Conservation objectives and definitions of favourable condition for designated features of interest

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

Cornwall & Isles of Scilly Team
Pydar House
Pydar Street
Truro TR1 1XU
Tel. 0300 060 2544
Fax.0300 060 2545

Name of Site of Special Scientific Interest (SSSI)	
Hayle Estuary and Carrack Gladden	
Names of designated international sites	
Special Area for Conservation (SAC)	N/A
Special Protection Area (SPA)	N/A
Ramsar	N/A
Relationship between site designations	

Version control information	
Status of this Version (Draft, Consultation Draft, Final)	Draft V2 following condition assessment 2009.
Prepared by	Andrew McDouall
Date of this version	March 2010
Date of generic guidance on favourable condition used	Assembly Spreadsheet v. 2008 CSM Estuaries - February 2004 CSM Saltmarsh - August 2004 CSM Sand Dunes – August 2004 CSM Maritime Cliff and Slope Habitats - August 2004 CSM Lowland heathland - February 2004 CSM Birds - August 2004 CSM Vascular Plants - February 2004
Other notes/version history	

Quality assurance information		
Checked by	**Name**	**Date**
	Signature	

Conservation Objectives and definitions of Favourable Condition: notes for users

Conservation Objectives

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

Definitions of Favourable Condition

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

Use under the Habitats Regulations

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

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

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

Explanatory text for Tables 2 and 3

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

Conservation Objectives

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

Habitat Types represented (Biodiversity Action Plan categories)

- Sub-Littoral Sediment
- Littoral Sediment
- Supra-Littoral Sediment
- Supra-Littoral Rock

Geological features (Geological Site Types)

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

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

Table 1 Individual designated interest features

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1a Wetland characteristics	2a Hosting rare species &c	3a 20000 waterfowl	3c 1% of population
Sub-littoral sediment Littoral sediment	Estuary including: Sand flats (Cr) = moderately exposed sandy shores (with polychaetes and bivalves) Mud flats (Cr) = sheltered muddy shores (including estuarine muds)	(Cr, Ci) Mud flats are key habitats supporting aggregation of non-breeding birds	*								
Littoral sediment	Saltmarsh (Cr) including: Pioneer saltmarsh: equivalent NVC communities: SM4, SM5, SM6, SM7, SM8, SM9, SM11, SM12. Low-mid marsh saltmarsh: equivalent NVC communities: SM10, SM13a, SM14. Mid-upper saltmarsh: equivalent NVC communities: SM13b,c,d, SM15, SM16, SM17, SM18, SM19, SM20, SM21, SM22, SM23, SM26, SM27 Transitions: including mesotrophic grassland communities (e.g. MG 11, MG12, MG13) brackish mire (M28) and swamp communities (e.g. S4, S5, S18, S19, S20, S21, S26)	(Cr, Ci) Saltmarsh communities listed in Burd, F. 1989 Saltmarsh Survey of Great Britain (Cornwall) NCC: *Spartina anglica* (SM6) *Salicornia* marsh (SM8/9) *Puccinella* marsh (SM10) *Pucccinella/Festuca rubra* (SM13/14) *Juncus geradii* (SM16) *Juncus maritimus* (SM15/18) *Phragmites*	*								

Supra-littoral sediment	SD6 *Ammophila arenaria* mobile dune community SD7 *Ammophila arenaria – Festuca rubra* semi-fixed dune community SD8 *festuca rubra – Galium verum* fixed dune grassland	(Cr, Ci) Mobile, fixed and semi-fixed dune communities	*								
Supra-littoral rock	Maritime cliff and slope including: H7 *Calluna vulgaris – Scilla verna* heath H8 Calluna vulgaris – Ulex gallii heath	(Cr, Ci) Maritime grassland Maritime heath	*								
Sub-littoral sediment **Littoral sediment** **Supra-littoral sediment**	Aggregations of non-breeding birds	(Cr, Ci) Variety of wintering birds species (90)	*								
Supra-littoral rock **Supra-littoral sediment**	Vascular plant assemblage	(Cr, Ci) *Adiantum capillus-veneris* *Carex montana* *Poa bulbosa* *Fumaria occidentalis* *Scrophularia scorodonia*	*								

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. Cr = criteria sheet. Ci = citation.

Hayle Estuary and Carrack Gladden SSSI notified under 1981 Act in 1984 (1983 Guidelines).
Renotified in 1993 to include Copperhouse and Wilson's Pools and Ryan's Field (1989 Guidelines).

NOTE 1: The area of saltmarsh and sand dune habitats within the SSSI do not meet the area thresholds (1989 Guidelines) for notification as individual features. However, saltmarsh and sand dune are integral and key components of the estuary as a functioning ecosystem and are therefore included here with targets set accordingly.

NOTE 2: The NVC communities identified above for the following specific designated features: sand flats, mud flats, saltmarsh, sand dunes and maritime cliff and slope are estimates: biotope and NVC surveys and assessments have not been carried out for this site.

NOTE 3: The vascular plant assemblage includes two nationally scarce species that have been identified since the site was notified: Fumaria occidentalis, Scrophularia scorodonia. Three species have been removed from the assemblage (Hypericum montanum, Euphorbia portlandica, Orobanche hederae) as these are no longer qualifying species (no longer nationally scarce, now recorded from >100 10km squares).

References

Burd, F. 1989 Saltmarsh Survey of Great Britain (Cornwall) NCC

Table 2 Habitat extent objectives

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

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Littoral sediment/sub-littoral sediment Estuary: sand flats and mud flats.	Baseline: RSPB management plans 1197 – 2002, 2002 – 2007, 2007 – 2011. Baseline to be determined. A baseline map should be prepared showing the extent of estuary, sand flats and mud flats. Extent should be assessed periodically against the 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).	Subject to natural change, no reduction in the overall extent of the estuary from baseline. Subject to natural change, no reduction in the overall extent of sand and mud flats from baseline. Subject to natural change, no reduction in the extent of mudflats from baseline.	Hayle estuary is highly modified due to past mining and associated activities. Today the estuary is constrained by built development including flood defence structures and is subject to coastal squeeze. Sand encroachment could, in time, result in a loss of mudflats which are a critical feeding habitat for wintering birds. 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 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. Changes in extent would be considered unfavourable if attributable to activities which interrupt natural coastal processes e.g. hard sea defences.

Littoral sediment Saltmarsh Pioneer saltmarsh: Equivalent NVC communities: SM4, SM5, SM6, SM7, SM8, SM9, SM11, SM12. Low-mid marsh communities: Equivalent NVC communities: SM10, SM13a, SM14. Mid-upper marsh communities: Equivalent NVC communities: SM13b,c,d, SM15, SM16, SM17, SM18, SM19, SM20, SM21, SM22, SM23, SM26, SM27 Transitions: including mesotrophic grassland communities (e.g. MG 11, MG12, MG13) brackish mire (M28) and swamp communities (e.g. S4, S5, S18, S19, S20, S21, S26)	Baseline: 1. Habitat maps and target notes c. 1985. 2. BURD 1989 Saltmarsh Survey of Great Britain, Cornwall, Hayle Estuary. (3. RSPB management plans 1997 – 2002, 2002 – 2007, 2007 – 2011.) A baseline map should be prepared to show the distribution of saltmarsh vegetation, using aerial photography or existing NVC survey data.	Subject to natural change, no reduction in the extent of saltmarsh from baseline. Baseline area of saltmarsh does not include Ryan's Field. This area of saltmarsh, previously a dry grassy field used for grazing, was recreated by RSPB following acquisition in 1995 and post dates the Burd baseline survey.	Saltmarsh likely to be subject to coastal squeeze (see comment for sand flats and mud flats above). See guidance on habitat extent, patterns of saltmarsh erosion, effects of sea level rise. Extent may be subject to periodic and seasonal variation, particularly pioneer saltmarsh. Extent should be measured at low tide.

Supra-littoral sediment Mobile dunes/ Fixed dune grassland: SD6, SD7, SD8	Extent = ha (RSPB data). The dunes occur to the north west of estuary at Porth Kidney Sands and are part of the complex of sand dunes and beaches in St Ives Bay extending from St Ives to Godrevy. Extent of SD6, SD7 and SD8 to be calculated from baseline.	Maintain extent of supra-littoral sediment. No net decrease in extent of sand dunes from the established baseline, subject to natural change. A comparison with the baseline should be made through maps and/or photographs, checked during the structured walk.	Give sources and dates of maps or photographs. 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. Factors likely to affect extent include: Sea level rise likely to reduce extent through coastal squeeze. Unless managed, natural succession, including scrub encroachment and invasive non-native species, is likely to result in reduction of extent of dune grassland. Trampling and beach access and use may affect establishment of embryo and mobile dune vegetation at foot of dunes.
Supra-littoral rock Maritime cliff and slope (maritime heath): MC1 – MC12, CG1f, H7, H8, W21-23 Lowland dry heathland *H1, H2, H3, H4, H6, H7, H8, H9, H10, H11, H12	Baseline: Habitat maps and target notes c.1985. A baseline map should be prepared to show the distribution of maritime heath, preferably using aerial photography and other remote sensing data. Subsequent assessments should be comparisons with this baseline, using similar methods. It is particularly important to check the boundaries and edges when they are defined by trees, scrub or bracken, to avoid encroachment into the heathland. Aerial photographs may provide good means of measuring these changes in extent or position of the boundaries.	No significant or unconsented loss of feature extent. There should also be a targeted site-based assessment of important features.	This feature occurs at Carrack Gladden. The steep coastal slope is currently unmanaged. It is relatively isolated, being accessible only by footpaths including the South West Coast Path and separated by the St Ives branch railway line. It is likely to be very difficult to make accurate assessments of extent for certain habitats, especially if they form complex mosaic with other habitats. The emphasis here should be more on assessing whether any component habitat has been obviously reduced by anthropogenic factors, such as agricultural development, fly tipping, etc. Lowland heathlands are habitats created mostly through human management by grazing, cutting and burning. If they are left to natural processes, then they lose their open character and disappear under thick scrub or secondary forest. However some fluctuations and variations from year to year are normal and acceptable.

Aggregations of non-breeding birds: Features qualifying under criteria 3.3, 3.4 and 3.7 of the Guidelines for Selection of Biological SSSIs apply when the features are cited as non-breeding, wintering or passage.	Baseline: RSPB management plans 1997 – 2002, 2002 – 2007, 2007 – 2011. Record the extent of all habitat types used by the feature (the habitat reporting categories are a useful guide to categorising habitat types for birds). See recommended methods in section 3.10. Methods could include aerial photographs to assess extent of broad habitat types, mapping of broad habitat types, Phase 1 habitat survey, NVC.	Maintain the area of habitats that are used by the feature in the site within acceptable limits. Extent of all habitats used by the feature should be maintained - losses of 5% or more of any relevant habitat type unacceptable.	When sites have designated habitat features the data for assessing this attribute may need to be collected according to the relevant habitat guidance. In these cases additional data may not be needed for this attribute. Habitat requirements for birds are described in Part 2 (available on JNCC website).

Audit Trail
Rationale for habitat extent attribute (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).
Rationale for site-specific targets (including any variations from generic guidance)
Other Notes
Area of habitats occurring in RSPB Hayle Estuary Reserve (total area 151 ha) are: Intertidal mud/sand – 128ha Saltmarsh – 8ha Sand dunes – 4ha Coastal lagoons – 7ha Standing brackish open water – 2ha Other artificial habitats – 2ha <u>References</u> Burd, F. 1989 'Saltmarsh Survey of Great Britain (Cornwall)' NCC RSPB Hayle Estuary Management Plans 1997 – 2002, 2002 – 2007, 2007 – 2011.

Table 2a Species population objectives

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

Species Feature (species or assemblage)	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 non-breeding birds Variety of Species [features qualifying under SSSI criterion 3.7 only]	Sub-littoral sediment Littoral sediment Supra-littoral sediment	Variety of wintering birds species (90) Record presence/absence of all species (not just waterbirds) within the site during the relevant periods. Methods of survey will be a combination of those given in Part 2 (available on JNCC website) depending on the species within the assemblage.	Maintain assemblage diversity: If the number of wintering species falls by 25% or more then the feature is in unfavourable condition (winter is November to February).	Many data may already be available - see Section 5 and Part 2 (available on JNCC website). RSPB Annual Reports 1990 – current. CBWPS County Bird Reports 1930 - current. WeBS counts.
Vascular plant assemblage: *Adiantum capilus-veneris* *Carex montana* *Poa bulbosa* *Fumaria occidentalis* *Scrophularia scorodonia*	Supra-littoral rock Supra-littoral sediment	Presence/absence. Identification of species: *Adiantum capilus-veneris* *Carex montana* *Poa bulbosa* *Fumaria occidentalis* *Scrophularia scorodonia*	Species should be present.	If all other targets are met but the species cannot be found then the feature should be referred to the Country Agency botanical specialists. **Location, habitat and presence of** ***Adiantum capilus-veneris*** ***Carex montana*** ***Poa bulbosa*** ***Fumaria occidentalis*** ***Scrophularia scorodonia*** **recorded for VPA assessment 2009.**

Audit Trail
Rationale for species population attributes (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).
Rationale for site-specific targets (including any variations from generic guidance)
Habitat attributes for *Fumaria occidentalis* and *Scrophularia scorodonia* (suite 9) are included in Table 3e as the locations and habitats for these species (particularly *F. occidentalis* which depends on disturbed ground) may change.
Other Notes

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

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **estuary, littoral sediment and sub-littoral sediment (sand flats and mud flats)** at **Hayle Estuary and Carrack Gladden 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?**
Littoral sediment, sub-littoral sediment: Estuary: sand flats, mud flats	Distribution/spatial pattern of habitats	Assessment of the distribution of habitats identified for the site. Confirm the presence of named habitats at selected locations along the length of the estuary. The habitats will be representative of a range of estuarine environments from fully marine to freshwater. The sites will be selected to represent the limits of the range of the habitats along the salinity gradient of the estuary	Maintain the pattern of distribution of predominant habitats throughout the feature.	Hayle estuary is highly modified due to past mining and associated activities. Today the estuary is constrained by built development including flood defence structures and is subject to coastal squeeze. Sand encroachment could, in time, result in a loss of mudflats which are a critical feeding habitat for wintering birds. Where changes in distribution/spatial pattern are clearly attributable to cyclical succession or expected shifts in distribution, or they occur as a consequence of natural geomorphological changes in the estuary (e.g. winter storm/flood events, changes in supporting processes, change in the position of the low water channel) then the target value should accommodate this variability. Where there is a change in distribution/ spatial pattern outside the expected variation or a loss of the conservation interest of the site, possibly as a consequence of anthropogenic developments, then condition should be considered as unfavourable.	Yes
	Sediment character: sediment type	Distribution of sediment types should be assessed across the whole feature and compared to baseline	No change in composition of sediment type across the feature, allowing	Where changes in sediment type are known to be clearly attributable to natural processes (e.g. winter storm/flood events, changes in supporting processes) then the target value should accommodate this variability. Where extreme events cause a change in sediment	Yes

	conditions.	for natural succession/known cyclical change.	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.	
Distribution of biotopes	Assessment of the distribution of biotope(s) identified for the site.	Maintain the distribution of biotopes, allowing for natural succession/ known cyclical change.	Where changes in distribution are known to be clearly attributable to cyclical succession or expected shifts in distribution (for example due to a movement of a drainage channel) then the target value should accommodate this variability. Where there is a change in biotope distribution outside the expected variation, or a loss of the conservation interest of the site, then condition should be considered unfavourable.	Yes
Biotope composition of littoral sediment	Repeated assessment of overall biotope composition or a subset of biotopes identified for the site.	Maintain the variety of biotopes identified for the site, allowing for natural succession/ known cyclical change.	**Key biotopes to be assessed are those supporting aggregations of non-breeding birds.** 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
Water quality	Water quality parameters could be assessed directly using in water measurements or in appropriate biota, or using one or more indicators (for example, indicators of nutrient status are phytoplankton levels, chlorophyll-a concentrations or through the presence/thickness of green algal mats)	Target values should default to appropriate national or international standards where appropriate.	The specific representation of this attribute will depend on the local conservation interest of the feature and take into account any perceived threat to the system. Water quality standards are currently being established by the environmental protection agencies1 for European Directives (Water Framework Directive, Urban Waste Water Treatment Directive) and the OSPAR Convention. Monitoring data are or will be available from these agencies to support feature assessment under common standards monitoring. In all cases, local measurements should be compared with regional or national assessments to establish whether any local changes are part of a wider trend. Eutrophication due to effluent discharge or agricultural run-off will result in the condition of the attribute being designated as unfavourable. EA does not undertake any water quality monitoring at Hayle estuary, nor is any proposed. Ecological monitoring for opportunistic macroalgae undertaken in 2009. Provisional results suggest poor status.	Yes

Audit Trail
Rationale for limiting standards to specified parts of the site
Rationale for site-specific targets (including any variations from generic guidance)
Targets selected are those required to assess the condition of habitats that support wintering birds.
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
Natural re-alignment of habitats in response to natural processes (including sea level rise) is constrained by build development including the town of Hayle, harbour, roads, railways and flood defence structures. Flood defences on the river Hayle currently prevent natural re-alignment along the river corridor and flood plain.

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

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **littoral sediment (saltmarsh)** at **Hayle Estuary and Carrack Gladden 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)	
The key locations for saltmarsh are at the western end of Lelant Water (adjacent to and north of Grigg's Quay), Ryan's Field, the eastern end of Copperhouse Pool and Wilson's Pool.	

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments**	**Use for CA?**
Littoral sediment Saltmarsh: Pioneer saltmarsh: Equivalent NVC communities: SM4, SM5, SM6, SM7, SM8, SM9, SM11, SM12. Low-mid marsh communities: Equivalent NVC communities: SM10, SM13a, SM14. Mid-upper marsh communities: Equivalent NVC communities: SM13b,c,d, SM15, SM16, SM17, SM18, SM19, SM20, SM21, SM22, SM23, SM26, SM27 Transitions: including mesotrophic grassland communities (e.g. MG 11, MG12, MG13) brackish mire (M28) and swamp communities (e.g. S4, S5, S18, S19, S20, S21, S26)	Physical structure: creeks and pans	Aerial photographs can be used, combined with information gathered from the site visit.	Realignment of creeks absent or rare. No further anthropogenic alteration of creek patterns or loss of pans compared to an established baseline.	Hayle estuary is highly modified due to past mining and associated activities. Today the estuary is constrained by built development including flood defence structures and is subject to coastal squeeze. Large areas of upper marsh are almost all truncated by an un-natural landward transition due to built structures. Creeks and pans vary in size and density. Creeks absorb tidal energy and assist with the delivery of sediment into saltmarshes. Major erosion of saltmarsh is indicated by internal dissection and enlargement of the drainage network, ultimately leading to the creation of mud basins.	Yes
	Vegetation structure: zonation of vegetation	The width of zones can be estimated using one or more transects extending from strand to lowest continuous marsh. The GPS information can be collected and marked on a map.	Maintain the range of variation of zonations typical of the site. See lists of indicators (Box 1) and notes on transitional vegetation below.	The pattern of saltmarsh zonation will vary regionally and also from site to site (see Section 6.1). Saltmarsh has up to five main zones: pioneer, low-mid marsh, mid-upper marsh, saltmarsh strand plus transitions (see transitions below) Example: Strangford Lough: Maintain short sward (4 – 12 cm) in areas of species-rich vegetation.	Yes

Vegetation structure: sward height	This can be assessed by taking average sward height from the quadrats forming part of the structured walk	Maintain site-specific structural variation in the sward. (see section 6.2)	Stocking levels need to be appropriate to the interest of the site (see Section 6.2). Over-grazing can lead to loss of rare plant species and affect bird breeding and feeding habitats and under-grazing can lead to a loss of plant diversity by competitive exclusion. A varied vegetation structure is important for maintaining invertebrate diversity. Example: Strangford Lough: Maintain short sward (4 – 12 cm) in areas of species-rich vegetation.	Yes
Vegetation composition: characteristic species	Visual assessment of cover, using structured walk	Maintain frequency of characteristic species of saltmarsh zones (see Box 1 below) 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 present appropriate targets should be set, with reference to relevant guidance section e.g. Lowland grassland, lowland wetland (see 7.1)	Communities may be dynamic in their distribution and are linked to the physical processes operating at the site, including topography, creek patterns etc. The species composition and type of saltmarsh will vary regionally and also from site to site (see also text on zonation). A variety of communities may occur at the transition zone at the top of the salt marsh. These include mesotrophic grassland communities (e.g. MG11 - MG13) together with swamp communities (e.g. S4, S12, S20, S21 & S28). In addition stands of tall fen community with *Filipendula ulmaria* and *Iris pseudacorus* (M28) can locally be prominent.	Yes
Vegetation composition: negative	Aerial photographs, together with visual assessment of cover,	No recent evidence of expansion into pioneer saltmarsh (indicative target of	*Spartina anglica* is a species that is considered undesirable in intertidal habitats where it is expanding at the expense of mudflats (seeSection 7.2). However	Yes

	indicator species *Spartina anglica*	using structured walk	less than 10 % expansion in last 10 years)	it can be a precursor to the development of saltmarsh where sediments are accreting. Natural die-back has occurred in some areas.	
	Other negative indicators	Visual assessment during site visit	No obvious signs of pollution. Turf cutting absent or rare. No increase in bare substrate as a result of anthropogenic activities such as vehicle use or trampling at vulnerable locations (tracks, access points). Poaching damage from stock or horses rare, with bare mud extent <25%. Artificial drainage channels adversely affecting hydrology are absent or rare.	Sediments contain heavy metals and arsenic from historical mining and smelting. Wilson's Pool and north eastern end of Copperhouse Pool used by public for dog walking. May be associated nutrient enrichment from dog dung and urine. No grazing of saltmarsh in this SSSI. Operation of tidal floodgate by EA at Copperhouse Pool to manage flood risk in Hayle restricts the height and extent of tidal inundation in Copperhouse and Wilson's Pools. Since the inception of the Angarrack flood alleviation scheme in the early 1990's, Wilson's Pool has not been subject to regular tidal inundation. Anecdotal evidence indicates that before the inception of this scheme Wilson's Pool was subject to regular tidal inundation. Comparison of recent vegetation survey data with the Burd survey data is required to determine whether the operation of the flood alleviation scheme is adversely affecting saltmarsh in Copperhouse and Wilson's Pools.	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

Box 1. Typical species for saltmarsh zones

Pioneer zone	Low-mid marsh	Mid-upper marsh
Salicornia spp. Suaeda maritima Puccinellia maritima Aster tripolium	Puccinellia maritima Triglochin maritima Plantago maritima Atriplex portulacoides Aster tripolium Spergularia maritima Suaeda maritima Salicornia spp. turf fucoids	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

Table 3c Site-Specific definitions of Favourable Condition

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **Supra-littoral sediment (sand dunes) habitat**, including the **Vascular Plant Assemblage: *Poa bulbosa*** at **Hayle Estuary and Carrack Gladden 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)	
See VPA assessment 2009 for location of *Poa bulbosa*.	

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments**	**Use for CA?**
Supra-littoral sediment (sand dunes): Mobile dunes and fixed dune grassland: SD6, SD7, SD8 Including: **Vascular plant assemblage**: ***Poa bulbosa***	Physical structure: functionality and sediment supply: SD6	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.	Yes
	Vegetation structure: range of zones: SD6, SD7, SD8	Visual assessment, (e.g. using transects) extending from strandline (beach) to landward features (including fixed dune) may be used to estimate the width of zones at points described by GPS and marked on a map. Aerial photographs should be used as an aid, where available.	Zonation from beach to fixed dune should be intact over at least 95 % of coastal frontage. This target applies where the dunes are contiguous with the beach	Points may change because of natural dynamism, but the overall diversity should not diminish. The target will be site- and feature-specific, dependent on the dune features present. If strandline is absent this may be acceptable if due to natural causes (see comment under Extent). The dune front may be vulnerable to heavy trampling/grazing by stock. Mosaics on hindshore systems may make the width of the fixed dune grassland difficult to assess.	Yes
	Vegetation structure: bare	Visual assessment of cover during structured walk or	Bare ground or sand present, but no more than	Patches of bare sand are essential for a wide range of dune invertebrates. Areas of bare sand	Yes

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments**	**Use for CA?**
	ground: SD7, SD8 and ***Poa bulbosa***	transects. Aerial photographs should be used as an aid, where available.	10 % total area.	created by human induced disturbance should not increase. ***Poa bulbosa***: bare ground is essential for seed germination and seedling establishment. Requires open-textured swards with > 5% (often > 20%) bare ground in spring/early summer (in late summer-autumn-early winter may be much higher than this due to 'disappearance' of early annuals); baseline survey will help to establish appropriate levels of bare ground for particular species and sites.	
	Niche availability for ***Poa bulbosa***	Mapping (area)	Sufficient area of suitable habitat to maintain population	Baseline survey required to establish extent of suitable habitat. Many colonies of these species are in long-established habitats (e.g. 'slack' grasslands on sand-dune golf course fairways), but others are more 'opportunistic', colonising intermittently suitable habitat patches whenever they become available (e.g. pathways cleared of scrub).	Yes
	Vegetation structure: sward height: SD7, SD8, ***Poa bulbosa***.	Assessment during structured walk or transects. Measure with ruler	30-70% of sward to comprise species-rich short turf, 2-10 cm tall. > 50% of sward < 2 cm sward height	Target for ratio of short turf to taller marram-dominated vegetation should be set on a site-specific basis. These species favour very short (heavily grazed/trampled/mown) swards; sometimes these can be extensive (e.g. golf course fairways), but usually they occur as localized patches within a matrix of unsuitable habitat (e.g. on pathsides, trackways, picnic areas and car-parks).	Yes
	Vegetation structure: flowering/fruiting:	Visual assessment (modified DAFOR scale) during structured walk or	SD6: Healthy *Ammophila arenaria* or *Leymus arenarius* with abundant	If flowering is not frequent, dunes are no longer mobile and condition is unfavourable (see text for details).	Yes

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments**	**Use for CA?**
	SD6, SD7, SD8	transects.	fruiting heads at least frequent. SD7, SD8: 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).	
	Vegetation composition: typical species: SD6, SD7, SD8	Visual assessment of cover (modified DAFOR scale), using structured walk or transects.	SD6: Maintain frequency of characteristic species of mobile dunes (*Ammophila arenaria, Leymus arenarius*): at least one species frequent. SD7, SD8: For calcareous dune grasslands at least eight typical species (see list at end of table) present at more than occasional level.	Communities may be dynamic in their distribution and are linked to the physical processes operating at the site. Embryo and mobile dunes a typically species-poor and monospecific stands are common. Additional species may be included in the target on a site-specific basis. Other species may be included on a site specific basis (see also Indicators of local distinctiveness).	Yes
	Vegetation composition: scrub/trees: SD7, SD8	Visual assessment of cover (modified DAFOR scale), using structured walk or transects. % cover measured is cover of the entire feature.	Scrub/trees no more than occasional, or less than 5% cover (except Juniperus spp in Scotland).	Where *Hippophae rhamnoides* is native (in some sites in eastern England) this species is not counted as a negative indicator. It has been widely introduced elsewhere and has proved very invasive.	Yes
	Vegetation composition: negative indicator species:	Visual assessment of cover (modified DAFOR scale), using structured walk or transects. % cover	1. Non-native species, including sea buckthorn *Hippophae rhamnoides* where introduced, no more	Where *Hippophae rhamnoides* is native (in some sites in eastern England) this species is not counted as a negative indicator. It has been widely introduced elsewhere and has proved very	Yes

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments**	**Use for CA?**
	SD6, SD7, SD8	measured is cover of the entire feature.	than rare. 2. Other non-native species no more than rare. 3. 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%.	invasive. Includes naturalised species such as montbretia *Crocosmia* spp, winter heliotrope *Petasites fragrans*, red valerian *Centhranthus ruber*. *Urtica dioica* and *Cirsium spp.* are indicative of poor condition Negative indicator species*: Senecio jacobaea, Rosa spp., Cirsium arvense, Cirsium vulgare, Urtica dioica, Lolium perenne, Arrhenatherum elatius (not SD9), Pteridium aquilinum, Rubus fruticosus.* Abundance of *Senecio jacobaea* indicates overgrazing in summer. *Lolium perenne is indicative of agricultural improvement.*	
	Other negative indicators: SD6, SD7, SD8	Visual assessment during site visit	Vehicle damage or visitor damage (eg. trampling) at vulnerable locations (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. Access to the dunes and beach from SW Coast Path and PROW across West Cornwall Golf Club at Lelant as well as via foreshore at low water. The beach and dunes at Porth Kidney Sands are particularly popular for recreational walking, including dog walking. Dog fouling is a significant issue, particularly adjacent to PROW. Lifeguard station located within dunes. Activities such as use of motorcycles, quad bikes, mountain biking and dune boarding can be damaging.	Yes

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments**	**Use for CA?**
	Negative indicators: shading: ***Poa bulbosa***	Visual assessment	No shading; no encroachment of scrub or tall grassland	***Poa bulbosa*** requires open, unshaded situations, though some of the dune annuals can occur along scrub margins (and can quickly colonise areas cleared of scrub). Intervention may be necessary if scrub or rank grassland threatens to encroach onto open ground.	Yes

Calcareous dune grasslands (SD7, 8, 9, 19) typical species			
Aira praecox	*Erodium cicutarium*	*Luzula campestris*	*Rhytidiadelphus triquetrus*
Arrhenatherum elatius **(SD 9 only)**	*Euphrasia officinalis*	*Odontites verna*	*Thymus praecox*
Astragalus danicus	*Festuca rubra*	*Ononis repens*	*Tortula muralis*
Carex arenaria	*Galium verum*	*Peltigera* spp.	*Trifolium repens*
Carex flacca	*Geranium molle*	*Pilosella officinarum*	*Sedum acre*
Cerastium fontanum	*Hypnum cupressiforme*	*Plantago lanceolata*	*Veronica chamaedrys*
Crepis capillaris	*Hypochaeris radicata*	*Prunella vulgaris*	*Viola canina*
Cladonia spp.	*Linum catharticum*	*Rhinanthus minor*	*Viola riviniana*
	Lotus corniculatus	*Rhytidiadelphus squarrosus*	*Viola tricolour*

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).

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

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **supra-littoral rock (maritime cliff and slope, maritime heath)**, including the **Vascular plant assemblage (*Adiantum capilus-veneris*, *Carex montana***) at **Hayle Estuary and Carrack Gladden 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)	
Includes vascular plant assemblage: *Adiantum capilus-veneris*, occurs on shaded bare rock with water seepages on cliffs at Porth Kidney Sands. *Carex montana*, records at Carrack Gladden (presence at this location and supporting habitat confirmed by VPA assessment 2009).	

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments**	**Use for CA?**
Supra-littoral rock Maritime cliff and slope (maritime heath): MC1 – MC12, CG1f, H7, H8, W21-23 Lowland dry heathland *H1, H2, H3, H4, H6, H7, H8, H9, H10, H11, H12 Including:	Vegetation structure: vegetation zones and transition	A baseline transect-based study should be carried out to assess the zonation patterns typical of the site. Subsequent assessments should be comparisons with this baseline, using similar methods. The position of transects should ideally be recorded using GPS.	The range of zones and transitions typical of the site, including transitions to other habitats, should be maintained. There should be no obvious recent disruption of the site's characteristic zonation pattern, as defined through previous base-line studies.	Maritime cliffs may support up to five vegetation zones including - maritime rock crevice/cliff ledge community, maritime therophyte community, maritime grassland, maritime heath, maritime scrub. However, very sheltered sites may lack any clear zonation pattern. **Areas/zones supporting maritime heath, lowland heath and vascular plants *Adiantum capilis-veneris* and**	Yes

Vascular plant assemblage: *Adiantum capilus-veneris* *Carex montana*				***Carex montana* identified and mapped during the condition assessment 2009.**	
	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 consist of firm, sunlit, horizontal, sloping or vertical, exposed bare ground, with no more than 1% heavily disturbed (see text above)	Bare ground should form a patchwork with vegetation and be present mainly in south-facing slopes. Exclude rock, stone or litter. Tracks or paths can also be a source or bare ground for nesting invertebrates.A higher percentage of bare ground is acceptable if the site is important for certain bird species, e.g. curlews, woodlarks, nightjars.	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% (see section 10.4)	Dwarf-shrubs include: *Arctostaphylos uva-ursi, Calluna vulgaris, Empetrum nigrum, Erica ciliaris, E. cinerea, E. tetralix, E. vagans, Genista anglica, G. pilosa, Ulex gallii, U. minor, Vaccinium myrtillus, V. vitis-idaea* (and hybrids).Assess over whole feature. Annual variation and succession should be accounted for within the targets.	Yes
	Vegetation structure: % cover of *Ulex* spp.	Visual assessment of cover, using structured walk or transects and aerial photographs, maps.	Total *Ulex* and/or *Genista* spp. cover <50%, with *Ulex europaeus* <25%.	Assess over whole feature. Gorse species support a rich invertebrate and vertebrate fauna. However, the can affect the soil characteristics. See also 'negative indicators'.	Yes
	Vegetation composition: dwarf shrubs	Visual assessment of cover, using structured walk or transects	At least two species of dwarf shrubs present and at least frequent.	In naturally species-poor sites the presence of just one dwarf-shrub species may be enough to meet the target. For species-rich sites a higher target may be appropriate (see text).	Yes
	Vegetation composition: graminoids	Record presence, using structured walk or transects	At least 1 species at least frequent and 2 species at least occasional throughout the sward; but *Deschampsia flexuosa* and *Nardus stricta* no more than occasional and	In naturally species-poor sites, the presence of just one graminoid species may be enough to meet the target. For species-rich sites a higher target may be appropriate (see text).	Yes

			<25% cover Graminoids include: *Agrostis* spp., *Ammophila arenaria, Carex spp., Danthonia decumbens, Deschampsia flexuosa, Festuca spp., Molinia caerulea, Nardus stricta, Trichophorum cespitosum*.		
	Vegetation composition: desirable forbs	Record presence, using structured walk or transects	At least 2 species at least occasional throughout the sward Desirable forbs include: *Armeria maritima, Galium saxatile, Genista anglica, Hypochaeris radicata, Lotus corniculatus, Plantago lanceolata, Plantago maritima, Polygala serpyllifolia, Potentilla erecta, Rumex acetosella, Scilla verna, Serratula tinctoria, Thymus praecox, Viola riviniana, and for limestone heath only: Filipendula vulgaris, Galium verum, Helianthemum nummularium, Sanguisorba minor*.	In naturally species-poor sites, the presence of just one forb species may be enough to meet the target. For species-rich sites a higher target may be appropriate (see text).	Yes
	Vegetation composition: frequency of bracken and scrub*	Assess the frequency of bracken and scrub using the DAFOR scale.	Where maritime grassland or maritime heathland are deemed to be important features, bracken and scrub should be no more than occasional throughout the site.	At certain sheltered sites bracken can form an important community, often supporting understory species such as bluebells. Maritime scrub, such as gorse or blackthorn, may form an important part of the maritime zonation. This habitat may be important for invertebrates.	Yes
	Vegetation composition: negative indicator species	Assess the frequency of undesirable species using e.g. structured walk, transects.	1) The following species should be no more than rare: *Cirsium arvense, Cirsium vulgare, Lolium perenne, Rumex obtusifolius, Rumex crispus, Senecio jacobaea, Trifolium repens, Urtica dioica*. 2) In exposed situations broad-leaved grasses such as *Agrostis stolonifera, Dactylis glomerata* and *Holcus lanatus* should be sub-	'Weed' species characteristic of fertile soils may be a problem. At some sites it may be necessary to include non-native invasive species such as *Carpobrotus edulis* or *Disphyma crassifolium*.	Yes

			dominant to *Festuca rubra*. 3) Invasive non-native plant species should be absent or rare if already present.		
	Negative indicators: Species	Visual assessment of cover, using structured walk or transects	<1% exotic species Negative indicators – exotics include: *Rhododendron ponticum, Gaultheria shallon, Fallopia japonica*. Acrocarpous mosses <occasional. <10% bracken (dense canopy). < 1 % ragwort, nettle, thistles and other herbaceous spp Negative indicators – other herbaceous spp include: *Cirsium arvense, Digitalis purpurea, Epilobium spp. (excluding. E. palustre), Chamerion angustifolium, Juncus effusus, J. squarrosus, Ranunculus spp., Senecio spp., Rumex obtusifolius, Urtica dioica*, 'coarse grasses'. < 15% trees & scrub Tree and scrub spp include: *Betula* spp., *Prunus spinosa, Pinus* spp., *Rubus* spp., *Sarothamnus scoparius, Quercus* spp., *Hippophae rhamnoides*. <1% of habitat heavily eroded.	Exotic species should be eradicated if possible. 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. Up to 25% scrub cover can be accepted if indicated in conservation objectives or management plan. Record presence of signs of overgrazing or intensive fires in the activities list on the field form.	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 3e Site-Specific definitions of Favourable Condition *[insert separate Table 3 for each BAP broad habitat]*

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **Vascular plant assemblage habitats for *Fumaria occidentalis* and *Scrophularia scorodonia* (suite 9)** at **Hayle Estuary and Carrack Gladden 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)	
Location, habitat and presence of *Fumaria occidentalis* and *Scrophularia scorodonia* identified during VPA assessment 2009.	

Site-specific standards defining favourable condition					
Criteria feature	**Attribute term in guidance**	**Measure**	**Site-specific Targets**	**Comments**	**Use for CA?**
Vascular plant assemblage: Vascular plant species of ruderal areas (Suite 9): **Fumaria occidentalis Scrophularia scorodonia**	Niche availability	Mapping (area or length)	Sufficient area of suitable habitat to maintain population	Baseline survey required to establish extent of suitable habitat. Sites will vary between having fairly stable areas of waste ground or other stable habitat, and those in which the areas of bare weedy ground are transient following periodic disturbance. Management should aim to maintain the same overall area of transient disturbed areas, although these areas may move around the site.	Yes
	Disturbance	Visual assessment	Evidence of regular disturbance	Disturbance is necessary to maintain the open conditions required by these species. Disturbance need not be annual, but should be at regular intervals. On wall sites this attribute may not be appropriate, as the limited area available for colonisation will tend to maintain open conditions.	Yes
	Vegetation structure	Visual assessment	Open vegetation with >20% bare ground	All of these species require open vegetation with bare ground, at least for seed germination. On some sites, a higher target for bare ground will be appropriate.	Yes

	Negative indicators: shading	Visual assessment	Absence of scrub and tall grass/herb cover	These species prefer open habitats without shading. Encroachment by scrub and tall vegetation needs to be prevented by management intervention. Lavatera cretica can survive in more shaded situations (e.g. hedges).	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

Annex 1 Maps

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