

Wash & North Norfolk Coast European marine site Conservation Objectives: Updating the Favourable Condition Tables - a Guidance Document

Introduction

Natural England are in the process of updating the favourable condition tables which accompany the conservation objectives for the Wash & North Norfolk Coast European Marine Site. We are undertaking this with the EMS Management Group, Advisory Groups, scientific working groups and other stakeholders and interested parties. Once the favourable condition tables are finalised we will subsequently be seeking comments on the condition assessment of the site.

The purpose of this guide is to briefly set out the following, while providing an explanation of the technical language used:

- How conservation objectives are defined in terms of attributes and how targets are set for these attributes.
- How the conservation objectives are presented.
- How the condition assessment is made.

Set out in an Annex to this document is some background on:

- the legal and policy drivers for conservation objectives and making condition assessments in European marine sites.
- the importance of conservation objectives and their use in evaluating the performance of EMS Management Schemes, and in informing 'appropriate assessments' of plans or projects under the Habitats Regulations.

Conservation Objectives

Conservation objectives have been developed for each interest feature for each designation – for the SAC, SPA, Ramsar and SSSI. The interest features of the European marine site are shown in Table 1.

They set out the targets that need to be achieved to maintain the interest feature in *favourable condition*. Favourable condition is the condition in which an interest feature is capable of sustaining itself in the long term.

Table 1 Interest features of The Wash & North Norfolk Coast European Marine Site

The Wash & North Norfolk Coast Special Area of Conservation (SAC)	Gibraltar Point Special Protection Area (SPA)
<ul style="list-style-type: none"> • Large shallow inlet and bay • Reef (of ross worm <i>Sabellaria spinulosa</i>) • Subtidal sandbanks • Intertidal mudflats and sandflats • Samphire and other annuals colonising mud and sand • Atlantic saltmeadows • Mediterranean saltmarsh scrub • Lagoons • Common Seal 	<ul style="list-style-type: none"> • Annex 1 species • Regularly occurring migratory species
	The Wash SPA
	<ul style="list-style-type: none"> • Annex 1 species • Regularly occurring migratory species • Assemblage of over 20,000 waterfowl
	North Norfolk Coast SPA
	<ul style="list-style-type: none"> • Annex 1 species • Regularly occurring migratory species

- Otter
- Assemblage of over 20,000 waterfowl

An example of a conservation objective – for the intertidal flats interest feature – is shown in Table 2.

It lists an attribute, extent of seagrass (*Zostera*) bed, a measure of that attribute; area in hectares, and a target for the attribute; no decrease in extent from an established baseline subject to natural change.

Table 2 Example of part of the Intertidal flats conservation objective

Feature	Attribute	Measure	Target
Intertidal mudflats & sandflats	Extent of Sea grass (<i>Zostera</i>) biotope	Assessment of the extent of biotope in hectares.	No change in extent of the seagrass (<i>Zostera</i>) biotope as shown in West (2002). allowing for natural succession/known cyclical change.
		Baseline information: McCallum (1997), West (2002).	East Hills / Lodge Marsh particularly important site: 25ha Smaller areas on Scolt Head (survey sites a, 1ha; b, 0.03ha; e, 0.75ha & f, 0.05ha) and Stiffkey (0.48ha)

Sub-features

Marine features are very broadly defined habitats, often represented by very large sites. To describe, monitor & manage these features it is often necessary to break down these features into smaller units called *sub-features*. Sub-features may be distinctive biological communities, or structural or geographical elements of a feature. This enables effective description, monitoring & management of features over large spatial scales. For example the Large Shallow Inlet and Bay includes sub-features for its subtidal boulder and cobble communities and for its subtidal mixed sediment communities.

Attributes

Each interest feature has at least one *attribute*. Attributes are characteristics of the interest feature or sub-feature which enable measurement of its condition. This is done by setting targets for the attribute which take account of natural change.

Attributes must be:

- capable of clearly identifying a change in condition
- quantifiable and measurable
- capable of being monitored practically & economically

Priority should be given to attributes which:

- Also indicate likely anthropogenic pressure
- Are already measured at the site
- Contribute to other nature conservation initiatives eg Biodiversity Action Plans

Attributes may include extent of a feature, species composition of a *biotope* and physical characteristics (eg sediment character). Attributes also include population

measures for SPA species and common seal. Further information on SPA species attributes is set out below

The Common Standards Monitoring guidance identifies mandatory attributes which *must* be measured for each feature and discretionary attributes which are used to highlight local distinctiveness. It also gives advice on how to set attribute *targets*, recommended monitoring techniques and factors to consider when making condition judgements. The full list of attributes for The Wash and North Norfolk Coast European marine site features are shown in the summary table.

Targets

Condition is defined by setting a broad target for each attribute of the interest feature. Targets describe the desired state of an interest feature. Accounting for natural change in the target is a critical issue when setting marine conservation objectives because the attributes can often be very dynamic. For example setting a target for the extent attribute of the intertidal flats interest feature should consider seasonal variation in extent that may occur due to movement of channels following flooding or movement of banks of sediment following storms. These natural processes can be accounted for in the target by specifying a range for extent that incorporates within it expected changes due to storms or flooding. This information could be based on historical data or forecasts.

It has not been possible to set targets for some attributes due to a lack of baseline information. For example, we do not currently have information on the full extent of the intertidal mudflat and sandflat interest feature. Although there is a significant amount of aerial photography of the site, this does not capture the full extent of the feature because they have not been flown at low tide and only cover the upper area of the shore. We are seeking to arrange an aerial survey or remote sensing imaging which captures the intertidal at its fullest extent ie at low water spring tides.

Biotopes

There are several 'biotope' attributes in the SAC conservation objective. A biotope is defined as the combination of an abiotic (physical) habitat and its associated community of species. It can be defined at a variety of scales (ie biotope complex, biotope or sub-biotope) and importantly is an association which occurs regularly ie it is not ephemeral.

The term 'biotope' comes from the Marine Habitat Classification 2004 (which is an update of the 1997 Marine Nature Conservation Review MNCR classification). It is the marine equivalent of the National Vegetation Classification NVC used to describe terrestrial and coastal vegetation communities.

The MHC is a tool to aid the management and conservation of marine habitats. It is an ecologically-based classification of seashore and seabed features – primarily focussed on classifying benthic communities of invertebrates and seaweeds. The classification is intended to describe marine habitats in a way which is scientifically meaningful but also meaningful to the much broader requirements for management of the marine environment. Although focussed on invertebrates and algae it is relevant to the habitat requirements of more mobile species, such as fish and marine mammals. It is closely aligned with the European classification system EUNIS but doesn't include the water column – plankton – habitats, included in EUNIS.

The Regulation 33 advice package and several of the baseline studies use the old MNCR classification and so need to be interpreted in light of the MHC. The MHC is available on the JNCC website at www.jncc.gov.uk/page-1584

An example of a biotope is shown here:

- Broad habitat: Littoral sediment (LS)
 - Habitat complex: Littoral sand (LS.LSA)
 - Biotope complex: polychaete & amphipod dominated fine sand shores (LS.LSA.FiSa)
 - Biotope: polychaetes in littoral fine sand (LS.LSA.FiSa.Po)
 - Sub-biotope: Nephtys cirrosa dominated littoral fine sand (LS.LSA.FiSa.Po.Ncir)

The biotope represents a description of the broad habitat - the zone in which it occurs ie littoral (splash zone, strandline & intertidal); infralittoral (shallow subtidal), or circalittoral (nearshore deeper and offshore subtidal) and the substratum type eg rock or sediment. For example, the intertidal mudflats and sandflats interest feature would fall within the Littoral sediment 'LS' broad habitat code.

It then describes the biological community which can be defined at a variety of scales:

- Biotope complex eg polychaete (bristleworms) & amphipod (a small crustacean) dominated fine sand shores - LS.LSA.FiSa
 - Biotope – polychaetes in littoral fine sand LS.LSA.FiSa.Po
 - Sub-biotope - Nephtys cirrosa (a catworm) dominated littoral fine sand LS.LSA.FiSa.Po.Ncir

SPA attribute target setting

The SPA conservation objective is aimed at maintaining bird populations or the diversity of species within a defined assemblage through the protection of habitats supporting them and management against negative impacts of disturbance.

There are two key **mandatory** attributes of bird features:

- **Population size** of individual species or groups of species
- **Extent of habitats** used by the birds in the site for nesting, roosting, feeding etc

And the following **Discretionary** attributes:

- Habitat quality (eg food availability, maintain cover of Zostera / Enteromorpha for brent geese)
- Disturbance (eg presence of predator populations for tern)

There are two approaches to setting targets for the **Population size** attribute:

- **Known natural fluctuation.** This is based on a minimum of 5 counts within a period of 7years. The minimum population size recorded over that period is then used as the target. Unfavourable condition is recorded if population at time of assessment is below target. This is the preferred approach.
- **Generic threshold approach.** This is based on comparing population sizes at different times and deriving the change (expressed as a proportion of the initial

population). Unfavourable condition is recorded if the change represents a loss of 25% of a breeding population or 50% of a non-breeding population.

- It is also proposed to use **WeBS Alerts**. This is a modelling approach to determine population change. Guidance on use in Common Standards Monitoring is being produced.

The target for habitat extent is set at 5% change in extent. If change falls below 5% an unfavourable condition assessment is recorded.

Frequency of surveys

- The minimum data requirement of Common Standards Monitoring is to have a single assessment of each feature in each 6 year reporting cycle but for some attributes, eg common seal / SPA bird population counts, more regular surveys are required. .

How Conservation Objectives are presented in this consultation

Conservation objectives are drawn up for the individual SSSIs that underpin the European site. For The Wash and North Norfolk Coast these are Gibraltar Point, The Wash and the North Norfolk Coast. Consequently the European marine site interest features are presented within the component SSSI conservation objectives that they are located within geographically. For example, the Large Shallow Inlet and Bay feature is only included within The Wash SSSI objective while the Intertidal Mudflat and Sandflat interest feature occurs within all three SSSIs conservation objectives.

The conservation objective for each SSSI identifies the interest features present within the SSSI and whether they are of national (SSSI), European (SAC, SPA), or International interest (ie Ramsar features). This is presented in Table 1 of the conservation objective ('Individual designated interest features').

Many of the SSSI and European habitat features are co-incident (eg, The Wash SSSI includes only one additional habitat feature which is not of European interest: coastal vegetated shingle), however there are instances where there are significant additional SSSI interest which is not also European marine interest (eg North Norfolk SSSI: breeding bird assemblage; vegetated shingle; sand dune; fen, marsh & swamp; lowland neutral grassland). Since we are primarily concerned with the European marine site interest features we have not included all the SSSI interest features in the conservation objectives we have sent out for comment.

The attributes of each interest feature identified in Table 1 are then set out in Table 2 and 3 of the conservation objective. Table 2a comprises the 'habitat extent' attributes and Table 2b the 'species population' attributes (for bird species and seal). Table 3 comprises the other habitat quality attributes. The attributes listed are subject to periodic reassessment and may be updated to reflect new information or knowledge.

Condition assessment

Once attributes have been identified and targets set, the condition of a feature can be determined:

- A feature is in *favourable condition* when the targets for its attributes are being met and so the conservation objective for the feature is being met
- It is in *unfavourable condition* when the objective is not being met. This is a trigger for management action to investigate what may be causing

unfavourable condition – this may be an anthropogenic activity or perhaps an extreme natural event. Management action would then be required to address the cause of unfavourable condition and restore the feature to favourable condition.

In some cases there may be uncertainty over the cause of change in condition. It is important to determine that the change is a local phenomenon resulting from an activity at the site, and not natural variability or a nation-wide trend due to some other factor. In these cases it may be important to interpret the change in condition by also considering contextual information on supporting processes such as weather, sea temperatures etc.

Consultation on draft Conservation objectives and condition assessment

Natural England has a duty to advise other relevant authorities on the conservation objectives and to make condition assessments of the site. We have sought to follow a participative approach to this process in this site due to the large size of the site, the wide range of Relevant Authorities, Advisory Groups and other stakeholders and interested parties present and particularly because such an approach is consistent with that followed during the successful development of the Management Scheme.

Annex: Background to Conservation Objectives

The Legal & Policy Framework for Condition Monitoring

There are several legal drivers for undertaking monitoring of the condition of protected sites:

EC Habitats & Birds Directives

- Article 11: requires member states to undertake monitoring of the status of species and habitats in European sites (Special Areas of Conservation, SACs and Special Protection Areas, SPAs)
- Article 17(1): requires member states to report at 6 yearly intervals on the status of species and habitats in European sites. The first UK report to Europe was prepared by the Joint Nature Conservation Committee (JNCC) last year (2006).

The Habitats Regulations

The Conservation (Natural Habitats &c.) 1994 'The Habitats Regulations' transpose the EC Habitats & Birds Directives into UK law.

Regulation 33(2) gives Natural England a duty to advise other 'relevant authorities'¹ as to a) the conservation objectives for the site and b) any operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species, for which the site has been designated.

Natural England published Regulation 33 advice for the site in June 2000. It included conservation objectives for each interest feature of the site but these had generic – rather than site-specific – targets. We have now developed site-specific targets for these objectives using the recently published Common Standards Monitoring Guidance:

Common Standards Monitoring

In 1998, "A Statement on Common Standards for Monitoring Designated Sites" was agreed and signed off by the country agencies (Natural England, Countryside Council for Wales, Scottish Natural Heritage, and Environment & Heritage Service NI) and published by the JNCC. This was introduced to develop a consistent approach to monitoring designated sites (both European and SSSI). It introduced the idea of favourable condition to describe a desired state of wildlife features as a basis for condition assessment, to inform management decisions and provide a basis for reporting. This has been followed by guidance published in 2004 on how to develop conservation objectives and make condition assessments for individual features.

Use of Conservation Objectives

Informing The Wash & North Norfolk Coast European Marine Site Management Scheme

Condition monitoring, based on conservation objectives, is a vital part of the Management Scheme. It involves monitoring the condition of the interest features of the site to determine whether the conservation objectives for each interest feature

¹ The specific public body which has powers or functions which have, or could have, an impact on the marine environment, in or adjacent to a European marine site.

are met. This provides feedback on the effectiveness of management measures against the conservation objectives. If an objective is not met this triggers further management action – this action(s) is then incorporated into the Action Plan of the Management Scheme. The revised conservation objectives will inform the review of The Wash and North Norfolk Coast European marine site Management Scheme, including its Action Plan.

Condition monitoring is separate to Compliance Monitoring which is the process whereby relevant authorities assess and report on the implementation of their Management Scheme actions.

A flow chart illustrating the role of monitoring within the Management Scheme is shown in Fig 3.1 of the EMS Management Scheme document.

Plans or Projects

Conservation objectives inform the scope and nature of any ‘appropriate assessments’ of plans or projects required under the Habitats Regulations. However, it should be noted that the scope and content of an appropriate assessment will depend upon the location, size and significance of the proposed project which 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's Planning Policy Statement 9 on Biodiversity and Geological Conservation² 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.

Who undertakes condition monitoring?

The statutory nature conservation agencies, ie Natural England in England, are responsible for undertaking condition monitoring. Wherever possible existing monitoring schemes should be used, such as the Wetland Bird Survey (WeBS).

However, government has issued guidance that other relevant authorities with conservation responsibilities or expertise such as the Environment Agency and Sea Fisheries Committee's are expected to contribute to condition monitoring eg by providing monitoring data³.

² Circular 06/2005 (DEFRA Circular 01/2005)

³ DETR Guidance, June 1998. European marine sites in England and Wales. A Guide to the Habitats Regulations and to the preparation and application of Management Schemes.