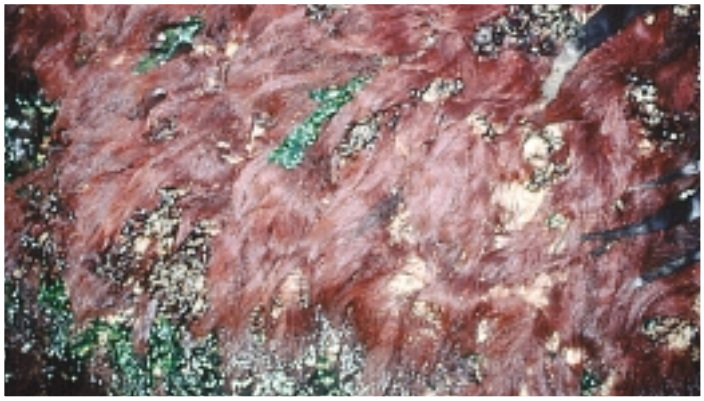
3.0 Conservation Objectives



3.0 Conservation Objectives

3.1 Background and role of the Conservation Objectives

Under Regulation 33(2)(a) of The Conservation (Natural Habitats, &c.) Regulations 1994, English Nature has a statutory duty to advise other relevant authorities as to the conservation objectives for the European marine site. They have done this by issuing a stand alone document containing conservation objectives and supporting information together with advice on operations that may cause deterioration or disturbance. Sections 3.2 - 3.4 are an extract from this advise. The Regulation 33 advice document is not replaced by this management scheme but should be used in conjunction with it.

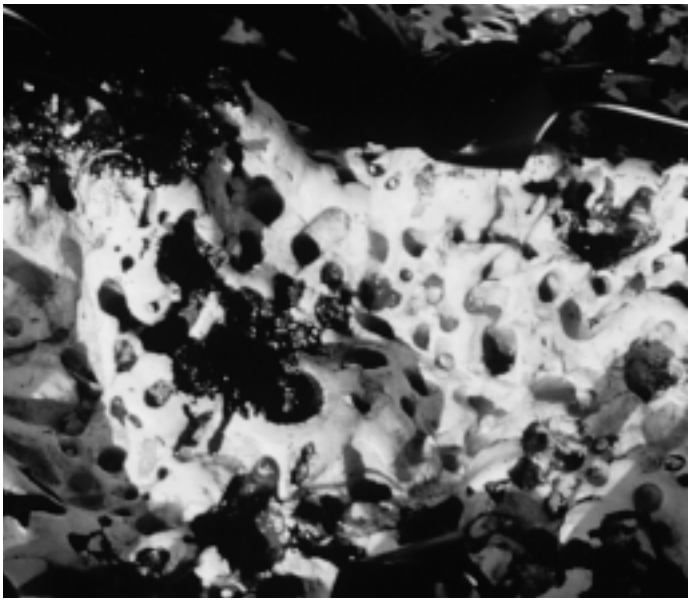
The role of the conservation objectives is to express what needs to be achieved in order to maintain the favourable condition of the sites, including both the habitats and species it contains, and so deliver the Habitats and Bird Directives.

They provide the basis for assessing what types of activities are likely to have a significant effect upon the interest features of the site.

They form the basis for determining the scope of "appropriate assessments" for plans or projects proposed within the NE Kent European marine sites. (New plans and projects are covered by a process separate from this management scheme - see section 1.10 for more information.)

For each of the interest features described in section 2.0 there is a conservation objective. In addition there is a list which describes the attributes which will be used to determine the condition of the features. The purpose of this is to provide some reference points against which the success of the conservation objectives and the management scheme can be measured.

By using this information it should be possible to identify trends or changes in these habitats and whether or not these changes are caused by natural or human activities. Monitoring is essential in order to ensure that these habitats are being kept in what is referred to as favourable condition, the condition in which the habitat or species is capable of sustaining itself in the long term (see section 3.5). More about the monitoring program can be found in Chapter 7.0.



Piddock burrows

3.2 Conservation objectives

The Conservation objectives for the NE Kent European marine sites are:

3.3 SAC interest features

3.3.1 The conservation objective for the reefs

Subject to natural change[5], maintain the **reefs** in favourable condition[6], in particular:

- Intertidal chalk cliff algal and lichen communities
- Intertidal red algal turf communities
- Kelp dominated communities on animal bored rock
- Subtidal animal bored chalk communities

3.3.2 The conservation objective for submerged or partially submerged sea caves

Subject to natural change, maintain the **submerged or partially submerged sea caves** in favourable condition, in particular:

- Intertidal chalk cliff algal and lichen communities

3.4 SPA interest features

3.4.1 The conservation objectives for the internationally important populations of Annex 1 bird species

Subject to natural change, maintain the habitats for the **internationally important populations of the regularly occurring Annex 1 species** in favourable condition, in particular:

- Shingle shores
- Shallow coastal waters
- Intertidal mud and sandflats

Numbers of bird species using these habitats are given in Table 3

3.4.2 The conservation objectives for the internationally important populations of regularly occurring migratory species

Subject to natural change, maintain in favourable condition the habitats for the **internationally important population of regularly occurring migratory species**, in particular:

- Sand and shingle shores
- Intertidal mudflats and sandflats
- Chalk shores

Numbers of bird species using these habitats are given in Table 3

Note:

These SPA conservation objectives focus on habitat condition in recognition that bird populations may change as a reflection of national or international trends or events. Annual counts for qualifying species will be used by English Nature, in the context of five year peak means, together with available information on UK population and distribution trends, to assess whether this SPA is continuing to make an appropriate contribution to the Favourable Conservation Status of the species across Europe.

5 *For a detailed definition of natural change see Section 3.6*
6 *For a detailed definition of how to recognise favourable condition see Section 3.5*

Table 3

Information on populations of internationally important species of birds under the EU Birds Directive that use the Thanet Coast and Sandwich Bay SPA at the time the SPA was designated

Internationally important breeding populations of Annex 1 bird species *		**Mean numbers and population size (1986-1990)**
little tern	*Sterna albifrons*	30 pairs, representing >1% of the British breeding population

Internationally important wintering populations of Annex 1 bird species *		**Mean numbers and population size (1985/86-1989/90)**
golden plover	*Pluvialis apricaria*	1,980 birds representing >1% of the British wintering population

Internationally important populations of regularly occurring migratory species *		**Numbers and population size (1985/86 -1989/90)**
turnstone	*Arenaria interpres*	1,300 birds, representing 2% of the East Atlantic Flyway population

* SPA citation dated June 1992 held on Register of European Sites for GB.

3.5 Favourable condition

The conservation objectives are to maintain the 'favourable condition' of the feature. This is defined as the condition in which the habitat or species is capable of sustaining itself on a long-term basis.

English Nature has provided information on the favourable condition of the features in the NE Kent European marine sites as a table in their statutory advice under Regulation 33 of the Habitats Regulation.

The table is the principle source of information that will be used to assess the condition of an interest feature. In European marine sites there is not yet sufficient scientific knowledge to be certain what favourable condition looks like. In the absence of such information, condition of interest features will be assessed against targets based on the existing conditions some of which need to be established through survey. The assumption that existing features are in favourable condition will be tested in the 2000 - 2006 reporting period and the results fed back by English Nature into its advice on site management.

3.6 Natural Change

Both habitats, and the distribution and numbers of a species, are naturally dynamic and change. This change can evolve over time or be cyclical. It may benefit some species or habitats and be detrimental to others. The conservation objectives are 'subject to natural change' and so recognise and accept that natural change will occur. Determination of what constitutes natural change will be based on the best available information and scientific opinion at the time.

Where change is detected but attributable to human causes management measures will have to be found.

4.0 General advice on the management implications of the conservation objectives

4.0 General advice on the management implications of the conservation objectives

In addition to conservation objectives in section 3 English Nature has also provided advice on any operations or activities which may cause 'deterioration or disturbance' to the interest features of the site. This advice is included with the conservation objectives and supporting information in the document issued by English Nature as their statutory advice under Regulation 33 of the Habitats Regulation. Extracts from the Regulation 33 advice document are included in this section (at 4.1, 4.2 , 4.3 except 4.3.1 and in table 4).

Management measures are required to ensure that the conservation objectives for the site are achieved. Consequently management must take into account the ecological requirements of the habitats and species within the European marine site. On the whole, management will be aimed at maintaining the favourable condition of a particular feature. Where a feature is not in a favourable condition, however, opportunities will be sought to restore favourable condition.

The marine environment is a highly dynamic environment and marine management is more concerned with allowing natural processes to occur, rather than management that directly intervenes in the habitat itself as is the case for example with woodlands and grasslands. In enabling marine ecosystems to function naturally, therefore, consideration must be given to the impacts arising from activities and uses of the marine and coastal environment. For the North East Kent European marine site the impacts below are applicable and management must ensure that these do not happen at levels to cause significant change.

4.1 Summary of advice on reefs

In pursuit of the conservation objective for 'reefs', the relevant and competent authorities for the North East Kent European marine sites are advised to manage human activities within their remit such that they do not result in deterioration or disturbance through any of the following:

- Physical loss by removal and/or smothering
- Physical damage by abrasion and/or selective extraction
- Toxic contamination by increased input of synthetic and/or non-synthetic compounds
- Non-toxic contamination by organic and/or nutrient enrichment
- Biological disturbance as a result of introduction, translocation or spread of non- native species and /or selective extraction of species.

4.2 Summary of advice on sea caves

In pursuit of the conservation objective for 'submerged or partly submerged sea caves', the relevant and competent authorities for the North East Kent European marine sites are advised to manage human activities within their remit such that they do not result in deterioration or disturbance through any of the following:

- Physical loss by removal and/or smothering
- Toxic contamination by increased input of synthetic and/or non-synthetic compounds
- Non-toxic contamination by nutrient enrichment

4.3 Summary of advice on SPA interest features

In pursuit of the conservation objective for "internationally important populations of Annex 1 species", the relevant and competent authorities for North East Kent European marine sites are advised to manage human activities within their remit such that they do not result in deterioration or disturbance through any of the following*:*

Golden Plover

- Physical loss resulting from smothering
- Disturbance from noise or visual presence
- Toxic contamination through increased input of synthetic and/or non-synthetic compounds
- Non-toxic contamination by organic/nutrient enrichment

In pursuit of the conservation objective for " internationally important populations of migratory species", the relevant and competent authorities for North East Kent European marine sites are advised to manage human activities within their remit such that they do not result in deterioration or disturbance through any of the following*:*

- Physical loss resulting from smothering
- Physical damage through abrasion
- Disturbance from noise or visual presence
- Toxic contamination through increased input of synthetic and/or non-synthetic compounds
- Non-toxic contamination by organic/nutrient enrichment
- Biological disturbance through selective extraction of species.

4.3.1 Explanation about the sensitivity of birds to disturbance.

Activities which distract or deter birds from their normal or usual activities could be classed as disturbance. It is only when those activities occur at levels which effect the birds' survival, however, that they would be considered significant. Assessing these levels can be difficult because birds habituate to (get used to) certain types of disturbance and so the affect on survival rates may reduce over time.

Examples of how disturbance can threaten bird survival are:

- disturbance which puts nesting birds to flight can lead to breeding failure because the eggs or chicks are predated by foxes, rats and other birds or the eggs can chill causing the embryos to die
- disturbance to feeding birds can lead to them gathering insufficient food to support chicks or to prepare for long migrations and causes the birds to use up energy as they fly away
- disturbance to birds during the mating season can interrupt bonding and prevent pairing and nesting

Wintering birds

The highest number of wintering birds occur at the site between October and March inclusive.
Shore based recreation is carried out all year round and disturbance from certain activities is likely to cause disturbance to the wintering birds.

With water based recreation it cannot be assumed that birds are only disturbed by noisy craft as the type of craft movement (sudden fast changes in direction) and the visual appearance of the craft are also factors. However water based recreation is primarily a summer activity between the months of April and September and so it occurs at a different time of year to the wintering bird interest. With the increased use of wet suits and other protective clothing water based recreation is no longer limited to the summer months and levels of winter activity may increase.
There are several different factors which affect how disturbing an activity will be to birds and different species of birds react in different ways.

- Birds are more disturbed by recreational activities that occur at speed particularly if this involves sudden changes in direction.
- They are more disturbed by sudden noise than continuous noise to which they can quickly habituate to (get used to).
- They are more readily disturbed in smaller more enclosed bays than larger open ones
- They are more readily disturbed when the tide state means that there is less shore available for them to them to feed and roost on. When the tide is out there is more shore and the birds can move to a less affected part of the beach.
- They are more likely to be affected by water based activity when it occurs in the near shore area.
- Birds are severely disturbed by aerial objects such as large kites and micro lights and react to them as if they were large birds of prey by leaving the area altogether.

Birds feed on the areas from which they can maximise their food intake and build up fat reserves to survive cold weather and to survive migration. If disturbance prevents the birds from building up sufficient fat mortality will result.

The extent to which the birds are disturbed by different activities varies. Some activities will disturb the birds by interrupting their feeding activity and putting them to brief flight, other activities will displace birds to another part of the same bay to feed from less optimal areas where they will have to expend more energy and take in less calories, and some will cause the birds to leave the bay altogether. Flocks of wintering birds are faithful to the same bay returning to it year after year. Disturbance which displaces a flock from one bay to another bay can have a knock on effect to the birds there because the flocks come into conflict and are distracted from feeding activity or roosting.

Disturbing feeding birds during harsh weather conditions is of particular concern. Not only does it demand more energy for the birds to maintain their own body temperature but the small creatures on which they feed burrow deeper and so it takes more time and more effort for the birds to secure sufficient food for survival. The other critical time is in late February and March when the birds need to build up sufficient fat reserves to survive migration.

Breeding birds

The little tern breeds in summer near Plumpudding and at Shell Ness. As a ground nesting bird it is vulnerable to any disturbance that puts the nesting bird to flight. Numbers have dropped from 50 pairs in the mid 1970's to 3 pairs in 1996. It is thought that several different recreational activities (such as walking or beaching craft close to the breeding area) may be causing significant disturbance. The new sport of using large kites to propel boards or buggies is of particular concern because the birds react to the kites as if they were large birds of prey and leave the area. This keeps them away from their preferred places for feeding and breeding.

The little tern feed by diving into shallow water. When the tide is in the little tern colony at Shell Ness feed at Pegwell/Sandwich Bay and in the lower part of the Stour River. Water based craft can disturb them from this feeding activity. More information is needed about the extent to which this happens and the effect on the birds welfare.

Disturbance at the beginning of the breeding season may affect the pair bonding and deter the little tern from nesting. Disturbance to nesting little terns may also cause breeding failure with eggs or chicks being abandoned. If birds are disturbed and leave the nest the eggs or chicks are more likely to be predated by gulls, rats, foxes and dogs.

Table 4

Showing operations which may cause deterioration or disturbance to the North East Kent European marine sites interest features at current levels of use[7]

The advice below is not a list of prohibitions but rather a checklist for operations for discussion within the management group, which may need to be subject to some form of management measure(s) or further measures where actions are already in force. Examples of activities under relevant authority jurisdiction are also provided. Operations marked with a ✔indicate those features (or some component of them) that are considered to be highly or moderately vulnerable to the effects of the operations.

Standard list of categories of operation which may cause deterioration or disturbance	Reefs	Sea caves	Internationally important Annex I birds	Internationally important migratory species
Physical loss				
Removal (eg land claim, re-profiling)	✔	✔		
Smothering (eg by artificial structures,, disposal of dredge spoil)	✔	✔	✔	✔
Physical damage				
Siltation (eg dredging, outfalls)				
Abrasion (eg trampling, mobile benthic fishing, anchoring)	✔			✔
Selective extraction (eg aggregate dredging, or incidental damage caused by some other operation)	✔			
Non-physical disturbance				
Noise (eg powered water craft activity)			✔	✔
Visual presence (eg recreational activity)			✔	✔
Toxic contamination				
Introduction of synthetic compounds (eg TBT, PCBs)	✔	✔	✔	✔
Introduction of non-synthetic compounds (eg heavy metals, hydrocarbons)	✔	✔	✔	✔
Introduction of radionuclides				
Non-toxic contamination				
Nutrient enrichment (eg agricultural run-off, outfalls)	✔	✔	✔	✔
Organic enrichment (eg mariculture, outfalls)	✔		✔	✔
Changes in thermal regime (eg power stations)				
Changes in turbidity (eg dredging)				
Changes in salinity (eg water abstraction, outfalls)				
Biological disturbance				
Introduction of microbial pathogens				
Introduction of non-native species & translocation (spread)	✔			
Selective extraction of species (eg commercial & recreational fishing, harvesting of shellfish)	✔			✔

7 This advice has been developed using best available scientific information and informed scientific interpretation and judgement (as at December 1999). This process has used a coarse grading of relative sensitivity, exposure and vulnerability of each interest feature to different categories of operation based on the current state of our knowledge and understanding of the marine environment. The advice is indicative only, and is given to guide relevant authorities and others on particular operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species for which the site has been designated. The advice, therefore, is not a list of prohibitions but rather a check list for operations which may need to be subject to some form of management measure(s) or further measures where actions are already in force.

In accordance with Government policy guidance, the advice on operations is feature and site specific, and provided in the light of current activities and patterns of usage at the site (as at December 1999). As such, it is important that future consideration of this advice by relevant authorities, and others, takes account of changes in usage patterns that have occurred at the site over the intervening period. Advice for sites will be kept under review and may be periodically updated through discussions with relevant authorities, and others, to reflect significant changes in our understanding of sensitivity together with the potential effects of plans or projects on the marine environment. The provision of the statutory advice given here, on operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species, for which the site has been designated, under Regulation 33(2), is provided without prejudice to specific advice given under Regulation 48 (3) or Regulation 50 on individual operations that qualify as plans or projects within the meaning of Article 6 of the Habitats Directive.