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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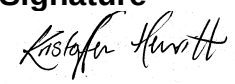
Name of Site of Special Scientific Interest (SSSI)	
Pagham Harbour	
Names of designated international sites	
Special Area of Conservation (SAC)	N/A
Special Protection Area (SPA)	Pagham Harbour
Ramsar	Pagham Harbour
Relationship between site designations	
The SPA and Ramsar is represented in full by the SSSI boundary area	

Version control information	
Status of this Version	Final
Prepared by	Matt Taylor
Date of this version	4th March 2014
Date of generic guidance on favourable condition used	CSM for saltmarsh habitats: August 2004 CSM guidance for lagoons: August 2004 CSM for coastal vegetated shingle: August 2004 Littoral Sediments: Aug 2004 CSM for lowland wetlands: August 2004 CSM for woodlands: Feb 2004 CSM for birds: August 2004 CSM for vascular plants: February 2004 CSM for invertebrates: March 2008 ENRR 315 – lowland grassland Feb 2004 Geological Guidance, Feb 2004
Other notes/version history	Alex Robins 2008 (Draft) Diane Taylor 2005 (Draft)

Quality assurance information		
Checked by	**Signature** Kristoffer Hewitt	**Date 02 June 2014**
	Signature 	

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.

Habitat Types represented (Biodiversity Action Plan categories)

Neutral Grassland – Lowland
Fen, Marsh and Swamp – Lowland
Broadleaved, Mixed and Yew Woodlands
Standing Open Water - Lagoons
Littoral Sediment
Supralittoral Sediment

Geological features (Geological SiteTypes)

EC – Tertiary Palaeobotany
ACTIVE PROCESS GEOMORPHOLOGICAL (IA)

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 at www.naturalengland.org.uk.

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

BAP 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	1a Wetland characteristics	2a Hosting rare species &c	3a 20000 waterfowl	3c 1% of population
Supralittoral Sediment	Vegetated Shingle	NVC SD1	*		(*)	(*)		*	(*)		
	Aggregation of Breeding Birds	Little Tern	*		*						
Standing Open Water	Coastal Lagoon	Pagham Lagoon	*			(*)		*	(*)		
	Nematostella vectensis (Schedule 5 pop. Vulnerable by IUCN/WCMC, RDB3)	Rare/Internationally protected invertebrate**: Starlet sea anemone.** Recorded in Pagham lagoon.	*								
Littoral Sediment	Saltmarsh Sheltered Muddy shores	NVC SM6, SM14 Tidal Mudflats	* (*)			(*) (*)		* *	(*) (*)		
Broadleaved, Mixed and Yew Woodlands	Oak-Bracken-Bramble woodland Beech-Dog's mercury woodland	W10 - *Quercus robur-Pteridium aquilinum-Rubus fruticosus* W12 - *Fagus sylvatica-Mercurialis perennis*	* *								

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI notified interest	SAC qualifyi	SPA qualifying interest features dependency on specific habitats			Ramsar criteria applicable to specific habitats			
Fen, Marsh and Swamp	Phragmites Swamp	Supporting aggregations of non-breeding and breeding birds	(*)					*			
Neutral Grassland - Lowland	Neutral Grassland	Supporting aggregations of non-breeding and breeding birds.	(*)			(*)					(*)
Littoral Sediment, Supralittoral Sediment	Outstanding assemblage of vascular plants	*Petrorhagia nanteuliii* *Puccinellia fasciculata* *Vicia lutea* *Sarcocornia (Salicornia) perennis* *Alopecurus bulbosus* *Lathyrus japonicus* *Puccinellia rupestris* *Bupleurum tenuissimum* *Carex divisa* *Inula crithmoides,* *Galeopsis angustifolia*	*								
	Petrorhagia nanteulii (Schedule 8 pop. RDB1)	Endangered/ Protected plant species: **Childing Pink**	*								
Littoral sediment, Supralittoral	Invertebrate assemblage **Orthoptera**	**including**: *Acheta domesticus, Chorthippus albomarginatus,*	*								

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI notified interest	SAC qualifyi	SPA qualifying interest features dependency on specific habitats			Ramsar criteria applicable to specific habitats			
Sediment, Standing Open Water, Fen, Marsh and Swamp, Neutral Grassland	Invertebrate assemblage **Lepidoptera**	*C. brunneus, C. parallelus, C. dorsalis Conocephalus discolour, Leptophyes punctatissima, Myrmeleotettix maculatus, Pholidoptera grisioaptera, Platycleis denticulate, Tettigonia veridissima* **including***: Agrostis ripae, Archanara geminipuncta, Cryphia muralis, Cucullia absinthii, C, asteris, Ennomos autumnaria, Meganola albula, Mythimna favicolor, Scopula emutaria*	*								
Littoral sediment, Supralittoral Sediment, Standing Open Water, Fen, Marsh and Swamp, Neutral Grassland	Aggregations of Non-breeding Birds	Black-tailed Godwit	*								(*)
		Dark-bellied Brent Goose	*			*					(*)
		Grey Plover	*								(*)
		Pintail	*			*					(*)
		Ringed Plover	*								
		Ruff	*			*					
Fen, Marsh and Swamp,	Assemblage of Breeding Birds	Lowland Grassland	*								

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI notified	SAC qualifyi	SPA qualifying interest features dependency on specific habitats			Ramsar criteria applicable to specific habitats			
Neutral Grassland Littoral sediment, Supralittoral Sediment, Standing Open Water		Sand dunes, Salt Marsh, Shingle and low islands	*								
COASTAL CLIFFS AND FORESHORE (EC)	Tertiary Palaeobotany		*					*			
ACTIVE PROCESS GEOMORPHOLOGICAL (IA)	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.

Table 2 Habitat extent objectives

Extent - Dynamic balance	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.

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
Vegetated Shingle	**47.94 ha** Source: ENSIS 10/3/2008	**Target**: No decrease in extent from the established baseline subject to natural change **Measure**: A baseline map should be prepared (WebMap) to show the distribution of shingle vegetation, using aerial photography or existing NVC survey data. Aerial photography/other remote sensing can help with assessing shingle structure and perennial vegetation, but may not pick up driftline vegetation. Measurements should be taken from the SSSI boundary adjacent to the seaward side of the shingle from the mean low watermark.	Extent may be subject to periodic and seasonal variation, and will need to be assessed over a period of time. With reference to the Church Norton Spit and shingle distribution along Pagham Beach, natural processes may result in re-distribution of shingle sediments and changes in sediment composition. Such changes are acceptable.
Coastal Lagoon	**15 ha** Source; RSPB Pagham Harbour LNR Mgt Plan. 2013 – 2018 (based on 2009 habitat	**Target**: No reduction in extent of saline lagoon area **Measure**: Extent should be assessed periodically against a baseline map/aerial image or through the review of any known activities that may have caused an alteration in extent. In most cases the area will be derived by referral to aerial	Where there is a change outside the expected variation or a loss of the conservation interest of the site, (e.g. due to anthropogenic activities or unrecoverable natural losses) then condition should be considered unfavourable. Such natural changes may be attributable to infilling or coastal erosion processes and might be observed in isolated or percolation lagoons which are often transient

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
	surveys)	photographs of the site.	features. For created and actively managed lagoons, natural processes leading to loss of extent may cause the site to become unfavourable and management action can be taken. In all cases, changes in extent would be considered unfavourable if attributable to the following: loss or damage to a sluice or other flow control mechanism; anthropogenic alterations to the separating barrier; infilling, land claim or other developments.
Saltmarsh **Pioneer saltmarsh**: Equivalent NVC communities: SM6, **Low-mid marsh communities**: Equivalent NVC communities: SM14. **Driftline**: Equivalent NVC communities: SM24 and SM25, SM28 **Transitions**: including mesotrophic grassland communities (e.g. MG 11, MG12, MG13) and swamp communities (e.g. S4, S5, S18, S19, S20, S21, S26)	**155.8ha** Source; RSPB Pagham Harbour LNR Mgt Plan. 2013 – 2018 (based on 2009 habitat surveys)	**Targets**: No decrease in extent from the established baseline, subject to natural change. **Measures**: A baseline map should be prepared (WebMap) to show the distribution of saltmarsh vegetation, using aerial photography or existing NVC survey data.	See guidance on habitat extent, patterns of saltmarsh erosion, effects of sea level rise (JNCC CSM saltmarsh Section 4). Extent may be subject to periodic and seasonal variation, particularly pioneer saltmarsh. Extent should be measured at low tide.
Sheltered Muddy Shores	**140.6 ha** Source; RSPB Pagham Harbour LNR	**Target**: No decrease in extent of littoral sediment subject to natural change. **Measure**: Extent should be assessed	Where changes in extent are known to occur due to cyclical natural processes, then the target value should accommodate this variability. If required a declining value may be established where sufficient

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
	Mgt Plan. 2013 – 2018 (based on 2009 habitat surveys)	periodically against a baseline map showing the distribution of littoral sediment, or through the review of any known activities that may have caused an alteration in extent. Possible sources of baseline data are archive remote sensing, aerial photographs and intertidal resource mapping (see Davies et al., 2001).	information is available to predict a trend. Where the field assessment judges extent to be unfavourable, and subsequent investigation reveals the cause is clearly attributable to cyclical natural processes, the final assessment will require expert judgement to determine the reported condition of the feature. The feature's condition could be declared favourable where the officer is certain that the conservation interest of the feature is not compromised by the failure of this attribute to meet its target condition. Where there is a change outside the expected variation or a loss of the conservation interest of the site, (e.g. due to anthropogenic activities or unrecoverable natural losses) then condition should be considered unfavourable.
Woodland – Coastal and Ancient Woodland	**6.2 ha** Source; RSPB Pagham Harbour LNR Mgt Plan. 2013 – 2018 (based on 2009 habitat surveys)	**Target**: No loss of ancient woodland **Measure**: Field survey and/or aerial photography, in relation to baseline map.	Stand loss due to natural processes e.g. in minimum intervention stands may be acceptable. Stand destruction may occur if the understorey and ground flora are irretrievably damaged even if the canopy remains intact. As a guideline, loss can be defined as at least 0.5 ha or 0.5% of the stand area, whichever is the smaller. 20% canopy cover is conventionally taken as the lower limit for an area to be considered as woodland.
Fen marsh swamp	**22.25 ha** Source: ENSIS (10/03/2008)	**Target**: No overall loss habitat area **Measure**: Field survey and/or aerial photography, in relation to baseline map.	
Lowland Neutral Grassland	**185.08ha**	**Target**: No overall loss Neutral Grassland	

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
	Source: ENSIS (10/03/2008)	**Measure**: Field survey and/or aerial photography, in relation to baseline map.	

Audit Trail
Rationale for habitat extent attribute (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).
The actual size of the SSSI is 629.01ha. this differs to the total above habitat extent (572.87ha) by 56.14ha. The difference will be down to changes in measures based on tide levels and other various site fabric such as roads, main river channels, hedgerows and paths. There were no actual habitat maps or measurements produced at the time of notification so the estimates of habitat size are based on ENSIS habitat extent measures from 2008 and RSPB Pagham Harbour LNR Mgt Plan. 2013 – 2018 (based on 2009 habitat surveys)
Rationale for site-specific targets (including any variations from generic guidance)
Other Notes

Table 2a Species population objectives

Population balance	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.

Species Feature (species or assemblage)	**List 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 Breeding Birds: **Little Terns**	Shingle (vegetated and non-vegetated)	Bird population size: 12 pairs 1% of British Population Annex I species Source: 1992 SPA citation	Maintain the population above 75% of that at designation - loss of 25% or more unacceptable. Therefore **threshold level is 9 pairs** Extent of all habitats used by the feature should be maintained - losses of 5% or more of any relevant habitat type unacceptable.	Counts or estimates of numbers of breeding individuals, pairs or calling males, occupied breeding sites or occupied territories. Population data is taken from SPA citation 1986/87 to 1990/91
Aggregations of Non-Breeding Birds Wintering and passage birds of national and international importance: **Black-tailed Godwit**	Sheltered muddy shores, Shingle, Coastal Lagoon, Fen, Marsh and Swamp, Neutral Grassland,	Bird population size at notification with lower threshold in bold. **Black-tailed godwit**: 359 ***(90min)*** **Dark-bellied brent geese**: 2630 ***(1500min)*** **Grey Plover:** 652 ***(400min)*** **Ringed Plover** 266 ***(130min)*** **Pintail**: 267 ***(218min)***	Based on the known natural fluctuations of the population in the site, maintain the population at or above the minimum for the site. If the population at assessment (taken from either a single count or a mean of counts) falls below this size then it is in unfavourable condition.	Minimum peak counts from 1980/81 to 1985/86 **(with lower threshold based on known natural variation in bold and brackets)** Source: WeBs online

Species Feature (species or assemblage)	List 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
Dark-bellied Brent Goose **Grey Plover** **Pintail** **Ringed Plover** **Ruff**		**Ruff**: 188 ***(114min)*** Source: BTO WeBS online Minimum peak counts from 1980/81 to 1985/86.	Extent of all habitats used by the feature should be maintained - losses of 5% or more of any relevant habitat type unacceptable.	
Agregations of breeding birds	Lowland Grassland	Assemblage score (BTO index): Lowland grasslands: 25 (minimum score 21) Sand-dunes, saltmarsh, shingle and low islands: 35 (minimum score 26) Record presence/absence of breeding species within the assemblage. Source: Notification criteria sheets 14/5/86	Maintain assemblage diversity: ¨ If the total score calculated for a breeding bird assemblage falls by the equivalent of 25% or more in points then the assemblage is in unfavourable condition.	Breeding must be confirmed as proven or probable according to generic proof of breeding codes. A count of the numbers of breeding pairs/units in a site is not needed. On the basis of presence/absence recalculate the assemblage score using the SSSI Guidelines for the relevant habitat.
Vascular Plants Assemblage *Petrorhagia nanteuliii VU, NR, Sch 8 (200pts)* *Puccinellia fasciculata VU, NS, S.41(50pts)*	Sand-dunes, saltmarsh, shingle and low islands	Presence/Absence	All assemblage species should be present. Species lost or not found during survey cannot be replaced with other points qualifying species. Assemblage score Minimum 700 points	If *Petrorhagia nanteuliii* is not found during assessment regardless of other qualifying assemblage species then condition must be unfavourable.

Species Feature (species or assemblage)	List 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
Vicia lutea NT, NS(50pts) Sarcocornia (Salicornia) perennis NS (50pts) Alopecurus bulbosus NS(50pts) Lathyrus japonicus NS(50pts) Puccinellia rupestris NS(50pts) Bupleurum tenuissimum VU, NS, S.41(50pts) Carex divisa VU, NS, S.41(50pts) Inula crithmoides, NS(50pts) Galeopsis angustifolia, CR, NS, S.41(50pts)				
Vascular Plant ***Petrorhagia nanteuliii*** VU, NR, Sch 8, ,	Sand-dunes, saltmarsh, shingle and low islands	Presence/Absence	Identification of species	Species should be present
		Population Size	Extent in Metres^2	

Species Feature (species or assemblage)	List 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
childing pink		At least a minimum viable population size present AND No more than 10% loss in overall coverage of the population		
		Vegetation structure	Visual assessment > 20% bare ground	
Species of Local Distinctiveness ***Crambe Maritima***	Sand-dunes, saltmarsh, shingle and low islands	Presence/Absence	Identification of species	This species was part of the assemblage at notification but due to it now being found nationally in >100 10km squares it no longer qualifies. However, it is a characteristic feature of the shingle communities and the site is one of the best examples in the country for *Crambe maritima*.
		At least a minimum viable population size present AND No more than 10% loss in overall coverage of the population, allowing for natural processes.	Extent in metres	Currently, (2014) *Crambe maritima* is found extensively across the stable/fixed shingle habitat. (Typical of NVC SD1 shingle communities) See habitat maps Annex 1. Further NVC type mapping needed.
Invert assemblage: Orthoptera *Acheta domesticus, Chorthippus albomarginatus,*	Sand-dunes, saltmarsh, shingle and low islands	ISIS assemblage SAT codes present: *W531 saltmarsh & transitional brackish marsh* ***(BAT code CSM assemblage score 200)***	***SAT code CSM objective should be 10 with a threshold of 8% Proportion of national species pool to reach favourable condition*** ***Sand-dunes, saltmarsh, shingle***	The species presence/absence attribute is assessed through specialist survey once every 6 years. Assemblage can be monitored by proxy through micro/macro habitat assessment using SRS. SRS should

Species Feature (species or assemblage)	List 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
C. brunneus, C. parallelus, C. dorsalis Conocephalus discolour, Leptophyes punctatissima, Myrmeleotettix maculatus, Pholidoptera grisioaptera, Platycleis denticulate, Tettigonia veridissima **Lepidoptera** *Agrostis ripae, Archanara geminipuncta, Cryphia muralis, Cucullia absinthii, C, asteris, Ennomos autumnaria, Meganola albula, Mythimna favicolor, Scopula emutaria*		Direct Monitoring of assemblage score based on presence/ absence of specified proportion of species typical of habitat listed in ISIS Assemblage habitats assessed through structural recording survey (SRS)	***and low islands;*** **SRS preferred surfaces:** wider flowery areas; presence of flowering saltmarsh forbs, notably Sea Aster flowery areas, including those on other habitats (verges, ruderal etc) including 'unwelcome' weeds such as ragwort and thistles - located resource present between monitoring events vertical erosion clifflets high on the shore, especially (though not exclusively) if sandy- no factors present across slippage face to impede natural processes. upper strandline litter of both dead graminoid and woody material- located resource present between monitoring events W531 saltmarsh & transitional brackish marsh	be carried out as part of the larger site assessment regardless of direct assemblage assessment by specialist.

Species Feature (species or assemblage)	List 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
Population of Schedule 5 sea anemone - ***Nematostella vectensis*, Starlet Sea Anemone**	Coastal Lagoons	Presence/Absence	Minimum viable population This species should be monitored through the Coastal Lagoon habitat objectives.	The species presence/absence attribute is assessed through specialist survey once every 6 years.

Audit Trail
Rationale for species population attributes (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).
GB population source: Cayford & Waters 1996 used for SPA qualification by JNCC
Rationale for site-specific targets (including any variations from generic guidance)
Conservation objectives for *Nematostella vectensis* are entirely dependent upon those for the habitat that supports it. In this case saline lagoon habitat. Therefore Nematostella vectensis is critical species component of representative biotope within the coastal lagoon habitat and should be monitored through these conservation objectives (Advice by Ian Reach, 27/03/2008). A.Robbins. The vascular plant assemblage differs slightly to the original list at notification. This is allowed under the citation as the specific species within the assemblage vary as qualifying features dependant on their conservation status (and points score) over time. For this reason plant species which no longer qualify have been removed (*M. minimus and C. Maritima*) and others added (*Alopecurus bulbosus, Carex divisa, Lathyrus japonicas, Puccinellia rupestris, Bupleurum tenuissimum, Inula crithmoides, Galeopsis angustifolia)* (Advice by Vascular plant specialist 2014-02-13)
Other Notes
Vascular plants assemblage – ENSIS does not reflect this feature at a unit level as it does not have the ability to assign a “vascular plant assemblage” to a particular unit. The vascular plant assemblage is however reflected on ENSIS as a SSSI interest feature.

Table 3a Site specific Habitat/geological condition objectives

To maintain the **shingle** at **Pagham Harbour SSSI** 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	Use for CA?
Shingle	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 the range of vegetation zones and transitions typical of the site Pagham Harbour Shingle Typical zones: • Mobile shingle • Stable fixed vegetated NVC SD1(*Crambe maritima* dominated • Saltmarsh-influenced grasslands *(Elytrigia atherica* communites*)* • Scrub *(Ulex Europea* community*)*	Individual sites will have different patterns of vegetation types depending on site size, history, substrate and patterns of human use. Perennial vegetation of the shingle feature may include grassland, heathland and scrub depending on the exact nature of the site.	Yes
	Physical structure: functionality and sediment supply	Aerial photographs can be used combined with information gathered from	No unconsented increase in linear constraints to mobility in active foreshore zone e.g.	An important aspect of this habitat is the ability to respond to natural coastal processes,	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
		the site visit	introduced structures, or active shingle management	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	
	Vegetation composition: positive indicators	Visual assessment using structured walk	Maintain frequency of characteristic species of the vegetated shingle zones(see comments) as follows: **perennial vegetation of stony banks (SD1):** At least two listed species abundant and two frequent .	**Perennial vegetation of stony banks** *Rumex crispus, Crambe maritima, Glaucium flavum, Silene uniflora, Beta vulgaris maritima, Lathyrus japonicus, Picris echioides*	Yes
	Indicators of local distinctiveness* (including notable species and transitions to other terrestrial or wetland habitats) ***Crambe maritime***	Presence/absence	At regular intervals, *Crambe maritima* abundant (present >60%) over fixed shingle	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	Yes
	Vegetation composition: negative indicators	Aerial photographs, together with visual assessment of cover, using structured walk	Cover of non-native Red Valerium <10% cover of mature scrub including *Ulex europeaus* on open shingle habitat <20%	Negative species will include non-native species (e.g. Lupinus arboreus, Centranthus ruber, Tamarix gallica), invasive species indicative of changes in nutrient status (e.g. Senecio jacobaea, Cirsium vulgare) and species not characteristic of typical	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
				communities (e.g. Pteridium aquilinum).	
	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 has site occurred, which needs to be considered at licence renewal	Yes

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

Table 3b Site specific Habitat/geological condition objectives

To maintain the **Coastal Lagoon** at **Pagham Harbour SSSI** 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	Use for CA?
Coastal Lagoons	Extent of notable biotopes	Assessment of the extent of *Nematostella vectensis* identified for the site because of their nature conservation importance.	No change in extent of the biotope *Nematostella vectensis* identified for the site, allowing for known cyclical change.	Specialist survey needed	Yes
	Biotope composition of lagoon	Repeated assessment of overall biotope composition or a subset of biotopes identified for the site.**Characteristic Flora:** *Cyanophyta,* *Cladophora sp.* *Ruppia maritime,* **Characteristic Fauna:** *Hediste diversicolor,* *Neanthes virens, Tubificoides sp.* *Hydrobia ventrosa, Cerastoderma glaucum (valves)* *Kellia suborbicularis (valves)* *Chironominae indet. Lekanesphaera hookeri, Gammarus duebeni,* *Orchestia gammarella,*	Maintain the variety of biotopes identified for the site, allowing for succession/ known cyclical change. ***Nematostella vectensis* is as critical species component of representative biotope**	Specialist survey needed Where the field assessment judges the biotope composition to be unfavourable, and subsequent investigation reveals the cause is clearly attributable to cyclical natural processes, the final assessment will require expert judgement to determine the reported condition of the feature.	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
		Corophium volutator, Nematostella vectensis Chris Joyce *etal*, 2011			
	Species composition of representative or notable biotopes	Assessment of biotope quality through assessing species composition where the biotope is representative of the site. Assessing this attribute will require specialist taxonomic expertise.	No decline in biotope quality due to changes in species composition or loss of notable species, allowing for natural succession/known cyclical change. *Nematostella vectensis* is as critical species component of representative biotope	Specialist survey needed As above	Yes
	Species population measures - Presence or abundance of specified species	Assessment of the presence/absence and abundance.	Maintain presence and abundance of the specified species*: Nematostella vectensis.*	Specialist survey needed As above	Yes
	Salinity regime	Seasonal averages (ppt) to be assessed periodically (preferably in late winter/early spring and later summer to determine seasonal lows and highs).	The average salinity throughout the site would be expected to be above 15ppt and less than 35ppt	Where the field assessment judges the salinity change to be unfavourable, and subsequent investigation reveals the cause is attributable to natural processes, final assessment will require expert judgement. Condition could be declared favourable where the conservation interest of the feature is not compromised by the failure of this attribute	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
				to meet its target condition. Where there is a change outside the expected variation or a loss of the conservation interest of the site (e.g. due to anthropogenic activities or unrecoverable natural losses) then condition should be considered unfavourable.	
	Isolating barrier – presence and nature	Top of barrier should be 0.5m below high water neaps	No unconsented change in height of isolating barrier	Changes in presence, nature and integrity of the isolating barrier would be considered unfavourable if attributable to loss or damage of a sluice or other flow control mechanism or due to alterations in structure arising from anthropogenic activities.	Yes
	Extent of water	Area of water occupying the basin should be assessed periodically, at the same time of year (preferably in late winter /early spring and late summer). This may be assessed by direct measurement of the position of the waterline by dGPS or in relation to fixed surface features.	At least 60% of the water of the lagoon persisting at all times of year and states of tide.		Yes
	Water Depth	Average water depth within the lagoon basin (metres) at low tide, assessed at the same time of year each time (preferably in late winter/early spring and late summer).	Average water depth should not deviate significantly from 3.5m, subject to natural change.		No

Audit Trail
Rationale for limiting standards to specified parts of the site
Rationale for site-specific targets (including any variations from generic guidance)
Conservation objectives for Nematostella vectensis are entirely dependent upon those for the habitat that supports it. In this case saline lagoon habitat. Therefore Nematostella vectensis is critical species component of representative biotope (Advice by Ian Reach, 27/03/2008). A.Robbins.
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

Table 3c Site specific Habitat/geological condition objectives

To maintain the **Saltmarsh** at **Pagham Harbour SSSI** 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	Use for CA?
Saltmarsh	Vegetation structure: zonation of vegetation	The width of zones can be estimated using one or more transects extending from strand to lowest continuous marsh.	Characteristic range of variation of zonations typical of the site maintained. At this site the following habitat types and transitions should be represented: **Pioneer saltmarsh** NVC: SM6. **Low-mid marsh** NVC communities: SM14, SM14a. **Transitions**: such as MG 11, MG12, MG13 **brackish mire** (M28) **swamp communities** S4, S5, S18, S19, S20, S21, S26	Ideally, there should be several distinct zones, typically ranging from pioneer vegetation with high cover of bare mud, low-mid marsh, mid-upper marsh. Where coastal squeeze is occurring reversed vegetation succession may occur when pioneer saltmarsh (particularly Salicornia spp.) re-colonises higher marsh as this is eroded.	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
	Vegetation structure: sward height	Assessed by taking average sward height from the quadrats forming part of structured walk	Maintain site-specific structural variation in the sward. No indications of excessive grazing. **Sward generally >10cm**.	Over-grazing can lead to loss of plant species and affect bird breeding and feeding habitats while under-grazing can lead to loss of plant diversity by competition. A varied vegetation structure is important for maintaining invertebrate diversity.	Yes
	Vegetation composition: characteristic species	Visual assessment of cover, using structured walk	Maintain frequency of characteristic species of saltmarsh zones as follows: **Pioneer zone**: At least one listed species frequent and another occasional. **Low-mid marsh**: At least one of Puccinellia maritima, Atriplex portulacoides or Salicornia spp. dominant, and two other listed species at least frequent. **Mid-upper marsh**: At least one listed species abundant and three frequent. **Terrestrial transition**: where this zone is present characteristic communities should occur.	Typical species for zones are: **Pioneer zone** - Spartina maritima, Spartina anglica, Salicornia spp., Suaeda maritima, Puccinellia maritima, Aster tripolium. **Low-mid marsh** - Puccinellia maritima, Halimione portulacoides, Triglochin maritima, Plantago maritima, Atriplex portulacoides, Aster tripolium, Spergularia maritima, Suaeda maritima, Salicornia spp., turf fucoids **Mid-upper marsh** - 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, Puccinellia maritima, Spartina maritima, Spergularia marina, Puccinellia distans. **Transition**: The typical transition zone at this site comprises reedbed with sea club-rush (Scirpus maritimus) and Phragmites australis – Urtica dioica tall-herb fen). Littoral sediment (salt marsh) **Vegetation composition**: negative indicator species: Spartina anglica Aerial photographs, together with visual assessment of cover, using structured walk	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
				No recent evidence of expansion into pioneer salt marsh (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 salt marsh where sediments are accreting. Natural die-back has occurred in some areas.	
	Vegetation composition: negativeindicator species Spartina anglica	Aerial photographs, together with visual assessment of cover, using structured walk	No recent evidence of expansion into pioneer salt marsh (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 salt marsh where sediments are accreting. Natural die-back has occurred in some areas. Spartina distribution baseline will be taken from the CASI (2002) data.	Yes
	Other negative indicators	Visual assessment during site visit	No obvious signs of pollution. Artificial drainage channels adversely affecting hydrology are 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%. Turf cutting absent or rare.	Indications of any of these factors causing significant adverse effects should be interpreted as unfavourable condition.	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
	Physical structure: creeks and pans	Aerial photographs can be used, combined with information gathered from the site visit.	Realignment of creeks absent.		Yes

Audit Trail
Rationale for limiting standards to specified parts of the site
No deviation from generic targets.
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

Table 3d Site specific Habitat/geological condition objectives

To maintain the **Sheltered Muddy Shores** at **Pagham Harbour SSSI** 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)
Non-SSSI notified feature – Supporting feature for SPA/RAMSAR interest features

Site-specific standards defining favourable condition

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
Littoral Sediment: Sheltered Muddy Shore	Distribution of biotopes	Assessment of the distribution of biotope(s) identified for the site. Assessment techniques: intertidal resource mapping, intertidal ID, air photo interpretation and remote imaging.	Maintain the distribution of biotopes, allowing for natural succession. Biotopes expected to be present: Littoral mud biotopes (A2.3), especially Polychaete / bivalve dominated mid estuarine mud shores (A2.312), Polychaete / oligochaete dominated upper estuarine mud shores (A2.322) and Tubificoides benedii and other oligochaetes in littoral mud (A2.323); Littoral mixed sediment biotopes (A2.4) and seagrass beds (A2.61).	**Note**. *There are currently no maps of biotope distribution available. Specialist surveys and mapping will need to be carried out for a conclusive baseline and distribution.Expected biotopes based on species present in benthic surveys and sediment types present in harbour.* Variation is expected due to sea level rise and Spartina die back and if considered as natural change (not constrained by hard defences or other anthropogenic influences) then the feature should not be considered to be in unfavourable condition.	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
				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.	
	Biotope composition of littoral sediment	Repeated assessment of overall biotope composition or a subset of biotopes identified for the site. Source: EA Benthic surveys in Pagham Harbour for the Water Framework Directive in 2008 and 2011	Maintain the variety of biotopes identified for the site, allowing for natural succession / known cyclical change. Characteristic biotopes present based on EA benthic surveys are: *Nematoda, Hydrobia ulvae, Pygospio elegans, Manayunkia aestuarina, Tubificoides pseudogaster, Tubificoides benedii, Tharyx* species, *Capitella, Streblospio shrubsolii, Abra tenuis*	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 loss of the conservation interest of the site, then condition should be considered unfavourable.	Yes
	Sediment character: sediment type	Distribution of sediment types should be assessed across the whole feature and compared to baseline conditions.	No change in composition of sediment type across the feature, allowing for natural succession/known cyclical change. The majority of the site is sandy mud (sM) and slightly gravelly sandy mud ((g)sM). Gravelly mud (gM) and slightly gravelly mud ((g)M) are also present.	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

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
	Sediment character: Organic carbon content	Organic carbon content assessed in specified area.	Organic carbon content should not increase in relation to established baseline. *Currently no baseline data available. Further studies needed.*	An increase in organic carbon due to natural events such as floods or storms is a normal and acceptable change. An increase in organic content due to sewage effluent or nutrient enrichment, causing a change in the infaunal community of the sediment and thus the functioning of the littoral sediment, should be considered unfavourable.	
	Sediment character: Oxidation-reduction profile (Redox layer)	Sediment character: Oxidation-reduction profile (Redox layer)	Average depth to the top of the black layer / Eh should not increase in relation to baseline. For sandy muds the rpd layer should be at 2-5 cm depth. For muds the rpd layer should be at 1-3 cm depth.	An increase in anoxic conditions due to natural events such as mass deposition of organic material following floods or storms is a normal and acceptable change. An increase in anoxic conditions due to sewage effluent or nutrient enrichment, causing a change in the infaunal community of the sediment and thus the functioning of the littoral sediment, should be considered unfavourable. A degree of oxidation/reduction reflects the oxygen availability in the sediment that critically influences the infaunal community and the mobility of chemical compounds.	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
	Other negative indicators	Visual assessment during site visit. Aerial photographs may also be useful to monitor changes in extent of algal mats.	Macroalgal growth (inc.green algae Enteromorpha spp. and Ulva lactuca) should make up 25-75% coverage of the intertidal area and average biomass < 500 g/m2.	Areas of moderate abundance of green algae are of value as feeding areas for brent geese and other wildfowl. The average biomass objective (500 g/m2) has been derived from local data that demonstrated that an average biomass of 473 g/m2 was associated with 25 to 75% macroalgal cover. The equivalent average biomass for 75 to 100% macroalgal cover areas was 1781 g/m2 (Solent & Southampton Water SPA). This should secure the required environmental outcome to substantially reduce areas with >75% macroalgal cover or with biomass exceeding 2 kg/m2 (which is the density at which an adverse effect on the benthic community has been observed). The total elimination of this level of macroalgae cover is not required to protect the integrity of the SPA.	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
	Topography	Tidal elevation and shore slope assessed periodically. Assessment techniques: LIDAR data analysis and beach profile data	No change in topography of the littoral sediment, allowing for natural responses to hydrodynamic regime.	Use LIDAR data to set baseline for topography including beach profiles. Data may also be available from the Channel Coastal Observatory and the Local Authorities on beach profiles. 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.	No
	Food availability	Presence and abundance of suitable prey species and eelgrass beds, measured periodically.	Presence and abundance of prey species and eelgrass should not deviate significantly from an established baseline, subject to natural change.	Eelgrass (Zostera spp.) is an important food plant for dark-bellied brent geese. Other wafer species including Black-tailed godwit and plovers will feed on invertebrates such as annelid worms within the intertidal mudflat communities.	*No

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
	Disturbance	Reduction or displacement of birds measured periodically	No significant reduction in numbers or displacement of wintering birds from an established baseline, subject to natural change.	Significant disturbance attributable to human activities can result in reduced food intake and/or increased energy expenditure. Monitoring of bird population size (as outlined in Table 2a) will be used to assess whether disturbance is damaging.	*No

Audit Trail
Rationale for limiting standards to specified parts of the site
Targets limited to SSSI units containing littoral sediment habitat
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).
Standard CSM Guidance attributes and measures for littoral sediment habitats used. * Discretionary attribute for bird interest feature – useful to inform appropriate management actions but should not be used to judge the overall condition of the feature (CSM Guidance for Birds, 2004).
Other Notes

Table 3e Site specific Habitat/geological condition objectives *[insert separate Table 3 for each BAP broad habitat]*

To maintain the **Broadleaved, yew and mixed woodland** at **Pagham Harbour SSSI** 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	Use for ca?
Broardleaved Yew and mixed woodland: **W10 - Quercus robur-Pteridium aquilinum-Rubus fruticosus woodland** **W12 - Fagus sylvatica-Mercurialis perennis woodland**	Structure and Natural processes	Assess by field survey using structured walk	Understorey (2-5m) present over at least 20% of total stand area.	Different woodland types will differ in their expected cover in different layers e.g. in beech or oak woods the shrub layer is often sparse.	Yes
			Canopy cover present over 30-90 % of stand area.		
			At least three age classes spread across the average life expectancy of the commonest trees.		
			Some areas of relatively undisturbed mature/old growth stands or a scatter of large trees allowed to grow to over-maturity/death on site (e.g. a minimum of 10% of the woodland or 5-10 trees per ha).		
			A minimum of 3 fallen lying trees >20 cm diameter per ha and 4 trees per ha allowed to die standing.		
	Composition	Assess by field survey using structured walk and/or transects.	At least 95% of cover in any one layer of site-native or acceptable naturalised species.		Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for ca?
			Minimum levels of particular native tree/shrub species Death, destruction or replacement of native woodland species through effects of introduced fauna or other external unnatural factors not more than 10% by number or area in a five year period.		
	Indicators of local distinctiveness	Assess by field survey using structured walk and/or transects, or as appropriate to feature.	80% of ground flora cover referable to relevant NVC community		Yes
	Regeneration potential	Assess by field survey using structured walk and/or transects.	Signs of seedlings growing through tosaplings to young trees at sufficient density to maintain canopy density over a 10 yr period (or equivalent regrowth from coppice stumps). No more than 20% of areas regenerated by planting. *All planting material of locally native stock No planting in sites where it has not occurred in the last 15 years.*		Yes

Audit Trail
Rationale for limiting standards to specified parts of the site
Due to the small areas of woodland within the site it was not deemed necessary to deviatet from generic targets.
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

Table 3f Site specific Habitat/geological condition objectives

To maintain the **Fen, Marsh and Swamp** at **Pagham Harbour SSSI** 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)
Not SSSI feature in its own right. Supporting habitat for SSSI and SPA bird assemblage interest features.

Site-specific standards defining favourable condition

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
Lowland fens (including basin, flood-plain, open-water transition and valley fens, springs and flushes	Habitat structure; Litter	Visual estimate of % cover	Litter cover <25% cover.		Yes
	Habitat composition	Comparison with baseline	No loss of the component wetland types i.e. S4 Phragmites australis Swamp S5 Glyceria maxima Swamp S21 Bolboschoenus maritimus Swamp	Small scale change in the relative proportion of wetland types due to natural hydrological change may be acceptable.	Yes
	Habitat structure: Bare ground	Visual estimate of % cover	Bare ground < 10% of the area.	High cover of bare ground may indicate excessive trampling or poaching.	Yes
	Vegetation composition: positive indicators	Visual assessment of cover, using structured walk or transects and recording quadrats	S4 reedbed: Phragmites australis forming a closed or open stand > 90% cover. Associated species e.g. *Typha latifolia, T. angustifolia, Carex riparia, Berula erecta* may be locally prominent. S21 *Scirpus maritimus* sub-community: *Bolboschoenus maritimus* should be constant. S5 *Glyceria maxima* Swamp	The reedbed is important for Cetti's warbler, little grebe, reed bunting, reed warbler and Bittern- vegetation structure and composition should be appropriate to support these species. A varied structure with good	Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
			forming pure stands	quality wet reedbed, patches of willow carr and areas of open water is desirable.	
	Vegetation composition: indicators of negative change - undesirable non-woody species	Visual assessment of cover, using structured walk or transects and recording quadrats	Invasive non-native species such as Impatiens glandulifera should be absent. Native herb spp Urtica dioica and Galium aparine no more than rare	High or increasing frequency / cover of undesirable species should be interpreted as indicating unfavourable condition.	Yes
	Vegetation composition: indicators of negative change - woody species	Visual assessment of cover, using structured walk or transects and recording quadrats	Woody species (including Betula, Salix, Pinus) should be no more than scattered, predominantly < 1.5m high. Overall cover should be <10%. Saplings/seedlings no more than rare.	Invasion by woody species and their development to maturity may indicate drying out, dereliction, disturbance and/or enrichment. Trees and shrubs may also exacerbate drying out.	Yes
	Indicators of local distinctiveness* **Bittern**	Presence/Absence	Species identification through song of visual	Regular winter visitor to the North Fields/Breach Pool in cold weather	No

Audit Trail
Rationale for limiting standards to specified parts of the site
No deviation from generic targets due to the habitat being a supporting feature and not an interest feature.
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

Table 3g Site specific Habitat/geological condition objectives

To maintain the **Coastal Cliffs and Foreshore (EC) and Active Process Geomorphalogical Features (IA)** at **Pagham Harbour SSSI** 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

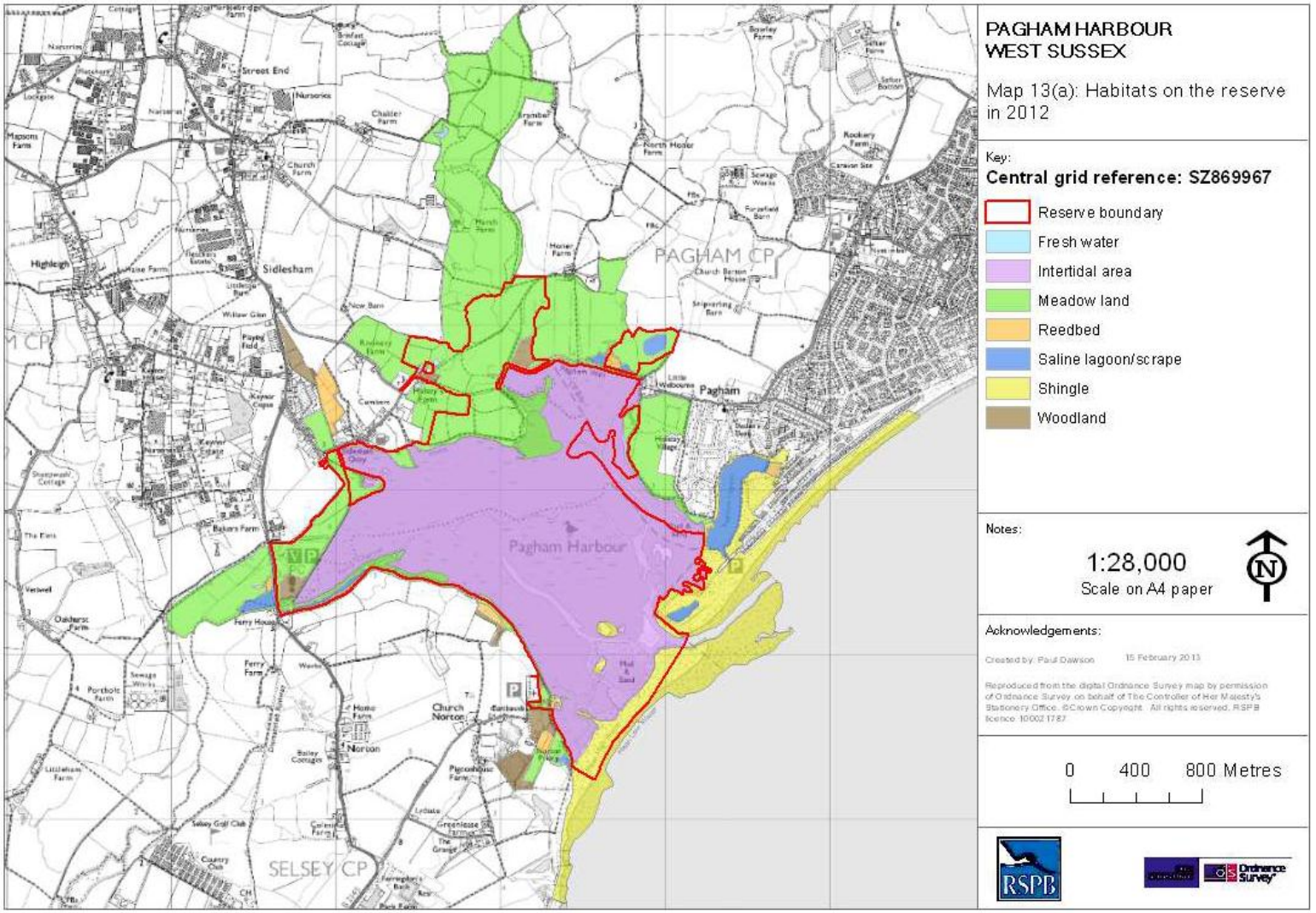
Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
COASTAL CLIFFS AND FORESHORE (EC) Tertiary Palaeobotany Interest Feature: **London Clay (divisions B^1 and B^2)**	Exposure of features of interest	Visual / fixed-point photography	The features of interest are exposed or can be re-exposed by 1 or 2 people, using hand tools, in less than 3 hours approximately.		Yes
	Vegetation	Visual / fixed-point photography	Vegetation is not obscuring or damaging the features of interest.		Yes
	Scree and sediment build-up	Visual / fixed-point photography	Build-up of scree and sediment from weathering and collapse of faces is not obscuring the features of interest		Yes
	Tipping or landfill	Visual / fixed-point photography	There is no unconsented tipping or landfill obscuring or damaging the features of interest.		Yes
	Tree planting	Visual / fixed-point photography	There is no unconsented tree planting obscuring or damaging the features of interest.		Yes
	Engineering works	Visual / fixed-point photography	There are no unconsented engineering works obscuring or damaging the features of interest.		Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
	Coastal processes	Visual / fixed-point photography	Coastal processes, which cause erosion, are not constrained by unconsented human activities or structures, within or adjacent to the site.		Yes
	Geological specimen collecting	Visual / fixed-point photography	Specimen collecting is not damaging the features of interest.		Yes
ACTIVE PROCESS GEOMORPHOLOGICAL (IA) Coastal Geomorphology Interest Feature: **Shingle spit landform & coastal near shore and offshore forms and sediments**	Condition of features of interest	Visual / fixed-point photography	The features of interest remain intact and are evolving naturally.		Yes
	Vegetation	Visual / fixed-point photography	Vegetation is not obscuring or damaging the features of interest.		Yes
	Tipping or landfill	Visual / fixed-point photography	There is no unconsented tipping or landfill obscuring or damaging the features of interest.		Yes
	Tree planting	Visual / fixed-point photography	There is no unconsented tree planting obscuring or damaging the features of interest.		Yes
	Engineering works	Visual / fixed-point photography	There are no unconsented engineering works obscuring or damaging the features of interest.		Yes
	Quarrying	Visual / fixed-point photography	The features of interest have not been damaged or removed by quarrying.		Yes
	Natural processes	Visual / fixed-point photography	There is no impediment to active geomorphological processes.		Yes
	Capacity for re-creation	Visual / fixed-point photography	The features of interest can be re-created by natural processes where they have been damaged or destroyed.		Yes
	Context and surroundings	Visual / fixed-point photography	The context and relationship of the features of interest to the surroundings have not been diminished through		Yes

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for CA?
			physical damage and use of the surrounding land does not lead to changes that might detrimentally affect the features of interest.		
	Geological specimen collecting	Visual / fixed-point photography	Specimen collecting is not damaging the features of interest.		Yes

Audit Trail
Rationale for limiting standards to specified parts of the site
No deviation from generic targets
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 Habitat Map key areas for monitoring
RSPB LNR Management Plan *Thomas, A et al 2013 – 2018*



Annex 2 Location of features by unit

Features	units	1	2	3	4	5	6	7	8	9	10	11	12	14	15	16	17	18	19	20	21	22	23	24	25	26
Assemblages of breeding birds - Lowland damp grasslands			*	*			*	*	*	*		*						*	*			*				
Broadleaved, Mixed and Yew Woodlands *W10 - Quercus robur - Pteridium aquilinum - Rubus fruticosus W12 - Fagus sylvatica - Mercurialis perennis*					*						*						*									
Standing Open Water - Lagoons		*			*																					
Population of Schedule 5 sea anemone - nematostella vectensis, starlet sea anemone		*																								
Littoral Sediment-Saltmarsh/Mudflat *SM14 - Atriplex portulacoides saltmarsh SM6 - Spartina Anglica Saltmarsh*													*							*	*					
Supralittoral Sediment-Shingle SD1 - Rumex crispus - Glaucium flavum shingle community														*									*	*		
Population of Schedule 8 plant - Petrorhagia														*										*		

nanteuilii, Childing Pink																									
Vascular Plant Assemblage													*										*	*	
Aggregation of Breeding Birds – Little Tern													*										*		
Assemblages of breeding birds - Sand-dunes and saltmarshes												*							*						
COASTAL CLIFFS AND FORESHORE (EC) – Tertiary Palaeobotany														*	*										
ACTIVE PROCESS GEOMORPHOLOGICAL (IA) Coastal Geomorphology													*	*	*								*	*	
Agrgregations of non-breeding birds – overwintering/migratory		*	*			*		*	*			*							*	*					
Invertebate assemblage	*		*	*								*							*						