Lincolnshire Land Management
Ceres House, 2 Searby Road
Lincoln
Linconshire LN2 4DW
Tel: (01522) 561 470
Fax: (01522) 510 638
claire.weaver@naturalengland.org.uk

CONSERVATION OBJECTIVES and DEFINITIONS OF FAVOURABLE CONDITION for DESIGNATED FEATURES OF INTEREST:

These Conservation Objectives relate to all designated features on the SSSI, whether designated as SSSI, SPA, SAC or Ramsar features.

Name of Site of Special Scientific Interest (SSSI)	
Gibraltar Point SSSI	
Names of designated international sites	
Special Area for Conservation (SAC)	**Saltfleetby-Theddlethorpe Dunes and Gibraltar Point SAC** (terrestrial) **The Wash & North Norfolk Coast SAC** (marine)
Special Protection Area (SPA)	**Gibraltar Point (Wash Phase 2) SPA**
Ramsar :	**Gibraltar Point (Wash Phase 2)**
Relationship between site designations	
The SSSI is covered by 4 international designations that are not wholly coincident with the SSSI boundaries. Saltfleetby-Gibraltar terrestrial SAC covers all the non-tidal parts of Gibraltar Point SSSI but also includes another SSSI at Saltfleetby-Theddlethorpe. The Wash marine SAC covers The Wash and includes intertidal parts of Gibraltar Point NNR within the NNR, it does not extend to the SSSI's northern boundary i.e. it is restricted to land within the parishes of Wainfleet and Croft. The SPA and Ramsar designations are coincident in area, they are a subset of the SSSI excluding the golf course and, as per the marine SAC, do not extend beyond the NNR thus excluding the northernmost part of the SSSI.	

Version Control information	
Status of this Version (Draft, Consultation Draft, Final)	Draft (version 3)
Prepared by:	Claire Weaver
Date of this version:	12th February 2008
Date of generic guidance on favourable condition used:	Feb 2004
Other notes/version history :	Version 1 compiled by Graham Weaver used earlier guidance

Quality Assurance information		
Checked by	**Name:**	**Date:**
	Signature	

Conservation Objectives and definitions of Favourable Condition: notes for users

Conservation Objectives
SSSIs are notified because of specific biological or geological features. Conservation Objectives define the desired state for each site in terms of the features for which they have been designated. When these features are being managed in a way which maintains their nature conservation value, then they are said to be in 'favourable condition'. It is a Government target that 95% of the total area of SSSIs should be in favourable condition by 2010.

Definitions of Favourable Condition
The Conservation Objectives are accompanied by one or more habitat extent and quality definitions for the special interest features at this site. These are subject to periodic reassessment and may be updated to reflect new information or knowledge; they will be used by Natural England and other relevant authorities to determine if a site is in favourable condition. The standards for favourable condition have been developed and are applied throughout the UK.

Use under the Habitats Regulations
The Conservation Objectives and definitions of favourable condition for features on the SSSI may inform the scope and nature of any 'appropriate assessment' under the Habitats Regulations. An appropriate assessment will also require consideration of issues specific to the individual plan or project. The habitat quality definitions do not by themselves provide a comprehensive basis on which to assess plans and projects as required under Regulations 20-21, 24, 48-50 and 54 - 85. The scope and content of an appropriate assessment will depend upon the location, size and significance of the proposed project. Natural England will advise on a case by case basis.

Following an appropriate assessment, competent authorities are required to ascertain the effect on the integrity of the site. The integrity of the site is defined in paragraph 20 of ODPM Circular 06/2005 (DEFRA Circular 01/2005) as the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified. The determination of favourable condition is separate from the judgement of effect upon integrity. For example, there may be a time-lag between a plan or project being initiated and a consequent adverse effect upon integrity becoming manifest in the condition assessment. In such cases, a plan or project may have an adverse effect upon integrity even though the site remains in favourable condition.

The formal Conservation Objectives for European Sites under the Habitats Regulations are in accordance with paragraph 17 of ODPM Circular 06/2005 (DEFRA Circular 01/2005), the reasons for which the European Site was classified or designated. The entry on the Register of European Sites gives the reasons for which a European Site was classified or designated.

Explanatory text for Tables 2 and 3
Tables 2 and 3 set out the measures of condition which we will use to provide evidence to support our assessment of whether features are in favourable condition. They are derived from a set of generic guidance on favourable condition prepared by Natural England specialists, and have been tailored by local staff to reflect the particular characteristics and site-specific circumstances of individual sites. Quality Assurance has ensured that such site-specific tailoring remains within a nationally consistent set of standards. The tables include an audit trail to provide a summary of the reasoning behind any site-specific targets etc. In some cases the requirements of features or designations may conflict; the detailed basis for any reconciliation of conflicts on this site may be recorded elsewhere.

Conservation Objectives

The Conservation Objectives for this site are, subject to natural change, to maintain the following habitats and geological features in favourable condition (*), with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages etc.) for which the land is designated (SSSI, SAC, SPA, Ramsar) as individually listed in Table 1.

Sub-littoral sands & gravels
Littoral sediment
Coastal saltmarsh
Saline lagoon
Coastal sand dune
Coastal geomorphology

(*) or restored to favourable condition if features are judged to be unfavourable.

Standards for favourable condition are defined with particular reference to the specific designated features listed in Table 1, and are based on a selected set of attributes for features which most economically define favourable condition as set out in Table 2 and Table 3:

Table 1 Individual designated interest features

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1a Wetland characteristics	2a Hosting rare species &c	3a 20000 waterfowl	3c 1% of population
Sub littoral sands and gravels	Sandbanks which are slightly covered by sea water at all times	Subtidal sandbanks		*							
Reefs	*Sabellaria spinulosa* reefs			*							
Littoral sediment	Mudflats and sandflats not covered by sea water at low tide	Inter-tidal mud and sand flats	*	*		(*)	(*)	*	(*)	(*)	
Coastal saltmarsh	*Salicornia* and other annuals colonising mud and sand	SM8, SM9	*	*		(*)	(*)	*	(*)	(*)	
--"--	Atlantic salt meadows	SM10, SM11, SM13, SM14, SM16, SM17	*	*		(*)	(*)	*	(*)	(*)	
--"--	Mediterranean and thermo-Atlantic halophilous shrubs	SM25, SM21	*	*				*	(*)		
--"--	Saltmarsh (criteria A5d[iv])	SM24, SM25 and dune/marsh mosaics and transitions	*					*	(*)		
Coastal lagoon	Saline lagoon			*				*	(*)		
Coastal sand dunes	Strandline, embryo and mobile dunes: **Strandline**	SD2	*		(*)			*	(*)		(*)
Coastal sand dunes	Strandline, embryo and mobile dunes: **Embryonic shifting dunes**	SD4, SD5 (part: 5a & 5b?)	*	*	(*)				(*)		

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1a Wetland characteristics	2a Hosting rare species &c	3a 20000 waterfowl	3c 1% of population
Coastal sand dunes	Strandline, embryo and mobile dunes: **Shifting dunes along the shore with *Ammophile arenaria* (white dunes)**	SD5 (part: 5c?), SD6	*	*					(*)		
Coastal sand dunes	Fixed dune grassland: **Fixed dunes with herbaceous vegetation (grey dunes)**	SD7, SD8, SD9, SD10	*	*							
Coastal sand dunes	**Humid dune slacks**	SD17	*	*				*	(*)		
Coastal sand dunes	**Dunes with *Hippophae rhamnoides***	SD18		*							
Mammal species	**Common seal *Phoca vitulina***			*							
Mammal species	**Otter Lutra lutra**			*							
Bird species	Winter migrants and birds on passage	Bar-tailed godwit	*			*	*†				*
		Grey plover	*			*	*†				
		Knot	*			*†	*†				?
		Oystercatcher	*				*†				
		Ringed plover	*				*†				

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1a Wetland characteristics	2a Hosting rare species &c	3a 20000 waterfowl	3c 1% of population
		Sanderling	*			*	*†				*
Bird species	Aggregations of wintering non-breeding birds	Dark bellied brent goose					*†				*
Bird species	Aggregations of non-breeding birds	Assemblage of over 20,000 wintering waterbirds	*				*†			*	
Bird species	Breeding bird assemblage	Little tern	*		*						
	Diverse breeding bird community (sand dune, saltmarsh, shingle and low islands) Breeding bird index = 29	Mallard	*								
		Oystercatcher	*								
		Redshank	*								
		Ringed plover	*								
		Shelduck	*								
Plant species	Outstanding assemblage of vascular plants	Vascular Plant score = 760	*								
Invertebrate species	Outstanding assemblage of invertebrates	Invertebrate index = 5,500	*								
		Vulnerable (4 spp) inc: *Rhymosia connexa*, *Salticella fasciata* and probably *Trupanea amoena*. Nationally rare (8 spp.)							*		

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1a Wetland characteristics	2a Hosting rare species &c	3a 20000 waterfowl	3c 1% of population
		inc: *Athetis palustris, Dexiopsis lacustris, Eucosma maritima, Eupithecia extensaria, Gonia divisa, Haematapota bigota, Phaonia fusca, Pogonus viridipennis*									
Geology	Coastal geomorphology		*								

NB. Features where asterisks are in brackets (*) indicate habitats which are not notified for specific habitat interest (under the relevant designation) but because they support notified species.

† SPA review (using data from first half of 1990s) - species additional to those listed in SPA citation dated 1992

? Ramsar species/populations identified subsequent to designation for possible future consideration under Criterion 6 (was 3c)

Table 2a Habitat extent objectives

Conservation Objective for habitat extent	To maintain the designated features in favourable condition, which is defined in part in relation to a balance of habitat extents (extent attribute). Favourable condition is defined at this site in terms of the following site-specific standards:
Extent - Dynamic balance	On this site favourable condition requires the maintenance of the extent of each habitat type (either designated habitat or habitat supporting designated species). Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	**Estimated extent (ha) and date of data source/estimate**	**Site Specific Target range and Measures**	**Comments**
Sub littoral sands and gravels (extent of identified inshore sublittoral sediment(s))		No change in extent of inshore sublittoral sediment habitat	A Baseline figure has yet to be established – it may require GIS mapping and establishment of mean low water. There is very little information on trends in order to establish a level of confidence or range for the baseline measure. Some information is available through the Linc Shore Project monitoring and this may help inform the effect of beach nourishment on this feature.
Reef (extent of *Sabellaria spinulosa* reef)		No change in extent of reef habitat	See Wash conservation objective for more information. Reference: Foster-Smith & Sotheran (1999). Broad scale remote survey and mapping of sublittoral habitats and biota of The Wash and the Lincolnshire and the North Norfolk Coasts. English Nature Research report 336.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Littoral sediment	?125 hectares? Estimated from MapInfo aerial photos (1999)	No decrease in extent of littoral sediment.	Figure obtained from aerial photos currently loaded onto MapInfo with SSSI digital boundary overlay. MHW (SSSI seaward boundary) taken as lower feature boundary and visible vegetation as upper feature limit. Aerial coverage is partial so landward limit in one section is taken as a straight line between the embryo dunes on each photo. An accurate baseline figure may require GIS mapping from aerial photographs where full coverage is available. Establishment of mean low water may be preferable to taking MHW as the seaward feature boundary. There is very little information on trends in order to establish a level of confidence or range for the baseline measure. Some information is available through the Linc Shore Project monitoring and this may help inform the effect of beach nourishment on this feature.
Salicornia & other annuals colonising mud and sand	9.7 hectares [to 9.7 hectares]	No decrease in extent from the established baseline, subject to natural change.	Data derived from NVC survey report Holder (1999)*. Area figure represents extent of SM6, SM9 and SM11 (no SM8, recorded in this survey) and excludes any transitional communities. The bracketed figure [thus] includes a minor area of transition between SM9 and SD4, some 0.05 ha. Extent may be subject to periodic and seasonal variation, particularly pioneer saltmarsh. Extent should be measured at low tide.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Atlantic salt meadow	50 hectares [to 56 ha] NVC survey (1999)	No decrease in extent from the established baseline, subject to natural change.	Data derived from NVC survey report Holder (1999)*. Area figure is for SM10, SM11, SM13, SM14, SM16 and SM17 and all transitions and mosaics between these communities. The figure excludes mosaic/transitions with communities other than those defined as 'Atlantic salt meadow' such as SM24, SD4, 'other' etc. - these transitional areas are included with the 'pure' area in the bracketed figure [thus] to give a range. Extent may be subject to periodic and seasonal variation, particularly pioneer saltmarsh. Extent should be measured at low tide.
Mediterranean & thermo-Atlantic halophilous scrub	0.4 hectares [to 5 ha] NVC survey (1999)	No decrease in extent from the established baseline, subject to natural change.	Data derived from NVC survey report Holder (1999)*. Figure is for SM21 and SM25 communities but excludes transitions to other communities. Transitions to other communities e.g. SM21b/SM22 and SD6c/SM25 are included in the bracketed figure [thus] to give a range. Extent may be subject to periodic and seasonal variation, particularly pioneer saltmarsh. Extent should be measured at low tide.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Coastal lagoon	0.3 hectares Measured from 1991 MapInfo aerial photographs	No reduction in extent of saline lagoon area, subject to natural change.	Saline lagoon habitat identified in the Directory of Saline Lagoons & lagoon like habitats in England (Smith & Laffoley 1992, EN) as occurring in the ditches either side of Bulldog Bank (Bulldog Bank landward ditch and Bulldog Bank seaward ditch). The northern landward ditch 0.054ha, within the freshwater marsh, has a 'pond' at each end of unspecified size; the southern seaward ditch 2.4ha, within saltmarsh, is 300m long by 8m wide. However, measurement of 1999 aerial photos on MapInfo give an actual measurement for the landward ditch of 0.293 hectares and no seaward ditch is visible (this area has been occupied by the Fenland Lagoon since 1989/90 - created prior to the Ramsar designation in 1992). Condition would be judged unfavourable if loss in extent due to factors other than cyclical natural processes that are part of a wider coastal geomorphological management regime. Where natural events (such as severe storm damage causing a barrier breach) cause a loss of extent of the feature, then this would also be considered unfavourable.
Strandline	[2.75 hectares] NVC survey (1999)	No decrease in extent from the established baseline, subject to natural change.	Data derived from NVC survey report Holder (1999)*. Area figure is generated from SD2 community coverage, as there was no 'pure' SD2 stands recorded, this figure includes transitions between other stand types (specifically SD4) and, to maintain consistency with objectives for other feature areas, is shown in square brackets. As a consequence no range is specified.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Embryonic shifting dunes	2.3 hectares NVC survey (1999)	No net decrease in extent from the established baseline, subject to natural change.	Data derived from NVC survey report Holder (1999)*. Figure is for SD4 and SD5 and transitions/mosaics between these two types and also with bare sand; SD5 was undifferentiated to sub-cummunity level and is included here and not in the figure for embryonic shifting dunes below. The figure excludes the transitional sward SD2/SD4 which is included in the figure for strandline area. This target area does not include transition to saltmarsh communities as this occurs where newly blown sand from foredune breaches has inundated saltmarsh or otherwise is included in the area for strip saltings where it occurs as part of the saltmarsh-dune ecotone. As there were no other transitional swards [usually displayed thus] no upper figure is given and so a range is unavailable, in contrast with most other communities. If loss (or gain) of area is due to natural causes this is not a decline in condition, but any significant loss due to human interference (e.g. sand extraction, visitor impacts, ploughing or conversion to improved grassland) is to be regarded as unfavourable. Increase in area is favourable unless related to coast protection. Extent, particularly of embryonic dunes, may be subject to periodic and seasonal variation.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Shifting dunes along the shore with *Ammophila arenaria*	6.4 hectares [to 9 hectares] NVC survey (1999)	No decrease in extent from the established baseline, subject to natural change.	Data derived from NVC survey report Holder (1999)*. The first area figure is generated from SD6 (all sub-communities), would usually include SD5 sub-community (c) where present and includes transitions and mosaics between these NVC types; SD5c is not differentiated in the 1999 survey and so SD4+SD5 mosaic is included in the embryo dune area. The second figure [in square parentheses] includes transitions between other NVC types to give a range. If loss (or gain) of area is from natural causes this is not a decline in condition, but any significant loss due to human interference (e.g. sand extraction, visitor impacts, ploughing or conversion to improved grassland) is to be regarded as unfavourable. Increase in area is favourable unless related to coast protection or at the expense of other sand dune features.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Fixed dunes with herbaceous vegetation	52 hectares to 49 hectares NVC survey (1999)	No net decrease in extent from the established baseline, subject to natural change.	It is necessary to achieve a balance between sea buckthorn scrub and dune grassland without allowing the sea buckthorn scrub to become over dominant on the site. This habitat is considered to have been in unfavourable condition at the time of designation due to invasion by sea buckthorn. Instead of taking the areas from an NVC survey as a baseline, this target area has been derived by establishing the potential area of dry dune habitat (the sum of all SD7, SD8, SD9, SD10 [if present] and SD18 communities together with all transitions and mosaics to dry dune communities [i.e. excluding saltmarsh and SD17]). This amounts to 70 hectares. The desirable % cover of sea buckthorn SD18 vegetation has been established as 25-30% coverage - see also target for dunes with *Hippophae rhamnoides* which is designed to be compatible with this target for fixed dune grassland. The areas in the target reflect a total fixed dry dune grassland area of between 75% and 70% of the total dry dune area. The higher % cover figure may reflect periods when scrub is cut back or grazed out to allow the pioneer phase of growth to re-invade. The lower extent figure represents the minimum area of dune grassland SD7, SD8, SD9 and SD10 (where present) considered to represent favourable condition. Total area range of dry fixed dune is derived from NVC survey report Holder (1999)* and excludes dry dune habitat found on Seacroft Golf Course. If loss (or gain) of area is from natural causes (excluding sea buckthorn invasion) this is not a decline in condition, but any significant loss due to human interference e.g. sand extraction, visitor impacts, ploughing or conversion to improved grassland, is to be regarded as unfavourable. Increase in area is favourable unless related to coast protection or at the expense of other sand dune features.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Humid dune slack	7.3 hectares [to 8.3 hectares] NVC survey (1999) and aerial photograph approximations	No decrease in extent from the established baseline, subject to natural change.	Data derived from NVC survey report Holder (1999)*. The first area figure is generated from SD17 swards (5 hectares) together with the estimated area of wet slack on the golf course (2.3ha). The upper figure in the range [included in parentheses] includes transitions between SD17 and other wetland NVC types e.g. S21 and also MG11 swards (totalling c. 1 ha). MG11 was included as it is floristically close to SD17 in having *Potentilla anserina* and *Agrostis stolonifera* but lacking *Carex arenaria* and also because the year that the NVC survey was conducted was dry and a wet season the following summer revealed a huge increase in the area of *Carex nigra* above that which had been detected in 1998. The figures for the wetland on Seacroft Golf Course, which was excluded from the 1999 survey, is based on topography and likely wetland once *Hippophae* has been cleared. If loss (or gain) of area is from natural causes this is not a decline in condition, but any significant loss due to human interference (e.g. sand extraction, visitor impacts, ploughing or conversion to improved grassland) is to be regarded as unfavourable. Increase in area is favourable unless related to coast protection or at the expense of other sand dune features.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Dunes with *Hippophae rhamnoides*	18 hectares to 21 hectares	20-30% of dry dune area to be covered by sea buckthorn scrub.	It is necessary to achieve a balance between sea buckthorn scrub and dune grassland without allowing the sea buckthorn scrub to become over dominant on the site, which has been the case in recent years. The fixed dune grassland habitat is considered to have been in unfavourable condition at the time of designation due to invasion by sea buckthorn and the area of Hippophae, especially mature stands, needs to be reduced. Instead of taking the areas from an NVC survey as a baseline, this target area has been derived by establishing the potential area of dry dune habitat (the sum of all SD7, SD8, SD9, SD10 [if present] and SD18 communities together with all transitions and mosaics to dry dune communities [i.e. excluding saltmarsh and SD17]). This established the area of dry fixed dune as 70 hectares. Desirable percentage cover figures have then been applied to give the area of *Hippophae rhamnoides* that is considered to maintain the featue in favourable condition without prejudicing other habitat types. The lower % cover figure may reflect periods when scrub is cut back or coppiced in order to regenerate the pioneer phase of growth. The upper extent figure represents total cover of the pioneer and more mature stages where the pioneer phase may consist of a mosaic of grass and seedling or suckering sea buckthorn.

Aggregation of non-breeding birds	190 hectares	Maintain the area of habitats that are used by the non-breeding bird aggregation within acceptable limits: • Extent of all habitats used by the feature should be maintained, subject to natural change - loss of 5% or more of any relevant habitat type is unacceptable.	The species listed in the SSSI notification and SPA and Ramsar designations use the foreshore and saltmarshes for feeding and roosting. Foreshore (littoral) extent measurements are not yet determined but is in the order of 125ha, the extent figure here also includes pioneer, lower-mid and mid-upper saltmarsh area (as defined in SCM guidance) , some 64ha.
Assemblage of breeding birds	1,311 hectares	Maintain the area of habitats that are used by the breeding bird assemblage within acceptable limits: • Extent of all habitats used by the feature should be maintained, subject to natural change – anthropogenic loss of 5% or more of any relevant habitat type is unacceptable.	The SSSI breeding assemblage refers to sand dunes, saltmarsh and shingle habitats and here is taken to include *Hippophae* stands. The figure here is the area of the SSSI at designation, excluding the foreshore extent (c.125ha). Breeding Little tern is a feature of the SPA designation - the area of shingle is unknown and needs to be determined by examination of aerial photographs.

Audit Trail
Rationale for habitat extent attribute (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).
Sub littoral sands and gravels -.
Littoral sediment – c. 175ha measured from partial aerial photo coverage (1999)
Coastal saltmarsh and coastal sand dune habitats – NVC analogues for European interest features are taken from JNCC SAC selection web pages: • ***Salicornia* and other annuals colonising mud and sand** (1310) = SM7 *Arthrocnemum perenne* stands, SM8 Annual *Salicornia* salt-marsh community, SM9 *Suaeda maritima* salt-marsh community, SM27 Ephemeral salt-marsh vegetation with *Sagina maritima*. • **Atlantic salt meadows** (1330) = SM10 Transitional low-marsh vegetation, SM11 *Aster tripolium* var. *discoideus* salt-marsh community, SM12 Rayed *Aster tripolium* salt-marsh community, SM13 *Puccinellia maritima* salt-marsh community, SM14 *Halimione portulacoides* saltmarsh community, SM15 *Juncus maritimus – Triglochin maritima* salt-marsh community, SM16 *Festuca rubra* salt-marsh community (coastal examples only), SM17 *Artemisia maritima* salt-marsh community, SM18 *Juncus maritimus* salt-marsh community, SM19 *Blysmus rufus* salt-marsh community, SM20 *Eleocharis uniglumis* salt-marsh community. • **Mediterranean and thermo Atlantic halophilous scrubs** (1420) = SM25 *Suaeda vera* drift-line community, SM21 *Suaeda vera – Limonium binervosum* salt-marsh community.

- **Embryonic shifting dunes** (2110) = SD4 *Elymus farctus* ssp. *boreali-atlanticus* foredune community, certain stands of SD2 *Honkenya peploides – Cakile maritima* strandline community (on sand), SD5 *Leymus arenarius* mobile dune community ([a] and [b] sub-communities) when the stands occur in close association with the *Elymus* community.
- **Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")** (2120) = SD5 *Leymus arenarius* mobile dune community ([c] sub-community), SD6 *Ammophila arenaria* mobile dune community.
- **Fixed dunes with herbaceous vegetation ('grey dunes')** (2130) = SD7 *Ammophila arenaria – Festuca rubra* semi-fixed dune community, SD8 *Festuca rubra – Galium verum* fixed dune grassland, SD9b *Ammophila arenaria – Arrhenatherum elatius* dune grassland, *Geranium sanguineum* sub-community, SD11 *Carex arenaria – Cornicularia aculeata* dune community, SD12 *Carex arenaria – Festuca ovina – Agrostis capillaris* dune grassland.
- **Dunes with *Hippophae rhamnoides*** (2160) – SD18 *Hippophae rhamnoides* scrub.
- **Humid dune slacks** (2190) = SD13 *Sagina nodosa – Bryum pseudotriquetrum* dune-slack community, SD14 *Salix repens – Campylium stellatum* dune-slack community, SD15 *Salix repens – Calliergon cuspidatum* dune-slack community, SD16 *Salix repens – Holcus lanatus* dune-slack community, SD17 *Potentilla anserina – Carex nigra* dune-slack community.

The area figures for all vegetation communities are derived from an NVC survey conducted in 1998 using 1997 aerial photos (Holder, 1999). This survey did not cover the whole SSSI as the golf course was excluded, which will depress the area of fixed dune, dunes with *Hippophae* and humid dune slack. Of the area surveyed, only a part of the maps were digitised (apparently due to lack of funding). Vegetation area figures for all sand dune and saltmarsh communities are, therefore, only available for about half of the SSSI. The area figures relate to the southern part of the NNR (where the site adjoins The Wash SSSI) north to greenshank creek; this includes most, but not all, of the SPA and Ramsar site and about half of the total SSSI area.

Two area figures are given in most cases, for form a range. The first figure represents the area identified as 'pure' community(ies) relating to the feature e.g. SD18 and all its sub-communities for the SAC feature dunes with *Hippophae rhamnoides*. A second figure is given in parentheses where there are transitional swards or mosaics with other non-feature communities e.g. SD18b+SD7b or SD18/other (where 'other' is a vegetation type that could not be attributed to an NVC community). The figures are given separately, for clarity, but both are included to allow for variation in NVC community assignment between surveyors and because communities may change over time.

- Classification variation between field surveyors is inevitable: one surveyor may choose to differentiate the community as SD7b+SD18b, another may see this as a single sward and include it in SD18a, which allows for a proportion of open dune with sparse *Hippophae* suckers together with more established stands – the NVC does not ascribe how to deal with transitional states, although vegetation is clearly a continuum and not as discrete boxes of one community, these divisions being a necessary human imposition to allow classification. A range that allows for surveyor 'error' between assessments is a requirement of a robust assessment methodology.
- Vegetation will change over time under successional processes, even in the absence of management, and this is especially true of coastal habitats where accretion/erosion may occur naturally and vegetation is largely dictated by relationships with tidal inundation and sediment deposition. A sea buckthorn

sward classed as a mosaic with SD7b in an early survey may become wholly invaded by the sea buckthorn and be recorded in subsequent years as a pure SD18b sward. In such a scenario it is justifiable to include the sward in the area figures for both assessments as the overall aim is to assess gross change.
Coastal lagoon – This figure has been taken from aerial photos as part of the area cited in *Directory of Saline Lagoons & lagoon-like habitats in England* EN Science Series No6 Smith BP & Laffoly, D (1992) i.e. the ditch seaward of bulldog Bank, was destroyed prior to the Ramsar designation.
Aggregation of non-breeding birds (wintering and passage migrants)
Assemblage of breeding birds – the area of shingle/strandline used by breeding little terns still needs to be determined
Rationale for site-specific targets (including any variations from generic guidance)
Other Notes

Table 2b Species population objectives

Conservation Objective for species populations	To maintain the designated species in favourable condition, which is defined in part in relation to their population attributes. Favourable condition is defined at this site in terms of the following site-specific standards:
Population balance	On this site favourable condition requires the maintenance of the population of each designated species or assemblage. Maintenance implies restoration if evidence from condition assessment suggests a reduction in size of population or assemblage.

Species Feature (species or assemblage)	**Supporting BAP Broad Habitats**	**Population Attribute (eg presence/absence, population size or assemblage score)**	**Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)**	**Comments**
Diverse breeding bird community	Coastal sand dune, coastal shingle, inter-tidal mud and sand flats	Breeding Bird Index = 29	Maintain the breeding bird index at or above 29	SSSI breeding bird community feature should be assessed against 1983 Cvii (e) criteria (see rank scores in Appendix 16 of the selection criteria)
Assemblages of breeding birds (Annex 1 species) **Little tern**	Shingle and strandline	23 pairs Average no. nesting pairs (1988-1992)	Maintain population within acceptable limits, subject to natural change: • A minimum of 16 nesting pairs. Known natural fluctuation was established from 5 records from over a 5-year span of breeding seasons 1990 to 1994. This fluctuation ranged from 16 to 44 with an average of 33. If the population at assessment (taken from either a single count or a 5-year mean) falls below this size then it is in unfavourable condition	SPA citation gives 40 breeding pairs which reflect a one year maximum of 44 pairs (1992). 23 pairs was the average number of nesting birds within the SPA designation period (1988-92) when it was reported that numbers fluctuated considerably from year to year. Historical numbers show variations in size of between 22 (1983) and 3 nesting pairs (1987). Breeding numbers have increased with greater protection of the nesting areas from predation and disturbance. The period taken to establish fluctuation partially coincides with the

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
cont … Little tern				5 years for which data was used in designating the SPA but excludes the initial 2 seasons of the SPA period (19988-89) before warden protection to nesting shorebirds was implemented. The population was not considered to be in favourable condition for these 2 years due to high levels of predation and disturbance, nesting pairs numbered only 3 in each of these two years. The minimum number of breeding pairs between 1990 and 1994 (inclusive) was established as the minimum acceptable limit for conserving the little tern population. SPA review population states 23 pairs (5 year mean, 1992-1996).
Little tern		Presence of predator populations	Maintain effects of predators on nesting birds at an acceptable level.	Predation by foxes, gulls and corvids has a substantial impact on the success rate of nesting little tern. A shorebird warden is employed by the Lincolnshire Wildlife Trust to monitor and control predator levels.

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Aggregations of non-breeding birds (non Annex I species, internationally important populations on migration) **Bar-tailed godwit**	Coastal saltmarsh, intertidal sands and muds	Bird population size Bird population size - Five-year peak mean counts are the main measure of population size. The dataset used should be the monthly high tide roost counts The winter period is November to March and autumn passage July to October.	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter): 2,580 • Baseline (autumn passage): 7,400 The site should be judged unfavourable if population declines of 50% or more from the baseline levels are recorded for non-breeding species cited in the SPA citation, Natura 2000 data form, JNCC SPA review and annual WeBS reports.	Baseline figures obtained from 5-year peak means based on High Tide Roost Counts for the designation reference years 1986/7 to 1990/91. Monthly High Tide Roost Counts are undertaken by the Lincolnshire Wildlife Trust's warden at Gibraltar Point. These counts are made on the highest tide of the month that occurs in daylight, the preferred tide is usually chosen to coincide with minimum disturbance from visitors etc. The records are held at Gibraltar Point Field Centre in the form of paper notes (pre 1990) and latterly as an electronic spreadsheet. Data was available for Aug-May, not whole calendar years, at the time of writing these objectives. This species exhibits a clear autumn passage pattern of peaks and so this period is included in the baseline figures in addition to the winter period cited in the SPA designation. NB Data for autumn passage only available for Aug-Oct. **SPA Citation:** Bar-tailed Godwit 10,000 (5-year peak means 1987/7 to 1990/01) wintering

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
cont … Bar-tailed godwit				birds with an un-rounded figure of 8,800 given in the Ministerial Briefing Document. The data used to obtain these figures is unknown – numbers do not correlate with WeBS data (unless other count sectors have been included erroneously) or high tide roost counts. **1992 SPA threshold for bar-tailed godwit**: 1,000 **JNCC Review and WeBS reports:** Bar-tailed godwit 719 (5-year peak mean 1991/2 to 1995/6 **SSSI notification** cited 6,000 (1985 count) Wintering birds favour sandy estuaries, feeding on larger molluscs and worms from the middle to low shores.

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Aggregations of non-breeding birds (non Annex I species, internationally important populations over-wintering) **Dark bellied brent goose**	Coastal saltmarsh, intertidal sands and muds	Bird population size Bird population size - Five-year mean peak winter counts is the main measure of population size. The winter period is November to March.	Maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter period): 3,100 birds The site should be judged unfavourable if population declines of 50% or more from the baseline level are recorded for non-breeding species cited in the SPA citation, Natura 2000 data form, JNCC SPA review and annual WeBS reports.	Baseline figures obtained from 5-year peak means based on High Tide Roost Counts for the designation reference years 1986/7 to 1990/91. Monthly High Tide Roost Counts are undertaken by the Lincolnshire Wildlife Trust's warden at Gibraltar Point. These counts are made on the highest tide of the month that occurs in daylight, the preferred tide is usually chosen to coincide with minimum disturbance from visitors etc. The records are held at Gibraltar Point Field Centre in the form of paper notes (pre 1990) and latterly as an electronic spreadsheet. Data for August to May was available at the time of writing these objectives. **Ramsar Citation:** 3,000 (5-year peak means 1986/7 to 1990/01), with an un-rounded figure of 3,100 given in the Ministerial Briefing Document. The SPA citation does not list Brent goose. It would appear that the Ramsar figure has been derived from high tide roost counts but the data the SPA used is unknown.

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Aggregations of non-breeding birds (non Annex I species, internationally important populations on migration) **Grey Plover**	Coastal saltmarsh, intertidal sands and muds	Bird population size Bird population size - Five-year peak mean counts are the main measure of population size. The dataset used should be the monthly high tide roost counts The winter period is November to March, autumn passage is July to October.	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter): 3,300 birds • Baseline (Aug-May): 4,180 The site should be judged unfavourable if population declines of 50% or more from the baseline level are recorded for non-breeding species cited in the SPA citation, Natura 2000 data form, JNCC SPA review and annual WeBS reports.	Baseline figures obtained from 5-year peak means based on High Tide Roost Counts for the designation reference years 1986/7 to 1990/91. Monthly High Tide Roost Counts are undertaken by the Lincolnshire Wildlife Trust's warden at Gibraltar Point. These counts are made on the highest tide of the month that occurs in daylight, the preferred tide is usually chosen to coincide with minimum disturbance from visitors etc. The records are held at Gibraltar Point Field Centre in the form of paper notes (pre 1990) and latterly as an electronic spreadsheet. Data was available for Aug-May, not whole calendar years, at the time of writing these objectives. This species shows peak counts in autumn and spring passage as well as the winter period cited in the SPA designation. Autumn and winter peak means are similar for the reference period (3,380 autumn, 3,300 winter), spring peak means (546 birds) have been calculated using only April & May data as June was unavailable. Data was not available for July (autumn passage period)

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
cont … Grey Plover				**Ramsar citation & SPA citation:** both state 3,000 birds (5-year peak means 1986/7 to 1990/01) with an un-rounded figure of 3,980 given in the Ministerial Briefing Document. The data used to obtain these figures is unknown – numbers do not correlate with WeBS data (unless other count sectors have been included erroneously) or high tide roost counts. **1992 SPA threshold for grey plover**: 1,500 **SSSI notification:** 1,350 (1985 WeBS count). **JNCC Review and WeBS reports:** Grey plover 2,017 (5-year peak mean 1991/2 to 1995/6 Grey plover favour large muddy estuaries, often sharing high tide roosts with knot and dunlin. Usually a southern and eastern distribution.

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Aggregations of non-breeding birds (non Annex I species, internationally important populations over-wintering) **Knot**	Coastal saltmarsh, intertidal sands and muds	Bird population size Bird population size - Five-year peak mean counts are the main measure of population size. The dataset used should be the monthly high tide roost counts The winter period is November to March and autumn passage July to October.	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter): 26,500 • Baseline (autumn passage): 32,600 The site should be judged unfavourable if population declines of 50% or more from the baseline level are recorded for non-breeding species cited in the SPA citation, Natura 2000 data form, JNCC SPA review and annual WeBS reports.	Baseline figures obtained from 5-year peak means based on High Tide Roost Counts for the designation reference years 1986/7 to 1990/91. Knot were not included under the SPA or Ramsar designations in 1992 but the figures from this time show that, had this dataset been used, the species would have qualified. Monthly High Tide Roost Counts are undertaken by the Lincolnshire Wildlife Trust's warden at Gibraltar Point. These counts are made on the highest tide of the month that occurs in daylight, the preferred tide is usually chosen to coincide with minimum disturbance from visitors etc. The records are held at Gibraltar Point Field Centre in the form of paper notes (pre 1990) and latterly as an electronic spreadsheet. Data was available for Aug-May, not whole calendar years, at the time of writing these objectives. This species exhibits a pattern of peaks across the boundary of autumn passage and winter periods and so both are included as baseline figures even though the SPA designation is for wintering birds.

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
cont … Knot				NB data only available for Aug-May **SSSI notification**: 22,000 (1985 count) **JNCC Review and WeBS reports:** Knot 10,155 (5-year peak mean 1991/2 to 1995/6 Wintering birds concentrate on large estuaries where they feed on marine bivalve molluscs on open mudflats and form large tightly packed flocks at high tide.

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Aggregations of non-breeding birds (non Annex I species, internationally important populations over-wintering) **Oystercatcher**	Coastal saltmarsh, intertidal sands and muds	Bird population size Bird population size - Five-year peak mean counts are the main measure of population size. The dataset used should be the monthly high tide roost counts.	Maintain population within acceptable limits, subject to natural change: • Baseline 6,560 birds Known Natural Fluctuation was established from 5 peak month records from 1985 to 1989. This fluctuation ranged from 6,560 to 25,000 with an 5-year mean of 13,000. If the population at assessment (taken from either a single count or a 5-year mean) falls below this size then it is in unfavourable condition.	The baseline figure is derived using the Known Natural Fluctuation Method of population assessment. This species is not included in the SPA or Ramsar designations and the baseline figure does not, therefore, differentiate between passage and wintering periods. The SSSI designation for this species is based upon a single record from one year, the baseline periods used here, therefore, refer to calendar years (Jan-Dec). Baseline uses WeBS data for the years 1985 to 1990. Peak monthly counts for these calendar years were 12,000 (Sept '85) 10,500 (Sept '86) 6,560 (Aug '87) 11,000 (Aug '88) and 25,000 (Oct '89). The baseline figure is from 1987. The data range is in the order of 4 times magnitude as it includes one 'low' record of 6,500 and another 'unusually' high count of 25,000 birds. when this criteria is assessed the decision on whether to use the 'minimum single count' or the '5-year mean' should include consideration of whether the assessment years also include 'unusually' high counts that will influence the average.

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
cont … Oystercatcher				**SSSI notification** cites 12,000 birds (September 1985 single month WeBS count).

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Aggregations of non-breeding birds (non Annex I species, internationally important populations over-wintering) **Ringed Plover**	Coastal saltmarsh, intertidal sands and muds, shingle, strandline, embryo dunes	Bird population size	Maintain population within acceptable limits, subject to natural change: • Baseline 26 birds Known Natural Fluctuation was established from 5 peak month records for each calendar year between 1986 and 1990. This fluctuation ranged from 26 to 85 with an average of 56. If the population at assessment (taken from either a single count or a 5-year mean) falls below this size then it is in unfavourable condition.	The baseline figure is derived using the Known Natural Fluctuation Method of population assessment. This species is not included in the SPA or Ramsar designations and the baseline figure does not, therefore, differentiate between passage and wintering periods. The SSSI designation for this species is based upon a single record from one year, the baseline periods used here, therefore, refer to calendar years (Jan-Dec). Baseline uses WeBS data for the years 1986 to 1990. Peak monthly counts for these calendar years were 26 (Sept) 83 (Aug) 85 (Sept) 45 (March) and 40 (Sept). The baseline figure is from 1986. **SSSI notification** cites 276 birds (1985 count)

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Aggregations of non-breeding birds (non Annex I species, internationally important populations on migration) **Sanderling**	Coastal saltmarsh, intertidal sands and muds	Bird population size Bird population size - Five-year peak mean counts are the main measure of population size. The dataset used should be the monthly high tide roost counts The winter period is November to March, spring passage April to June, autumn passage July to October.	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter): 382 birds • Baseline (passage Aug-May): 750 The site should be judged unfavourable if population declines of 50% or more from the baseline level are recorded for non-breeding species cited in the SPA citation, Natura 2000 data form, JNCC SPA review and annual WeBS reports. Maintain population within acceptable limits. Acceptable limits is defined as more than 1,875 birds (5 year mean).	Baseline figures obtained from 5-year peak means based on High Tide Roost Counts for the designation reference years 1986/7 to 1990/91. The figures show that, had this dataset been used at the time of SPA designation, sanderling would not have qualified. Monthly High Tide Roost Counts are undertaken by the Lincolnshire Wildlife Trust's warden at Gibraltar Point. These counts are made on the highest tide of the month that occurs in daylight, the preferred tide is usually chosen to coincide with minimum disturbance from visitors etc. The records are held at Gibraltar Point Field Centre in the form of paper notes (pre 1990) and latterly as an electronic spreadsheet. Data was available for Aug-May, not whole calendar years, at the time of writing these objectives. This species exhibits clear monthly peaks during the autumn passage, and to a lesser extent the spring passage period and so a baseline figure for the passage period (combined spring and autumn) is included as well as the winter period cited in the SPA and Ramsar designations.

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
cont… Sanderling				**Ramsar and SPA citations** both state 2,300 birds with an un-rounded of figure of 1,140 given in the Ministerial Briefing Document – this is half the number on the citations! (although still 4% of the national population and qualifying under the SPA criteria – see below) **1992 SPA threshold for sanderling**: 1,000 **SSSI notification** package cites 750 (1985 count).

Species Feature (species or assemblage)	Supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Aggregations of non-breeding birds	Winter waterfowl assemblage of over 20,000 birds	5-year peak mean Five-year peak mean counts are the main measure of population size whereby the total number of all birds recorded in each month is calculated and the peak counts identified for each year and averaged over a 5-year period. The dataset used should be the monthly high tide roost counts The winter period is November to March, spring passage April to June, autumn passage July to October.	Maintain population within acceptable limits (in this context population is that of the total population of an assemblage) subject to natural change: • 20,974 wintering waterfowl Acceptable limits is defined as 50% of the stated population at designation which, for this criterion, is more than 10,487 wintering birds. The baseline figure is derived using WeBS count data for the period 1986/7 to 190/91.	It is not known which dataset was used when determining this criterion, there is a discrepancy between the SPA designation, which does not include this as a qualifying feature, and the Ramsar citation. No mention is made of the 20,000 feature in the Ministerial Briefing that accompanies the SPA designation. If the WeBS data had been analysed for the SPA criterion the site would have qualified (just) for this feature for the wintering period November-March. **Ramsar**: assemblage of over 20,000 wintering waterfowl. **SPA review:** 22,137 individual waterfowl (5 year peak mean 1991/2 - 1995/6)

Audit Trail
Rationale for species population attributes (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).
BIRD POPULATIONS The conservation objectives for all bird criteria are based on a 5-year peak mean for each species. The winter period is taken as November to March, autumn passage as July to October and spring passage as April to June. The assemblage figure is derived from the following species: grey plover, brent goose, knot, sanderling, bar-tailed godwit, dunlin, wigeon, oystercatcher, Baseline figures for the bird interest on the SPA and Ramsar designations have proved problematical in a number of respects. Non-specific references in the Ministerial Briefing document for the designations has meant that it is not possible to identify which data the designations were based upon, indeed two datasets may have been used as the Ramsar and SPA citations differ from one another in the proportion of the European population of each species that the site was thought to support, indeed they also differ in the species named on the citations. The period when populations of a species qualify under Article 4.2 (SPA) is stated as being 'winter' for all the species cited; this is inconsistent with the data available as several species, especially sanderling and bar-tailed godwit, occur in higher numbers during the autumn passage. **Baseline data set** The original bird data set on which the SPA and Ramsar citations were based cannot be identified. Winter (Nov-Mar) 5-year peak means based on WeBS counts for the designation period (1986/87 to 1990/91) fell substantially short of the figures given in the citations and Ministerial Briefing document (WeBS figures achieved only 10-14% of the numbers cited). Winter 5-year peak means based on monthly high tide roost counts made by the NNR staff at Gibraltar Point Field Centre also fell short (34-83%) but the figures are closer to the cited and for this reason, combined with the fact that Gibraltar Point is known as an important roost site for Wash populations when high tides cover roost sites on the mudflats, it has been decided to use the monthly hight tide roost count data as the basis for condition assessment. This data also forms the basis for the targets set in these conservation objectives as it could not be determined how the original citation and Ministerial Briefing figures were derived, it is unlikely that another dataset was used but possible that data has been combined, either across the two datasets or by including additional WeBS data from count sectors outside the designated site (as has proved to be the case for swans and little terns with The Wash & North Norfolk Coast SPA designation). National bird specialist (proper title) Allan Drewitt supports use of High Tide Roost Count as appropriate dataset to use in this instance **Winter or Passage period** The SPA is based upon number of wintering birds but bar-tailed godwit and sanderling have peak numbers entirely within the autumn passage period and grey plover exhibits as many peak counts in autumn as it does during the winter period. It would appear from this that the basis for designation may be incorrect and for this reason baseline figures have been developed for both winter and passage periods. Baseline figures need to be standardised (5 year mean or 5 year peak mean)

Rationale for site-specific targets (including any variations from generic guidance)
Targets need to be checked against WeBS raw data as there appear to be inconsistencies in both the species listed between SPA and Ramsar citations and the population numbers given on each.
Other Notes

Table 3a Site-Specific definitions of Favourable Condition *[insert separate Table 3 for each BAP broad habitat]*

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **Sub Littoral Sands & Gravels** at **Gibraltar Point** in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:
Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)	

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments –** *text from CSM guidance*	**Use for CA?**
Sandbanks which are slightly covered by sea water at all times	**Topography**	No alteration in topography of the inshore sub littoral sediment, allowing for natural responses to hydrodynamic regime. Topography as shown on Admiralty Charts. Also Figure 8.7 and 8.8 of Foster-Smith & Sotheran (1999).	Assessment of the depth distribution/profile of the inshore sub littoral sediment and periodic comparison with baseline conditions. For details of assessment techniques see Davies *et al*., 2001. Foster-Smith & Sotheran used AGDS supported by Admiralty Chart data to produce their bathymetric maps (Foster-Smith & Sotheran, 1999). Other potential data sources are from ESFJC AGDS / Sidescan surveys. Also EA shoreline monitoring programme bathymetric surveys (Uses side	The depth distribution of the sediment has a direct influence on the structure and function of the system.	Yes

			scan sonar. Along profiles to 15m depth. 1km spacing between profiles. Surveys undertaken once every 5 years).		
	Sediment character: sediment type	No change in composition of sediment types across the feature, allowing for natural succession/ known cyclical change.	Distribution of sediment types should be assessed across the whole feature and compared with baseline conditions. For details of assessment techniques see Davies *et al.*, 2001.	Where changes in sediment type are known to be clearly attributable to natural processes then the target value should accommodate this variability. Where extreme events cause a change in sediment type, then this may have caused a change in the structure of the feature, which may lead to the condition of the feature being considered as unfavourable.	Yes
	Distribution of biotopes	Maintain the distribution of biotopes in each sub-feature (gravel and sand communities, muddy sand communities), allowing for natural succession/ known cyclical change. Key biotopes listed in Appendix Appendix 5 Distribution o f biotopes as set out in Fig 7.3 and 7.4 of Foster-Smith & Sotheran, 1999	Assessment of the distribution of range of biotopes identified for the site. For details of assessment techniques see Davies *et al.*, 2001.	Where changes in distribution are known to be clearly attributable to cyclical succession or expected shifts in distribution then the target value should accommodate this variability. Where there is a change in biotope distribution outside the expected variation or a loss of the conservation interest of the site, then condition should be considered unfavourable Biotopes mapped using acoustic techniques (AGDS, Sidescan Sonar) which were	Yes

				ground-truthed by grab and video (Foster-Smith & Sotheran, 1999). Appendix 5 lists subtidal biotopes using the national biotope classification Foster-Smith & Sotheran, 1999 is probably the best baseline for the whole site as the survey covered the whole site.	
	Extent of sub-feature	No change in extent of inshore sublittoral sediment biotopes or sub-feature (gravel and sand communities, muddy sand communities) identified for the site allowing for natural succession / known cyclical change	Assessment of the extent of biotopes identified for the site because of their nature conservation importance. For details of assessment techniques see Davies et al, 2001.	Where there is a clearly established natural variation in extent or in cyclical succession between biotopes, then the target value should accommodate this variability. Where there is a change in extent outside the expected variation or a change in the structure of the sub-feature leading to a loss of the site, then condition should be considered unfavourable.	Yes although not a mandatory CSM attribute
	Species population measures: **Presence or abundance of specified species**	No increase in presence or abundance of negative indicator species (non-native American razor shell *Ensis directus*, Pacific oyster *Crassostrea gigas*, Slipper limpet *Crepidula fornicata*).	Assessment of the presence or abundance of positive/negative indicator species identified for the feature. For details of assessment techniques see Davies *et al*., 2001. CEFAS have undertaken regular	Where there is a sizeable shift in the age/size class structure (i.e. loss of mature adults or recruitment failure) or if disturbance causes a species of nature conservation importance to be lost, or a significant reduction in abundance then condition would be	Yes not a mandatory CSM attribute but non-natives present in site which can have a serious

			surveys of *Ensis directus* since 1999, using Hamon or Day grabs (Palmer 2003).	considered unfavourable. Increased abundance of negative indicator species i.e. those indicative of stressed habitats or polychaete worms indicative of organic pollution, which would be detrimental to the feature as a whole, would also cause the condition of the feature to be considered unfavourable. CEFAS hamon grab surveys have estimated adult populations of 200 per square metre in 1999 (Palmer, 2003). Distribution seems concentrated in south and east side of Wash ie Nene to Thornham although can occur in other areas (eg off Long Sand, Roger, Scullridge) Current population is estimated as exceeding 10,000 tonnes (Addison et al, 2006). Large settlements can occur but populations seem extremely sporadic and frequently fail altogether. There are concerns about inter-specific competition with other filter feeders including mussel and cockle.	negative impact on native communities

Table 3b Site-Specific definitions of Favourable Condition

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the L**ittoral Sediment** at **Gibraltar Point** in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:
Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)	

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments –** *text from CSM guidance*	**Use for CA?**
Mudflats and sandbanks not covered by sea water at low tide	**Biotope composition of littoral sediment**	Maintain the variety of biotopes in each sub-feature (mud, muddy sand, sand & gravel) identified for the site allowing for natural succession/ known cyclical change.	Repeated assessment of overall biotope composition. Details on how baseline information was determined can be found in: For details of assessment techniques see Davies *et al*., 2001.	Target requires presence of biotopes listed in Appendix .. Where changes in biotope composition are known to be attributable to natural processes (e.g. winter storm/flood events, changes in supporting processes or mass recruitment or dieback of characterising species) then the target value should accommodate this variability. Where there is a change in biotope composition outside the expected variation or a	Yes

				loss of the conservation interest of the site, then condition should be considered unfavourable.	
	Sediment character: sediment type	Maintain distribution of mud, muddy sand and sand and gravel across the feature, allowing for natural succession/known cyclical change. Spatial distribution of sediment types shown in:	Distribution of sediment types should be assessed across the whole feature and compared to baseline conditions. Target requires maintenance of spatial juxtaposition of specified sediment types (mud, muddy sand, sand) across the feature. For details of assessment techniques see Davies *et al*., 2001.	Where changes in sediment type are known to be clearly attributable to natural processes (e.g. winter storm/flood events, changes in supporting processes) then the target value should accommodate this variability. Where extreme events cause a change in sediment type, then this may have caused a change in the structure of the feature, which may lead to the condition of the feature being considered as unfavourable.	Yes
	Distribution of biotopes	Maintain the distribution of biotopes in each sub-feature (mud, muddy sand, sand & gravel) set out in Appendix…, allowing for natural succession/ known cyclical change. Map of biotopes see …	Assessment of the distribution of biotopes identified for the site in Appendix …, key biotopes shown in bold. For details of assessment techniques see Davies *et al*., 2001.	Unlike biotope composition this attribute is concerned with presence or absence of biotopes at specific locations. Sediment biotopes show cyclical succession and have no clearly defined perimeter in the field. Target takes account of likely succession between biotopes & likely differences expected between biotopes. Where changes in	Yes

				distribution are known to be clearly attributable to cyclical natural processes (for example due to a movement of a drainage channel) then the target value should accommodate this variability. Where there is a change in biotope distribution outside the expected variation, or a loss of the conservation interest of the site, then condition should be considered unfavourable.	
	Species composition of representative or notable biotopes	No decline in biotope quality due to changes in species composition or loss of notable species, allowing for natural succession/known cyclical change.	Assessment of biotope quality through assessing species composition, where the biotope is representative of the site or contains a number of species of conservation importance. Assessing this attribute will require specialist taxonomic expertise. For details of assessment techniques see Davies *et al.*, 2001.	Where a change in species composition is known to be clearly attributable to natural succession, known cyclical change or mass recruitment or dieback of characterising species, then the target value should accommodate this variability. Where there is a change in biotope quality outside the expected variation or a loss of the conservation interest of the site, then condition should be considered unfavourable. Dependant on future quantitative surveys	Yes: not a mandatory CSM attribute but invertebrates key conservation feature of the site
	Species population	Maintain age/size class structure & abundance of	Population structure and	Where there is a sizeable	Yes: not a

	measures **– Population structure of a species.** **- Presence or abundance of specified species**	Maintain abundance of named positive indicator species No increase in presence or abundance of named negative indicator species: non-native *Ensis directus, Crassostrea gigas, Crepidula fornicata*	abundance should be assessed in terms of viability of the named species identified for the feature. For details of assessment techniques see Davies *et al* 2001. Assessment of the presence or abundance of positive indicator species identified for the feature. For details of assessment techniques see Davies *et al*., 2001. Assessment of the presence or absence of negative indicator species identified for the feature.	shift in the age/size class structure (i.e. loss of mature adults or recruitment failure) or if disturbance causes a species of nature conservation importance to be lost, or if there is a significant reduction in abundance, then condition would be considered unfavourable. Increased abundance of negative indicator species i.e. those indicative of stressed habitats which would be detrimental to the feature as a whole, would also cause condition to be considered unfavourable.	mandatory CSM attribute but invertebrate populations key conservation feature of the site. Invasive non-natives present in site.
	Topography	No change in topography of the littoral sediment, allowing for natural responses to hydrodynamic regime. Topography as shown in EA beach profiles	Tidal elevation and shore slope to be assessed periodically. EA undertake beach profile surveys down transects. Surveys from fixed point inland to Mean Low Water. Transects are spaced at intervals of 1km. For details of assessment techniques see Davies *et al*., 2001.	Obvious changes in topography in terms of an overall lowering (shallowing) of the shore slope may act as a trigger for further investigation. Scouring adjacent to sea defences, which lowers the shore slope, should be considered unfavourable. A suitable period over which to ascertain trends resulting in a net lowering of shore profiles is 5 years.	Yes: not a mandatory CSM attribute but changes in topography give an indication of the stability of the shore, whether erosion is

					occurring etc.

Table 3c Site-Specific definitions of Favourable Condition

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **Coastal Saltmarsh** at **Gibraltar Point** in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:
Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)	

Site-specific standards defining favourable condition

Criteria feature	Attribute term in guidance	Measure/Method of Assessment	Site-specific Targets	Comments	Use for CA?
***Salicornia* and other annuals colonising mud and sand**	Physical structure: creeks & pans	Aerial photographs can be used, combined with information gathered from the site visit.	No further anthropogenic alteration of creek patterns or loss of pans compared to an established baseline. Realignment of creeks absent or rare.	Creeks and pans vary in size and density. Creeks absorb tidal energy and assist with the delivery of sediment into saltmarshes. Major erosion of saltmarsh is indicated by internal dissection and enlargement of the drainage network, ultimately leading to the creation of mud basins. Establishment of creeks in pioneer zone tends to be less marked than higher on the saltmarsh.	Yes

Criteria feature	Attribute term in guidance	Measure/Method of Assessment	Site-specific Targets	Comments	Use for CA?
***Salicornia* and other annuals colonsing mud and sand**	Vegetation structure: zonation of vegetation	The width of zones can be estimated using one or more transects. Pioneer vegetation may present some problems in deciding the boundary of marsh and mudflat - take the edge of the pioneer zone where the first *Salicornia* or *Suaeda* annuals appear. If poor clarity on aerial photographs prevents accurate mapping then GPS information can be collected on site and a map created.	Maintain the range of variation of zonations typical of the site.	The pattern of saltmarsh zonation will vary regionally and also from site to site (see Section 6.1). Saltmarsh has up to five main zones: pioneer, low-mid marsh, mid-upper marsh, saltmarsh strand plus transitions (see transitions below)	Yes
	Vegetation structure: sward height	This can be assessed by taking average sward height from the quadrats forming part of the structured walk	Maintain site-specific structural variation in the sward	Grazing is not appropriate on this saltmarsh. In the absence of grazing, sward height is determined by natural processes and a target is not required for condition assessment purposes	No
	Vegetation composition: characteristic species	Visual assessment of cover, using structured walk	Maintain frequency of characteristic species of pioneer saltmarsh zone as follows: At least one of the following indicator species frequent and another occasional : *Salicornia* spp. *Suaeda maritima* *Puccinellia maritima* *Aster tripolium*	Communities may be dynamic in their distribution and are linked to the physical processes operating at the site, including topography, creek patterns etc.	Yes

Criteria feature	Attribute term in guidance	Measure/Method of Assessment	Site-specific Targets	Comments	Use for CA?
***Salicornia* and other annuals colonsing mud and sand**	Vegetation composition: negative indicator species *Spartina anglica.*	Aerial photographs, together with visual assessment of cover, using structured walk.	No recent evidence of expansion into pioneer saltmarsh (indicative target of less than 10 % expansion in last 10 years)	*Spartina anglica* is a species that is considered undesirable in intertidal habitats where it is expanding at the expense of mudflats. However it can be a precursor to the development of saltmarsh where sediments are accreting.	Yes
	Other negative indicators	Visual assessment on site during structured walk	Artificial drainage channels adversely affecting hydrology are absent or rare. No obvious signs of pollution. Turf cutting absent or rare. No increase in bare substrate as a result of anthropogenic activities such as vehicle use or trampling at vulnerable locations (tracks, access points). Poaching damage from stock or horses rare, with bare mud extent <25%.		Yes

Criteria feature	Attribute term in guidance	Measure/Method of Assessment	Site-specific Targets	Comments	Use for CA?
Atlantic salt meadow	Physical structure: creeks & pans	Aerial photographs can be used, combined with information gathered from the site visit.	No further anthropogenic alteration of creek patterns or loss of pans compared to an established baseline. Realignment of creeks absent or rare.	Creeks and pans vary in size and density. Creeks absorb tidal energy and assist with the delivery of sediment into saltmarshes. Major erosion of saltmarsh is indicated by internal dissection and enlargement of the drainage network, ultimately leading to the creation of mud basins.	Yes
	Vegetation structure: zonation of vegetation	The width of zones can be estimated using one or more transects. If poor clarity on aerial photographs prevents accurate mapping then GPS information can be collected on site and a map created.	Maintain the range of variation of zonations typical of the site including Low marsh with annuals SM10 and of the mid marsh: *Puccinellia* dominated SM13 swards in the Old Saltmarsh, *Halimione portulacoides* dominated SM14 vegetation around creek banks in the Old Saltmarsh, *Aster tripolium* stands fringing low-lying areas of the Old Saltmarsh, SM16 upper marsh transitions with Festuca rubra, especially at the ecotone to dune communities on Seacroft Marsh and *Artemesia maritima* stands SM17 around the field station and elsewhere on the southern end of the West Dune spit.	The pattern of saltmarsh zonation will vary regionally and also from site to site. Saltmarsh has up to five main zones: pioneer, low-mid marsh, mid-upper marsh, saltmarsh strand plus transitions.	Yes

Criteria feature	Attribute term in guidance	Measure/Method of Assessment	Site-specific Targets	Comments	Use for CA?
Atlantic salt meadow	Vegetation structure: sward height	Assessed by taking average sward height from the quadrats forming part of the structured walk	Maintain site-specific structural variation in the sward	Grazing is not appropriate on this saltmarsh. In the absence of grazing, sward height is determined by natural processes and a target is not required for condition assessment purposes	No
	Vegetation composition: characteristic species	Visual assessment of cover, using structured walk	Maintain frequency of characteristic species of low-mid saltmarsh zone (SM10, SM13a, SM14) as follows: At least one of *Puccinellia maritima, Atriplex* (*Halimione*) *portulacoides* or *Salicornia* spp. dominant, and two other listed species at least frequent: *Puccinellia maritima* *Triglochin maritima* *Plantago maritima* *Atriplex portulacoides* *Aster tripolium* *Spergularia maritima* *Suaeda maritima* *Salicornia* spp. turf fucoids Maintain frequency of characteristic species of mid-upper saltmarsh zone (SM13b,	Communities may be dynamic in their distribution and are linked to the physical processes operating at the site, including topography, creek patterns etc.	Yes

Criteria feature	Attribute term in guidance	Measure/Method of Assessment	Site-specific Targets	Comments	Use for CA?
Atlantic salt Atlantic salt Meadow			c, d, e & f, SM16, SM17) as follows: At least one listed species abundant and three frequent: *Festuca rubra* *Juncus gerardii* *Armeria maritima* *Agrostis stolonifera* *Limonium vulgare* *Glaux maritima* *Seriphidium maritimum* *Plantago maritima* *Aster tripolium* *Juncus maritimus* *Triglochin maritima* *Blysmus rufus* *Eleocharis uniglumis* *Artemisia maritima* *Leontodon autumnalis* *Carex flacca* *Carex extensa* turf fucoids		
	Vegetation composition: negative indicator species *Spartina anglica.*	Aerial photographs, together with visual assessment of cover, using structured walk.	No recent evidence of expansion into pioneer saltmarsh (indicative target of less than 10 % expansion in last 10 years)	*Spartina anglica* is a species that is considered undesirable in intertidal habitats where it is expanding at the expense of mudflats. However it can be a precursor to the development of saltmarsh where sediments are accreting.	Yes

Criteria feature	Attribute term in guidance	Measure/Method of Assessment	Site-specific Targets	Comments	Use for CA?
Atlantic salt meadow	Other negative indicators	Visual assessment during site visit.	Artificial drainage channels adversely affecting hydrology are absent or rare. No obvious signs of pollution. Turf cutting absent or rare. No increase in bare substrate as a result of anthropogenic activities such as vehicle use or trampling at vulnerable locations (tracks, access points). Poaching damage from stock or horses rare, with bare mud extent <25%.		Yes

Criteria feature	Attribute term in guidance	Measure/Method of Assessment	Site-specific Targets	Comments	Use for CA?
Mediterranean and thermo-Atlantic halophilous shrubs	Physical structure: creeks & pans	Aerial photographs can be used, combined with information gathered from the site visit.	No further anthropogenic alteration of creek patterns or loss of pans compared to an established baseline. Realignment of creeks absent or rare.	Creeks and pans vary in size and density. Creeks absorb tidal energy and assist with the delivery of sediment into saltmarshes. Major erosion of saltmarsh is indicated by internal dissection and enlargement of the drainage network, ultimately leading to the creation of mud basins.	Yes
	Vegetation structure: zonation of vegetation	The width of zones can be estimated using one or more transects. If poor clarity on aerial photographs prevents accurate mapping – which is likely for the narrow *Suaeda vera* community along the drift line - then GPS information can be collected on site and a map created.	Maintain the presence and distribution of this community as the upper zone (drift line transition to terrestrial habitats) in this site's range of variation of zonations.	The pattern of saltmarsh zonation will vary regionally and also from site to site (see Section 6.1). Saltmarsh has up to five main zones: pioneer, low-mid marsh, mid-upper marsh, saltmarsh strand plus transitions (see transitions below)	Yes
	Vegetation structure: sward height	This can be assessed by taking average sward height from the quadrats forming part of the structured walk	Maintain site-specific structural variation in the sward	Grazing is not appropriate on this saltmarsh. These communities could be threatened by livestock grazing pressure. The height of the vegetation is determined by natural factors and is not necessary as a determinant of the community's health or viability.	No

Criteria feature	Attribute term in guidance	Measure/Method of Assessment	Site-specific Targets	Comments	Use for CA?
Mediterranean and thermo-Atlantic halophilous shrubs	Vegetation composition: characteristic species	Visual assessment of cover, using structured walk.	Maintain frequency of characteristic species of driftline and transition zones as follows: Presence of either *Suaeda vera* or all of the following at least occasional: *Frankenia laevis* *Limonium binervosum* *Spergularia media* *Salicornia* spp. *Suaeda maritime*	Communities may be dynamic in their distribution and are linked to the physical processes operating at the site, including topography, creek patterns etc.	Yes
	Vegetation composition: negative indicator species *Spartina anglica.*	Aerial photographs, together with visual assessment of cover, using structured walk.	No recent evidence of expansion into pioneer saltmarsh (indicative target of less than 10 % expansion in last 10 years)	*Spartina anglica* is a species that is considered undesirable in intertidal habitats where it is expanding at the expense of mudflats. However it can be a precursor to the development of saltmarsh where sediments are accreting.	Yes
	Other negative indicators	Visual assessment during site visit	Artificial drainage channels adversely affecting hydrology are absent or rare. No obvious signs of pollution.		Yes
Mediterranean and					

Criteria feature	Attribute term in guidance	Measure/Method of Assessment	Site-specific Targets	Comments	Use for CA?
thermo-Atlantic halophilous shrubs			Turf cutting absent or rare. No increase in bare substrate as a result of anthropogenic activities such as vehicle use or trampling at vulnerable locations (tracks, access points). Poaching damage from stock or horses rare, with bare mud extent <25%.		
	Indicators of local distinctiveness	Presence confirmed during visit at appropriate season: *Suaeda vera, Frankenia laevis, Limonium binervosum , Spergularia media*. As shown at locations in NVC survey Holder 1997.	Maintain strip saltings with *Frankenia laevis* and *Limonium binervosum* (notable transition between saltmarsh and sand dune habitats) and driftline vegetation with *Saueda vera* at current extent.	This attribute is intended to cover any site-specific aspects of this habitat feature (forming part of the reason for notification) which are not adequately covered by the previous attributes, or by separate guidance e.g. for notified species features. In the case of this site it is intended to cover important ecotones listed as being important habitat transitions.	Yes

Table 3d Site-Specific definitions of Favourable Condition

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **Coastal Sand dunes** at **Gibraltar Point** in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:
Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)	

Site-specific standards defining favourable condition

Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments –** *text from CSM guidance*	**Use for CA?**
Coastal sand dunes – Strandline - Yellow dune - Dune grassland - Dune slacks - Dune scrub	Physical structure - functionality and sediment supply			The construction of sea defences can affect sediment supply: cliff defences will halt cliff erosion and groynes can interrupt longshore drift that transports sediment in a prevailing direction. Offshore dredging can also affect sediment supply. Hard sea defences can lead to fossilisation of dunes behind sea walls.	
	Vegetation structure – range of zones of vegetation			The range of vegetation zones and the transitions between them should be maintained. In most cases there will be several distinct sand dune zones, typically strandline (with Cakile maritima, Honckenya	

				peploides, Atriplex spp.), embryonic dune (sparse cover of Elytrigia juncea, Leymus arenarius), mobile dune (more stable dune dominated by Ammophila arenaria) and fixed dune grassland (with grasses such as Festuca rubra, Festuca ovina and herbs such as Galium verum, Rhinanthus minor, Galium saxatile). The hindshore may have dune slacks (with Hydrocotyle vulgaris or Salix repens) or areas of dune heath (considered under separate guidance).	
	Vegetation structure – sward height, flowering & fruiting, bare ground			Sward height The target is 30 - 70% of sward to comprise species-rich short turf, 2-10 cm tall. structure should be assessed using a structured walk or transects. Target ration turf and marram dominated vegetation should be set on a site-specific basis. Grazing. Flowering Bare ground Fixed dune does not mean 'static' dune and an element of instability is a positive attribute: bare surfaces are essential for invertebrates and a cycle of	

				small-scale erosion and recolonisation imparts greater diversity to the system. Bare areas should not exceed 15 %, however.	
	Vegetation composition – typical species, grass;forbes ratio, growth form of dune grasses, indicators of negative trends				
	Other negative indicators				
Coastal sand dunes – Dunes with *Hippophae rhamnoides*	Vegetation succession and structure Relative proportions of height classes of sea buckthorn scrub; measured once every 5 years from aerial photos, and measured once every 10 years from sample surveys. Relative proportions of colonising (<50% cover sea buckthorn) and established (>50% cover sea buckthorn) scrub; measured once every 5 years from aerial photos, and measured once every 10 years from sample surveys.	Maintain at least three height classes of sea buckthorn scrub. Maintain a range of sea buckthorn age classes, in particular • 30% of scrub area being in colonising stage (SD18a), and • 10% of scrub less than 5 years old and 20% more than 20 years old. Also allow 5% of sea buckthorn scrub to develop into dune woodland.	It is not yet clear how long structural variety can be maintained in stands of sea buckthorn by rotational cutting. It may be easier to cater for the "less than 5 years old" category in a "grassland-scrub mosaic" feature. This 5% area needs to be taken account of when setting a woodland feature extent figure (if any).		
Absence of non-native flora	Relative proportion of non-native trees and shrubs; measured once every 5 years from aerial photos, and measured once every 10	Less than 5% cover of non-native trees and shrubs.			

	years from full survey.				

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **[]** at **Gibraltar Point** in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:
Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)	

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments –** *text from CSM guidance*	**Use for CA?**
	Physical structure - functionality and sediment supply			The construction of sea defences can affect sediment supply: cliff defences will halt cliff erosion and groynes can interrupt longshore drift that transports sediment in a prevailing direction. Offshore dredging can also affect sediment supply. Hard sea defences can lead to fossilisation of dunes behind sea walls.	

Audit Trail
Rationale for limiting standards to specified parts of the site
Rationale for site-specific targets (including any variations from generic guidance)
Rationale for selection of measures of condition (features and attributes for use in condition assessment) **(**The selected vegetation attributes are those considered to most economically define favourable condition at this site for the broad habitat type and any dependent designated species).
Other Notes

Annex 1 Maps

[Insert electronic image of map ideally produced from a GIS]