ENGLISH NATURE

Lundy
European marine site

English Nature's advice given under Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994

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English Nature's advice for Lundy European marine site given under Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994

Contents

List of Figures and Tables

Preface

This document provides English Nature's advice to other relevant authorities as to (a) the conservation objectives and (b) any operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species for the Lundy European marine site. This advice is being prepared to fulfil our obligations under Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994.

The Lundy European marine site is part of a candidate Special Area of Conservation. It is Government policy that such sites should be protected as if they were already designated and, where appropriate, it is desirable to establish voluntary management schemes at an early stage, before the formal statutory obligations apply, and to act in the spirit of the Directive in the meantime (DETR & The Welsh Office, 1998). In light of this policy, we have worked with many of you to develop this advice in advance of statutory obligations applying.

European marine sites are defined in the Conservation (Natural Habitats &c.) Regulations 1994 as any part of a European site covered (continuously or intermittently) by tidal waters or any part of the sea in or adjacent to Great Britain up to the seaward limit of territorial waters. European sites include Special Areas of Conservation under the Habitats Directive, which support certain natural habitats and species of European importance, and Special Protection Areas under the Birds Directive which support significant numbers of internationally important wild birds. In many instances these designations may coincide and our advice is being prepared to cover both the SAC and SPA interests.

This 'Regulation 33 package' is designed to help relevant and competent authorities, who have responsibilities to implement the Habitats Directive, to:

- understand the international importance of the site, underlying physical processes and the ecological requirements of the habitats and species involved;

- develop a management scheme to ensure that the ecological requirements of the site's interest features are met; and

- set the standards against which the condition of the site's interest features can be determined and compliance monitoring undertaken to establish whether they are in favourable condition.

In addition, the Regulation 33 package will provide a basis to inform on the scope and nature of 'appropriate assessment' required in relation to plans and projects (Regulations 48 & 50 and by English Nature under Regulation 20). English Nature will keep this advice under review and may update it every six years or sooner, depending on the changing circumstances of the European marine site. In addition we will provide more detailed advice to competent and relevant authorities to assess the implications of any given plan or project under the Regulations, where appropriate, at the time a plan or project is being considered. If during the European Union's moderation process qualifying interest features are added to this European marine site, English Nature will add to this advice, as appropriate.

Tim Bines
English Nature
January 2000

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1. Introduction

1.1 Natura 2000

The European Union Habitats[1] and Birds Directives[2] are international agreements which set out a number of actions to be taken for nature conservation. The Habitats Directive aims to promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements, and sets out measures to maintain or restore, natural habitats and species of European Union interest at favourable conservation status[3]. The Birds Directive protects all wild birds and their habitats within the European Union, especially migratory birds and those that are considered rare or vulnerable.

The Habitats and Birds Directives include requirements for the designation of conservation areas. In the case of the Habitats Directive these are Special Areas of Conservation (SACs) which support certain natural habitats or species, and in the Birds Directive, Special Protection Areas (SPAs) which support wild birds of community interest. These sites will form a network of conservation areas to be known as ANatura 2000". Where SACs or SPAs consist of areas continuously or intermittently covered by tidal waters or any part of the sea in or adjacent to Great Britain up to the limit of territorial waters, they are referred to as European marine sites.

Further guidance on European marine sites is contained in the Department of the Environment Transport and Regions/Welsh Office document: *European marine sites in England & Wales: A guide to the Conservation (Natural Habitats &c.) Regulations 1994 and to the preparation and application of management schemes.*

1.2 English Nature's role

The Conservation (Natural Habitats &c.) Regulations 1994 translate the Habitats directive into law in Great Britain. It gives English Nature a statutory responsibility to advise relevant authorities as to the conservation objectives for European marine sites in England and to advise relevant authorities as to any operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species for which the sites has been designated. This information will be a key component of any management schemes which may be developed for these sites.

[1] Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

[2] Council Directive 79/409/EEC on the conservation of wild birds

[3] A habitat or species is defined as being at favourable conservation status when its natural range and the areas it covers within that range are stable or increasing and the specific structure and functions which are necessary for its long term maintenance exist and are likely to continue to exist for the foreseeable future.

This document is English Nature's advice for the Lundy European marine site issued in fulfilment of Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994 (the 'Regulation 33 package'). Copies of key references quoted in this document are held at the English Nature local office.

In addition to providing such advice, the Regulation 33 package will inform on the scope and nature of 'appropriate assessment' which the Directive requires to be undertaken for plans and projects (Regulations 48 & 50 and by English Nature under Regulation 20). In the future, English Nature may also provide more detailed advice to competent and relevant authorities to assess the implications of any such plans or projects.

1.3 The role of relevant authorities

The Conservation (Natural Habitats &c.) Regulations 1994 require relevant authorities to exercise their functions so as to secure compliance with the Habitats Directive. The management scheme which the relevant authorities are drawing up under Regulation 34 for the Lundy European marine site will provide the framework through which this will be done and it should be based on the advice in this package. In this respect, relevant authorities must, within their areas of jurisdiction, have regard to both direct and indirect effects on an interest feature of the site. This may include consideration of issues outside the boundary of the European marine site.

Relevant authorities should ensure that all plans for the area integrate with the management scheme for the European marine site. Such plans may include shoreline management plans, local Environment Agency plans, SSSI management plans, national and local Biodiversity Action Plans (BAP) and the management plan for the Lundy Marine Nature Reserve. This must occur to ensure that there is only a single management scheme through which all relevant authorities exercise their duties under the Conservation (Natural Habitats &c.) Regulations 1994.

Relevant authorities also need to have regard to changing circumstances of the SAC and may therefore need to modify the management scheme and/or the way in which they exercise their functions so as to maintain the favourable condition of the interest features concerned in the long term. There is no requirement for relevant authorities to take any actions outside their statutory functions.

Under certain circumstances, where another relevant authority is unable to act for legal reasons, or where there is no other relevant authority, English Nature is empowered to use its byelaw-making powers for Marine Nature Reserves (MNR) for use in European marine sites.

1.4 Activity outside the control of relevant authorities

Nothing within this Regulation 33 package will require relevant authorities to undertake any actions or ameliorate changes in the condition of interest features if it is shown that the changes result wholly from natural causes[4]. This also applies if the changes, although causing deterioration or disturbance to the interest features, are the result of human or natural events

[4] Determination of what constitutes natural change will be based on the best available information and scientific opinion at the time.

outside their control. Having issued Regulation 33 advice for European marine sites, English Nature will work with relevant authorities and others to agree, within a defined time frame, a protocol for evaluating all observed changes to baselines and to develop an understanding of natural change and provide further guidance as appropriate and possible. On the Lundy European marine site a SAC Management Group has already been set up and should be used to alert English Nature to such issues so that they may be assessed and any appropriate measures taken. This does not, however, preclude relevant authorities from taking action to prevent deterioration to the interest features, for example by introducing or promoting codes of practice through the Management Group.

1.5 Responsibilities under other conservation designations

In addition to its candidate SAC status, parts of Lundy are also designated and subject to agreements under other conservation legislation (eg The SSSI and MNR notified under the Wildlife and Countryside Act 1981). The obligation of relevant authorities and other organisations under such designations are not affected by the advice contained in this document.

1.6 Role of conservation objectives

Section 4 of this document sets out the conservation objectives for the Lundy European marine site. They are the starting point from which management schemes and monitoring programmes are to be developed as they provide the basis for determining what is likely to cause a significant effect, and for informing on the scope of appropriate assessments of plans or projects. The conservation objectives set out what needs to be achieved and thus deliver the aims of the Habitats Directive.

1.7 Role of advice on operations

The advice on operations set out in Section 6 provides the basis for discussion about the nature and extent of the operations taking place within or close to the site and which may have an impact on its interest features. It is given on the basis of the working assumption that sites have been generally presumed to be in favourable condition at the time they were identified. This assumption will be tested during the 2000 - 2006 reporting period. The advice should also be used to identify the extent to which existing measures of control, management and use are, or can be made, consistent with the conservation objectives and thereby focus the attention of relevant authorities and surveillance to areas that may need management measures.

This operations advice will need to be supplemented through further detailed discussions with the management and advisory groups in formulating and agreeing a management scheme, where required, to agreed timescales for the European marine site.

2. Identification of interest features under the EU Habitats Directive

2.1 Introduction

Lundy is a small rocky island in the outer Bristol Channel off north Devon. It is exposed to a very wide range of physical conditions as the result of different degrees of wave action and tidal streams on sheltered and exposed coasts and headlands. This range of physical conditions combined with its topographical variation has resulted in the presence of an unusual and highly diverse complex of internationally important marine habitats.

The most important habitats within the area are granite reefs (with small amounts of slate in the south, south-east and off the north coast). These reefs are very varied in nature, extend well over 1 km offshore, and drop steeply into deep water in some areas. Many are biologically extremely rich examples of their type, and the best in Britain.

All five British shallow inshore species of stony coral are found here, *Caryophyllia smithii*, and the nationally rare *Balanophyllia regia, Caryophyllia inornatus, Hoplangia duotrix* and *Leptopsammia pruvoti.* Other long-lived, slow growing south-western species include the soft coral *Parerythropodium coralloides*, the sea fan *Eunicella verrucosa* and a variety of erect branching sponges, found in deep sheltered conditions on the east coast.

The variety of habitats and associated species on Lundy's reefs is outstanding, for example over 316 species of algae have been recorded from the area. The high species richness of the area is also reflected in the large number of rare or unusual species, many of which seldom occur elsewhere in Britain, and the large numbers of individuals of fragile long-lived species which are present on very stable reefs around the island, including solitary corals, sea fans and erect sponges. Many of the communities found around Lundy include a high proportion of Mediterranean-Atlantic species which are internationally important, representing biogeographically distinct communities at or very close to their northern geographic limits of distribution. For example the southern kelp *Laminaria ochroleuca* and the seaweeds *Carpomitra costata, Grateloupia dichotoma* and *Bifucaria bifurcata* are at or near the northern limit of their distribution on Lundy.

2.2 Interest features under the EU Habitats Directive

The Lundy candidate Special Area of Conservation (SAC), the boundary of which is illustrated in Appendix I, has been selected for the following Annex I habitat type as listed in the EU Habitats Directive:

- Reefs

Within this advice package, reefs are referred to as an interest feature. Sub-features have also been identified to highlight the ecologically important components of the interest feature. The interest feature and sub-features for Lundy European marine site are discussed in more detail below and are mapped at Figure 1 to show their location, distribution and extent.

3. SAC interest features

3.1 Reefs

3.1.1 Definition

Reefs are rocky marine habitats or biological concretions that rise from the sea bed. They are predominantly subtidal but may extend as an unbroken transition into the intertidal zone, where they are exposed to the air at low tide. Two main types of reef can be recognised, those where the structure is created by the animals themselves (biogenic reefs) and those where animal and plant communities grow on raised or protruding rock. Only a few invertebrate species are able to develop biogenic reefs, which are therefore restricted in distribution and extent (Brown and others 1997).

Rocky reef types are extremely variable, both in structure and in the communities they support. The specific communities that occur vary according to a number of factors. Exposure to wave action has a major effect on community structure, as does rock type with communities on the granite reefs around Lundy being markedly different to those occurring on chalk reefs in south-east England, for example. Light intensity, which varies with depth, also has a major effect on community structure. Consequently, shallow water communities are dominated by seaweeds, whilst deeper rock surfaces are colonised purely by attached animals. Another major factor affecting reef communities is the turbidity of the water. In turbid waters, light penetration is low and algae can occur only in shallow depths or in the intertidal zone. However, in such conditions animals have a plentiful supply of suspended food and filter-feeding species may be abundant.

In addition, in the UK there is a marked geographical trend in species composition related to seawater temperature, with warm, temperate species such as the sea fan *Eunicella verrucosa* and the corals *Leptopsammia pruvoti* and *Balanophyllia regia* (all found around Lundy) only occurring in southern waters.

3.1.2 Importance of feature

Lundy is exposed to a wide range of physical conditions as a result of differing degrees of wave action and tidal stream strength on sheltered and exposed coasts and headlands. This range of physical conditions, combined with the site's topographical variation, has resulted in the presence of an unusually diverse complex of marine habitats and associated communities within a small area.

A wide variety of reef forms occur around Lundy. These range from vertical rock walls to horizontal ledges, broken rock and boulder fields. The common feature between these different reef forms is the type of animal and plant community that grows on the rock. The species assemblage is characterised by attached algae and invertebrates, usually associated with a range of mobile animals such as crabs and lobsters, fish such as wrasse and blennies. On Lundy there is further variety associated with the diverse range of topographical features such as vertical rock walls, gully and canyon systems, outcrops from sediment and rock pools on the shore, further enhanced by a wide range of exposures to wave action and tidal streams.

The reefs of Lundy extend well over 1 km offshore in places and drop steeply into deep water in some areas. The variety of habitats and associated species on the reefs is outstanding and includes a large number of rare or unusual species which are Mediterranean-Atlantic in origin and are at, or very close to, their northern limit of distribution. In particular, fragile long-lived species such as the soft coral *Parerythropodium coralloides,* sea fan *Eunicella verrucosa* and a variety of erect branching sponges are found in deep, sheltered conditions, particularly on the east coast of the island. Around Lundy, most of the reefs extend from the seabed into the intertidal zone. Here, a strong vertical zonation of communities is apparent. Lichens occur at the top of the shore, with communities characterised by barnacles, limpets and mussels or species of fucoid (wrack) seaweeds in the intertidal zone.

The degree of wave exposure greatly affects the structure of marine communities on Lundy, with extremely exposed habitats on the west coast of Lundy dominated by a robust turf of sponges, hydroids and bryozoans, while reefs off the more sheltered east coast support more delicate branching sponges, and seafans. The presence of enhanced tidal streams around the north and south headlands of the island significantly increases the diversity of habitats.

3.1.3 Key sub-features

Rocky shore communities
The extensive areas of subtidal reef extend into the intertidal all around the island, giving rise to a wide variety of different shore types from sheltered shores with dense fucoid algal cover, to steep, wave exposed rock dominated by barnacles and limpets. Some sheltered areas are also dominated by boulder fields which provide important microhabitats for mobile species during more stable summer weather and some rich underboulder communities on sheltered shores. Intertidal caves and surge gullies also present around the island and these may contain rare species such as the cup coral *Balanophyllia regia*. Rockpools occur especially in the slate bedrock of the south-east coast and are important habitats for educational use.

Kelp forest communities
Kelp forests are highly productive ecosystems, found in the shallow subtidal. They have been compared with rainforests in terms of productivity and species richness, although they do not accumulate biomass as rain forest do but export much of it as dissolved organic matter to the surrounding areas. Kelp fronds are continually growing, with material being lost from the plant by wave action. This lost material forms a major part of the available food source in coastal waters and it has been estimated that kelp beds contribute 2-3 times their standing biomass each year to the surrounding waters and provide the energy supply for filter feeders and detritivores over a much larger area than the kelp bed itself (Birkett, *et. al.,* 1998).

Kelp forest communities vary around Lundy according to wave exposure, substratum and depth. In the shallow wave exposed areas off the west coast, where wave action is greatest, dabberlocks *Alaria esculenta* is the dominant kelp. Elsewhere, the long-lived kelp *Laminaria hyperborea* forms a dense forest on stable rock, with shorter lived kelp communities *Laminaria saccharina and Saccorhiza polyschides* on less stable substrata. Lundy has a very rich algal component, the majority of which occur within the kelp forest. Some 316 species of algae have been recorded on Lundy, including nationally rare species such as *Zanardinia prototypus* and *Carpomitra costata*. All plants require light for photosynthesis. The integrity of the kelp forests therefore is dependent on sufficiently clear water. Other important components of the kelp forest include sessile animals such as anemones, sponges and sea-

squirts, and mobile species such as edible crabs *Cancer pagurus*, lobsters *Hommarus gammarus* and fish, especially the wrasse *Labrus bergylta and Labrus mixtus.*

Vertical and overhanging circalittoral rock communities

Vertical and overhanging rock in the form of gullies, cliffs and steeply sloping bedrock occurs around much of the coast of Lundy. Below the kelp zone these habitats are less affected by wave action and are relatively stable. As a result, long-lived species occur there, of which some are nationally rare. Vertical surfaces exposed to strong wave action and/or tidal streams are generally dominated by barnacles and the jewel anemone *Corynactis viridis*. Off the east coast, the shelter from wave action afforded by depth and facing away from the prevailing wind allows many steeply sloping and vertical surfaces to become covered by a diverse collection of animals including many nationally rare species only found in south-western waters such as the cup coral *Leptopsammia pruvoti* (which has a species action plan as a part of the UK Biodiversity Action Plan), the colonial anemones *Parazoanthus* spp. and red sea fingers *Alcyonium glomeratum* along with a wide variety of branching sponges such as *Axinella* spp. These long-lived and fragile communities only occur in these areas due to lack of disturbance and are easily damaged by physical abrasion which can result in them becoming detached from the rock surface and deposited on the seabed. Because the competition for food and space is intense, changes in the communities present may provide an indicator of any changes in the physical conditions around the island.

Circalittoral bedrock and stable boulder communities

Circalittoral reefs are extensive around the island and their condition is a good indicator of the condition of the reef as a whole. Particularly important biotopes include rock colonised by erect bryozoans, hydroids and sea-squirts with the pink seafan *Eunicella verrucosa,* and tide-swept rock dominated by the hydroid *Tubularia indivisa,* encrusting sponges and the jewel anemone *Corynactis viridis*. *Eunicella* is a characteristic species of circalittoral reefs around Lundy, and is nationally scarce and the subject of a BAP species action plan. The seafan also provides a home for the fan anemone *Amphianthus dohrnii* (another nationally rare species and BAP species action plan). *Eunicella* is long-lived and is sensitive to physical disturbance (which may cause dislodgement) and therefore is good indicator species for physical disturbance. Also in this community are other long-lived and fragile species such as the ross coral *Pentapora foliacea* and erect sponges such as axinellid species. All these fragile long-lived species are sensitive to physical damage and smothering through increased siltation.

4. Conservation objectives for all interest features

Under Regulation 33(2)(a) of The Conservation (Natural Habitats, &c.) Regulations 1994, English Nature has a duty to advise other relevant authorities as to the conservation objectives for the European marine site. The conservation objectives for the Lundy European marine site are provided below and should be read in the context of other advice given in this package, particularly:

- the attached maps showing the extent of the various interest features and sub-features;
- summary information on the interest of each of the features; and
- the favourable condition table, providing information on how to recognise favourable condition for each of the features and which will act as a basis from which the monitoring programme will be developed.

4.1 The conservation objective for reefs:

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

- Rocky shore communities
- Kelp forest communities
- Vertical and overhanging circalittoral rock communities
- Circalittoral bedrock and stable boulder communities

[5] For a detailed definition of how to recognise favourable condition see Table 1 (Section 5).

5. Favourable condition table

The favourable condition table is supplied as an integral part of English Nature's Regulation 33 advice package. It is intended to supplement the conservation objectives only in relation to management of established and ongoing activities and future reporting requirements on monitoring the condition of the site and its features. The table **does not by itself** provide a comprehensive basis on which to assess plans and projects as required under Regulations 20 and 48-50, but it does provide a basis to inform the scope and nature of any 'appropriate assessment' that may be needed. It should be noted that appropriate assessments are, by contrast, a separate activity to condition monitoring, requiring consideration of issues specific to individual plans or projects. English Nature will provide more detailed advice to competent and relevant authorities to assess the implications of any given plan or project under the Regulations, where appropriate, at the time a plan or project is being considered.

The favourable condition table is the principle source of information that English Nature will use to assess the condition of an interest feature and as such comprises indicators of condition. On many terrestrial European sites, we know sufficient about the preferred or target condition of qualifying habitats to be able to define measures and associated targets for all attributes to be assessed in condition monitoring. Assessments as to whether individual interest features are in favourable condition will be made against these targets. In European marine sites we know far less about habitat condition and find it difficult to predict what favourable condition may look like. Individual sites within a single marine habitat category are also all very different, further hampering the identification of generic indicators of condition. Accordingly, in the absence of such information, condition of interest features in European marine sites will be assessed against targets based on the existing conditions, which may need to be established through baseline surveys in many cases.

The assumption that existing interest features on European marine sites are in favourable condition will be tested in the 2000 - 2006 reporting period and the results subsequently fed back into our advice and site management. Where there is more than one year's observations on the condition of marine habitats, all available information will need to be used to set the site within long-term trends in order to form a view on favourable condition. Where it may become clear that certain attributes are a cause for concern, and if detailed studies prove this correct, restorative management actions will need to be taken to return the interest feature from unfavourable to favourable condition. It is the intention of English Nature to provide quantification of targets in the favourable condition table during the 2000 - 2006 reporting period.

This advice also provides the basis for discussions with management and advisory groups, and as such the attributes and associated measures and targets may be modified over time. The aim is to produce a single agreed set of attributes that will then be monitored in order to report on the condition of features. Monitoring of the attributes may be of fairly coarse methodology, underpinned by more rigorous methods on specific areas within the site. To meet UK agreed common standards, English Nature will be committed to reporting on each of the attributes subsequently listed in the final version of the table, although the information to be used may be collected by other organisations through agreements.

The table will be an important, but not the only, driver of the site monitoring programme. Other data, such as results from compliance monitoring and appropriate assessments, will also have an important role in assessing condition. The monitoring programme will be

developed as part of the management scheme process through discussion with the relevant authorities and other interested parties. English Nature will be responsible for collating the information required to assess condition and will form a judgement on the condition of each feature within the site, taking into account all available information and using the favourable condition table as a guide.

Box 1	**Glossary of terms used in the favourable condition table**
Feature	The habitat or species for which the site has been selected.
Sub-feature	An ecologically important sub-division of the feature.
Attribute	Selected characteristic of an interest feature/sub-feature which provides an indication of the condition of the feature to which it applies.
Measure	What will be measured in terms of the units of measurement, arithmetic nature and frequency at which the measurement is taken.
Target	States the favorable condition of an attribute with reference to a baseline. Where no information is available, a description of how the target is to be derived is included.
Comments	The rationale for selection of the attribute.

Table 1 Favourable Condition Table for the Lundy European marine site

NB - Many of the attributes will be able to be monitored at the same time or during the same survey. The frequency of sampling for many attributes may need to be greater during the first reporting cycle in order to characterise the site and establish the baseline.

Feature	Sub-feature	Attribute	Measure	Target	Comments
Reefs		Extent	Area (ha) of the reefs, measured periodically (frequency to be determined).	No decrease in area from an established baseline, subject to natural change. (Sotheran & Walton 1997).	Extent of reef is a reporting requirement of the Habitats Directive. The extent of reef will not change significantly over time unless due to some human activity but nevertheless needs to be measured periodically.
		Water clarity	Average light attenuation measured periodically throughout the reporting cycle (frequency to be determined).	Average light attenuation should not decrease significantly from an established baseline, subject to natural change.	Water clarity is important for maintaining extent and density of algal and plant dominated communities. Clarity decreases through increases in amounts of suspended organic/inorganic matter.
		Water density	Regular measurement of water temperature and salinity in the subtidal periodically throughout the reporting cycle.	Average temperature/ salinity should not deviate significantly from an established baseline, subject to natural change.	Temperature and salinity are characteristic of the overall hydrography of the area, indicating predominance of coastal or oceanic water. Changes in temperature and salinity influences the presence and distribution of species (along with recruitment processes and spawning behaviour) including those at the edge of their geographic ranges and non-natives.
Reefs (cont.)	Rocky shore communities	Distribution of characteristic range of biotopes	Relative distribution of intertidal rocky shore communities measured using littoral extent, in particular those biotopes listed at Appendix III. Measured during summer, once during reporting cycle.	No decrease in littoral extent of a range of biotopes from an established baseline value (Munro, 1996), subject to natural change.	The relative distribution of the biotopes listed under this sub-feature in Appendix III is an important structural aspect of the site. Changes in extent and distribution may indicate long term changes in the physical conditions at the site.

Feature	Sub-feature	Attribute	Measure	Target	Comments
		Species composition of rockpool communities	Presence and abundance of composite species from a representative series of rockpools, measured during summer, twice during reporting cycle.	Presence and abundance of composite species should not deviate significantly from an established baseline, subject to natural change.	Composite species of rockpools include many southwestern species, their relative abundance gives an indication of the quality of the rockpools and are key structural components of the intertidal rocky shores. Arrival of non-native species such as *Sargassum muticum* may threaten the balance of rockpool communities.
		Characteristic species: *Balanophyllia regia* and *Caryophyllia smithii* populations	Number of individuals at Devil's Kitchen and north of Gannet's Rock, measured twice during reporting cycle.	Numbers of *Balanophyllia regia* and *Caryophyllia smithii* should not decrease significantly from an established baseline, subject to natural change.	These species are normally found sublittorally. Monitoring temperature and these littoral sites in combination with sublittoral sites will indicate long term changes in the physical conditions of the site.
Reefs (cont.)	Kelp forests communities	Distribution and range of kelp biotopes	Distribution of kelp dominated infralittoral communities measured using extent, in particular those biotopes listed at Appendix III. Measured during summer, once during reporting cycle.	No decrease in sublittoral extent and range of biotopes from an established baseline, subject to natural change.	Extent and distribution of kelp biotopes is an important structural (composition) and functional (productivity) aspect of the site. Changes in extent and distribution may indicate long term changes in the physical conditions at the site.
		Algal species composition	Number and composition of algal species from kelp zone, measured twice during reporting cycle.	Algal species composition should not deviate significantly from an established baseline, subject to natural change.	The marine flora of Lundy is very rich, with a number of rare algal species and some at the limits of their northern or southern distribution. Changes in the floral composition within the kelp forests may serve as long-term indicators of change in water clarity, temperature or wave exposure.

Feature	Sub-feature	Attribute	Measure	Target	Comments
	Subtidal vertical & overhanging circalittoral rock communities	Species composition of characteristic biotopes	Presence and abundance of composite characteristic and notable species (biotopes listed at Appendix III).	Presence and abundance of composite species should not deviate significantly from an established baseline, subject to natural change.	The presence of characteristic species in this relatively stable habitat contributes to the structure of the reef as a whole. This habitat also contains nationally rare species such as the sunset coral *Leptopsammia pruvoti*.
	Subtidal bedrock & stable boulder communities	Distribution and range of circalittoral biotopes	Distribution of circalittoral communities measured using extent, in particular those biotopes listed at Appendix III. Measured during summer, once during reporting cycle.	The distribution and range of biotopes should not deviate significantly from an established baseline, (Sotheran & Walton 1997), subject to natural change.	Lundy has a wide range of subtidal bedrock and stable boulder communities, which make up significant proportion of the reef structure. Distribution and number of subtidal bedrock and stable boulder biotopes is an important structural aspect of the site. Changes in extent and variety may indicate long term changes in the physical conditions at the site.
Reefs (cont'd)	Subtidal bedrock & stable boulder communities	Distribution & extent of *Eunicella*-characterised reef	Area & locations of *Eunicella*- characterised reef measured once during reporting cycle.	No reduction in extent or distribution of *Eunicella*-characterised reefs from an established baseline, subject to natural change.	*Eunicella* occurs in a relatively stable habitat, is long-lived, nationally important and is a structural component of the reef. Its continued extent and distribution around the island will provide some indication of the stability of the reef, deterioration of the species being indicative of physical disturbance.
		Species composition of characteristic biotope (MCR.ErSEun)	Presence and abundance of characteristic species measured once during reporting cycle.	Presence and abundance of composite species should not deviate significantly from an established baseline, subject to natural change.	The presence of characteristic species in this relatively stable habitat is indicative of the stability and structure of the reef. This habitat also contains nationally scarce species eg the fan sea slug *Tritonia nilsodhneri* and species at the edge of their geographical range.
		Characteristic species - density and quality of sea fans *Eunicella verrucosa*	Average density (counts in a fixed area) of *Eunicella* and average proportion of damaged tissue epiphytic growth, measured once during reporting cycle.	Average density of sea fans, proportion of damaged or epiphytised branches should not deviate significantly from an established baseline, subject to natural change.	The sea fan *Eunicella verrucosa* is long-lived and fragile thus a good indicator of physical damage. *Eunicella verrucosa* is a nationally scarce species (and is a BAP priority species).

Feature	Sub-feature	Attribute	Measure	Target	Comments
		Species composition of sponge- dominated biotope (MCR.ErSPbolSH)	Frequency and occurrence of composite characteristic and notable species, measured once during reporting cycle.	Species composition and abundances should not deviate significantly from an established baseline, subject to natural change.	The presence of characteristic species in this relatively stable habitat is indicative of the stability of the reef as a whole and the processes supporting it. This habitat also contains nationally rare sponges.

6. Advice on operations

English Nature has a duty under Regulation 33(2)(b) of The Conservation (Natural Habitats, &c.) Regulations 1994 to advise other relevant authorities as to 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. Information on how English Nature has developed this advice is given in section 6.2, and on how it may be reviewed and updated in the future, in section 6.4.

The advice is provided in summary form in Table 2 and section 6.5 and with more detail in Tables 3 and 4 and section 6.6, including advice in relation to specific interest features.

6.1 Purpose of advice

The aim of this advice is to enable relevant authorities to direct and prioritise their work on the management of activities that pose the greatest potential threat to the favourable condition of interest features on the Lundy European marine site. The advice is linked to the conservation objectives for interest features and will help provide the basis for detailed discussions within the management group to formulate and agree a management scheme to agreed timescales for the site. The advice given here will inform on, but is without prejudice to, any advice to be given subsequently under Regulation 48 or Regulation 50 on operations that qualify as plans or projects within the meaning of Article 6 of the Habitats Directive.

6.2 Methods for assessment

To develop this advice on operations English Nature has used a three step process involving:

- an assessment of **sensitivity** of the interest features or their component sub-features
- an assessment of the **exposure** of each interest feature or their component sub-features to operations
- a final assessment of current **vulnerability** of interest features or their component sub-features to operations

This three step process builds up a level of information necessary to manage activities in and around the site in an effective manner. Through a consistent approach, this process enables English Nature to both explain the reasoning behind our advice and identify to competent and relevant authorities those operations which pose the most current threats to the favourable condition of the interest features on the site.

All the scores of relative sensitivity, exposure and vulnerability are derived using best available scientific information and informed scientific interpretation and judgement. The process uses sufficiently coarse categorisation to minimise uncertainty in information, reflecting the current state of our knowledge and understanding of the marine environment. Information has been gathered from a range of sources including reports such as ABP Research (1999).

6.2.1 Sensitivity assessment

The sensitivity assessment used is an assessment of the relative sensitivity of the interest features or the component sub-features of the Lundy European marine site to the effects of broad categories of human activities. In relation to this assessment, sensitivity has been defined as the intolerance of a habitat, community or individual (or individual colony) of a species to damage, or death, from an external factor (McLeod, 1996). As an example, kelp forest communities are sensitive to increases in turbidity of the surrounding water. This reduces the light penetration which in turn, prevents adequate photosynthesis.

The sensitivity assessments of the interest features or their component sub-features of the Lundy European marine site are based primarily upon a series of UK Marine SACs *Life* Project Task Reports 'An overview of dynamic and sensitivity characteristics for conservation and management of marine SACs' (Birkett and others 1998; Hartnoll, 1998 and Hill, and others 1998).

The sensitivity assessments are based on current information but may develop with improvements in scientific knowledge and understanding. In particular, English Nature and Scottish Natural Heritage have commissioned the Marine Biological Association of the UK, through its marine life information network (*MarLIN*) to provide detailed sensitivity information to underpin this advice, over the next three years, and will be available to all over the World Wide Web (www.marlin.ac.uk).

6.2.2 Exposure assessment

This has been undertaken for the Lundy European marine site by assessing the relative exposure of the interest or their component sub-features on the site to the effects of human activities to which they are sensitive (table 4). For example, the exposure of interest features within the site to changes in the thermal regime is negligible but exposure of some of the sub-features to physical disturbance is high.

6.2.3 Vulnerability assessment

The third step in the process is to determine the vulnerability of interest features or their component sub-features to operations. In the context of this assessment 'vulnerability' has been defined as the exposure of a habitat, community of individual (or individual colony) of a species to an external factor [human activity] to which it is sensitive (McLeod, 1996). For example reefs may be sensitive to physical removal through land claim and smothering by disposal of dredge spoil, but are not currently vulnerable at Lundy, due primarily to its location and existing management.

The assessment of the site has accordingly combined the relative sensitivity of the interest features or their component sub-features, with their exposure to current human usage, to determine their relative vulnerability to particular categories of operations. The process of deriving and scoring relative vulnerability is provided in Appendix II.

6.3 Format of advice

The advice is provided within six broad categories of operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species. This approach:

- enables links to be made between human activities and the ecological requirements of the habitats or species, as required under Article 6 of the Habitats Directive;

- provides a consistent framework to enable relevant authorities in England to assess the effects of activities and identify priorities for management within their areas of responsibility; and

- is appropriately robust to take into account the development of novel activities or operations which may cause deterioration or disturbance to the interest features of the site and should have sufficient stability to need only infrequent review and updating by English Nature.

These broad categories provide a clear framework against which relevant authorities can assess activities under their responsibility. The more detailed information in Tables 3 and 4 provides relevant authorities with a context against which to consider an assessment of 'significant effect' of any plans or projects which may affect the site and a basis to inform on the scope and nature of appropriate assessments required in relation to plans and projects. It is important to note that this advice is only a starting point for assessing impacts. It does not remove the need for the relevant authorities to formally consult English Nature over individual plans and projects where required to do so under the Regulations.

6.4 Update and review of advice

Information as to the operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species, for which the site has been designated, is provided in light of what English Nature knows about current activities and patterns of usage at the Lundy European marine site. English Nature expects that the information on current activities and patterns of usage (which was used to derive tables 3 and 4) will be supplemented as part of the process of developing the management scheme through further discussion with the relevant authorities. The option of zoning this information may be appropriate. As such, it is important that future consideration of this advice by relevant authorities and others takes account of changes in the usage patterns that have occurred at the site, over the intervening period, since the advice was issued. In contrast, the information provided in this advice on the sensitivity of interest features or sub-features (Table 4) is relatively stable and will only change as a result of an improvement in our scientific knowledge, which will be a relatively long term process. 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 and projects on the marine environment.

6.5 Summary of advice on operations

6.5.1 Reefs

In pursuit of the conservation objectives for the Reefs (Section 4.1) the relevant and competent authorities for the Lundy European marine site 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 damage through siltation or abrasion of the reef habitats.

- Non-toxic contamination through nutrient or organic enrichment or increases in turbidity.

Table 2 Showing operations which may cause deterioration or disturbance to the Lundy European marine site interest features at current levels of use[6]

The advice below is not a list of prohibitions but rather a checklist for operations for discussion with the management group, which may need to be subject to some form of management measures(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 operations which may cause deterioration or disturbance	**Reefs**
Physical Loss	
Removal (eg harvesting, land claim, coastal development)	
Smothering (eg disposal of dredge spoil)	
Physical Damage	
Siltation (eg dredging, outfalls)	✓
Abrasion (eg mobile benthic fishing, anchoring)	✓
Selective extraction (eg aggregate dredging, entanglement)	
Non-physical disturbance	
Noise (eg boat activity)	
Visual presence (eg recreational acitivity)	
Toxic contamination	
Introduction of synthetic compounds (eg TBT, PCBs, endocrine distruptors)	
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)	

Standard list of categories of operations which may cause deterioration or disturbance	Reefs
Biological disturbance Introduction of microbial pathogens Introduction of non-native species and translocation Selective extraction of species (eg commercial & recreational fishing)	

[6] This advice has been developed using best available scientific information and informed scientific interpretation and judgement (as at November 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. This is shown in the sensitivity and vulnerability matrices at Table 4. 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 precise impact of any category of operation occurring on the site will be dependent upon the nature, scale, location and timing of events. More detailed advice is available from English Nature to assist relevant authorities in assessing actual impacts and cumulative effects. Assessment of this information should be undertaken in the development of the management scheme by the management group and through wider consultation.

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 November 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.

6.6 Interest feature and sub-feature specific advice on operations

This section provides information to help relate general advice to each of the specific interest features of the Lundy European marine site.

This advice relates to the vulnerability of the interest features and sub-features of the Lundy European marine site as set out in Table 4 and summarised in Table 2. An explanation of the sensitivity of the interest features or sub-features follows with an explanation of their exposure and therefore their vulnerability to damage or disturbance from the listed categories of operations. This enables links to be made between the categories of operation and the ecological requirements of the European marine site's interest features, as set out in Section 3.

6.6.1 Reefs

i) Physical loss

- All the reef sub-features are sensitive to loss through direct removal or smothering. The loss of any of the reef communities would be of concern due to their ecological importance within the reef habitat and their long recovery times to this form of disturbance. Many communities that use the reef habitats are interdependent upon the ecological functioning of others (for example, invertebrate communities and fish) and it is important that this potential indirect effect is considered when the effects of removal or smothering are assessed.

- Loss by removal can be the result of either one-off events such as those caused by coastal development, or the cumulative effect of continuous activities. However, although the reef sub-features are sensitive to physical loss, at current levels of exposure they are not currently considered vulnerable to removal or smothering

ii) Physical damage

- All reef sub-features are sensitive to physical damage. Kelp forest and subtidal rock sub-features are particularly sensitive to increased siltation, to which they are currently exposed, as a result of activities such as dredging and aggregate extraction currently occurring outside the European marine site boundary. All reef sub-features are also sensitive to physical damage by abrasion. Subtidal rock communities however, are highly sensitive and currently highly vulnerable to abrasion which may result from activities such as fishing, recreational diving and anchoring.

iii) Non-toxic contamination

- Rocky shore areas on Lundy are sensitive to nutrient enrichment. An increase in the nutrient levels on the shore can alter the ecology of the reef communities in a number of ways. The principle concern being the growth of ephemeral algae which may smother shore communities and lead to a localised organic enrichment as they decay. Rocky shore communities are currently exposed to a sporadic localised effluent discharge and are therefore currently considered moderately vulnerable to nutrient enrichment.

- Rocky shores are also sensitive to increases in organic material which can result in reduced oxygen levels due to the increased activity of aerobic micro-organisms which break down the organic material. This can have knock-on effects for many marine animals living on the shores which require oxygen for their healthy functioning. Some species may be tolerant of the effects of organic enrichment with the result that they thrive at the expense of the more sensitive species, altering the community composition. As mentioned previously, rocky shore communities are currently exposed to a sporadic localised effluent discharge and given their sensitivity, are therefore currently considered moderately vulnerable to organic enrichment

- Kelp forests and subtidal plant communities are sensitive to increases in turbidity. An increase in turbidity can reduce the clarity of the water column and thus the penetration of light in the water. This can inhibit the growth of plants such as kelp which require light for photosynthesis. Kelp forests and subtidal rock sub-features are currently exposed to increases in turbidity which may result from activities such as dredging and aggregate extraction which is currently occurring outside the European marine site boundary. As a consequence, subtidal bedrock and stable boulder communities and kelp forest communities are currently considered moderately vulnerable to increases in turbidity.

6.7 Plans and Projects

Under Regulation 48(1), an appropriate assessment needs to be undertaken in respect of any plan or project which:

a. either alone or in combination with other plans or projects would be likely to have a ***significant effect*** on a European Site and
b. is not directly connected with the management of the site for nature conservation.

A European Site is any classified SPA and any SAC from the point where the European Commission and the Government agree the site as a Site of Community Importance. Appropriate assessment is also required, as a matter of Government policy, for potential SPAS, candidate SACs and listed Ramsar Sites for the purpose of considering development proposals affecting them. (PPG 9 paras 13 and C7).

English Nature's guidance note HRGN 1 `The Appropriate Assessment (Regulation 48)' is at Appendix IV for further information.

Tables 2, 3 and 4 provide relevant authorities with a guide against which to initiate an assessment of the `significance' of any plans or projects (and ongoing operations or activities) proposed for the site although this will only be the starting point for assessing impacts. However, it does not remove the need for relevant authorities to formally consult English Nature over individual plans and projects where required under the Regulations.

6.8 Review of consents

Regulation 50 of The Conservation (Natural Habitats, &c.) Regulations 1994 requires competent authorities to undertake a review of all existing consents and permissions affecting the SAC and SPA, as soon as possible after the site officially becomes a Site of Community Importance. This will have implications for discharge and other consents, which will need to

be reviewed in light of these objectives and may mean that lower targets for background levels of contaminants etc will need to be set.

Table 3 Assessment of the relative exposure of interest features and subfeatures of Lundy European marine site to different categories of operations. Relative exposure (this table) and sensitivity scores (Table 4) when combined are used to derive relative vulnerability using the table in Appendix III[7]

Key

High	High exposure
Medium	Medium exposure
Low	Low exposure
None	No current exposure

Categories of operations which may cause deterioration or disturbance	**Reefs**			
	Rocky shore communities	**Kelp forest communities**	**Subtidal vertical & overhanging circalittoral rock communities**	**Subtidal bedrock and stable boulder communities**
Physical Loss				
Removal (eg. harvesting, land claim)	**None**	**None**	**None**	**None**
Smothering (eg. disposal of dredge spoil)	**Low**	**Low**	**None**	**Low**
Physical Damage				
Siltation (eg. dredging, outfalls)	**Medium**	**Medium**	**Medium**	**Medium**
Abrasion (eg. mobile benthic fishing, anchoring)	**Low**	**Low**	**Medium**	**Medium**
Selective extraction (eg. aggregate dredging, entanglement)	**None**	**None**	**None**	**None**
Non-physical disturbance				
Noise (eg. boat activity)	**None**	**None**	**None**	**None**
Visual presence (eg. recreational activity)	**None**	**None**	**None**	**None**
Toxic contamination				
Introduction of synthetic compounds (eg. TBT, PCBs, endocrine disruptors)	**None**	**None**	**None**	**None**

Categories of operations which may cause deterioration or disturbance	Reefs			
	Rocky shore communities	Kelp forest communities	Subtidal vertical & overhanging circalittoral rock communities	Subtidal bedrock and stable boulder communities
Introduction of non-synthetic compounds (eg. heavy metals, hydrocarbons)	**None**	**None**	**None**	**None**
Introduction of radionuclides	**None**	**None**	**None**	**None**
Non-toxic contamination				
Nutrient enrichment (eg. agricultural run-off, outfalls)	**Medium**	**Low**	**Low**	**Low**
Organic enrichment (eg. mariculture, outfalls)	**Medium**	**Low**	**Low**	**Low**
Changes in thermal regime (eg. power stations)	**None**	**None**	**None**	**None**
Changes in turbidity (eg. dredging)	**Low**	**Medium**	**Low**	**Medium**
Changes in salinity (eg. water abstraction, outfalls)	**None**	**None**	**None**	**None**
Biological disturbance				
Introduction of microbial pathogens	**None**	**None**	**None**	**None**
Introduction of non-native species and translocation	**Low**	**None**	**None**	**None**
Selective extraction of species (eg. commercial and recreational fishing)	**None**	**Low**	**Low**	**Low**

[7]"This table of current exposure is provided in light of what English Nature knows about current activities and patterns of usage at the Lundy European marine site (as at November 1999). English Nature expects that the information on current activities and patterns of usage to be refined further as a part of the process of developing the management scheme through further discussion with the relevant authorities. As such it is important that future consideration of English Nature's operations advice by relevant authorities takes account of changes in usage patterns (relative exposure) that have occurred on the site since the advice was issued.,

Table 4. Assessment of the relative vulnerability of interest features and sub-features of the Lundy European marine site to different categories of operations. Categories of operations to which the features or sub-features of the site are highly or moderately vulnerable are indicated by shading. This table also incorporates relative sensitivity scores used in part to derive vulnerability.[8]

Key

	High vulnerability	●●●●	High sensitivity
	Moderate vulnerability	●●●	Moderate sensitivity
		●●	Low sensitivity
		●	No detectable sensitivity

Categories of operations which may cause deterioration or disturbance	Reefs			
	Rocky shore communities	Kelp forest communities	Subtidal vertical & overhanging circalittoral rock communities	Subtidal bedrock and stable boulder communities
Physical Loss				
Removal (eg harvesting, land claim)	●●●●	●●●●	●●●●	●●●●
Smothering (eg disposal of dredge spoil)	●●●	●●●	●●●	●●●
Physical Damage				
Siltation (eg dredging, outfalls)	●●●	●●●	●●●	●●●
Abrasion (eg mobile benthic fishing, anchoring)	●●●	●●●	●●●●	●●●●
Selective extraction (eg aggregate dredging, entanglement)	●●●	●●●	●●●	●●●●
Non-physical disturbance				
Noise (eg boat activity)	●	●	●	●

Categories of operations which may cause deterioration or disturbance	Reefs			
	Rocky shore communities	**Kelp forest communities**	**Subtidal vertical & overhanging circalittoral rock communities**	**Subtidal bedrock and stable boulder communities**
Visual presence (eg recreational activity)	●	●	●	●
Toxic contamination				
Introduction of synthetic compounds (eg TBT, PCBs, endocrine disruptors)	●●●●	●●●●	●●●●	●●●●
Introduction of non-synthetic compounds (eg heavy metals, hydrocarbons)	●●●	●●●	●●●	●●●
Introduction of radonuclides	●●	●●	●●	●●
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)	●●●	●●●	●●●	●●●

Categories of operations which may cause deterioration or disturbance	Reefs			
	Rocky shore communities	**Kelp forest communities**	**Subtidal vertical & overhanging circalittoral rock communities**	**Subtidal bedrock and stable boulder communities**
Biological disturbance				
Introduction of microbial pathogens	●	●	●	●
Introduction of non-native species and translocation	●●●	●●	●●	●●
Selective extraction of species (eg commercial and recreational fishing)	●●●	●●●	●●●	●●●

[8]English Nature's advice on operations is derived from an assessment combining relative sensitivity of the features or sub-features with information on human usage of the site (see Table 3) to identify relative vulnerability to categories of operations (as at November 1999). In accordance with Government policy guidance this advice is provided in the light of current activities and patterns of usage at the site. It is important therefore that future consideration of this advice by relevant authorities, and others, takes account of changes in usage patterns at the site. In contrast, the sensitivity of interest features, or sub-features, is relatively stable with alterations reflecting improvement in our scientific knowledge and understanding. To this end, information on sensitivity has been included in this table to assist the management and advisory groups with the future management of the site.

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8. Glossary

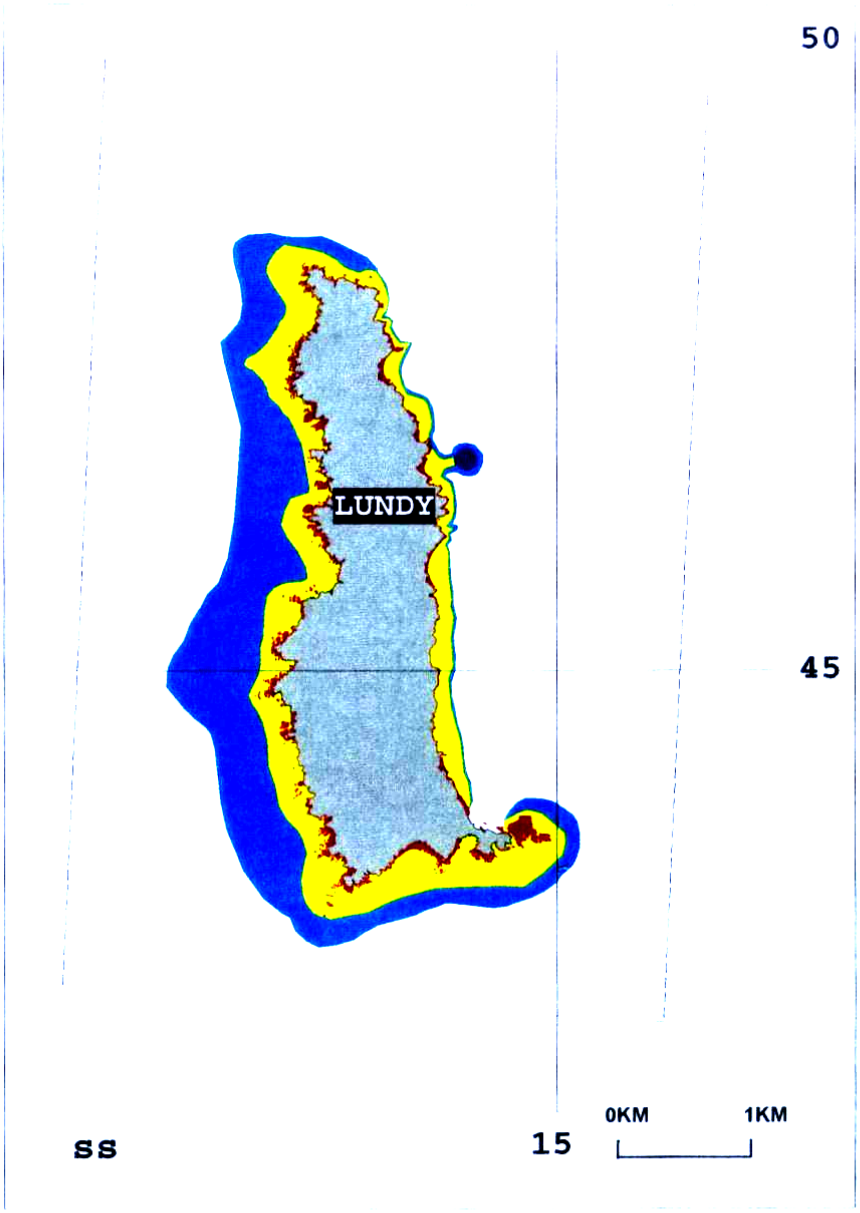
Advisory Group	The body of representatives from local interests, user groups and conservation groups, formed to advise the management group
Annex I habitat type(s)	A natural habitat(s) listed in Annex I of the Habitats Directive for which Special Areas of Conservation can be selected.
Annex II species	A species listed in Annex II of the Habitats Directive for which Special Areas of Conservation can be selected.
Annex V	The listing, in the Habitats Directive, of the animal and plant species whose taking in the wild and exploitation may be subject to management measures.
Assemblage	A collection of plants and/or animals characteristically associated with a particular environment.
Attribute	Characteristic of an interest feature/sub-feature which provides an indication of the condition of the feature or sub-feature to which it applies.
BAP	Biodiversity Action Plan.
Benthos	Those organisms attached to, or living on, in or near, the seabed, including that part which is exposed by tides.
Biotope	The physical habitat with its biological community; a term which refers to the combination of physical environment and its distinctive assemblage of conspicuous species.
Biodiversity	The total variety of life on earth. This includes diversity within species, between species and of ecosystems.
Characteristic	Special to or especially abundant in a particular situation or biotope. Characteristic species should be immediately conspicuous and easily identified.
Circalittoral	The rocky subtidal zone below that which is dominated by algae (Animal dominated subtidal zone)
Community	A group of organisms occurring in a particular environment, presumably interacting with each other and with the environment, and identifiable by means of ecological survey from other groups.
Competent authority	Any Minister, government department, public or statutory undertaker, public body or person holding a public office that exercises legislative powers.
Conservation objective	A statement of the nature conservation aspirations for a site, expressed in terms of the favourable condition that we wish to see the species and/or habitats for which the site has been selected to attain. Conservation objectives for European marine sites relate to the aims of the Habitats Directive.
Eulittoral	The main part of the intertidal zone characterised by limpets, barnacles, mussels, fucoid algae and with red algae often abundant on the lower part.

European marine site	A European site (SAC or SPA) which consists of, or in so far as it consists" of, marine areas.
Favourable conservation status	A range of conditions for a natural habitat or species at which the sum of the influences acting upon that habitat or species are not adversely affecting its distribution, abundance, structure or function throughout the EC in the long term. The condition in which the habitat or species is capable of sustaining itself on a long-term basis.
Favourable condition	A range of conditions for a natural habitat or species at which the sum of the influences acting upon that habitat or species are not adversely affecting its distribution, abundance, structure or function within an individual *Natura 2000* site in the long term. The condition in which the habitat or species is capable of sustaining itself on a long-term basis.
Habitat	The place in which a plant or animal lives.
Habitats Directive	The abbreviated term for *Council Directive 921431EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora.* It is the aim of this Directive to promote the conservation of certain habitats and species within the European Union.
Infauna	Benthic animals which live within the seabed.
Infralittoral	The subtidal zone in which upward facing rocks are dominated by erect algae, typically kelps.
Interest feature	A natural or semi-natural feature for which a European site has been selected. This includes any Habitats Directive Annex I habitat, or specific component of their fauna and flora, or any Annex 11 species and any population of a bird species for which and SPA has been designated under the Birds Directive. Any habitat of a species for which a site has been selected, or typical species of an Annex I habitat are also considered to be interest features.
Maintain	The action required for an interest feature when it is considered to be in favourable condition.
Management group	The body of relevant authorities formed to manage the European marine site.
Management scheme	The framework established by the relevant authorities at a European marine site under which their functions are exercised to secure, in relation to that site, compliance with the requirements of the Habitats Directive.
Nationally scarce/rare	For marine purposes, these are regarded as species of limited national occurrence.
Natura 2000	The European network of protected sites established under the Birds Directive and the Habitats Directive
Notable species	A species that is considered to be notable due to its importance as an indicator, and may also be of nature conservation importance, and which is unlikely to be a ‘characteristic species’ (*qv*)

Operations which may cause deterioration or disturbance	Any activity or operation taking place within, adjacent to, or remote from a European marine site that has the potential to cause deterioration to the natural habitats for which the site was designated or disturbance to the species and its habitats for which the site was designated.
Plan or project	In general, any operation which requires an application to be made for specific statutory consent, authorisation, licence or other permission. Specifically, any proposed development that is within a relevant authority's function to control, or over which a competent authority has a statutory function to decide on applications for consents, authorisations, licences or permissions.
Relevant authority	The specific competent authority which has powers or functions which have, or could have, an impact on the marine environment, or adjacent to, a European marine site.
Restore	The action required for an interest feature when it is not considered to be in a favourable condition.
Sensitivity	The intolerance of a habitat, community or individual species to damage from an external force.
Subfeature	An ecologically important sub-division of an interest feature.
Vulnerability	The exposure of a habitat, community or individual of a species to an external factor to which it is sensitive.
WeBs	Wetland Bird Survey: a collaborative national surveillance scheme of the UK's waterfowl based on counts undertaken once per month outside of the breeding season

LUNDY EUROPEAN MARINE SITE : LOCATION OF INTEREST FEATURES

FIGURE 1



KEY

REEFS

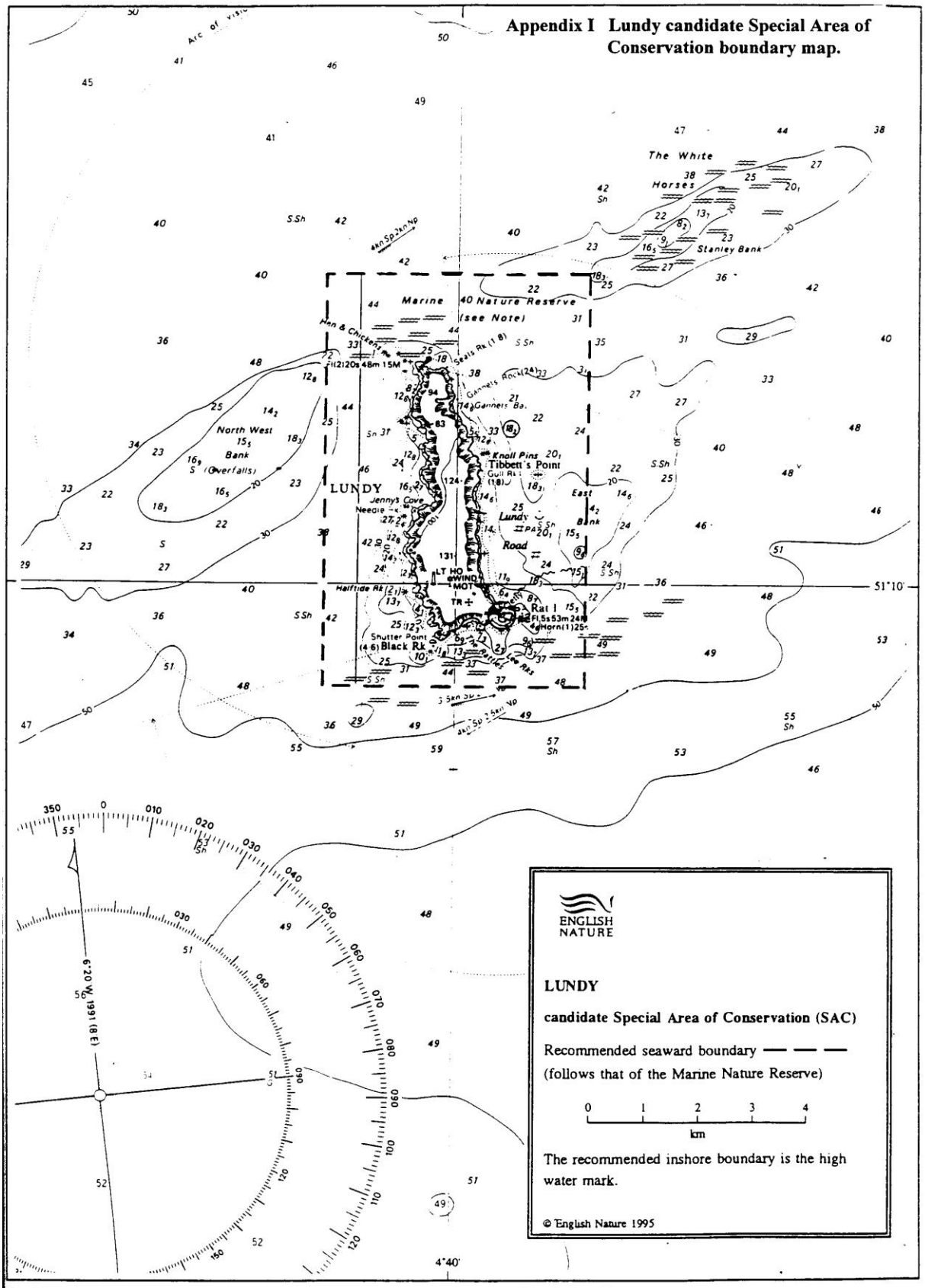
- Rocky shore communities
- Kelp communities
- Vertical and overhanging circalittoral rock communities
- Circalittoral bedrock and stable boulder communities
- European marine site boundary

1) The landward boundary of the European marine site is the point of Highest Astronomical Tide. This is the limit of intermittent cover by tides at the top of the shore.

2) This location map is indicative only. It identifies the distribution of the main biotopes, based on Hiscock,K.1999.pers comm.

Appendix I Lundy candidate Special Area of Conservation boundary map

Appendix I Lundy candidate Special Area of Conservation boundary map.



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Appendix II Matrix of relative vulnerability

The relative vulnerability of an interest feature or sub-feature is determined by multiplying the scores for relative sensitivity and exposure, and classifying that total into categories of relative vulnerability

		Relative sensitivity of the interest feature			
		High (3)	**Medium (2)**	**Low (1)**	**None detectable (0)**
Relative exposure of the interest feature	**High (3)**	9	6	3	0
	Medium (2)	6	4	2	0
	Low (1)	3	2	1	0
	None (0)	0	0	0	0

Categories of relative vulnerability	
High	6-9
Medium	3-5
Low	1-2
None detectable	0

Appendix III Summary of key biotopes (Connor and others 1997) – reference Favourable Condition Table

Interest Feature	Sub-feature	Biotope code	Biotope description
Reefs	Rocky shore communities	LR.Cor	*Corallina officinalis* and coralline crusts in shallow eulittoral rockpools. These 'coralline' pools have a striking appearance as they are dominated predominantly by red algae.
		LR.Cor.Bif LR.Cor.Cys	In the south-west the brown alga *Bifurcaria bifurcata* (Cor.Bif) or *Cystoseira* spp. (Cor.Cys) can be dominant.
		LR.FK	Fucoids and kelps in deep eulittoral rockpools.
			These deep pools often contain a community charactersided by *Fucus serratus* and *Laminaria digitata*, with a wide variety of filamentous and foliose algae occurring beneath this brown algal canopy.
		MLR.Fser.Fser.Bo	*Fucus serratus* and under-boulder fauna on lower eulittoral boulders. The shaded sides of the boulders are often colonised by a variety of red algae and where space is available beneath the boulders a rich assemblage of animals also occur.
		MLR.FvesB	*Fucus vesiculosus* and barnacle mosaics on moderately exposed mid eulittoral rock
		LR.SByAs	Sponges, bryozoans and ascidians of deeply overhanging lower shore bedrock
	Kelp forest communities	EIR.Ala	*Alaria esculenta* on sublittoral fringe bedrock.
		EIR.LhypFa & MIR.Lhyp.Ft	Upper infralittoral bedrock with dense *Laminaria hyperborea* forest. Moderately exposed infralittoral rock with *Laminaria hyperborea* forest.
		MIR.Sac	*Saccorhiza polyschides* and other opportunistic kelps on disturbed upper infralittoral rock
		MIR.Lsac.T	*Laminaria saccharina*, foliose red seaweeds, sponges and ascidians on tide-swept infralittoral rock

Interest Feature	Sub-feature	Biotope code	Biotope description
		EIR.LhypR.Loch	Mixed *Laminaria hyperborea* and *Laminaria ochroleuca* forest on exposed infralittoral rock.
Reefs	Vertical and overhanging circalittoral rock communities	CR.FaV	Faunal turfs on deep vertical rock
		EIR.CC.BalPom (in part)	Encrusting sponges, bryozoa and *Pomatoceros* spp. in surge gullies.
		EIR.SCAs.ByH	*Morchellium argus*, sponges and foliose red algae on infralittoral vertical bedrock.
	Circallittoral bedrock and stable boulder communities	MCR.ErS.Eun	Erect sponges, *Eunicella verrucosa* and *Pentapora foliacea* on slightly tide-swept moderately exposed circalittoral rock.
		ECR.AlcTub (in part)	*Alcyonium digitatum, Caryophyllia smithii* and *Corynactis viridis* on wave exposed tosheltered circalittoral rock
		ECR.AlcMas (in part)	*Alcyonium digitatum*, large *Cliona celata* and *Pachymatisma johnstonia* and *Nemertesia antennina* on moderately tide-swept exposed circalittoral rock
		MCR.ErSPblSH	Erect sponges with rich faunal turf.

Appendix IV English Nature's guidance note HRGN1 'The appropriate assessment (Regulation 48)'

Issued 14 January 2000

ENGLISH NATURE

HRGN 1

Habitats regulations guidance note

Issued by Greg Smith, Environmental Impacts Team, English Nature. Tel: 01733 455210

The Appropriate Assessment (Regulation 48)
The Conservation (Natural Habitats &c) Regulations, 1994

Introduction

1. This Guidance Note has been prepared to assist competent authorities and English Nature staff when undertaking the ***"appropriate assessment"*** required by Regulation 48 of the *Habitats Regulations 1994* implementing Article 6(3) of the *Habitats Directive* (92/43/EEC). Only the Courts can provide authoritative interpretation of the Regulations, but these notes have been developed in the light of practical experience and a close examination of the Regulations, the Habitats Directive and central government guidance, particularly in PPG 9.

When Does An 'Appropriate Assessment' Need To Be Undertaken?

Types of Proposal

2. Under Regulation 48(1), an appropriate assessment needs to be undertaken in respect of any plan or project which:

a. either alone or in combination with other plans or projects would be likely to have a ***significant effect*** on a European Site, and
b. is not directly connected with the management of the site for nature conservation.

3. Appropriate assessment is required by law for all European Sites (Regulation 48). A European Site is any classified SPA and any SAC from the point where the Commission and the Government agree the site as a Site of Community Importance. Appropriate assessment is also required, as a matter of Government policy, for potential SPAs, candidate SACs and listed Ramsar Sites for the purpose of considering development proposals affecting them. (PPG 9 paras 13 and C7).

Timing of the Assessment

4. An appropriate assessment needs to be undertaken in respect of a plan or project described above **before** any ***"competent authority"***:

a. decides to undertake the plan or project, in cases where no consent, permission or other authorisation is required. (Reg. 48(1));
b. decides to give any consent, permission or other authorisation for the plan or project. (Regs. 48(1) *et al*);
c. reviews the decision to undertake a plan or project or reviews consents, permissions or other authorisations for plans or projects that are incomplete. (Regs. 50(2) *et al* - see also English Nature Habitats Regulations Guidance Note No. 2);
d. decides whether to approve an application for development that would otherwise be permitted development. (Reg. 62(6)).

Significant Effects

5. The plan or project does not have to be located within the designated area. Significant effects may occur even if the plan or project is some distance away and even outside any consultation area defined by English Nature (PPG 9 paras 30-32). The effects may be direct or indirect, temporary or permanent, beneficial or harmful to the site, or a combination of these.

6. The initial determination of likely significance is intended to ensure that all relevant plans and projects likely to have a material effect on these internationally important sites are subject to an appropriate assessment. In all but the most clear cut cases, competent authorities are likely to need advice. English Nature will advise, on request, as to whether any particular plan or project may be likely to have a significant effect on any of these sites. If the decision as to whether or not the development would have a significant effect on the designated site is inconclusive, on the information available, the competent authority should make a fuller assessment; in doing so they may ask the developer or other parties for more information. (PPG 9 para C10).

Who Undertakes the Appropriate Assessment?

7. The appropriate assessment must be undertaken by the *competent authority*, as defined in Regulation 6(1) of the Habitats Regulations, which includes any Minister, Government Department, public or statutory undertaker, public body of any description or person holding a public office. The developer or proposer of the plan or project is required to provide relevant information. English Nature must be consulted, during the course of the assessment, but it is the duty of the competent authority to undertake the assessment itself.

8. Most competent authorities will not have the technical expertise "in house" to assess the effects of the plan or project on the international nature conservation interests. Most will need to rely heavily on the advice, guidance and recommendations of English Nature, at each stage, including the scope and content of the assessment, the site's conservation objectives, the information required from the developer or proposer and the effects on the integrity of the site, all of which are discussed below. The appropriate assessment, in many cases, is likely to be an iterative process. In the simplest cases a general statement in a single consultation response from English Nature may suffice to enable the competent authority to complete the assessment. However, in most cases, it is envisaged that a more detailed response from, and dialogue with, English Nature is likely to be necessary.

What is an 'Appropriate Assessment'

9. It is a self contained step in a wider decision making process, required by the Habitats Regulations and described more fully in PPG 9, Annex C. Its conclusions must be based only on the scientific considerations under steps laid out in the Habitats Regulations. The assessment should not be influenced by wider planning or other considerations.

10. The Regulations do not specify how the assessment should be undertaken but describe it simply as "an appropriate assessment". This is taken to mean that the assessment must be appropriate to its purpose under the Regulations (and also the Directive, which originated the use of the term). Its purpose is to assess the implications of the proposal in respect of the site's "***conservation objectives***". The conclusions of the

assessment should enable the competent authority to ascertain whether the proposal would adversely affect the integrity of the site.

Scope and Content

11. PPG 9 indicates that the scope and content of an appropriate assessment will depend on the location, size and significance of the proposed plan or project (PPG 9 box C10). The PPG indicates that English Nature will advise on a case-by-case basis. According to the nature conservation interests of the site, English Nature will identify particular aspects that the appropriate assessment should address. Examples given are hydrology, disturbance and land-take, but there are clearly many other potential matters that may need to be addressed in particular cases.

12. Procedures under the Habitats Regulations should be confined to the effects on the internationally important habitats or species for which the site is or will be internationally designated or classified, including any indirect effects on these interests, for example, via their supporting ecosystems and natural processes. Notwithstanding a favourable assessment in respect of the plan or project's effects on the international nature conservation interests for which the site was classified or designated, decisions to undertake or give consent to the plan or project may need to take account of other international, national, regional or local nature conservation interests in the light of other policy and legislative provisions. (PPG 9 paras 4, 18 and 27).

Environmental Assessment

13. The appropriate assessment is not the same as an environmental assessment under the provisions of the various *Environmental Assessment (EA) Regulations* (1988-95), in compliance with the Directive 85/337/EEC. In many cases, plans or projects that will be subject to an appropriate assessment will need an Environmental Statement (ES) to be prepared under the EA Regulations. (PPG 9 paras 38 and 39).

14. The ES will address all significant environmental effects. It will be appropriate to use the information assembled for the ES when carrying out the appropriate assessment under the Habitats Regulations. In view of this it would be helpful if the relevant ES clearly identified, under a specific subject heading, the likely significant effects on the internationally important habitats and/or species.

How is an Appropriate Assessment Undertaken?

Key Steps

15. Having established that an appropriate assessment is required, the following conclusions may be drawn (from the foregoing considerations and Government guidance) in respect of how it should be undertaken.

The Key Steps in an Appropriate Assessment

The competent authority:

I

Must consult English Nature

II

May consult the general public

III

Should clearly identify and understand the site's conservation objectives having regard to the advice of English Nature

IV

Should require the applicant to provide such information as may reasonably be required for the purposes of the assessment

V

Should identify the effects of the proposal on the habitats and species of international importance and how those effects are likely to affect the site's conservation objectives

VI

Should decide whether the plan or project, as proposed, would adversely affect the integrity of the site in the light of the conservation objectives

VII

Should consider the manner in which the plan or project is proposed to be carried out, whether it could be modified, or whether conditions or restrictions could be imposed, so as to avoid adverse effects on the integrity of the site

VIII

Should conclude whether the proposal, as modified by conditions or restrictions, would adversely affect the integrity of the site

IX

Should record the Assessment and notify English Nature of the conclusions

The Key Steps Explained

These key steps are explained in more detail below.

I. Consulting English Nature

16. Under Regulation 48(3) the competent authority must consult English Nature and must have regard to any representations made by English Nature. It may be inferred from PPG 9 (box C10 and para C9) that the competent authority would be expected to follow the advice of English Nature and normally to decide the case "*in accordance with the recommendations of English Nature*". If it does not do so, the competent authority should be prepared to explain its reasons. In cases where it proposes to agree to a plan or project notwithstanding a negative assessment, the competent authority is required to notify the Secretary of State in advance of any decision.

II. Consulting the General Public

17. Under Regulation 48(4) the competent authority may (if it considers it appropriate) take the opinion of the general public, on the implications of the proposal for the site's conservation objectives, using whatever steps they consider necessary. This may usefully include taking the opinion of others with relevant knowledge or expertise.

III. The Site's Conservation Objectives

18. The Regulations do not define what is meant by the site's conservation objectives but PPG 9 box C10 describes them as:

"*the objectives.... / the reasons for which the site was classified or designated*"

English Nature will be able to give a clear statement of the site's conservation objectives in the light of its European Site Register entry (compiled by Government under Regulation 11), its citation, its reasons for recommendation, English Nature's knowledge of the site, national and international objectives for the international nature conservation interests (such as may be contained in the UK Biodiversity Action

Plan) and any Management Plan or Management Statement for the site in so far as they relate to the interests for which the site was selected.

19. The site may also host habitats and/or species of Community interest (see Article 1 of the Habitats Directive) which are not mentioned in the European Site Register, the citation or the reasons for recommendation because they were not, at the time, a reason for classification or designation. Such features are not relevant to the appropriate assessment itself. Nevertheless their presence may be material to the decision as to whether or not to undertake or to consent to the plan or project.

IV. Requiring Further Information

20. The competent authority, taking the advice of English Nature where necessary, should require the applicant to provide such information as the competent authority may reasonably require for the purposes of making the assessment (Reg.48(2)). The information required may relate to any environmental information, or information about the proposal, relevant to the assessment and may include:

i. information already available, or
ii. new information from surveys that may need to be carried out, or
iii. data analysis, predictions, comparisons or assessments of a technical nature.

V. Identifying the Effects

21. Having regard to English Nature's advice and other consultation responses and, where relevant, taking account of the ES or any other information supplied by the developer/proposer, or otherwise available, the competent authority should identify what the effects of the proposal are likely to be. The effects considered should be those of the plan or project, either alone or in combination with other plans or projects, on the habitats and species of international importance and how those effects are likely to affect the site's conservation objectives. This will involve considering, for example, the nature, scale, geographic extent, timing, duration and magnitude of direct and indirect effects; considering the degree of certainty in the prediction of effects; considering all mitigating measures already contained in the proposal and the extent to which these measures are likely to avoid, reduce or ameliorate adverse effects on the international nature conservation interests. It is the residual effects, after mitigation, that are considered at this stage.

VI. Integrity of the Site

22. Having regard to English Nature's advice, other consultation responses and any other information available, the competent authority should decide whether the plan or project, as proposed, would adversely affect the integrity of the site, in the light of its conservation objectives. That is, whether the plan or project would adversely affect the "*coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified*" (PPG 9 box C10). An adverse effect on integrity is likely to be one which prevents the site from making the same contribution to favourable conservation status for the relevant feature as it did at the time of its designation.

23. The form of words used in Regulation 48(5) implies that a precautionary approach should be taken in considering effects on integrity, in line with the Government's principles for sustainable development (see *Sustainable Development: the UK strategy* page 33). Regulation 48(5) says that (subject to Regulation 49) projects may only proceed if the competent authority has ascertained that it **will not adversely affect** the integrity of the European site.

VII. Considering How To Avoid Adverse Effects

24. If the proposal would adversely affect the integrity of the site then, having regard to English Nature's advice, the competent authority should consider the manner in which it is proposed to be carried out and whether the plan or project could be modified, or whether conditions or restrictions could be imposed, so as to avoid the adverse effects. This may include, for example, changes to the siting, layout, timing or use of the proposal and the use of obligations or legal agreements. (Reg. 48(6)).

25. Compensatory measures that may be offered in the proposal at this stage, seeking to redress but not remove residual harm to the international interests (such as the provision of land for habitat creation purposes), should not be considered in the appropriate assessment, but may be considered later in the decision making process. (See Reg. 53).

VIII. Conclusion on Effects In The Light of Conditions and Restrictions

26. The competent authority should reassess the conclusions in the light of any such modifications, conditions or restrictions that may be agreed or imposed.

IX. Recording the Assessment

27. It would be advisable for this conclusion, and the reasons for it, to be recorded. English Nature should be notified of the conclusion of the appropriate assessment and the authority's decision as to the effects on the integrity of the site, before the authority undertakes the plan or project or issues any permission, consent or other authorisation (PPG 9 para 30).

28. The subsequent courses of action open to a competent authority are set out in Regulations 48(5) - (7), 49 and 54(3). The Regulations prohibit a competent authority from undertaking or giving consent to any plan or project unless the appropriate assessment concluded that it would not have an adverse effect on the integrity of the site, or specific criteria are met and the Secretary of State has been informed.

Good Practice Outline of an Appropriate Assessment Record

29. A suggested model or good practice outline record of an appropriate assessment is set out below. It may be contained in, for example, a planning officer's committee report or the minutes of a competent authority's decision. In other cases it may be a file note, clearly recording compliance with the Regulations. The record may take many different forms because each assessment needs to be appropriate to the type, scale, location and significance of the proposal and to the relevant nature conservation interests. It is provided here as a guide to assist competent authorities and English Nature staff, not as an authoritative legal formula. Any record made of an appropriate assessment should be copied to English Nature and to any other parties who were consulted on the assessment.

Title of Plan or Project/Application
Location of Plan or Project/Application
[With location plan attached showing relationship to the international designation]
International Nature Conservation Site
Nature/Description of Plan or Project/Application
[Including brief description of manner in which plan or project is proposed to be carried out]
Date Appropriate Assessment Recorded

This is a record of the appropriate assessment, required by Regulation 48 of the Habitats Regulations 1994, undertaken by [name of competent authority] in respect of the above plan/project, in accordance with the Habitats Directive (Council Directive 92/43/EEC). Having considered that the plan or project would be likely to have a significant effect on the [name of international site] and that the plan or project was not directly connected with or necessary to the management of the site, an appropriate assessment has been undertaken of the implications of the proposal in view of the site's conservation objectives.

*English Nature was consulted under Regulation 48(3) on [date] and their representations, to which this authority has had regard, are attached at Annex 1. The conclusions of this appropriate assessment * are/are not in accordance with the advice and recommendations of English Nature.*

**The applicant was required to submit further information reasonably necessary for this assessment on [date] under Reg.48(2) * and replied with the information on [date]/but did not supply the information.*

** The opinion of the general public was taken under Reg. 48(4) by way of *public advertisement/further consultation etc and the views expressed (attached at Annex 2) have been taken into account.*

The site's conservation objectives have been taken into account, including consideration of the citation for the site and information supplied by English Nature (see Annex 1). The likely effects of the proposal on the international nature conservation interests for which the site was designated may be summarised as:
[List of Effects]

The assessment has concluded that:
a) the plan or project **as proposed would not adversely affect the integrity of the site,*
or
b) the plan or project **as proposed would adversely affect the integrity of the site.*
[If (b):]
The imposition of conditions or restrictions on the way the proposal is to be carried out has been considered and it is ascertained that:
**a) conditions or restrictions cannot overcome the adverse effects on the integrity of the site.*
or
**b) the following conditions and/or restrictions would avoid adverse effects on the integrity of the site. [list conditions/restrictions]*

Signed ..... Date ..... (delete as appropriate)*
Annexes to also include relevant correspondence, minutes or meetings with English Nature, the applicant etc.

Appendix V Relevant authority names and addresses

Devon Sea Fisheries Committee Office No. 9 Fish Market Brixham Devon, TQ5 8AW	English Nature Trevint House Strangways Villas Truro TR1 2PA
Environment Agency Manley House Kestrel Way Exeter Devon, EX2 7LQ	*Landmark Trust* *Crownhill Fort* *Plymouth* *Devon* *PL6 SBX*
National Trust *Killerton House* *Broadclyst* *Exeter* *EXS 3LE*	Director *of* Planning & Technical Services Torridge District Council Riverbank House Bideford Devon EX13 2QG

Note Those organisations in italics are not relevant authorities, but form part *of* the Lundy Marine Nature reserve management group, which has taken on the role of the SAC management group.