

# Definitions of Favourable Condition for designated features of interest



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

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<b>Name of Site of Special Scientific Interest (SSSI)</b>	
Silloth Dunes and Mawbray Banks	
<b>Names of designated international sites</b>	
<b>Special Area of Conservation (SAC)</b>	N/A
<b>Special Protection Area (SPA)</b>	N/A
<b>Ramsar</b>	N/A
<b>Relationship between site designations</b>	
The site is adjacent to Upper Solway Flats and Marshes SSSI and SPA and Solway Firth SAC	

<b>Version control information</b>	
<b>Status of this Version (Draft, Consultation Draft, Final)</b>	Final
<b>Prepared by</b>	Kate Doughty
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<b>Date of generic guidance on favourable condition used</b>	Coastal (sand dune): August 2004
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<b>Quality assurance information</b>		
<b>Checked by</b>	<b>Name</b> Mark Hesketh Team Leader – Solway & West Coast Team	<b>Date</b> 18 January 2016
	<b>Signature</b> Mark Hesketh Team Leader – Solway & West Coast Team	

## **Definitions of Favourable Condition: notes for users**

### **Definitions of Favourable Condition**

The definitions comprise one or more condition definitions for the special interest features at this site. These are subject to periodic review and may be updated to reflect new information or knowledge. They will be used by Natural England to determine if a site is in a favourable condition. The standards for favourable condition have been developed and are applied throughout the UK.

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 effectively define favourable condition as set out in Tables 2, 2a and 3. When an SSSI's features meet these attributes, then they are said to be in 'favourable condition'.

### **Explanatory text for Tables 2 and 3**

Tables 2, 2a 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 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.

### **Use under the Habitats Regulations**

The Definitions of Favourable Condition (DFCs) are used to periodically measure and assess the condition of both notified SSSI features and designated European Site features.

Where SSSIs also form part of a European Site (such as a SAC or SPA), a separate document containing specific European Site Conservation Objectives will have been prepared. These objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and the Habitats Directive 1992. They are for use when either the appropriate nature conservation body or a competent authority is required to make an 'appropriate assessment' of the likely effects of a proposed plan or project on the integrity of a European Site under the relevant parts of the respective legislation. The European Site Conservation Objectives are available from the Natural England Publications Catalogue.

The concepts of 'site integrity' and 'favourable condition' are similar and the assessment of a feature's condition will measure attributes that also represent aspects of a site's ecological integrity. However, the periodic determination of a feature's condition is separate from a judgement about the effect upon a site's overall integrity. This is because the DFCs do not represent a comprehensive or definitive list of all of the elements that might contribute to site integrity, merely those that are most appropriate to monitor in order to rapidly determine the present condition of a feature. The full range of factors that are components of a site's integrity, and which may need to be considered by an appropriate assessment, will be specified in the European Site Conservation Objectives. Some of the information contained within the DFCs may however contribute to such assessments.

**Table 1 Individual designated interest features**

Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI notified interest features	SAC qualifying interest features	SPA qualifying interest features dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1. Representative, rare, or unique example of a natural or near-natural wetland type	2. Vulnerable, endangered, or critically endangered species or threatened ecological communities	5. Regularly supports 20,000 or more waterbirds	6. Regularly supports 1% of the individuals in a population of one species / subspecies of waterbirds
<b>Shingle</b>	SD1 <i>Rumex crispus</i> - <i>Glaucium flavum</i> shingle community SD2 <i>Honkenya peploides</i> - <i>Cakile maritima</i> strandline community	Perennial vegetation of stony banks	*								
<b>Sand dune: Fixed dune grassland</b>	SD2 <i>Honkenya peploides</i> - <i>Cakile maritima</i> strandline community SD5 <i>Leymus arenarius</i> mobile dune community SD6 <i>Ammophila arenaria</i> mobile dune community	Embryonic shifting dunes; Shifting dunes along the shoreline with <i>Ammophila arenaria</i>	*								
<b>Sand dune: Fixed dune grassland</b>	SD7 <i>Ammophila arenaria</i> - <i>Festuca rubra</i> semi-fixed dune community SD8 <i>Festuca rubra</i> - <i>Galium verum</i> fixed dune grassland SD9 <i>Ammophila arenaria</i> - <i>Arrhenatherum elatius</i> dune grassland SD10 <i>Carex arenaria</i> dune community SD11 <i>Carex arenaria</i> - <i>Cornicularia</i>	Fixed dunes with herbaceous vegetation	*								

Definitions of Favourable Condition: Silloth Dunes and Mawbray Banks  
 Final 18 January 2016  
 Template Version 7, December 2015

Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI notified interest	SAC qualify	SPA qualifying interest features dependency on specific habitats			Ramsar criteria applicable to specific habitats					
	<i>aculeata</i> dune community												
<b>Dune Heath</b>	H11 <i>Calluna vulgaris</i> - <i>Carex arenaria</i> heath	Atlantic decalcified fixed dunes	*										
<b>Sand Dune</b>	<i>Bufo calamita</i>	Natterjack toad	*										
<b>Sand Dune</b>	<i>Triturus cristatus</i>	Great-crested newt	*										

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.

**Table 1a Location of features by unit**

<b>Features</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Coastal vegetated shingle (SD13)	√	√	√	√	√	
Sand dune, strandline, embryo and mobile dunes (SD1-6)	√	√	√	√	√	√
Fixed dune grassland	√	√	√	√	√	√
Lowland dry heath		√	√	√		
Natterjack toad	√	√			√	
Great-crested newt					√	

**Table 2 Habitat extent objectives**

<b>Extent - Dynamic balance</b>	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.
	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.

<b>Habitat Feature (Broad Habitat level, or more detailed level if applicable)</b>	<b>Estimated extent (ha) and date of data source/estimate</b>	<b>Site Specific Target range and Measures</b>	<b>Comments</b>
<b>Shingle</b>	6.04ha GP Radley 1987	No decrease in extent of shingle, subject to natural change.	Extent may be subject to periodic and seasonal variation, and will need to be assessed over a period of time. Natural processes may result in re-distribution of shingle sediments and changes in sediment composition. Such changes are usually acceptable.
<b>Sand dune; Strandline, embryo and mobile dunes</b>	10.21 ha, G.P. Radley, 1987	No decrease in extent of strandline, embryo and mobile dunes, subject to natural change.	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. Strandline may be absent in some years as a result of natural causes, but continued absence over the six year period would cause condition to be unfavourable. Extent, particularly of embryonic dunes, may be subject to periodic and seasonal variation.
<b>Sand dune; Fixed dune grassland</b>	89.42 ha, G.P. Radley, 1987	No decrease in extent of fixed dune grassland, subject to natural change.	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.
<b>Dune heath</b>	6.31 ha, G.P. Radley, 1987	No decrease in extent of dune heath, subject to natural change.	

<b>Audit Trail</b>
<b>Rationale for habitat extent attribute</b> (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).
<b>Rationale for site-specific targets (including any variations from generic guidance)</b>
The generic guidance has been used.
<b>Other Notes</b>

**Table 2a Species population objectives**

<b>Population balance</b>	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.
	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.

<b>Species Feature (species or assemblage)</b>	<b>List supporting Broad Habitats</b>	<b>Population Attribute (eg presence/absence, population size or assemblage score)</b>	<b>Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)</b>	<b>Comments</b>
<b>Natterjack toad</b>	Sand dune	Toadlet production (metamorphs emerging from breeding ponds <sup>1</sup> )	For at least 1 year in every 4 years, each breeding pond <sup>1</sup> to have baseline toadlet production $2 \pm 1$ order of magnitude. Fail if zero production at all breeding ponds for 3 consecutive seasons.	<sup>1</sup> Breeding pond = a pond in which spawn is laid and successful metamorphosis is likely to occur at least 1 in every 4 years. <sup>2</sup> Baseline toadlet production = the number of emerging toadlets recorded at designation or in best year within 3 years of designation, if higher.
<b>Great-crested newt</b>	Sand dune	Present in breeding season	Continued presence on site in breeding ponds.	

<b>Audit Trail</b>
<b>Rationale for species population attributes</b> (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).
The sand dune survey undertaken by Radley in 1987 used a provisional NVC classification which underwent some revisions prior to publication in Volume 5 of British Plant Communities in 2000. Estimated extent of different sand dune types needs to be viewed with some caution where translation between the two systems has been necessary. Further, SD2 can occur on fine shingle or as part of the strandline on sand substrate. Verification is required as to whether identified SD2 communities fall within the 'shingle' or the 'strandline, embryo and mobile dunes' habitats.
<b>Rationale for site-specific targets (including any variations from generic guidance)</b>

<b>Other Notes</b>

**Table 3 Site specific Habitat/geological condition objectives**

To maintain the shingle, strandline, embryo and mobile dunes, dune grassland, dune heath at Sillioth Dunes and Mawbray Banks 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:
<b>Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)</b>
Refer to the map in Annex 1.

**Site-specific standards defining favourable condition**

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
Shingle (SD1,SD2)	Physical structure: functionality and sediment supply	Aerial photographs can be used combined with information gathered from the site visit	Within the site no linear constraints to mobility in active foreshore zone e.g. introduced structures, or active shingle management such as beach recycling for coastal defence	An important aspect of this habitat is the ability to respond to natural coastal processes, which may result in changes in extent and distribution of the substrate that can subsequently be colonised by pioneer species. Ensure that natural processes govern system. Some rock armouring has been placed at Beckfoot (non SSSI) to protect the B road since designation.	Yes
	Vegetation structure: zonation of vegetation	Transects extending from beach to stable vegetated shingle can be used to estimate the width of the driftline and perennial vegetation zones at points described by GPS and marked on a map.	Maintain SD1 to SD3 vegetation zones (annual vegetation of drift lines and perennial vegetation of stony banks) on units 1 to 5.	Perennial vegetation of the shingle feature may include grassland, heathland and scrub depending on the exact nature of the site.	Yes
	Vegetation composition: positive indicators	Visual assessment using structured walk	Maintain frequency of characteristic species of the vegetated shingle zones as follows : <b>annual vegetation of drift lines</b> (strandline): At least one listed species frequent and another occasional.: <i>Cakile maritima</i> , <i>Honkenya peploides</i> , <i>Salsola kali</i> , <i>Atriplex</i> spp. <i>Tripleurospermum maritimum</i> , <i>Galium aparine</i> , <i>Polygonum oxyspermum</i>		yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
			<b>perennial vegetation of stony banks (SD1):</b> At least two listed species abundant and two frequent; <i>Glaucium flavum</i> , <i>Rumex crispus</i> , <i>Beta vulgaris</i> ssp. <i>maritima</i> , <i>Silene uniflora</i> , <i>Crambe maritima</i>		
	Vegetation composition: negative indicators	Aerial photographs, together with visual assessment of cover, using structured walk	Species not typically associated with communities that define the feature (i.e. undesirable 'weed' species, species uncharacteristic of typical shingle communities or non-native invasive species) should be no more than occasional or < 5% in cover.	Negative species will include non-native species (e.g. <i>Lupinus arboreus</i> , <i>Centranthus ruber</i> , <i>Tamarix gallica</i> ), invasive species indicative of changes in nutrient status (e.g. <i>Senecio jacobaea</i> , <i>Cirsium vulgare</i> ) and species not characteristic of typical communities (e.g. <i>Pteridium aquilinum</i> ).	Yes
	Other negative indicators: signs of disturbance	Visual assessment of disturbance such as vehicle damage or trampling at vulnerable locations (tracks, access points) during site visit	No loss of vegetated substrate within the habitat as a result of anthropogenic activities	Where recycling schemes have been consented these should comply with conditions of the licence. It is possible that despite licence conditions damage to the site has occurred, which needs to be considered at licence renewal	Yes
<b>Strandline, embryo and mobile dunes (SD 2, 5, 6)</b>	Physical structure: functionality and sediment supply	Aerial photographs can be used, combined with information gathered from the site visit	No further anthropogenic increase in factors leading to the decrease of natural mobility of the system. The natural circulation of sand and organic matter should be retained.	Natural processes, particularly sediment supply, may be interrupted or prevented by coastal protection or artificial stabilisation (other than porous breach repair), by sediment extraction or tree planting. Accumulation of driftline organic material (seaweed etc.) is essential for trapping sand and initiating dune formation. Mechanical beach cleaning can adversely affect this process. Some rock armouring has been placed at Beckfoot (non SSSI) to protect the B road since designation. The England Coast Path may increase use slightly away from main parking areas but it is expected people will use the existing routes and paths.	Yes
	Vegetation	Visual assessment, e.g. using	Zonation from beach to fixed dune should	Points may change because of	Yes

Definitions of Favourable Condition: Silloth Dunes and Mawbray Banks  
Final 18 January 2016  
Template Version 7, December 2015

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
	structure: range of zones	transects (extending from beach to fixed dune) may be used to estimate the width of the strandline, embryonic dune and mobile dune at points described by GPS and marked on a map.	be intact over at least 95 % of coastal frontage	natural dynamism, but the overall diversity should not diminish. If strandline is absent this may be acceptable if due to natural causes. The dune front may be vulnerable to heavy trampling/grazing by stock.	
	Vegetation composition: typical species	Visual assessment of cover (modified DAFOR scale), using structured walk and transects.	Maintain frequency of characteristic species of the main sand dune zones as follows: <b>Strandline:</b> At least one species frequent and another occasional; <i>Cakile maritima</i> , <i>Honkenya peploides</i> , <i>Salsola kali</i> , <i>Atriplex</i> spp. <b>Embryonic dunes:</b> At least one species frequent; <i>Elytrigia juncea</i> , <i>Leymus arenarius</i> . <b>Mobile dunes:</b> At least one species frequent; <i>Ammophila arenaria</i> , <i>Leymus arenarius</i> .	Communities may be dynamic in their distribution and are linked to the physical processes operating at the site. Embryo and mobile dunes are typically species-poor and monospecific stands are common. Additional species may be included in the target on a site-specific basis.	Yes
	Vegetation composition: condition and flowering/fruiting of foredune grasses	Visual assessment of cover (modified DAFOR scale), using structured walk	Healthy marram <i>Ammophila arenaria</i> , Lyme grass <i>Leymus arenarius</i> or sand couch <i>Elytrigia juncea</i> with abundant fruiting heads at least frequent.	If flowering is not frequent, dunes are no longer mobile and condition is unfavourable (see text for details).	Yes
	Vegetation composition: negative indicator species	Aerial photographs, together with visual assessment of cover (modified DAFOR scale), using structured walk.	Sea buckthorn <i>Hippophae rhamnoides</i> should be absent.		Yes
		% cover measured is cover of the entire feature.	Non native species no more than rare Any one of the following negative indicators no more than frequent throughout the sward, or singly or together the cover of negative indicator species no more than 5%. Negative indicator species: indicator species: <i>Senecio jacobaea</i> , <i>Cirsium arvense</i> , <i>Cirsium vulgare</i> , <i>Urtica dioica</i> , <i>Lolium perenne</i> , <i>Cirsium arvense</i> , <i>Cirsium vulgare</i> , <i>Urtica</i>	<i>Urtica dioica</i> and <i>Cirsium</i> species are indicative of poor condition because of enrichment. Abundance of <i>Senecio jacobaea</i> indicates overgrazing in summer.	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
			<i>dioica, Lolium perenne, Arrhenatherum elatius.</i>		
	Other negative indicators	Visual assessment during site visit	Vehicle damage or visitor damage at vulnerable locations (e.g. tracks, access points) should be absent or rare	Impact of human activities will depend on the site. Notes should be made of the type of damaging activity, location and extent for future further assessment.	Yes
	Indicators of local distinctiveness	Presence confirmed during site visit at appropriate season.	Presence of Isle of Man cabbage		
<b>Dune grassland (SD 8, 9, 10, 11)</b>	Vegetation structure: range of zones	The width of zones could be estimated using one or more transects extending from strandline to landward features. Aerial photographs should be used as an aid, where available.	Zonation from beach to fixed dune intact over at least 95% of coastal frontage.	Points may change due to natural dynamism but the overall diversity should not diminish. Mosaics on hindshore systems may make the width of the fixed dune grassland difficult to assess	Yes
	Vegetation structure: sward height	Assessment during structured walk or transects.	At least 50% of sward to comprise species-rich short turf, 2-10 cm tall.	Short dune grassland provides foraging habitat for natterjack toads. Many scarce vascular plants favour short swards.	Yes
	Vegetation structure: flowering/fruiting	Visual assessment (modified DAFOR scale) during structured walk or transects.	Flowering and fruiting of dune grassland to at least frequent level – depending on the time of year visited (May-Oct).	Level and timing of stock grazing should be sufficient to allow adequate seed production. Flowering is also important for many invertebrates (e.g. for nectar).	Yes
	Vegetation structure: bare ground	Visual assessment of cover during structured walk or transects. Aerial photographs should be used as an aid, where available.	Bare ground or sand present, but no more than 10 % total area.	Patches of bare sand are essential for a wide range of dune invertebrates. Areas of bare sand created by human induced disturbance should not increase.	Yes
	Vegetation composition: typical species	Visual assessment of cover (modified DAFOR scale), using structured walk or transects.	For calcareous dune grasslands (SD7, SD8, SD9), at least eight typical species from the list below present at more than occasional level. For acidic dune grasslands (SD11), at least six typical species present at more than rare level. <i>Aira preacox, Agrostis capillaris*, Astragalus danicus, Carex arenaria, Carex flacca**, Carex pilulifera*, Cerastium fontanum**, Crepis capillaris**, Cladonia spp, Deschampsia flexuosa*, Dicranum scoparium*, Erodium cicutarium**,</i>		Yes

Definitions of Favourable Condition: Silloth Dunes and Mawbray Banks  
Final 18 January 2016  
Template Version 7, December 2015

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
			<i>Euphrasia officinalis</i> ** , <i>Festuca rubra</i> ** , <i>Festuca ovina</i> * , <i>Galium saxatile</i> * , <i>Galium verum</i> ** , <i>Geranium molle</i> ** , <i>Geranium sanguinum</i> , <i>Hylocomium splendens</i> * , <i>Hypnum cupressiforme</i> ** , <i>Hypochaeris radicata</i> , <i>Linum catharticum</i> ** , <i>Lotus corniculatus</i> , <i>Luzula campestris</i> , <i>Odontites repens</i> ** , <i>Peltigera spp</i> ** , <i>Polygala serpyllifolia</i> * , <i>Pilosella officinarum</i> , <i>Plantago lanceolata</i> , <i>Pleurozium schreberi</i> * , <i>Potentilla erecta</i> * , <i>Prunella vulgaris</i> ** , <i>Rhinanthus minor</i> ** , <i>Rhytidadelphus squarrosus</i> ** , <i>R. triquetrus</i> ** , <i>Sedum acre</i> ** , <i>Scleropodium purum</i> * , <i>Thymus praecox</i> , <i>Tortula muralis</i> ** , <i>Trifolium repens</i> , <i>Veronica chamaedrys</i> , <i>Viola canina</i> , <i>Viola riviniana</i> ** , <i>V. tricolour</i> ** . (** are characteristic of the more calcareous dune grasslands SD7, 8 and 9, * are more characteristic of the acidic dunes SD 11 and 12.		
	Vegetation composition: negative indicator species	Visual assessment of cover (modified DAFOR scale), using structured walk or transects. % cover measured is cover of the entire feature.	Sea buckthorn <i>Hippophae rhamnoides</i> should be absent. Other non-native species should be no more than rare.		Yes Yes
			Any one of the other negative indicators no more than frequent throughout the sward, or singly or together the cover of negative indicator species no more than 5%. Negative indicator species: <i>Senecio jacobaea</i> , <i>Rosa spp.</i> , <i>Cirsium arvense</i> , <i>Cirsium vulgare</i> , <i>Urtica dioica</i> , <i>Lolium perenne</i> , <i>Arrhenatherum elatius</i> (not SD9), <i>Pteridium aquilinum</i> , <i>Rubus fruticosus</i> .	<i>Urtica dioica</i> and <i>Cirsium spp.</i> are indicative of poor condition Abundance of <i>Senecio jacobaea</i> indicates overgrazing in summer. <i>Lolium perenne</i> is indicative of agricultural improvement.	
	Vegetation composition: scrub/trees	Visual assessment of cover (modified DAFOR scale), using structured walk or transects. % cover measured is cover of the entire feature.	Scrub/trees (including gorse) no more than occasional, or less than 5% cover and less than 1% cover in areas used by natterjacks (Units 1 & 5). No spread of scrub at the expense of dune grassland.	Natterjacks require open vegetation for foraging and around breeding ponds.	Yes
	Other negative indicators	Visual assessment during site visit	Vehicle damage or trampling at vulnerable locations (tracks, access points) should be absent or rare.		Yes
	Indicators of local	Presence confirmed during site	Presence of sand leek.		Yes

Definitions of Favourable Condition: Silloth Dunes and Mawbray Banks  
Final 18 January 2016  
Template Version 7, December 2015

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
Dune Heath	distinctiveness	visit at appropriate season.			
	Vegetation structure: growth phase composition of ericaceous cover	Visual assessment of cover, using structured walk or transects	Pioneer phase (including pseudo-pioneer): 10-40%; Building/mature phase: 20-80%; Degenerate phase: <30%; and Dead: <10%, of total ericaceous cover.	Both a young stand of e.g. 40-60-0-0 (P-B/M-Dg-Dd) and a mature stand of e.g. 10-65-20-5 (P-B/M-Dg-Dd) would meet the conservation objectives, though structurally they will be very different. Annual variation and succession should be accounted for within the targets. This attribute should be assessed only where it is possible to differentiate the growth phases.	Yes
	Vegetation structure: % cover of dwarf shrubs	Visual assessment of cover, using structured walk or transects and aerial photographs, maps.	Dwarf shrub cover 25-90%.	<i>Erica ciliaris</i> , <i>E. cinerea</i> , <i>E. tetralix</i> , <i>Genista anglica</i> , <i>Ulex gallii</i> , <i>U. minor</i> , <i>Vaccinium myrtillus</i> . Assess over whole feature. Annual variation and succession should be accounted for within the targets.	Yes
	Vegetation structure: % cover of <i>Ulex</i> spp.	Visual assessment of cover, using structured walk or transects and aerial photographs, maps.	Total <i>Ulex europaeus</i> <5%, except in areas used by natterjacks (Units 1 & 5) where cover should be no more than 1%.	Assess over whole feature. Gorse species support a rich invertebrate and vertebrate fauna. However, they can affect the soil characteristics. A higher level can be tolerated on the golf course but a lower level is required in areas utilised by natterjack toads.	Yes
	Bare ground (%)	Visual assessment of cover, using structured walk or transects	At least 1% but not more than 10% cover of the area of the feature should be bare ground, with no more than 1% heavily disturbed.	Bare ground should form a patchwork with vegetation. Tracks or paths can also be a source of bare ground for nesting invertebrates.	Yes
	Vegetation composition: bryophytes and lichens	Visual assessment of cover, using structured walk or transects	% cover of bryophytes and lichens maintained or increased.	Does not include dense mats of acrocarpous mosses (e.g. <i>Campylopus introflexus</i> ) which should not be more than occasional (see negative indicators). % baseline cover needs to be decided as no information on designation.	Yes
Vegetation composition: dwarf shrubs	Visual assessment of cover, using structured walk or transects	At least one species of dwarf shrubs present and at least frequent.	In naturally species-poor sites the presence of just one dwarf-shrub species is acceptable.	Yes	

Definitions of Favourable Condition: Silloth Dunes and Mawbray Banks  
Final 18 January 2016  
Template Version 7, December 2015

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
	Vegetation composition: graminoids	Record presence, using structured walk or transects	At least 1 of the following species at least frequent and 1 species at least occasional throughout the sward; but <i>Deschampsia flexuosa</i> and <i>Nardus stricta</i> no more than occasional and <25% cover Graminoids include: <i>Agrostis</i> spp., <i>Ammophila arenaria</i> , <i>Carex</i> spp., <i>Danthonia decumbens</i> , <i>Deschampsia flexuosa</i> , <i>Festuca</i> spp., <i>Molinia caerulea</i> , <i>Nardus stricta</i> , <i>Trichophorum cespitosum</i> .	In naturally species-poor sites, the presence of just one graminoid species is sufficient to meet the target.	Yes
	Vegetation composition: desirable forbs	Record presence, using structured walk or transects	At least 1 of the following species at least occasional throughout the sward Desirable forbs include: <i>Armeria maritima</i> , <i>Galium saxatile</i> , <i>Genista anglica</i> , <i>Hypochaeris radicata</i> , <i>Lotus corniculatus</i> , <i>Plantago lanceolata</i> , <i>Plantago maritima</i> , <i>Polygala serpyllifolia</i> , <i>Potentilla erecta</i> , <i>Rumex acetosella</i> , <i>Scilla verna</i> , <i>Serratula tinctoria</i> , <i>Thymus praecox</i> , <i>Viola riviniana</i> .	In naturally species-poor sites, the presence of just one forb species may be sufficient to meet the target.	Yes
	Negative indicators: Species	Visual assessment of cover, using structured walk or transects	Exotic species including <i>Rhododendron ponticum</i> , <i>Gaultheria shallon</i> , <i>Fallopia japonica</i> should be absent.	Exotic species should be eradicated if possible.	Yes
Acrocarpous mosses <occasional				Yes	
<5% bracken (dense canopy)				Yes	
< 1 % ragwort, nettle, thistles and other herbaceous negative indicator species, including: <i>Cirsium arvense</i> , <i>Digitalis purpurea</i> , <i>Epilobium</i> spp. (excluding <i>E. palustre</i> ), <i>Chamerion angustifolium</i> , <i>Juncus effusus</i> , <i>J. squarrosus</i> , <i>Ranunculus</i> spp., <i>Senecio</i> spp., <i>Rumex obtusifolius</i> , <i>Urtica dioica</i> , 'coarse grasses'.			Species in this list may be beneficial for a range of invertebrates and only become indicators of negative quality if they are over the established limit.	Yes	
< 5% trees & scrub. Tree and scrub spp include: <i>Betula</i> spp., <i>Prunus spinosa</i> , <i>Pinus</i> spp., <i>Rubus</i> spp., <i>Sarothamnus scoparius</i> , <i>Quercus</i> spp., <i>Hippophae rhamnoides</i>				Yes	
	Negative indicators: signs of disturbance	Visual assessment of cover, using structured walk or transects	<1% of habitat heavily eroded.	Record presence of signs of overgrazing or intensive fires in the activities list on the field form.	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
<b>Natterjack toad <i>Bufo calamita</i></b>	Toadlet production (metamorphs emerging from breeding ponds <sup>1</sup> )	Visual assessment of number seen at emergence (mid-May – July, depending on site), using log scale (0, 1s, 10s, 100s etc). Assess every year. 3 - 6 daytime visits required per year to identify peak number, depending on conditions.	For at least 1 year in every 4 years, each breeding pond: to have baseline toadlet production <sup>2</sup> ± 1 order of magnitude. Fail if zero production at all breeding ponds for 3 consecutive years.	1 Breeding pond = a pond in which spawn is laid and successful metamorphosis is likely to occur at least 1 in every 4 years. 2Baseline toadlet production = the number of emerging toadlets recorded at designation or in best year within 3 years of designation, if higher.	Yes
	Aquatic macrophyte cover and shading	Visual assessment April-June. Record once every 3 years.	>90% of breeding ponds to have: aquatic macrophyte covering/ shading less than 25% of surface, and no scrub solidly shading southern margin of pond.		Yes
	Breeding pond presence	Visual assessment March-September. Record once every 3 years.	No net loss in extent or number of breeding ponds.	In exceptional cases, a net loss may be acceptable if enhancements are made to remaining ponds.	Yes
	Terrestrial habitat in proximity of breeding ponds - extent	Visual assessment by walking site; most semi-natural habitats within 500m of breeding pond to be included. Map conditions at designation. Assess at any time of year. Record once every 3 years.	No loss of area, or fragmentation, compared to designation status	Suitable habitat normally includes bare ground, short-sward grassland, marram, ericaceous vegetation, and excludes woodland, scrub and dense, rank, grassland swards. This is also reflected in the targets for dune grassland.	Yes
	Terrestrial habitat in proximity of breeding ponds - condition	Visual assessment by walking site. Map conditions at designation. Assess at any time of year. Record once every 3 years.	Habitat structure to be open, with: no significant encroachment of dense scrub vegetation, and areas of low sward to remain low (height approx 1cm), and bare/sparsely vegetated areas to remain as such.	Scrub encroachment: Pine, willow, birch and sea buckthorn scrub are of particular concern. Bare sand, slag or rock piles are used for burrowing and there should be some adjacent to breeding ponds.	Yes
	Breeding pond persistence	Record approximate depth of water in identified breeding ponds between mid-May and July (timing dependent on normal metamorphosis date for area). Visual assessment is suitable. Record once every 3 years.	Minimum summer water depth 5cm for at least 75% of breeding ponds on each year of assessment.	Between-visit variation due to ephemeral nature of breeding ponds is likely. Target setting may require examination of historical site records and weather conditions to assess normal desiccation pattern.	Yes
<b>Great crested newt <i>Triurus cristatus</i></b>	Breeding pond presence	Visual assessment March-September. Record once every 5 years.	No net loss in extent or number of breeding ponds.		Yes

Definitions of Favourable Condition: Silloth Dunes and Mawbray Banks  
Final 18 January 2016  
Template Version 7, December 2015

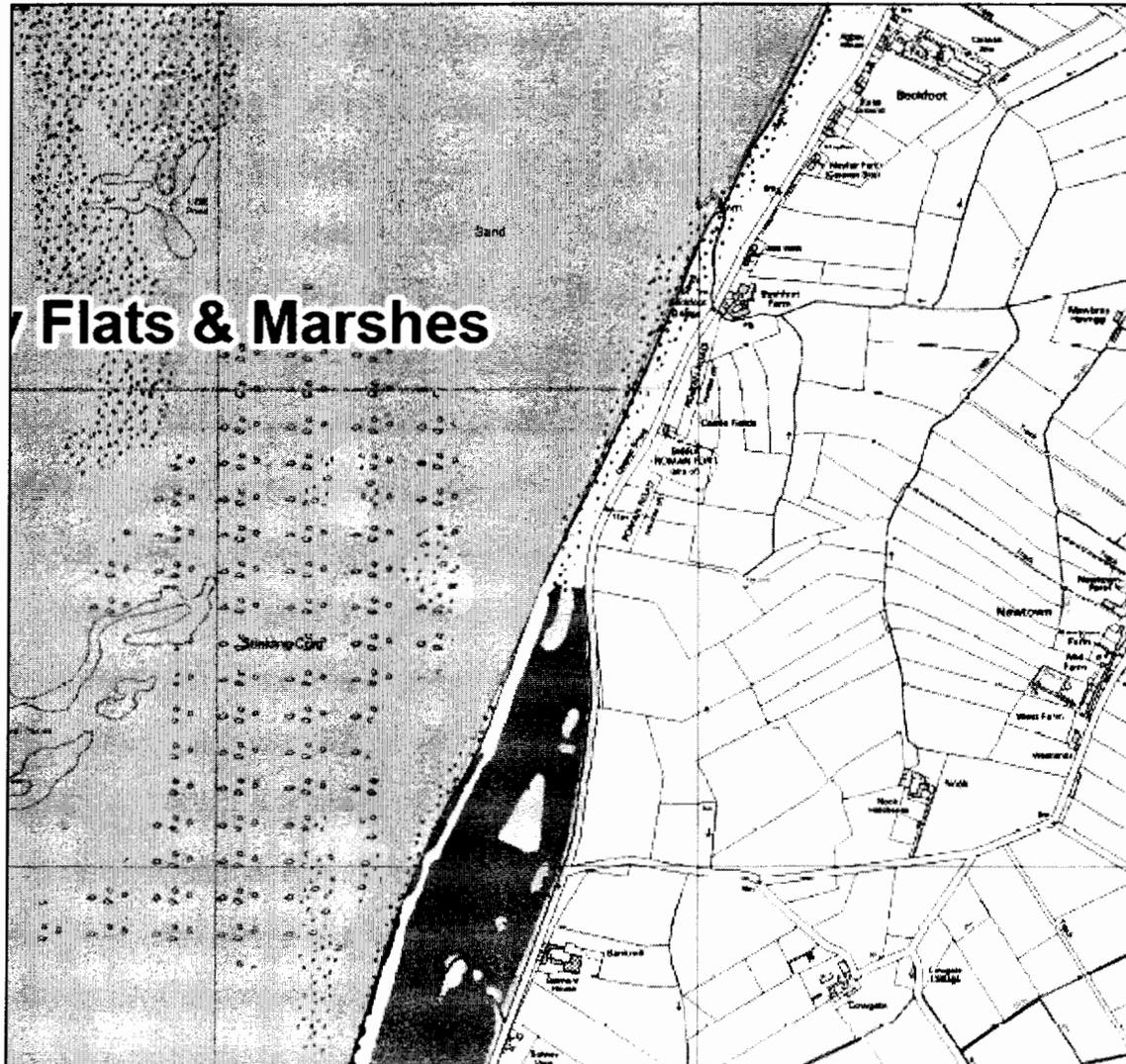
<b>Audit Trail</b>
<b>Rationale for limiting standards to specified parts of the site</b>
<b>Rationale for site-specific targets (including any variations from generic guidance)</b>
Some site-specific amendments have been made to certain attributes; in particular the sward height and the amount of scrub acceptable in the areas where natterjacks breed and forage. Otherwise the generic targets are suitable for Silloth Dunes and have been used.
<b>Rationale for selection of measures of condition (features and attributes for use in condition assessment)</b>
(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).
<b>Other Notes</b>

**Annex 1** Map(s) of key areas for monitoring



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 Final 18 January 2016  
 Template Version 7, December 2015





**Silloth Dunes and Mawbray Bank SSSI**

**Legend**  
**Silloth conservation objectives**  
**habitat\_region**

**HABITAT**

-  dune heath
-  sand dune
-  sand dune (embryo and mobile dunes)
-  scrub communities
-  shingle

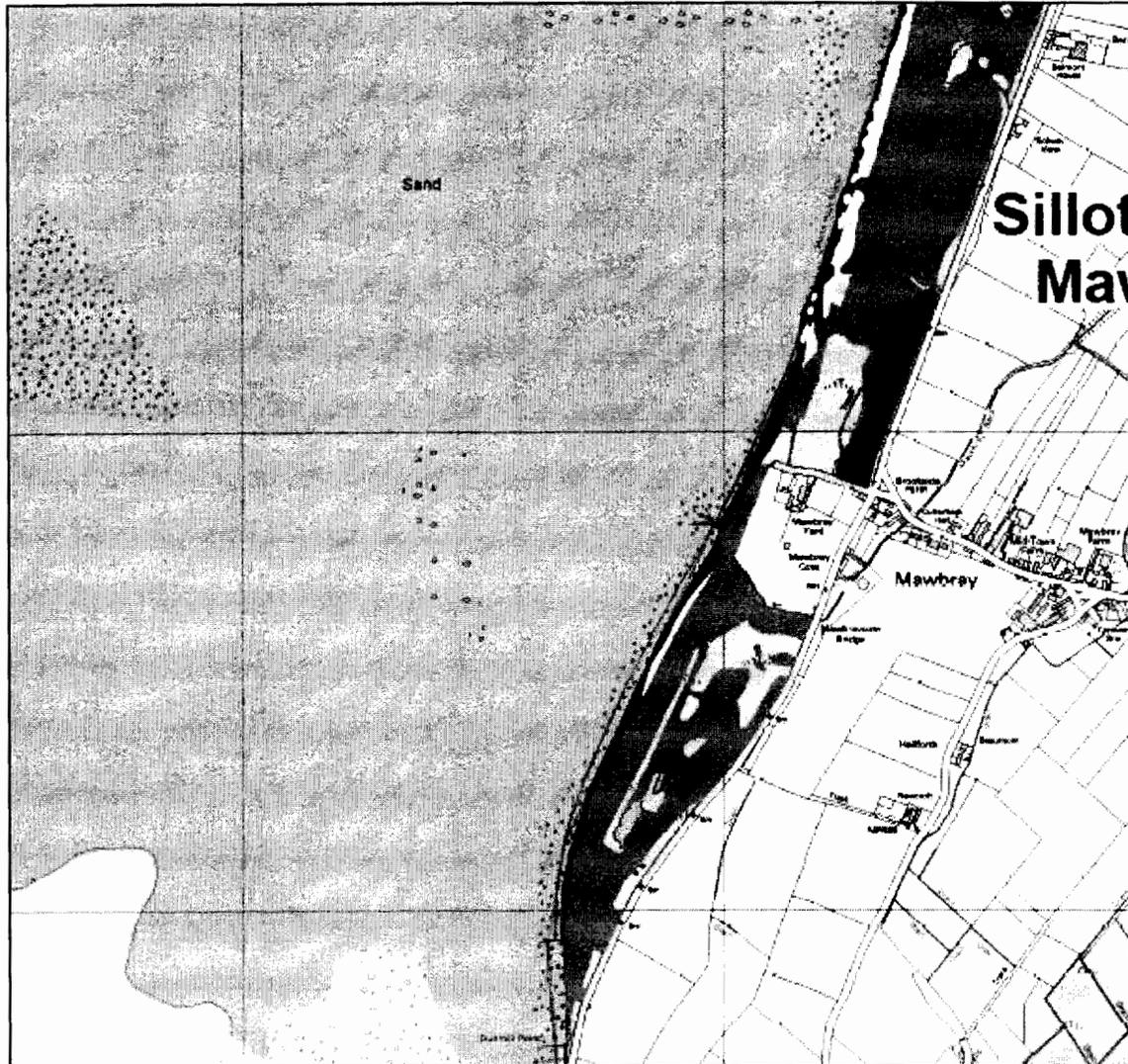
**Sites of Special Scientific Interest**  
 © Natural England

0 250 500

Scale (at A3): 1:8,000

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 Natural England  
 Map Reference: NE150902-1216-100

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## Silloth Dunes and Mawbray Bank SSSI

### Legend

Silloth conservation objectives  
habitat region

#### HABITAT

-  dune heath
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-  Natural England

0 250 500

Scale (at A3): 1:8,000



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Natural England

Map Reference: NE 150602-1218-108