare and vulnerable bird species, for regularly occurring migratory bird species, and for the protection of wetlands, especially wetlands of international importance.
 - **Special Areas for Conservation (SACs)** - protected sites under the Habitats Directive that make a significant contribution to conserving habitat types and species (excluding birds) identified in Annexes I and II of the Directive.
- 1.5. In addition, the National Planning Policy Framework (NPPF), section 12, paragraph 118 sets out a number of principles for preserving and enhancing biodiversity, and states that potential Special Protection Areas and possible Special Areas of Conservation as well as listed or proposed Ramsar sites should be given the same protection as European sites.

Methodology Used for this Habitat Regulations Assessment

- 1.6. European guidance recommends a process of up to four stages:
 - Screening. Determining whether the plan is likely to have a significant effect on a European site;
 - Appropriate Assessment. Assessment of the implications of the effects of the plan for the conservation objectives of sites likely to be significantly affected;
 - Assessment of alternative solutions. Where the plan is assessed as having an adverse effect (or risk of this) on the integrity of a site, there should be an examination of alternatives;
 - Assessment where no alternative solutions remain and where adverse impacts remain.
- 1.7. This report discusses Stage 1, Screening and Stage 2, Appropriate Assessment.

2. Initial Screening

- 2.1. The initial screening process aims to consider all of the European sites that the proposed Gypsy, Traveller and Travelling Showpeople Site Allocations LDD could possibly affect. Table 1 shows the locations of the European sites which lie within Stockton on Tees Borough, and also includes sites which exist in neighbouring authorities.
- 2.2. Within the Borough, Cowpen Marsh Site of Special Scientific Interest (SSSI), parts of the Tees and Hartlepool Foreshore and Wetlands SSSI, and the majority of Seal Sands SSSI lie within the Teesmouth and Cleveland Coast Special Protection Area (SPA). This SPA is also recognised as a wetland of international importance for nature conservation, under the Ramsar convention.
- 2.3. This site also extends into neighbouring Boroughs, and a number of other European sites exist in different parts of the region. Government advice states *“when considering whether the plan option is likely to have a significant effect on a European site, it should be noted that such a site may be located either within or outside the area covered by the plan. Significant effects may be incurred even in cases where the area of the plan is some distance away”*. Therefore the table below provides a list of sites that lie, either within the Borough boundary or within approximately 10km of the Borough boundary, and may be affected by the Stockton-on-Tees Borough Council Local Plan.

Table 1: Sites potentially affected by the Gypsy, Traveller and Travelling Showpeople Site Allocations LDD¹

Site Name and Status	Location	Primary Reason for Designation
Teesmouth and Cleveland Coast SPA	Stockton-on-Tees, Hartlepool, Redcar and Cleveland	Sandwich Tern, Breeding Little Tern, Internationally important assemblage of over-wintering waterfowl; wintering Knot and Redshank; internationally important population of Ringed Plover in spring.
Teesmouth and Cleveland Coast Ramsar	Stockton-on-Tees, Hartlepool, Redcar and Cleveland	Knot, Common Redshank, Sandwich Tern, Breeding Little Tern, Internationally important assemblage of over-wintering waterfowl
North Yorkshire Moors SAC	North Yorkshire Moors National Park	North Atlantic Wet Heaths, European Dry Heaths.
North Yorkshire Moors SPA	North York Moors National Park	Breeding Golden Plover, Merlin

¹ Source - <http://www.wetlands.org/rsis/>
& <http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0012768>

Site Name and Status	Location	Primary Reason for Designation
Thrislington (SAC)	Sedgefield Borough	Semi natural dry grasslands and scrubland facies; Calcareous Grasslands
Castle Eden Dene (SAC)	Easington	Extensive occurrence of Yew Woodland
Durham Coast SAC	Easington	Vegetated Sea Cliffs
Northumbria Coast SPA/Ramsar	Much of the coastline between the Tweed and Tees Estuaries	In summer, the site supports important numbers of breeding Little Tern <i>Sterna albifrons</i> , whilst in winter the mixture of rocky and sandy shore supports large number of Turnstone <i>Arenaria interpres</i> and Purple Sandpiper <i>Calidris maritima</i> .

2.4. Map 1 shows the locations of the sites considered in this assessment.

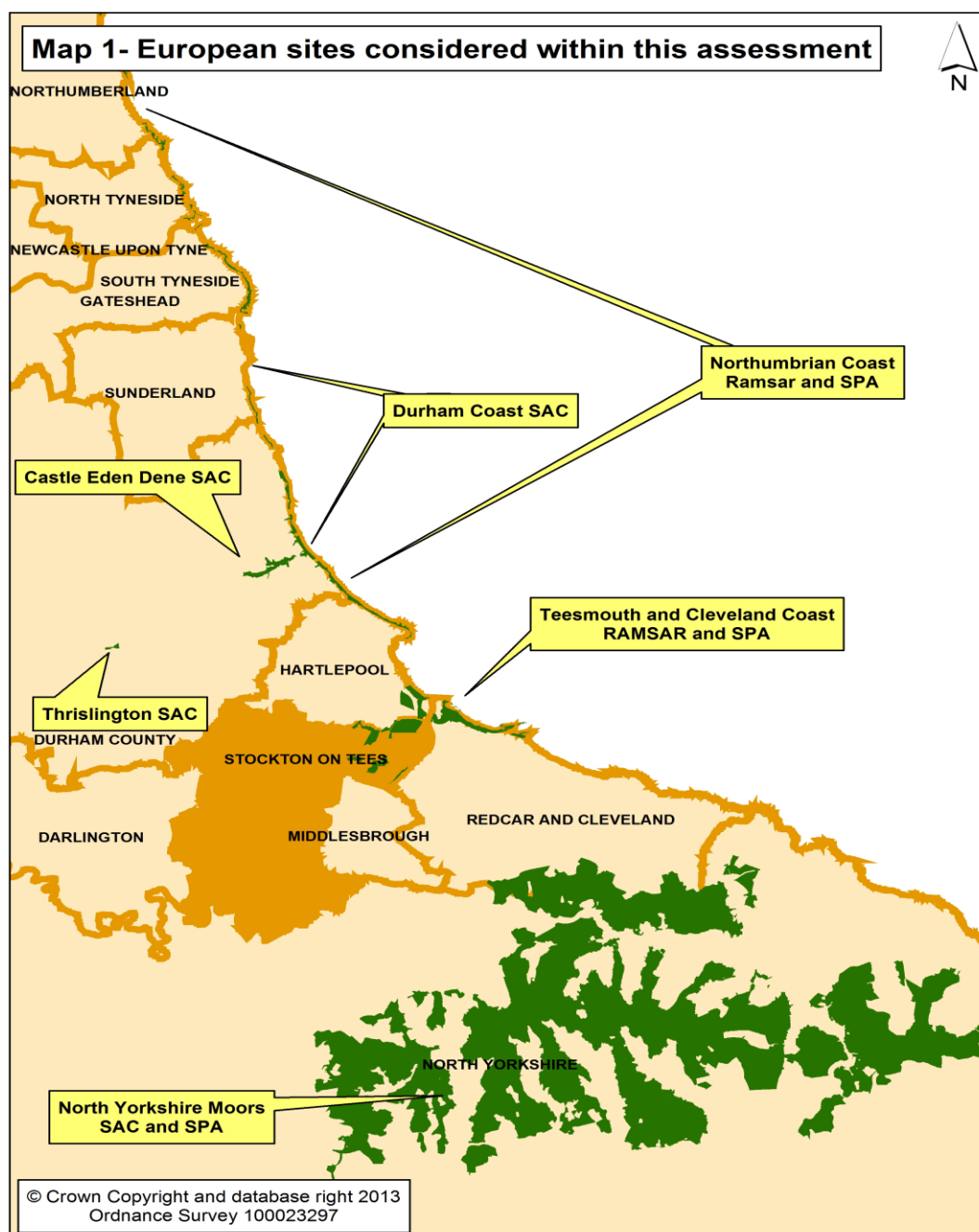


Table 2: Qualifying Features and Conservation Objectives of Sites that could potentially be affected by the Gypsy, Traveller and Travelling Showpeople Site Allocations LDD

Site Name and Status	Qualifying Features	Conservation Objectives
Teesmouth and Cleveland Coast (Ramsar, SPA)	<p>SPA classified in August 1995 and extended in March 2000. Listed as a Ramsar site under the Convention of Wetlands of International Importance. The intertidal part of the SPA is termed a European Marine Site.</p> <p>Wetland of international importance comprising intertidal sand and mudflats, rocky shore, sand dunes, salt and freshwater marsh, all used for breeding, feeding and roosting of internationally important populations of regularly occurring Annex 1 species². Teesmouth and the Cleveland coast is of importance for internationally important populations of breeding Little Tern and migrant sandwich tern. Knot occurs in internationally important numbers in winter and Redshank occurs in internationally important numbers during moult and migration in late summer and autumn. Internationally important wintering waterbird assemblage.</p>	Focus on maintaining favourable conservation status ³ , through appropriate site management including the avoidance of damaging activities and disturbance to species for which the site was designated.
North Yorkshire Moors (SAC/SPA)	<p>Classified as an SPA in May 2000 because of the site's European ornithological importance. The SPA contains the largest continuous tract of heather moorland in England. It displays a wide range of high quality dry heathland and blanket bog vegetation dominated by <i>Calluna</i>, with wet heath in the transition areas. The site is of European importance because it is regularly used by 1% or more of the Great Britain population of two species listed in Annex 1 in any season: Merlin and Golden Plover. In addition, the site supports a breeding population which includes Short-eared Owl, Peregrine and Hen Harrier.</p> <p>Also designated an SAC in April 2005 as it hosts habitats of blanket bog, European dry heaths and Northern Atlantic wetland, with cross-leaved heath which are listed in Annex 1.</p>	To maintain in favourable condition the habitats for the populations of Annex 1 species of European importance and to maintain in favourable condition the Annex 1 habitats.
Thrislington	Semi natural dry grasslands and scrubland facies	To maintain ^{4*} , in

² The species listed in Annex 1 of the Birds Directive are the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. Species listed on Annex 1 are in danger of extinction, rare or vulnerable.

³Favourable conservation status - natural range and area are stable or increasing, and specific structure and functions which are necessary for its long term maintenance exist and are likely to continue for the foreseeable future.

⁴ Maintain implies restoration if feature is not currently in favourable condition. This applies to all sites.

Site Name and Status	Qualifying Features	Conservation Objectives
(SAC)	on calcareous substrates. Contains the largest of the few surviving strands of CG8 <i>Sesleria albicans</i> – <i>Scabiosa columbaria</i> grassland. This form of calcareous grassland is confined to the Magnesian Limestone of County Durham and Tyne and Wear, and is found mainly as small scattered strands.	favourable condition, the unimproved calcareous grassland, with particular reference to semi-natural dry grasslands and scrubland facies on calcareous substrates (CG8 ⁵ grasslands)
Castle Eden Dene (SAC)	Represents the most extensive northerly native occurrence of yew <i>Taxus baccata</i> woods in the UK. Extensive yew groves are found in association with ash-elm <i>Fraxinus-Ulmus</i> woodland and it is the only site selected for yew woodland on Magnesian Limestone in north-east England.	To maintain in favourable condition the <i>Taxus baccata</i> wood
Durham Coast (SAC)	Only example of vegetated sea cliffs on Magnesian Limestone exposures in the UK. These cliffs extend along the North Sea coast for over 20km from South Shields to Blackhall Rocks. Within these habitats rare species of contrasting phytogeographic distributions often grow together forming unusual and species-rich communities of high scientific interest.	Subject to natural change, to maintain, in favourable condition, the vegetated sea cliffs:
Northumbria Coast (SPA/Ramsar)	<p>The site consists of mainly discrete sections of rocky shore with associated boulder and cobble beaches. The site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:</p> <p>During the breeding season; Little Tern <i>Sterna albifrons</i>, 40 pairs representing at least 1.7% of the breeding population in Great Britain (5 year peak mean 1992/3 - 1996/7)</p> <p>This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:</p> <p>Over winter; Purple Sandpiper <i>Calidris maritima</i>, 763 individuals representing at least 1.5% of the Eastern Atlantic - wintering population (5 year peak mean 1992/3 - 1996/7); Turnstone <i>Arenaria interpres</i>, 1,456 individuals representing at least 2.6% of the Western Palearctic - wintering population (5 year peak mean 1992/3 - 1996/7)</p>	<p>Subject to natural change, to maintain in favourable condition the habitats for the internationally important populations of the regularly occurring Annex 1 bird species (Little Tern <i>Sterna albifrons</i>), under the Birds Directive, in particular the sandy beaches and shallow inshore waters at Low Newton; and,</p> <p>subject to natural change, maintain in favourable condition the habitats for the internationally important populations of regularly occurring migratory bird species Purple Sandpiper <i>Calidris maritima</i> and</p>

⁵ CG8 Grasslands is *Sesleria albicans* and *Scabiosa columbaria* grassland.

Site Name and Status	Qualifying Features	Conservation Objectives
		Turnstone <i>Arenaria interpres</i> , under the Birds directive, in particular rocky shores with associated boulder and cobble beaches, and artificial high tide roost sites.

Table 3: Key Requirements for Maintenance of Sites in a Favourable Condition

Site Name and Status	Requirement	Initial Assessment of effects of the Gypsy, Traveller and Travelling Showpeople Site Allocations LDD
Teesmouth and Cleveland Coast (Ramsar, SPA)	<ul style="list-style-type: none"> • Food availability • Vegetation structure • Hydrology/flow • Water depth • No disturbance • Extent and distribution of habitat • Open landscape • Safe high tide roost sites 	<p>Potential for impact on water quality and hydrological changes; potential to affect food availability.</p> <p>Impact in land use change, habitat loss or fragmentation uncertain.</p> <p>Potential for damage to undesignated land linked to the SPA, e.g. roost sites and foraging areas used by SPA birds.</p> <p>Potential for limited disturbance due to growing population and increase in visitor trips.</p> <p>Potential for disturbance to SPA species caused by the construction and operation of developments.</p> <p>Potential for disturbance from road upgrades in the vicinity.</p> <p>Coastal squeeze caused by a combination of sea level rise and fixed coastal defences.</p> <p>Potential for disturbance from water based and shoreline recreation.</p>
North Yorkshire Moors (SAC/SPA)	<ul style="list-style-type: none"> • No reduction in area of any of the habitat types and any consequent fragmentation • No artificial drains/grips especially in wetter areas • No erosion associated with human impacts (e.g. fires vehicles, livestock grazing, recreational activities) • No large scale peat extraction • No overgrazing • No overburning • Appropriate grazing and burning (provides for diversity of heather) 	<p>No impact on land management</p> <p>Potential for impact on air quality</p> <p>No impact in land use change, habitat loss or fragmentation</p> <p>Potential for limited disturbance due to growing population and increase in visitor trips.</p>

Site Name and Status	Requirement	Initial Assessment of effects of the Gypsy, Traveller and Travelling Showpeople Site Allocations LDD
	<ul style="list-style-type: none"> • Limited air pollution • Open landscape • Lack of disturbance and persecution 	
Thrislington (SAC)	<ul style="list-style-type: none"> • No reduction in extent • Continuous management by seasonally adjusted grazing • No fertiliser input • Control of invasive features • Control of over grazing 	<p>No impact on land management No impact in land use change, habitat loss or fragmentation No impact on control of invasive species</p>
Castle Eden Dene (SAC)	<ul style="list-style-type: none"> • No loss of ancient semi-natural stands • Site management to maintain current level of structural diversity (Age/size class variation within and between stands; presence of open space and old trees; dead wood lying on the ground; standing dead trees) • Limited air pollution • Limited grazing by ungulates where it leads to undesirable shifts in the composition/structure of the stand 	<p>No impact on land management</p> <p>Potential for impact on air pollution</p>
Durham Coast (SAC)	<p>The communities present on the sea cliffs are largely maintained by natural processes including:</p> <ul style="list-style-type: none"> • Exposure to sea spray • Erosion and slippage of the soft Magnesian Limestone bedrock and overlying glacial drifts, localised flushing by calcareous water. <p>There should be no increase in area constrained by introduced structures or landforms</p>	<p>No impact on natural processes/structure and landforms.</p>
Northumbria Coast (SPA/Ramsar)	<ul style="list-style-type: none"> • Food availability • Disturbance • Extent of habitat, both sandy beaches and rocky shores • Safe high tide roost sites • Vegetation cover 	<p>No impact on food availability, extent of habitat, high tide roosts or vegetation cover, owing to distance in combination with southerly currents along the north east coast. Some potential for increased disturbance due to growing population and increase in visitor trips.</p>

3. Conclusions of Initial Screening

- 3.1. Although not specifically mentioned in Table 3 as a requirement for maintenance in a favourable condition, consultation with Natural England indicated that all of the sites considered could be at risk from air pollution. Therefore, all the sites will be carried forward for consideration as to whether any of the potential impacts are likely to be significant. The favourable conditions tables for each site are attached as Appendices 1, 2, 3, 4, 5, and 6.

Teesmouth and Cleveland Coast SPA and Ramsar Site

- 3.2. The SPA is a wetland of international importance comprising intertidal sand and mudflats, rocky shore, sand dunes, salt marsh, and freshwater marsh. All habitats are used for breeding, feeding and roosting. Large numbers of waterfowl feed and roost on the site in winter and during passage periods. It qualifies under the Birds Directive by supporting internationally important populations of regularly occurring Annex 16 species and migratory species, and an internationally important assemblage of water birds. A number of sites, which are part of the SPA and Ramsar Site, lie within the Borough.
- 3.3. Table 4 provides details of the qualifying features of the SPA, alongside key sub features, the conservation objectives for the site, and a brief description of the site's vulnerabilities.

North York Moors SAC and SPA

- 3.4. The SAC/SPA lies to the south east of the Borough, partly in Redcar and Cleveland Borough and partly in North Yorkshire. This upland landscape is regarded as one of the best areas in the UK for heathland, containing the largest continuous tract of upland heather moorland in England. The North Atlantic wet heaths in the northern and eastern moors account for a high proportion of the European distribution of this habitat, and are a primary reason for its selection as an SAC. On the western, southern and central moors the principal type of heathland is European dry heaths, reflecting the underlying sandstone and limestone geology of the area. Blanket bog is also a significant presence in the North York Moors, and is 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.
- 3.5. The mosaic of dry and wet heaths on the moors supports an important assemblage of moorland breeding birds, including Merlin and Golden Plover.
- 3.6. Tables 5 and 6 provide details of the qualifying features of the SAC/SPA, alongside key sub features, the conservation objectives for the site, and a brief description of the site's vulnerabilities.

Castle Eden Dene SAC

- 3.7. Castle Eden Dene is the largest area of natural woodland in North East England. It occupies a deep, steep-sided ravine formed in the Magnesian Limestone and boulder

⁶ The identification and classification of Special Protection Areas for rare or vulnerable bird species listed in Annex 1 of the Birds Directive

clay of this area of County Durham. The dene vegetation is a survivor of the wild wood that once covered most of Britain. Even today it remains relatively undisturbed by humans due to the difficult terrain of the steep sided ravines. Over 450 species of plants have been recorded in the wood, many of which are typical of ancient woodlands that date back to pre - medieval times. The site lies to the north, in Easington District. Table 7 provides details of the qualifying features of the SAC, alongside key sub-features, the conservation objectives for the site, and a brief description of the site's vulnerabilities.

Thrislington SAC

3.8. This small site was selected due to the fact that it contains the largest of a few surviving strands of *Sesleria albicans*-*Scabiosa columbaria* grassland. This form of calcareous grassland is confined to the Magnesian Limestone of north east England. It is found mainly as small scattered strands. The site comprises semi-natural dry grasslands and scrubland. Table 8 provides details of the qualifying features of the SAC, alongside key sub-features, the conservation objectives for the site, and a brief description of the site's vulnerabilities. The site lies to the north west of the Borough, in Sedgefield District.

Durham Coast SAC

3.9. The Durham coast is the only example of vegetated sea cliffs on Magnesian Limestone exposures in the UK. Their vegetation is unique in the British Isles. The plant communities present on the sea cliffs are largely maintained by natural processes including exposure to sea spray, erosion and slippage of the soft Magnesian Limestone bedrock and overlying glacial drifts, as well as localised flushing by calcareous water. Table 9 provides details of the qualifying features of the SAC, alongside key sub features, the conservation objectives for the site, and a brief description of the site's vulnerabilities. Both the Durham coast SAC and the Northumbria Coast SPA (see below) run along the coast northwards from Hartlepool Headland.

Northumbrian Coast SPA and Ramsar Site

3.10. The Northumbria Coast SPA and Ramsar Site includes much of the coastline between the Tweed and Tees Estuaries in north-east England. The site consists of mainly discrete sections of rocky shore with associated boulder and cobble beaches. The SPA also includes parts of three artificial pier structures and a small section of sandy beach. It qualifies under the Birds Directive by supporting populations of species of European importance listed on Annex I of the Directive, including Little Tern during the breeding season, and Purple Sandpiper and Turnstone over the winter.

Table 4: Qualifying Features of Teesmouth and Cleveland Coast SPA and Ramsar Site

Qualifying Feature	Key Sub Feature	Conservation Objectives	Vulnerabilities
<p>Internationally important populations of the regularly occurring Annex 1 species. Teesmouth and Cleveland Coast is of importance for internationally important populations of breeding Little Tern and migrant Sandwich Tern, both of which are listed on Annex 1. (English Nature's advice under regulation 33(2) for the European Marine Site (November 2000).</p>	<p>Sand and shingle: nesting area for Little Tern (colonies at e.g. Seaton Dunes, South Gare and Coatham Sands).</p>	<p>Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring Annex 1 bird species, under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> • Sand and shingle • Intertidal sandflat and mudflat • Shallow coastal waters 	<p>The natural incursion of coarse marine sediments into the estuary and the eutrophication of sheltered mudflats leading to the spread of dense Enteromorpha beds may impact on invertebrate density and abundance, and hence on waterfowl numbers. Indications are that the observed sediment changes derive from the reassertion of natural coastal processes within the context of an estuary much modified by human activity. An extensive long-term monitoring programme is investigating the effects of the Tees Barrage, while enrichment from sewage discharges should be ameliorated by the planned introduction of improved treatment facilities and the Environment Agency's acceptance of</p>
	<p>Intertidal sand and mudflat: roosting and loafing sites for Sandwich Tern during the post-breeding period (July and August) prior to autumn migration, and Little Tern in summer (May to August). (North Gare Sands, Seal Sands, Bran Sands and Coatham Sands).</p>		
	<p>Shallow coastal waters: the main feeding areas for Little Tern and Sandwich Tern, both of which species feed almost exclusively on fish</p>		

Qualifying Feature	Key Sub Feature	Conservation Objectives	Vulnerabilities
<p>Internationally important populations of regularly occurring migratory bird species. Knot occurs in internationally important numbers in winter; Redshank occurs in internationally important numbers during moult and migration in late summer and autumn.</p>	<p>Rocky shores: vital food resource for the wintering Knot population; also used by a small proportion of the autumn Redshank population. Rocky shores at higher tidal levels are also used as high water roosting sites. (South Gare, Hartlepool Headland / North Sands, Seaton Snook and Coatham and Redcar Rocks).</p>	<p>Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of regularly occurring migratory bird species, under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> • Rocky shores • Intertidal sandflat and mudflat • Saltmarsh 	<p>Seal Sands as a candidate Sensitive Area to eutrophication. Aside from the eutrophication issue, water quality has shown considerable and sustained improvement, leading to the re-establishment of migratory fish populations and the growth of Cormorant and common seal populations. The future development of port facilities in areas adjacent to the site, and in particular of deep water frontages with associated capital dredging, has the potential to cause adverse effect; These nutrient issues will be addressed through the planning system/Habitats Regulations, as will incompatible coastal defence schemes. Other issues on this relatively robust site include scrub encroachment on dunes (addressed by Site Management Statements with owners) and recreational, bait-gathering and other disturbance/damage to habitats/species (addressed by WCA 1981, NNR Byelaws and the Tees Estuary Management Plan). In view of the importance of adjacent areas for process industries, the area may be at risk from land-take for development and disturbance related to road upgrades associated with further development in the area.</p>
	<p>Intertidal sandflat and mudflat: these support high densities of invertebrates which are important as food for Knot and Redshank. (Redshank primarily at Seal Sands, North Tees mudflat and Greatham Creek; Knot primarily at Seal Sands and Hartlepool North Sands. Knot also roost at higher tidal levels at North Gare Sands, Bran Sands and Hartlepool North Sands).</p>		
	<p>Saltmarsh: roosting for Redshank (the margins of Greatham Creek and part of Seal Sands)</p>		
	<p>Grazing marsh: A small proportion of the Redshank population utilize grazing marsh habitats outside the European Marine Site.</p>		
<p>Internationally important assemblage of water birds</p>	<p>Rocky shores: very important feeding habitats; invertebrates are eaten by Knot and wintering Redshank.</p>	<p>Subject to natural change, maintain in favourable condition the habitats for the internationally</p>	

Qualifying Feature	Key Sub Feature	Conservation Objectives	Vulnerabilities
<p>The large areas of intertidal mudflats and sandflats at Teesmouth and Cleveland Coast support dense populations of marine invertebrate species, which in turn support dense populations of water birds.</p>	<p>Intertidal sandflat and mudflat: invertebrates in these areas are important as winter food for Knot, Redshank, Shelduck and Sanderling.</p>	<p>important assemblage of waterbirds, under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> • Rocky shores • Intertidal sandflat and mudflat • Saltmarsh 	
	<p>Saltmarsh: feeding and roosting for many species, in particular Redshank, Shelduck and Teal.</p>		
	<p>Grazing marsh: a high proportion of the assemblage also utilise grazing marsh habitats outside the European Marine Site.</p>		

Table 5: Qualifying Features of North York Moors SAC

Qualifying Feature	Key Sub Feature	Conservation Objectives	Vulnerabilities
<p>This site in north-east Yorkshire within the North York Moors National Park contains the largest continuous tract of upland heather moorland in England.</p> <p>North Atlantic wet heaths with <i>Erica tetralix</i>, for which this is considered to be one of the best areas in the UK.</p>	<p>M16 <i>Erica tetralix</i> – <i>Sphagnum compactum</i> wet heath is the second most extensive vegetation type on the site and is predominantly found on the eastern and northern moors where the soil is less free-draining. Purple moor-grass <i>Molinia caerulea</i> and heath rush <i>Juncus squarrosus</i> are also common within this community. In the wettest stands bog-mosses, including <i>Sphagnum tenellum</i>, occur, and the nationally scarce Creeping Forget-me-not <i>Myosotis stolonifera</i> can be found in acid moorland streams and shallow pools.</p>	<p>To maintain* in favourable condition the:</p> <ul style="list-style-type: none"> • European dry heath • Northern Atlantic wet heath with <i>Erica tetralix</i> • Blanket bog <p>*Maintain implies restoration if feature is not currently in favourable condition</p>	<p>This habitat is very sensitive to any changes to the existing moorland management regime, which is currently carried out mainly for sheep and grouse shooting purposes. Changes to grazing levels will impact upon the diversity of the heather found, with overgrazing leading to direct heather loss and undergrazing allowing scrub to encroach. The wetter habitats are vulnerable to changes in drainage that can lead to a loss in structural diversity as well as the loss of mosses and lichens. Overburning or accidental fires, the risk of which can be exacerbated by increasing visitor numbers, may also detrimentally impact upon these habitats. Any increase in air pollution may also have an impact.</p>
<p>European dry heaths, for which this is considered to be one of the best areas in the UK.</p>	<p>Dry heath covers over half the site and forms the main vegetation type on the western, southern and central moors where the soil is free-draining and has only a thin peat layer. The principal NVC type present is H9 <i>Calluna vulgaris</i> – <i>Deschampsia flexuosa</i>, with some H10 <i>Calluna vulgaris</i> – <i>Erica cinerea</i> heath on well-drained areas throughout the site, and large areas of H12 <i>Calluna vulgaris</i> – <i>Vaccinium myrtillus</i> heath on steeper slopes.</p>		
<p>Blanket bogs, for which the area is considered to support a significant presence.</p>	<p>Upland bog</p>		

Table 6: Qualifying Features of North York Moors SPA

Qualifying Feature	Key Sub Feature	Conservation Objectives	Vulnerabilities
<p>Internationally important populations of the regularly occurring Annex 1 species.</p> <ul style="list-style-type: none"> • Golden Plover • Merlin 	<p>Upland Moor Merlin feed on small birds such as meadow pipit and Skylark which nest on the moors. Golden Plover nest on the moors and feed on invertebrates on the moors. Both species require the moorland habitat to be managed.</p>	<p>To maintain, in favourable condition, the habitats for the populations of Annex 1 species of European importance, with particular reference to Merlin and Golden Plover, the:</p> <ul style="list-style-type: none"> • upland moorland. 	<p>The value of the North York Moors in providing suitable habitat for breeding Merlin and Golden Plover is dependent on the moorland management that is carried out by farmers and gamekeepers to maintain the moorland plant communities and grouse populations. The most vulnerable plant communities are the heaths and mires which are susceptible to overgrazing, gripping and too frequent heather burning leading to species impoverishment and a loss of structural diversity. A lack of keeping and undergrazing on some moors has resulted in large areas of undermanaged old heather lacking structural diversity that reduces the suitability of the habitat for Merlin and Golden Plover. This is being addressed by looking at payments for positive heather management, such as cutting and burning. The majority of the site is being managed in a desirable way with pressures being largely restricted to small areas.</p>
<p>Internationally important populations of regularly occurring migratory bird species.</p> <ul style="list-style-type: none"> • Golden Plover • Merlin 		<p>*Maintain implies restoration if feature is not currently in favourable condition</p>	

Table 7: Qualifying Features of Castle Eden Dene SAC

Qualifying Feature	Key Sub Feature	Conservation Objectives	Vulnerabilities
Castle Eden Dene represents the most extensive northerly native occurrence of Yew <i>Taxus baccata</i> woods in the UK. Extensive Yew groves are found in association with Ash-Elm <i>Fraxinus-Ulmus</i> woodland and it is the only site selected for Yew woodland on magnesian limestone in north-east England.	Not applicable	To maintain, in favourable condition, the <i>Taxus baccata</i> wood.	Loss of ancient semi-natural stands of Yew trees

Table 8: Qualifying Features of Thrislington SAC

Qualifying Feature	Key Sub Feature	Conservation Objectives	Vulnerabilities
Unimproved calcareous grassland	Not Applicable	To maintain, in favourable condition, unimproved calcareous grassland with particular reference to semi natural dry grasslands and scrubland facies on calcareous substrates.	Loss of extent of sward composition due to inappropriate land management, for example through over and under grazing and use of fertilizers. Inappropriate control of invasive species. Potential susceptibility of species to air pollution.

Table 9: Qualifying Features of Durham Coast SAC

Qualifying Feature	Key Sub Feature	Conservation Objectives	Vulnerabilities
Vegetated Sea Cliff	Not applicable	To maintain in favourable condition the vegetated sea cliffs of the Atlantic and Baltic coasts.	Modification of vegetation patterns through natural and geomorphological processes without constraints. Land slippage and more constant erosion maintain the mobility of the cliffs and promote dynamic

			systems and a range and variety of successive communities. The introduction of, or increase in physical restraints would reduce the mobility of the cliffs. Potential susceptibility of species to air pollution.
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Table 10: Qualifying Features of Northumbria Coast SPA and Ramsar Site

Qualifying Feature	Key Sub Feature	Conservation Objectives	Vulnerabilities
<p>Internationally important populations of the regularly occurring Annex 1 species, during the breeding season.</p> <ul style="list-style-type: none"> • Little Tern 	<p>Cliffs, Coastal, Estuary, Intertidal rock, Intertidal sediments (including sandflat/mudflat), Open coast (including bay), Pools</p>	<p>Subject to natural change, to maintain, in favourable condition</p>	<p>Little Terns are vulnerable to disturbance by tourists in the summer causing reduced breeding success. The National Trust employs wardens each summer to protect the Little Tern colony at Beadnell Bay. The sandy beach at Low Newton is an important breeding area for Little Tern and the shallow inshore waters are used for feeding. The birds are highly sensitive to loss of habitat, beach and inshore waters which could damage their long-term condition. Over-wintering migratory species are highly sensitive to removal or smothering of algal mats along the shore, and removal of their favoured roosts. However, there is currently low exposure to this operation.</p>
<p>Internationally important populations of regularly occurring over-wintering bird species.</p> <ul style="list-style-type: none"> • Purple Sandpiper • Turnstone 			

			<p>Physical damage reduces food availability to birds or changes to the suitability of habitats for roosting and feeding. Most intertidal communities tend to be more resilient to physical damage because of their adaptation to the physical processes to which they are normally subjected. Overwintering waterfowl are moderately sensitive to noise and visual disturbance. Toxic contamination may also affect bird populations indirectly, by affecting the abundance of food items. However, there is no evidence to show there is a problem with this site. However, because of the location of the Tees to the south of the SPA, prevailing currents and winds make exposure to this minimal.</p>
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4. Screening Analysis of the Gypsy, Traveller and Travelling Showpeople Site Allocations LDD

Development Proposed in Gypsy, Traveller and Travelling Showpeople Site Allocations LDD

4.1. The Tees Valley Gypsy and Traveller Accommodation Assessment (TVGTAA) was completed in January 2009 and provided an assessment of the accommodation needs of Gypsies, Travellers and Travelling Showpeople within the Tees Valley. The TVGTAA identified a total need of 34 additional residential pitches for the Borough for the period 2007 - 2026. This was broken down by time periods as follows:

- Additional residential need 2007 – 2012: 17 pitches
- Additional residential need 2012 – 2016: 7 pitches
- Additional residential need 2016 – 2021: 10 pitches

4.2. In 2012, The Council carried out a study to update the future pitch requirement calculation of the TVGTAA for the Borough. The results of the update identify a requirement for 26 pitches over the 15 year period, 2012 - 2026, which is a reduction from the 34 pitches identified as the requirement over the 13 year period, 2007 – 2021, in the 2009 TVGTAA. The updated figure of 26 pitches is now the benchmark for work by the Spatial Planning team to allocate pitches. At this stage it is unclear whether pitches will be delivered at a single site or across a number of sites; for this reason the estimated yield for sites is based on the anticipated number of pitches which could be delivered up to a maximum of 26 pitches.

Table 11: Analysis of Site Options for Potential Impacts upon Natura 2000 sites

Site	Issues Likely to Affect Site Integrity	Further Assessment Required					
		Teessmouth and Cleveland Coast SPA & Ramsar Site	North York Moors SPA	North York Moors SAC	Thrislington SAC	Durham Coast SAC	Northumbria Coast SPA/Ramsar Site
Land to the rear of Roddmere, Yarm Back Lane, Stockton	The development would provide a small scale development site outside of the main conurbation. There is a small potential for air pollution. However, the site is remote from the Natura 2000 sites (circa 10km from Teessmouth and Cleveland Coast SPA & Ramsar Site) and given the scale of development will not have an impact upon site integrity.	No	No	No	No	No	No
Land on Frederick Street, Stockton	The development would provide a small scale development site within the existing conurbation. There is a small potential for air pollution. However, the site is remote from the Natura 2000 sites (circa 5km from Teessmouth and Cleveland Coast SPA & Ramsar Site) and given the scale of development will not have an impact upon site integrity.	No	No	No	No	No	No
Land between Bowesfield Crescent and the River Tees, Stockton	The development would provide a small scale development site within the existing conurbation. There is a small potential for air pollution. However, the site is remote from the Natura 2000 sites (circa 7km from Teessmouth and Cleveland Coast SPA & Ramsar Site) and given the scale of development will not have an impact upon site integrity.	No	No	No	No	No	No
Land on Mill Lane, Billingham	The development would provide a small scale development site within the existing conurbation. There is a small potential for air	No	No	No	No	No	No

Site	Issues Likely to Affect Site Integrity	Further Assessment Required					
		Teesmouth and Cleveland Coast SPA & Ramsar Site	North York Moors SPA	North York Moors SAC	Thrislington SAC	Durham Coast SAC	Northumbria Coast SPA/Ramsar Site
	pollution. However, the site is remote from the Natura 2000 sites (circa 3km from Teesmouth and Cleveland Coast SPA & Ramsar Site) and given the scale of development will not have an impact upon site integrity.						
Land on Eltham Crescent, Thornaby	The development would provide a small scale development site within the existing conurbation. There is a small potential for air pollution. However, the site is remote from the Natura 2000 sites (circa 7km from Teesmouth and Cleveland Coast SPA & Ramsar Site) and given the scale of development will not have an impact upon site integrity.	No	No	No	No	No	No
Land between the River Tees and Thornaby Road, Thornaby	The development would provide a small scale development site within the existing conurbation. There is a small potential for air pollution. However, the site is remote from the Natura 2000 sites (circa 7km from Teesmouth and Cleveland Coast SPA & Ramsar Site) and given the scale of development will not have an impact upon site integrity.	No	No	No	No	No	No

5. In Combination Assessment

- 5.1. A plan may have a significant impact upon a European site in combination with other projects, plans or programmes, even when it is not found to have any significant impacts on its own. However, as the Gypsy, Traveller and Travelling Showpeople Site Allocations LDD is not found to have any impacts at all, it is not necessary to consider in combination impacts. It is stated “if the plan plus existing trends alone are unlikely to significantly affect a site, then the effects of other plans and projects do not need to be considered.” (Levett-Therivel et al, 2006:24)⁷

⁷ Levett-Therivel et al, 2006, *Appropriate Assessment of Plans*.

6. Conclusions of the Screening Exercise

- 6.1. On the basis of the information within the screening exercise it is the conclusion of the Council that there are not likely to be significant effects on the Natura 2000 sites from the sites considered within the the Gypsy, Traveller and Travelling Showpeople Site Allocations LDD. Accordingly, an appropriate assessment, under the Conservation of Habitats and Species Regulations 2010, will not be required.

Appendix 1: Favourable Condition Table – Teesmouth Cleveland Coast SPA and Ramsar Site.

Feature	Sub-Feature	Attribute	Measure	Target	Comments
Internationally important populations of regularly occurring Annex 1 bird species (little tern, Sandwich tern)		Disturbance	Reduction or displacement of birds.	No significant reduction in numbers or displacement of wintering birds attributable to disturbance from an established baseline, subject to natural change.	Significant disturbance attributable to human activities can result in increased energy expenditure (light and/or reduced food intake, displacement to areas of poorer feeding conditions).
		Extent and distribution of habitat	Area (ha) measured once during reporting cycle.	No decrease in extent from an established baseline, subject to natural change.	These habitats provide both breeding and roosting sites for terns.
	Sand and shingle	Vegetation characteristics	Predominantly open ground with sparse/short vegetation and bare surfaces (colonial nesting).	Vegetation height and density at nesting sites should not deviate significantly from an established baseline, subject to natural change.	Vegetation cover < 10% required throughout the areas used for nesting by little tern.
	Intertidal sand and mudflats	Absence of obstructions to bird sight lines.	Openness of terrain unrestricted by obstructions.	No increase in obstructions to existing bird sight lines, subject to natural change.	Sandwich terns require views > 200m to allow early detection of predators at roost sites.
	Shallow coastal waters	Food availability	Presence and abundances of marine fish, crustaceans, worms and molluscs. Measured periodically (frequency to be determined).	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change.	Crustacea, annelids, sand eel, and sprats are important for feeding little and Sandwich terns.

Feature	Sub-Feature	Attribute	Measure	Target	Comments
Internationally important populations of regularly occurring migratory species (knot (winter), redshank (autumn)) and of the internationally important assemblage of waterbirds		Disturbance	Reduction or displacement of birds.	No significant reduction in numbers or displacement of wintering birds attributable to disturbance from an established baseline, subject to natural change.	Significant disturbance attributable to human activities can result in reduced food intake and/or increased energy expenditure
		Extent and distribution of habitat	Area (ha) measured once during reporting cycle.	No decrease in extent from an established baseline, subject to natural change.	Rocky shores have particular significance for feeding knot at Teesmouth. Existing saltmarsh habitats are mere remnants of those of the original Tees Estuary.
	Rocky shores	Absence of obstructions to bird sight lines.	Openness of terrain unrestricted by obstructions.	No increase in obstructions to existing bird sight lines, subject to natural change.	Waders require views over >200m to allow early detection of predators when feeding and roosting during the non-breeding season (at Teesmouth July-March inclusive)
		Food availability	Presence and abundances of marine fish, crustaceans, worms and molluscs. Measured periodically (frequency to be determined).	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change.	Mytilus spat are important prey for Knot.
	Intertidal sand and mudflats	Absence of obstructions to bird sight lines.	Openness of terrain unrestricted by obstructions.	No increase in obstructions to existing bird sight lines, subject to natural change.	Waders require views over >200m to allow early detection of predators when feeding and roosting.

Feature	Sub-Feature	Attribute	Measure	Target	Comments
		Food availability	Presence and abundances of marine fish, crustaceans, worms and molluscs. Measured periodically (frequency to be determined).	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change.	Prey items include Hydrobia, Macoma, Corophium, Nereis (redshank and shelduck), Macoma, Mytilus/Cerastoderma spat, Hydrobia (knot), Bathyporeia, Nerine, Mytilus, wrack flies, sanhoppers (sanderling).
	Saltmarsh	Absence of obstructions to bird sight lines.	Openness of terrain unrestricted by obstructions.	No increase in obstructions to existing bird sight lines, subject to natural change.	Waders require views over >200m to allow early detection of predators when feeding and roosting
		Vegetation characteristics	Open, short vegetation or bare ground predominating (feeding and roosting)	Vegetation height throughout areas used for roosting should not deviate significantly from an established baseline, subject to natural change.	Vegetation of <10cm is required throughout area used for roosting.
		Food availability	Presence and abundance of aquatic invertebrates. Measured periodically (frequency to be determined).	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change.	Hydrobia, Corophium are important for redshank, shelduck and teal. These habitats provide supplementary feeding opportunities especially at high water.
			Presence and abundance of seed-bearing plants. Measured periodically (frequency to be determined).	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change.	Salicornia and Atriplex are important for teal during the non-breeding season (November – March), while Salicornia seeds may be taken by Shelduck.
NB Extreme events (such as storms reducing or increasing salinities, exceptionally cold winters or warm summers) also need to be recorded as they may be critical in influencing ecological issues on the Teesmouth and Cleveland coast and may well be missed by routine monitoring.					

Appendix 2: Favourable Condition Table –North York Moors SAC and SPA Site.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
Upland Heath	European dry heath	Extent	Total area mapped in relation to baseline	No reduction in area and any consequent fragmentation	Small losses related to management may be acceptable (eg - footpaths).
		Dwarf shrub cover	% of dwarf shrub cover	Minimum of 75% cover of dwarf shrubs	Excluding recently burnt stands. Includes all H10 (<i>Calluna vulgaris</i> - <i>Erica cinerea</i> heath) and H12 (<i>Calluna vulgaris</i> – <i>Vaccinium myrtillus</i> heath).
		Dwarf shrub diversity	Number of different species of dwarf shrubs and frequency in sward	At least two species of dwarf shrub species should be widespread and frequent in the sward	Aim is for diversity of shrubs especially along valleys and steeper slopes, but also on some of the flatter land. Merlin are believed to favour the upper parts of the catchment/ valleys so taller heather here would be preferable.
		Age structure	Presence of age classes of <i>Calluna</i>	All age classes present with at least 25% of the management unit in the late mature/degenerate age class or excluded from the burning rotation.	Stand which are never burnt should be present on level or gently sloping ground , not entirely confined to steep slopes.
		Grazing impact	Indicators of light grazing	A maximum of 5% of the grazing unit may show signs of current moderate or heavy grazing. Foddering sites should be no greater in their immediate impact of 30 metres of heather lost to grass.	See guidance notes for indicators.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
Upland Heath	Northern Atlantic wet dwarf shrub heath	Extent	Total area mapped in relation to baseline	No reduction in area and any consequent fragmentation	Small losses related to management may be acceptable (eg - footpaths).
		Dwarf shrub cover	%age of dwarf shrub cover	Minimum of 75% cover of dwarf shrubs	
		Dwarf shrub diversity	Number of different species of dwarf shrubs and frequency in sward	At least two species of dwarf shrub species should be widespread and frequent in the sward	Much of the dry and wet heath forms an intimate mosaic which is currently managed as one by moorland owner/ occupiers. It is very difficult delineating distinct zones of each habitat type on the moors.
		Bryophyte/ lichen abundance	Frequency of bryophytes and lichens in the sward	Bryophytes (excluding Polytrichum spp. and/or Campylopus spp.) and/or Cladonia spp. Lichens should be occasional to frequent and forming patches below, or in more open swards, between the dwarf shrubs	Bryophyte levels have been found to be only occasional in some areas.
		Age structure	Presence of age classes of Calluna	All age classes present with at least 33% of the management unit in the late mature/degenerate age class or excluded from the burning cycle.	Stand which are never burnt should be present on level or gently sloping ground , not entirely confined to steep slopes.
Upland bog	Blanket and upland	Extent	Total area mapped in relation to baseline	No reduction in area and any consequent fragmentation	Small losses/ flux in surface vegetation may be acceptable, esp. for management (eg- footpaths).

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
	raised mire	Bryophyte abundance	Bryophyte cover especially Sphagnum spp	Bryophytes (excluding Polytrichum spp., Campylopus spp. and Racomitrium lanuginosum on bare ground) should be abundant and must include Sphagnum spp	Sphagnum spp must be both frequent and widespread in the stand and restricted to hollows, forming at least occasional lawns or hummocks. Pleurocarpous mosses may make up a significant proportion of the bryophyte layer in the Moors. Reference level of bryophytes needs to be determined.
		Dwarf shrub cover	%age of dwarf shrub cover	Cover of dwarf shrubs must be greater than 33%	Less than 33% cover is acceptable in wetter areas where Sphagnum spp are abundant and forming lawns although this wetness is not a general feature of the Moors.
		Dwarf shrub diversity	Number of different species and frequent within sward	At least two species of dwarf shrub species should be widespread and frequent in the sward	
		Graminoid cover	% cover of grasses and related species	Total cover of graminoids/ Eriophorum should not exceed 50% unless Sphagnum spp are abundant/co-dominant and forming lawns below the grasslands i.e. in waterlogged conditions	Eriophorum tends to be favoured over dwarf shrubs where burning is relatively intense.
		Extent of bare ground covered by algal mats	Amount of bare ground or ground covered by algal mats	Little or no ground, or bare ground carpeted by Polytrichum spp, Campylopus spp crust forming lichens or algal mats	Bare ground present rather than eroded surfaces. Some areas have remained as bare ground since previous severe fires, some dating back to the 1930's.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
		Erosion features associated with human impacts	Presence of erosion features	No artificial drains/ grips or erosion associated with human impacts eg fires, vehicles, livestock grazing, recreational activities	See notes. Except very localised - eg - around tracks, footpaths, grouse butts, etc.
		Active peat extraction	Presence of active peat extraction	Large scale (commercial) peat extraction absent. Some small-scale hand-cut peat. turve cutting may be acceptable provided that it does not make up more than 2% of the moorland area Acceptable levels to be defined	Many areas which have been cut in the past have now revegetated with good mire vegetation which meets the other attributes for favourable vegetation. Many farms retain their rights to cut peat/ turves. The numbers carrying out this activity is a key element to acceptability. Recovery times are thought to be 20 years plus.
		Grazing impact	Indicators of light grazing	A maximum of 5% of the grazing unit may show signs of current moderate or heavy grazing	See guidance notes.

SPA Features

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
Moorland (For Birds)	Annex 1 and migratory populations of European Importance: golden plover, merlin	Disturbance	Reduction or displacement of birds, measured periodically (frequency to be determined).	No significant displacement of birds attributable to human disturbance in relation to reference level.	Potential sources of disturbance include heather burning, heather cutting, vehicles, stock, dogs and walkers, especially from April to mid-July. Disturbance caused by predation and the effects on the qualifying bird species is an area that requires further assessment. Reference level to be determined. Methodology for assessing target to be determined.
		Extent and distribution of habitat	Area (ha), measured periodically (frequency to be determined).	No significant decrease from reference level.	Reference level to be determined. Methodology for assessing target to be determined.
	Annex 1 and migratory populations of European Importance: golden plover	Landscape	Open terrain relatively free of obstructions (feeding, anti-predator, roosting), measured periodically (frequency to be determined).	No significant reduction in view-lines in feeding and roosting areas.	Golden Plover require views over 200m. At least 80% of current moorland area (and all flatter plateaux) open, e.g. without new walls or trees. New fences only where essential for conservation land management. Some loss of view, to trees and shrubs, acceptable in low density breeding areas to benefit other bird and habitat interests. Methodology for assessing target to be determined.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
	Annex 1 populations of European Importance: merlin	Food Availability	Abundance of birds, day flying moths and mammals, measured periodically (frequency to be determined).	No significant reduction in presence and abundance of prey species in relation to reference level.	Small birds - pipits to waders and moths are important for Merlin. Effects of bracken spraying on meadow pipit abundance not fully assessed but needs to be quantified. Reference level to be determined. Methodology for assessing target to be determined. Data from Merlin Group suggests that male and female may hunt in different areas and on different types of prey during the breeding (incubation period) season, the female taking larger prey, more widely afield, post hatching, but this has yet to be confirmed.
Moorland [For Birds]	Annex 1 and migratory populations of European Importance: golden plover, merlin	Vegetation Characteristics	Extent and proportions of short, medium and tall vegetation, measured periodically (frequency to be determined).	xxx% of moorland with short vegetation with patches of taller vegetation for nesting (short grassland, grasslands with bracken, tall heather, low trees/scrub) for merlin. Once a reference level has been established then there should be no significant reduction in extent from that level.	Using SAC targets, at least 75% of the shorter vegetation currently used by golden plovers can be retained. The requirement for 25% taller vegetation could be met away from high density breeding areas. Scattered tree/shrub is acceptable to meet other SPA and SAC objectives. Vegetation height require for golden plover: mix of short (feeding) (less than 5cm) and patches of taller (up to 15 cm for nesting) during the breeding season. Burnt are favoured over cut area. Nesting appears to be largely just below the plateau between catchments, on the tops of moors and centred on blanket bog areas. Burning management on grouse moors, which currently produces much of the short vegetation providing suitable habitat for golden plover, is considered unlikely to be compatible with achieving favourable condition on blanket bog or for other interest features of the SPA. Retention of small areas of acidic grassland

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
					<p>can provide valuable nesting habitat, compatible with SAC targets (eg 5% of area) as currently defined.</p> <p>Vegetation height required for merlin: a ground layer of heather at > 20cm height with >80% heather cover, in a minimum of 15m x 15m heather 'blocks' and with burns (for feeding/plucking) within a minimum of 5 metres of the nest site (average 10 metres). Heather in late mature to degenerate stages of growth. Nest site preference is generally on the level up to a 10 degree slope (though 20-30 degrees are recorded). No preference for aspect has been recorded. There is no evidence of tree nesting in the Moors despite intense ornithological work. All gills with some trees and shrub (variable densities). Some patches of trees at moor boundary. Aim to increase areas of tall heather in locations suitable for merlin nesting (eg tops of catchments).</p> <p>Methodology for assessing target to be determined. Reference levels (i.e. proportion of moorland with appropriate vegetation heights) to be determined.</p> <p>xxx% of moorland with short vegetation with patches of taller vegetation for nesting (short grassland, grasslands with bracken, burnt heather) for golden plover.</p> <p>xxx% of moorland with short vegetation for feeding and patches of longer vegetation for nesting for curlew.</p> <p>xxx% of moorland with medium to tall ground vegetation plus scattered (tall heather, low</p>

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
					trees/scrub) for Merlin. xxx% of moorland with tall heather/young forestry (nesting and roosting), plus grasslands, bracken or low trees/scrub (feeding) for Hen Harrier
Moorland and adjacent wet pastures [For Birds]	Annex 1 and migratory populations of European Importance: golden plover	Food Availability	Abundance of soil and ground surface invertebrates, measured periodically (frequency to be determined).	No significant reduction in presence and abundance of food species in relation to reference level.	Earthworm, leatherjackets, beetles, spiders are important for Golden plover. Maintain or increase existing areas of grassland (within 10-15km) without pesticide use (effective field size should be at least 10ha). Although important to the condition of the site, it may not prove possible to obtain a meaningful measure of prey availability by directly sampling invertebrate prey populations. Reference level to be determined. Methodology for assessing target to be determined.

Appendix 3: Favourable Condition Table – Castle Eden Dene SAC.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
Semi-natural woodland	Taxus baccata woodland (National Vegetation Classification W13)	Area	Extent/location of stands	<p>No loss of ancient semi-natural stands</p> <p>At least current area of recent semi-natural stands maintained, although their location may alter.</p> <p>At least the area of ancient woodland retained (Details of stands contained in National Nature Reserve plan)</p>	<p>Stand loss due to natural processes e.g. in minimum intervention stands may be acceptable.</p> <p>Stand destruction may occur if the understorey and ground flora are irretrievably damaged even if the canopy remains intact.</p> <p>20% canopy cover is conventionally taken as the lower limit for an area to be considered as woodland.</p> <p>Area and location of stands may be assessed remotely or by site visit.</p>
		Natural processes and structural development	Age/size class variation within and between stands; presence of open space and old trees; dead wood lying on the ground; standing dead trees	<p>At least the current level of structural diversity maintained. (See NNR plan for current state)</p> <p>Canopy cover present over 30-90 % of stand area</p> <p>A minimum of 3 fallen lying trees less than 20 cm diameter per ha. At least 20 trees per ha left to grow on to become veterans⁸.</p>	<p>Any changes leading to exceeding these limits due to natural processes are likely to be acceptable.</p> <p>There is generally a good structural variety in these stands.</p> <p>The ground flora and shrub layer are frequently totally absent over most of the stand, so no target is set for them.</p> <p>See JNCC guidance note for the sorts of age structure likely to be appropriate for different types of management regime. Compared to other woodland types the degree of variation in structure may be very low.</p> <p>Much of the interest in yew woods is in the very</p>

⁸ Veteran trees are trees, which, because of their great age, size and condition, are of exceptional value culturally, in the landscape or for wildlife.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
					old trees - hence a higher figure is set than for other types for trees to grow on to become veterans. Assess this attribute by field survey.
		Regeneration potential	Successful establishment of young stems in gaps or on the edge of a stand	Signs of seedlings growing through to saplings to young trees at sufficient density to maintain canopy density over a 20 yr period (or equivalent regrowth from coppice stumps). No planting except where necessary to restore former plantation areas.	A proportion of gaps at any one time may develop into permanent open space; equally some current permanent open space/glades may in time regenerate to closed canopy. Regeneration may often occur on the edges of woods rather than in gaps within it. See Joint Nature Conservation Council Guidance Note on likely desirable levels of regeneration. In yew woods the proportion of gaps is frequently lower than for other woodland types and the long-life span of the tree means that it is almost impossible to give a minimum level for regeneration. Assess this attribute by walking through the wood in spring/summer.
		Composition	Cover of native versus non-native species (all layers) Death, destruction or replacement of native woodland species through effects of non-native fauna or external unnatural factors	At least the current level of site-native species maintained. (Details of current composition given in management plan.) At least 90% of cover in any one layer of site-native or acceptable naturalised species. At least 50% of canopy or understorey comprised of	In sites where there might be uncertainty as to what counts as site-native or as an acceptable naturalised species this must be made clear. Where cover in any one layer is less than 100% then the 90% target applies to the area actually covered by that layer. Factors leading to the death or replacement of woodland species could include pollution, including eutrophication from adjacent farmland; new diseases. Damage to species by non-native species that does not lead to their death or replacement by non woodland species (eg damage from squirrels to trees that none-the-less survive) is

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
				<p>yew</p> <p>Death, destruction or replacement of native woodland species through effects of introduced fauna or other external unnatural factors not more than 10% by number or area in a five year period.</p>	<p>not necessarily unacceptable in nature conservation terms.</p> <p>Excessive browsing/grazing by even native ungulates may be considered an unnatural external factor where it leads to undesirable shifts in the composition/structure of the stand, although this may be picked up by attributes 2 or 5 anyway.</p> <p>Assess this attribute by a walk through the site.</p>
		Species, habitats, structures characteristic of the site.	<p>Distinctive and desirable elements for a given site</p> <p>Patches of associated habitats and transitions eg to ash woodland, or to species-rich grassland</p>	<p>Distinctive elements maintained at current levels and in current locations (where appropriate).</p> <p>Transitions to other woodland types (ash-elm, acid oak) and open space maintained in extent and where appropriate location.(See NNR plan for current state).</p>	<p>Changes leading to these targets not being met may be acceptable where this is due to natural processes.</p> <p>Distinctive elements and patches should be marked on maps for ease of checking in the field wherever possible.</p> <p>If there are species groups/assemblages that cannot be assessed directly on a general site visit then surrogate features should be given where possible, eg dead wood concentrations for associated invertebrates.</p>

Appendix 4: Favourable Condition Table – Thrislington SAC.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
Unimproved calcareous grassland	CG8	Extent	Total Area (ha), mapped in relation to reference level, in period mid May to end July, measured annually if possible.	No reduction in area and any consequent fragmentation without prior consent.	Reference Level to be determined.
		Sward composition: grass/herb ratio	Proportion of non-Graminae (herbs) in period mid May to end July measured annually if possible.	30%-90%	Low proportion outside target indicates eutrophication, usually from fertilisers, or insufficient removal of biomass, leading to dominance by grasses.
		*Sward composition: Positive indicator species	Record the frequency of positive indicator species in the period mid May to end of July, measured annually if possible. Sesleria albicans, Anthyllis vulneraria, Gallium Verum, Gentianella spp., Helianthemum nummularium, Hypericum Pulchrum, Linum Cartharticum, Listeria Ovata, Lotus Corniculatus, Pimpinella Saxifragum, Plantago Media, Polygala spp., Primula Verus, Sanguisorba minor,	Sesleria albicans frequent plus at least two species frequent and four occasional throughout sward.	Choice of species related to NVC type and restriction to unimproved grassland, considered satisfactory when inside target. Among possible species that could be used, choice further restricted by ease of identification, visibility in recording period.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
			Scabiosa columbaria, Stachys Officinalis, Succisa pratensis, Thymus polythricus, Viola hirta.		
		*Sward composition: Negative indicator species	Record the frequency and % cover of negative indicator species. Record in period mid May to end July, measured annually if possible. Chamerion Angustifolium, Cirsium arvense, Cirsium vulgare, Galium Aparine, Sonchus spp., Senecio Jacobaea, Urtica Dioica.	No species/taxa more than occasional throughout the sward on singly or together more than 5% cover.	Invasive species chosen to indicate problems of eutrophication and disturbance from various sources when outside target, e.g. poaching, stock feeding.
		*Sward composition: Negative indicator species	Record the frequency and % cover of all tree and scrub species, except Rosa spp., consider together, measured annually if possible. Nb, if scrub/tree species are more than occasional throughout the sward but less than 5%, they are soon likely to become a problem if grazing levels are not sufficient or if scrub control is not being carried out.	No more than 5% cover.	Invasive species outside target shows that habitat is not being managed sufficiently e.g. undergrazed.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
		*Sward composition: negative indicator species	Record % cover of Rosa spp., Measure annually if possible.	No more than 10% cover.	Rosa species are often an important component of the habitat, although they can out compete grassland plants if management is insufficient e.g. under grazing.
		Sward Composition: Rare and scarce species.	Record community rare/scarce species (specific to site, maybe none), In period mid May to end July, measured annually if possible. Antennaria dioica, Epipacdis atrorubens, Linum anglicum, Hypericum montanum, Parnassia palustris, Pinguicula vulgaris, Plantago maritima, Primula farinose, Selaginella selaginoides, Trollius europaeus.	One or more present.	Some sites have rare and scarce species, often with very small populations. Continued presence gives an indication that conditions e.g. grazing levels remains suitable.
		Sward structure: Average Height	Record sward height in period Mid May to end July, measured annually if possible.	Sward 2-15cm	Outside target indicates insufficient grazing or overgrazing.
		Sward structure: litter	Record cover of litter where a more or less continuous layer distributed either in patches or in one larger area. Measured annually if possible.	Total extent no more than 25% of the sward.	Outside target indicates biomass removal is insufficient e.g. undergrazed.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
		Sward structure: Bare ground	Record extent of bare ground (not rock) distributed through the sward, noticeable without disturbing the vegetation. Measure in period end mid May to end July, annually if possible.	No more than 10% of the sward	Outside target indicates management problems, e.g. over grazing.

Appendix 5: Favourable Condition Table – Durham Coast SAC.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
Maritime Cliff	Vegetated sea cliffs on the Atlantic and Baltic Coasts	Extent of cliff	Approximately 30% of sea cliff supporting or capable of supporting vegetated sea cliff communities. (Baseline figure taken from survey maps) Measure at least once per reporting cycle.	The overall length and /or area of the cliff habitat of the site is maintained taking into account natural variation.	Requires up to date NVC mapping to provide accurate base line. This attribute will be important for all cliff types. On near vertical cliffs it may be difficult to assess area, and a length measurement may be more appropriate. On less steep cliffs area may be measurable. Area of suitable habitat behind a receding cliff line may also be important.
		Mobility	Percentage of linear extent and area of cliff structure and geomorphological processes not immediately constrained by introduced structures or landforms. Measured once per reporting cycle.	No increase in linear extent or area constrained by introduced structures or landforms.	An important aspect of this habitat is the modification of vegetation patterns in response to natural and geomorphological coastal processes without constraints. Introduction of or increase in physical constraints would reduce the mobility of the cliff and reduce the range of communities which represent this interest feature. Information on existing coast protection should be available from the SMP.
		Physical features supporting vegetation patterns/ zonation	Assessment of distribution of main zones in relation to cliff behavioural units and distance from maritime influence. Measured once per reporting cycle.	Maintain the range of physical conditions arising from variation in geology and geomorphology, profile, stability, degree of maritime exposure, drainage, aspect, geographical location and history of management. Local targets will need to be established. Physical conditions should be able	Changes in patterns are reflected in changes to the profile and stability of the supporting cliff face which will vary from site to site and vary over time. Some cliffs exhibit long term stability, with episodic landslide movement, others erode more continually. Changes to patterns are to be expected, especially in dynamic systems. Can be assessed from air photographs and site based surveys and will need information on geomorphological aspect of cliffs.

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
				to support the full range of vegetation communities characteristic of the site.	
		Vegetation composition maritime grassland communities characteristic of the site.	Presence of vegetation communities characteristic of maritime grassland. These are likely to consist of NVC communities MC8-MC12 characterised by the dominance of Festuca rubra, with Armeria maritima, Silene Vulgaris maritima, Holcus lanatus, Plantago lanceolata, P. maritima, P. coronopus, Dactylis glomerata, Daucus carota, Rumex acetosa, Hyacinthoides non-scriptus. Assess at least one reporting cycle.	Maintain range of maritime grassland communities, taking account of natural variation.	Individual sites will exhibit different patterns and range of vegetation types depending on site characteristic and management history. Surveys may be needed to establish the full range for each site. Reference should be made to dates of previous surveys to assess which communities have been previously recorded on the site. Some of these communities can be difficult to assess because of their inaccessibility.
		Vegetation of soft cliffs and other communities characteristic of the site	Vegetation composition of other communities forming a complex pattern reflecting different degrees and stages of instability, drainage and other physical characteristics. The components of this pattern may include wet flush/seepage/mire communities, scrub/woodland communities, ruderal and	Maintain range of transitions and other communities previously recorded on the site, taking account of natural variation. Targets will need to be set locally, taking account of the maritime influence and coastal processes.	Vegetated sea cliff sites on soft geology in more sheltered locations are likely to support variants of wet flush/seepage/mire communities, scrub/woodland communities, ruderal and bracken communities, which may be subject to maritime influence. Some or all of these may also occur on relatively hard rock cliffs with a less extreme maritime influence. The diversity of habitats on sea cliffs is promoted by the inherent instability of the substrata which maintains a range of successional stages. Reference should be made to dates of previous surveys to assess which communities have

Operational Feature	Criteria Feature	Attribute	Measure	Target	Comments
			bracken communities. Assess at least once per recording cycle.		been previously recorded on the site.
		Vegetation negative indicators	Presence of negative indicator species including non native species, invasive species indicative of changes in nutrient status and species not characteristic of typical communities. Assess at least once per reporting cycle.	No further increase in species not typically associated with the communities that define the feature. Local targets will need to be defined. These will vary from site to site and locally-significant species will need to be defined.	Changes in the extent and cover of invasive species usually indicate a change in conditions on a site, often as a result of anthropogenic activities, which may promote rapid expansion or increase in cover. Such species may include those identified as negative indicators for grass lands e.g. <i>Cirsium arvense</i> , <i>Senecio jacobaea</i> , <i>Urtica dioica</i> . Together with non native species. Some tall ruderal communities may be present naturally on a cliff site.

Appendix 6: Favourable Condition Table – Northumbria Coast SPA and Ramsar Site.

Feature	Sub-Feature	Attribute	Measure	Target	Comments
Internationally important populations of regularly occurring Annex 1 and migratory bird species	All habitats	Disturbance	Reduction or displacement of birds	No significant reduction in numbers or displacement of wintering birds attributable to disturbance from an established baseline, subject to natural change.	Significant disturbance attributable to human activities can result in reduced food intake and/or increased energy expenditure. Disturbance is minimised through wardening of the tern breeding colony.
Internationally important populations of regularly occurring Annex 1 bird species	Shallow inshore waters	Extent of habitat	Area (ha) measured once during the reporting cycle.	No decrease in extent from an established baseline, subject to natural change.	Little terns feed in the shallow inshore waters and the Long Nanny estuary near the Low Newton colony.
		Food availability	Presence and abundance of marine fish, crustaceans, worms, and molluscs. Measured periodically (frequency to be determined).	Presence and abundance of food species during the breeding period should not deviate significantly from established baseline, subject to natural change.	Crustaceans, annelids, sandeel and clupeidae are important for Little Tern.