Natura 2OOO

The Joint Nature Conservation Committee (JNCC) is responsible to the UK government for research and advice on nature conservation at both national and international levels, on behalf of the Countryside Council for Wales, English Nature and Scottish Natural Heritage, together with independent members and representatives from the Countryside Agency and Northern Ireland.

English Nature (EN) is the statutory advisor to the Government on nature conservation in England and promotes the conservation of England's wildlife and natural features.

Scottish National Heritage (SNH) is the Government agency which promotes the conservation, enhancement, understanding, enjoyment and sustainable use of Scotland's natural heritage of wildlife, habitats and landscapes.

Environment & Heritage Services EHS (DoE (NI)) is an agency within the Department of the Environment of Northern Ireland which aims to protect and conserve the natural and man-made environment and to promote its appreciation for the benefit of present and future generations.

The Countryside Council for Wales (CCW) is the Government's statutory advisor on sustaining natural beauty, wildlife and the opportunity for outdoor enjoyment in Wales and its inshore waters. The national wildlife conservation authority for Wales.

Scottish Association for Marine Science (SAMS) promotes research and education in marine science particularly on issues relevant to Scotland.

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The UK Marine SACs Project is a joint venture involving English Nature (lead agency), Scottish Natural Heritage, Countryside Council for Wales, Environment and Heritage Service, Department of Environment for Northern Ireland, Joint Nature Conservation Committee and the Scottish Association for Marine Science.

Indications of Good Practice

for establishing management schemes

on European marine sites

Learning

from

the UK

Marine SACs

Project

1996-2001

UK Marine
SACs Project

October 2001

Indications of good practice for establishing management schemes on European marine sites -
Learning from the UK Marine SACs Project 1996 - 2001.

Arwyddion o Ymarfer Da ar gyfer Sefydlu Cynlluniau Rheoli ar Safleoedd Morol Ewropeaidd -
Dysgu oddi wrth Brosiect ACAM y DU 1996 - 2001.

Preface

The 1990s saw a "call to action" for marine biodiversity conservation. The Global Convention
on Biodiversity, the European Union's Habitats Directive and developments to the Oslo and Paris
Convention gave marine protected areas a key role in sustaining marine biodiversity and provid-
ed a significant step forward. In Europe, the Habitats Directive requires the maintenance or
restoration of natural habitats and species of European interest, through management of a net-
work of Special Areas of Conservation (SACs).

The UK Marine SACs LIFE Project was set up in 1996 as[1] a partnership to help implement the
Habitats Directive. The overall goal was to establish management schemes on twelve candidate
marine SAC sites. These were selected for their range of features against which the develop-
ment of management schemes could be demonstrated. Five years later, this has now been
completed. The Project has also been a prime mover and catalyst for new ways of working at
other marine sites.

The preparation of a management scheme by relevant authorities for a SAC represents a major
milestone in the conservation of wildlife. Groups preparing management schemes were forced
to develop new concepts, collate and interpret the existing but dispersed
knowledge-base, trial ways of involving all stakeholders, and identify what changes to existing
management regimes were needed. As a result of the management planning process,
important new relationships and partnerships were established between statutory and non-
statutory interest groups, including procedures for the on-going review of management.

Before this project started, there had been relatively little done to protect marine wildlife explic-
itly. In preparing management schemes for the twelve sites over the last five years we have
built up a considerable body of experience and knowledge, from both our successes and fail-
ures. In doing this we have benefited greatly from the feedback of our partners, both the
statutory relevant authorities and wider stakeholder groups.

This report captures these experiences and learning. I commend it to everyone involved in
managing marine sites both in the UK and more widely across Europe.

The report is organised around three axes - people, science and documentation. It works well
if read section by section as needed. If you read it cover to cover you will find some issues
recur in a number of places. This is because the three axes or themes are so
interlinked that it was not possible to explore one without consideration of the others. It also
reflects our experience that forging new relationships, consensus building and decision-
making followed sequences that were neither orderly nor linear.

Sue Collins
Chair, UK Marine SACs Project
Director, English Nature

Rhagair

Yn ystod y 1990au bu galw ar i rywbeth gael ei wneud dros gadwraeth fioamrywiaeth forol. Mae'r Cytundeb byd-eang ar Fioamrywiaeth, Gorchymyn Cynefinoedd yr Undeb Ewropeaidd a datblygiadau i Gytundeb Oslo a Pharis wedi rhoi rhan allweddol i ardaloedd morol gwarchodedig mewn cynnal bioamrywiaeth morol ac wedi darparu cam arwyddocaol ymlaen. Yn Ewrop, mae'r Gorchymyn Cynefinoedd yn gofyn am gynnal neu adfer cynefinoedd a rhywogaethau naturiol o ddiddordeb Ewropeaidd trwy reoli rhwydwaith o Ardaloedd Cadwraeth Arbennig (ACA).

Cafodd Prosiect LIFE ACA Morol y DU ei sefydlu yn 1996 [1] fel partneriaeth i helpu gweithredu'r Gorchymyn Cynefinoedd. Y nod yn y pen draw oedd sefydlu cynlluniau rheoli ar gyfer deuddeg o safleoedd yACAM. Cafodd y rhain eu dewis ar sail eu hamrywiol nodweddion y gellid eu defnyddio i ddangos sut i ddatblygu cynlluniau rheoli. Pum mlynedd yn ddiweddarach, mae'r nod wedi'i chyrraedd. Maeir Prosiect hefyd wedi bod yn brif ysgogydd a chatalydd ar gyfer ffyrdd newydd o weithredu ar safleoedd morol eraill.

Mae paratoi ar gyfer cynllun rheoli gan awdurdodau perthnasol ar gyfer ACA yn garreg filltir hollbwysig mewn cadwraeth bywyd gwyllt. Cafodd grwpiau oedd yn paratoi cynlluniau rheoli eu gorfodi i ddatblygu cysyniadau newydd, coladu a dehongli'r sylfaen wybodaeth bresennol oedd ar wasgar, treialu ffyrdd o ymrwymo pawb , diddordeb a diffinio pa newidiadau oedd angen eu gwneud i gyfundrefnau rheoli presennol. Yn dilyn y broses o gynllunio rheolaeth, sefydlwyd perthynas a phartneriaethau newydd rhwng grwpiau diddordeb statudol ac anstatudol ac roedd hyn yn cynnwys dulliau o arolygu rheolaeth yn barhaus.

Cyn dechrau'r Prosiect yma, cymharol ychydig oedd wedi'i wneud i amddiffyn bywyd gwyllt morol yn benodol. Trwy baratoi cylluniau rheoli ar gyfer y deuddeg safle dros y pum mlynedd ddiwethaf rydym wedi casglu cryn dipyn o brofiad a gwybodaeth o'n llwyddiannau yn ogystal ag o'n methiannau. Mae adborth ein partneriaid, yr awdurdodau statudol perthnasol a'r grwpiau ehangach sydd , diddordeb, wedi bod o fudd mawr wrth i ni wneud hyn.

Mae'r adroddiad yma'n adlewyrchu'r profiadau a'r hyn a ddysgwyd. Rwyf yn ei gymeradwyo i bawb sydd yn ymwneud , rheoli safleoedd morol yn y DU yn ogystal ag yn ehangach ar draws Ewrop.

Mae'r adroddiad wedi'i llunio o gwmpas tair echel - pobl, gwyddoniaeth a dogfennaeth. Mae'n gweithio'n dda o'i ddarllen fesul adran fel bo'r angen. Os byddwch yn ei ddarllen o glawr i glawr fe welwch fod rhai materion yn cael eu hailadrodd mewn nifer o leoedd. Mae hyn oherwydd fod y tair echel neu thema mor gysylltiedig fel nad oedd yn bosibl archwilio un heb roi ystyriaeth i'r lleill. Mae hefyd yn adlewyrchu ein profiad ni, sef fod asio perthynas newydd, adeiladu consensws a gwneud penderfyniadau yn ddilyniannau nad oeddent mewn trefn nac yn llinellol.

Sue Collins
Cadeirydd, Prosiect ACA Morol y DU
Cyfarwyddwr, English Nature

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[1] Partneriaeth yw Prosiect LIFE ACA Morol y DU rhwng English Nature, Scottish Natural Heritage, Cyngor Cefn Gwlad Cymru a Heritage Service, Department of the Environment for Northern Ireland, Cydbwyllgor Gwarchod Natur, a Scottish Association for Marine Science.

Contents

Section 1
Introduction

1.1 Objectives

Natura 2000 is the title for the network of areas designated to conserve natural habitats and species of wildlife which are rare, endangered or vulnerable in the European Community. The term **Natura 2000** comes from the 1992 EC Habitats Directive: it symbolises the conservation of precious natural resources for the year 2000 and beyond.

The **Natura 2000** network includes two types of area. A Special Area of Conservation (SAC) may be designated where the site supports certain rare, endangered or vulnerable species of plants or animals (other than birds) or if the area supports outstanding examples of habitats, characteristic of the region. If an area supports significant numbers of wild birds and their habitats it may become a Special Protection Area (SPA). Some sites may be designated as both SPA and SAC. Where the designated area includes sea or seashore, it is described as a 'European marine site'.

'Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora' is commonly known as the Habitats Directive. It complements the 1979 Birds Directive. The Habitats Directive is a major contribution by the European Community to the Biodiversity Convention agreed by more than 150 countries at the 1992 Rio Earth Summit.

The Birds Directive ('Council Directive 79/409/EEC on the conservation of wild birds' adopted on 2 April 1979) protects all wild birds and their habitats within the European Community and gives Member States the power and responsibility to designate SPAs to protect birds that are rare or vulnerable within the European Community as well as all regularly occurring migratory birds. In the UK the implementation of these Directives has been translated into UK legislation by 'The Conservation (Natural Habitats, &c.) Regulations 1994' and by 'The Conservation (Natural Habitats, &c.) (Northern Ireland) Regulations 1995'.

The implementation of these Regulations has resulted in a major advance for marine conservation in the country and has also brought many challenges. The Habitats Directive boosted activity on the coast as sites were selected for designation as European marine sites. European marine sites brought a need to improve scientific understanding of the marine features and to develop approaches for managing them. They have also created a requirement for new partnerships particularly amongst those statutory and non-statutory bodies with interests in the sites, because of the way the Regulations have been prepared.

The UK Marine SACs Project was designed in 1996 as a means of tackling many of these challenges by establishing management schemes on a sample of twelve sites to demonstrate and test approaches. Through the course of developing the management schemes, these sites have produced a wealth of experiences. Whilst a full evaluation may only be achievable after many years, the experiences have provided initial feedback on the effectiveness of the different approaches followed.

The purpose of this report is to provide all those engaged in establishing appropriate management on marine sites with the learning and good practice that may be taken from the experiences to date in the UK and particularly from the UK Marine SACs Project.

1.1.1 UK Marine SACs Project

The UK Marine SACs Project is a partnership comprising English Nature, Countryside Council for Wales, Scottish Natural Heritage, Joint Nature Conservation Committee, Environment and Heritage Services Northern Ireland and Scottish Association for Marine Science. The Project is jointly funded by the partners and the European Commission's LIFE Nature fund.

The aim of the Project is to support the implementation of the Habitats and Birds Directives on the UK's marine Special Areas of Conservation. It achieves this through establishing management schemes on a selection of twelve sites around the UK and through using these to demonstrate good practice and learning to others. It is also undertaking a programme of work to develop knowledge and understanding in specific areas required to support the development of these schemes.

1.2 Scope of this report

This report is offered to all those involved in the policies or practical delivery of management of marine conservation sites in the UK and in other European countries. The report is based predominantly on the experiences in establishing management schemes on the 12 demonstration sites in the UK Marine SACs Project, though experiences from other sites has been drawn on where appropriate. The successes and learning have been gathered from project officers and relevant authorities through written reports and individual discussions, a workshop (York, August 2000), a conference (Edinburgh, November 2000), and written contributions to draft versions of this document.

The Project and this guidance has focussed primarily on marine SACs, though they have also reflected the fact that many are also designated as SPAs and should be managed appropriately. The approach taken by the UK, whilst compliant with the overall aims and objectives of the Habitats and Birds Directives, will be different in detail to that of other member states because of differences in the implementing legislation. Where possible, the guidance addresses the generic principles and good practice underpinning the UK model, much of which will be generally relevant to marine conservation areas in other countries.

The UK Marine SACs Project has aimed to progress the management of sites from the point of their submission to Europe up to the point of having a first, complete and agreed plan for the future management needs of the site: the management scheme document. This is the first stage of the management process. The real test as to the effectiveness of these schemes will only be through their subsequent implementation and delivery of sustainable features. Accordingly, the learning and guidance can only be based upon current expectations of longer-term success. Furthermore, this guidance does not address the site selection or moderation process, though comment is made where relevant on the impact of this on later stages.

1.2.1 Report structure

The structure of this report aims to follow the actual process of developing a management scheme on sites as shown in figure 1. Section 1 sets the context to this process by way of the key principles and elements of the UK approach.
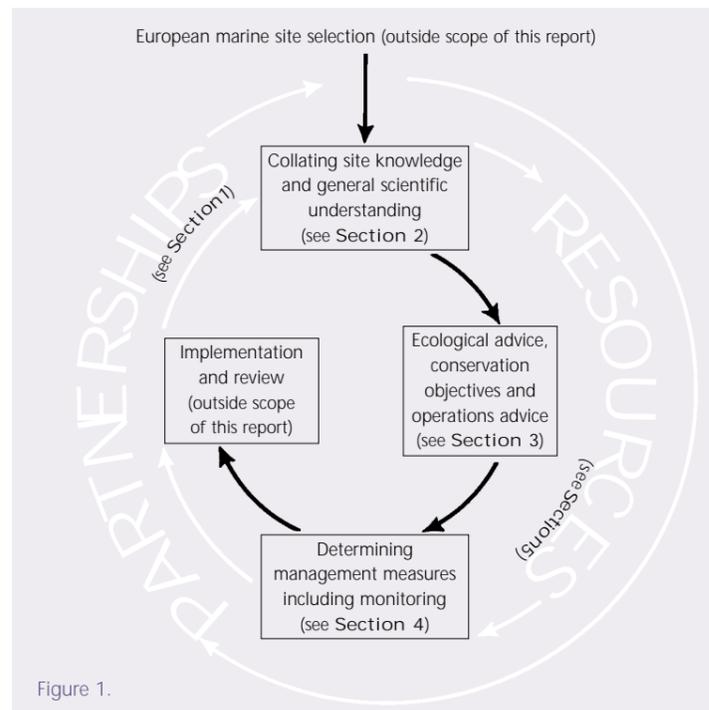
Figure 1.

1.2.2 Related reports

This guidance is produced as part of a series of wider reports prepared through the UK Marine SACs Project, details of which can be obtained from the Project's website:
http://www.ukmarinesac.org.uk. Reports (see Appendix 3) that have a particular relevance are:

• **Site case histories -** brief site-based evaluations of the approaches taken to developing the management scheme document.

• **Conservation objectives -** review and guidance on the UK's approach to setting conservation objectives.

• **Stakeholder participation report -** evaluation of the factors influencing the participation of relevant authorities and stakeholders and the approaches taken on sites.

• **Monitoring handbook -** guidance on developing a monitoring programme on sites and the selection of specific techniques.

1.3 Context to the guidance

1.3.1 Habitats and bird directives

In May 1992, the member states of the European Union adopted the 'Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora'. This is more commonly referred to as the Habitats Directive. The main aim of the Directive is to promote the maintenance of biodiversity taking account of economic, social, cultural and regional requirements. In particular, it requires member states to work towards the maintenance of or restoration to "favourable conservation status" of certain rare, threatened, or typical natural habitats and species. These are listed in Annexes I and II of the Habitats Directive respectively.

One of the ways in which member states are expected to achieve this aim is through the designation and protection of a series of sites, known as Special Areas of Conservation (SACs). Article 6 of the Directive specifies the actions required of member states in connection with these sites (see Box 1).

Box 1: Habitats Directive Article 6 (summarised)

6(1)   *Member States to establish conservation measures for SACs which correspond to the ecological requirements of the relevant natural habitat types and species. The Directive proposes a number of conservation measures to achieve this including, if need be, management plans.*

6(2)   *Appropriate steps be taken to avoid deterioration of the natural habitats and the habitats of species as well as disturbance of the species for the areas which have been designated.*

6(3)   *Any plan or project, likely to have a significant effect on the site's management, needs to be subject to an appropriate assessment.*

6(4)   *Sets out the circumstances in which a plan or project that has an adverse effect can proceed for reasons of overriding public interest.*

The Habitats Directive is complemented by the Birds Directive ('Council Directive 79/409/EEC on the conservation of wild birds') which requires member states to protect rare or vulnerable bird species through, amongst other things, designating Special Protection Areas (SPA's). Together, the terrestrial and marine SPAs and SACs are intended to form a coherent ecological network of sites of European importance, referred to as Natura 2000.

1.3.2 UK framework for implementing marine sites

The requirements of the Habitats Directive have been transposed into UK legislation through the Conservation (Natural Habitats &c.) Regulations 1994 and the Conservation (Natural Habitats &c.) Regulations (Northern Ireland) 1995, known as the Habitats Regulations.

Unlike on land where SACs and SPAs are underpinned by Sites of Special Scientific Interest (Areas of Special Scientific Interest in Northern Ireland), there was no adequate legislative framework for implementing the Habitats Directive in the subtidal areas of marinesites in the UK. Therefore the Habitats Regulations made a number of provisions specifically for new responsibilities and measures in relation to marine areas.

The Habitats Regulations place a general duty on all statutory authorities exercising legislative powers to perform these in accordance with the Habitats Directive. The term European marine site is defined to mean any SPA or SAC or part of a site that consists of a marine area, and "marine" includes both intertidal and subtidal areas.

Site selection. Marine SACs and SPAs were proposed by the UK government with advice from the Nature Conservation Agencies, principally using knowledge acquired through the Marine Nature Conservation Review (1987 - 1998). The proposed sites were subject to public consultation before being submitted to the European Commission. They were selected on the basis of scientific criteria, relating to representative features, as required by the Habitats Directive.

Moderation. Following the submission of candidate Special Areas of Conservation (cSACs) to the European Commission, the site lists were reviewed and it was decided that certain features were insufficiently represented within all nine Member States in the Atlantic Biogeographic Region. The process of assessing the national site lists is known as moderation. In the UK, many of the shortfalls identified by moderation have been met by adding further interest features to existing sites or by extending the site boundary to include more of particular habitats and species. However, 81 new sites were also identified and 73 of these were submitted to the European Commission on 31 August 2001.

Box 2:   **Relevant authorities and competent authorities**

Relevant authorities
The Habitats Regulations identify relevant authorities as having a particular and special role in the management of a site. They are defined as statutory bodies having powers or functions which have, or could have, an impact on the marine area within or adjacent to a European marine site.

As such, relevant authorities include the following organisations:

- *country nature conservation agencies;*
- *local authorities;*
- *environment agencies;*
- *sea fisheries committees;*
- *port and harbour and navigation authorities;*
- *land drainage authorities;*
- *water companies;*
- *lighthouse authorities.*

Competent authorities
Competent authorities are also defined in the Regulations and include any public or statutory body, including ministers, government departments, public or statutory undertakers or any person holding public office.

All relevant authorities are also competent authorities.

It is worthwhile noting that there appear to be anomalies in the legislation in which some competent authorities may not have been identified as 'relevant authorities' but in practice have functions akin to relevant authorities. For this reason, in thinking about the composition of management groups, consideration should also be given to including competent authorities where appropriate.

Management schemes. In the UK, a management scheme may be established by the relevant authorities on a European marine site as a key measure in meeting the requirements of Article 6 (specifically 6.1 and 6.2 - see Box 1 on page 4) of the Habitats Directive. The management scheme is a process of determination of management needs on a site undertaken by the relevant authorities, including the production of a documented plan, which is then subject to review. This process provides a framework through which the interest features and activities that may affect them are clearly identified and considered and any appropriate management undertaken.

Normally one relevant authority will take the lead in initiating the development of a management scheme. Once established, all the relevant authorities have an equal status and have the responsibility to exercise their functions in accordance with the scheme, though

the precise implications of this will vary between authorities. The relevant authorities are obliged to comply with the requirements of Article 6 of the Habitats Directive, and may choose whether to do so through a management scheme. In practice, the management scheme has been seen by most relevant authorities as the best means of meeting their obligations. There can be only one management scheme applying to a marine site and it is important that it addresses both the marine SAC and SPA features where necessary.

Whilst only relevant authorities have the responsibility for establishing a management scheme, government policy (Department of the Environment, Transport and the Regions, 1998) in England and Wales is that other groups including owners and occupiers, users, industry and interest groups are involved in developing the scheme. To achieve this, it suggests the formation of advisory groups and a process for regular consultation during the development and operation of the scheme.

Project officers. Relevant authorities on most sites choose to appoint a project officer to support them by coordinating the development of the management scheme. This project officer is normally employed by one of the authorities, not necessarily the nature conservation agency. See section 5 for further information.

Advice on conservation objectives and operations. Under the Habitats Regulations, the nature conservation bodies have a duty to advise the other relevant authorities as to the conservation objectives for a site and the operations that may cause deterioration or disturbance to the habitats and / or species for which it has been designated. This advice is intended to support the development of the management scheme. See section 3 for further information.

Plans and projects. The Habitats Regulations provide different processes for managing activities and for considering plans and projects. The latter closely corresponds to the process identified in Article 6 (specifically 6.3 and 6.4). The term 'plans and projects' is not defined in the Directive, though subsequent guidance (European Commission, 2000) indicates a broad interpretation to include interventions in the natural environment requiring some form of consent or authorisation together with sectoral plans or programmes. The Habitats Regulations prescribe a process by which plans and projects are to be assessed, corresponding to that set out in the Directive. The link between plans and projects and management scheme documents are further discussed under section 4.4.3.

1.3.3 **The project sites**

This guidance is based primarily on the experiences of twelve marine SACs, although Thanet coast, which is not one of the project sites, is also included due to their participation in the York workshop. These were selected as representative of the range of management issues and features encountered on the series of 36 sites that had been submitted to Europe when the Project started in 1996. It should be noted that since then, other larger, more intensively managed sites have been put forward as marine SACs and SPAs and the range of management issues encountered on these sites is not necessarily captured in the Project. The socio-economic characteristics of the twelve Project sites and their adjacent catchment areas are summarised in Table 1. The location and marine features on the sites are shown in Figure 2.

Table 1. Summary of attributes of cSAC project sites studies*

SAC	Area of SAC (ha)	Main economic activities	LIFE site	Previous integrated management initiative	Number of relevant authorities	Approximate no. of local stakeholders*
Papa Stour, Shetland	2, 077	*Tourism, fishing, small-scale agriculture, crafts*	Yes	*None*	8	150
Loch Nam Madadh, Outer Hebrides	2, 320	*Mariculture, fishing, tourism, small-scale agriculture*	Yes	*None*	8	200
Sound of Arisaig, West Highlands	5, 543	*Tourism, mariculture, fishing, small-scale agriculture*	Yes	*None*	7	1, 000
Chesil and the Fleet, Southern England	1, 632	*Commercial port at its eastern end, recreation tourism, agriculture*	Yes	*Fleet Management Group - established 1990*	10	10, 000
Cardigan Bay, West Wales	96, 770	*Tourism, agriculture, fishing*	Yes	*Ceredigion Marine Heritage Coast - established 1995*	9	10, 000
Berwickshire & N. Northumberland Coast, SE Scotland / NE England	65, 335	*Fishing, agriculture, tourism, recreation*	Yes	*Northumberland Coast Management Plan, 1993 - none (statutory plan extended offshore)*	27	35, 000
Pen Llŷn a'r Sarnau North Wales	146, 050	*Tourism, agriculture, fishing*	Yes	*None*	10	60, 000
Strangford Lough, Northern Ireland	15, 399	*Tourism, recreation, agriculture, fishing*	Yes	*Strangford Lough Management Commitee - established 1992*	4	60, 000
Solway Firth, NW England / SW Scotland	43, 688	*Industry, agriculture, forestry, ports, tourism, fishing, recreation*	Yes	*Solway Firth Partnership - 1994*	16	100, 000
The Wash & North Norfolk Coast, East Anglia	107, 761	*Tourism, agriculture, ports, fishing, recreation*	Yes	*Wash Estuary Management Group - 1994*	15	110, 000
Morecambe Bay, NW England	57, 473	*Industry, commercial ports, fishing, agriculture, tourism, recreation*	Yes	*Morecambe Bay Partnership - established 1992*	13	200, 000
Plymouth Sound and Estuaries, SW England	6, 402	*Commercial port, MoD, fishing, recreation, tourism*	Yes	*Tamar Estuaries Consultative Forum - established 1995*	14	400, 000
Thanet coast, NE Kent	2, 804	*Recreation, harvesting, fishing port, tourism*	No	*None*	9	127, 000

*   These figures were supplied by relevant project officers and should be considered as broad estimates.

Key

S - Sandbanks which are slightly covered by sea water at all times
E - Estuaries
M - Mud and sand flats not covered by sea water at low tide
I - Large shallow inlets and bays
L - Lagoons
R - Reefs
C - Submerged or partly submeregd sea caves
GS - Grey seal
CS - Common seal
BD - Bottlenose dolphin

Papa Stour (R, C)
Loch Nam Madadh (L, I)
Sound of Arisaig (S)
Berwickshire and North Northumberland Coast (M, R, C, GS)
Strangford Lough (I)
Solway Firth (S)
The Wash and North Norfolk Coast (S, M, I, CS)
Morecambe Bay (M, I)
Pen Llŷn a'r Sarnau (E, R)
Cardigan Bay (BD)
Thanet Coast (R, C)
Chesil and the Fleet (L)
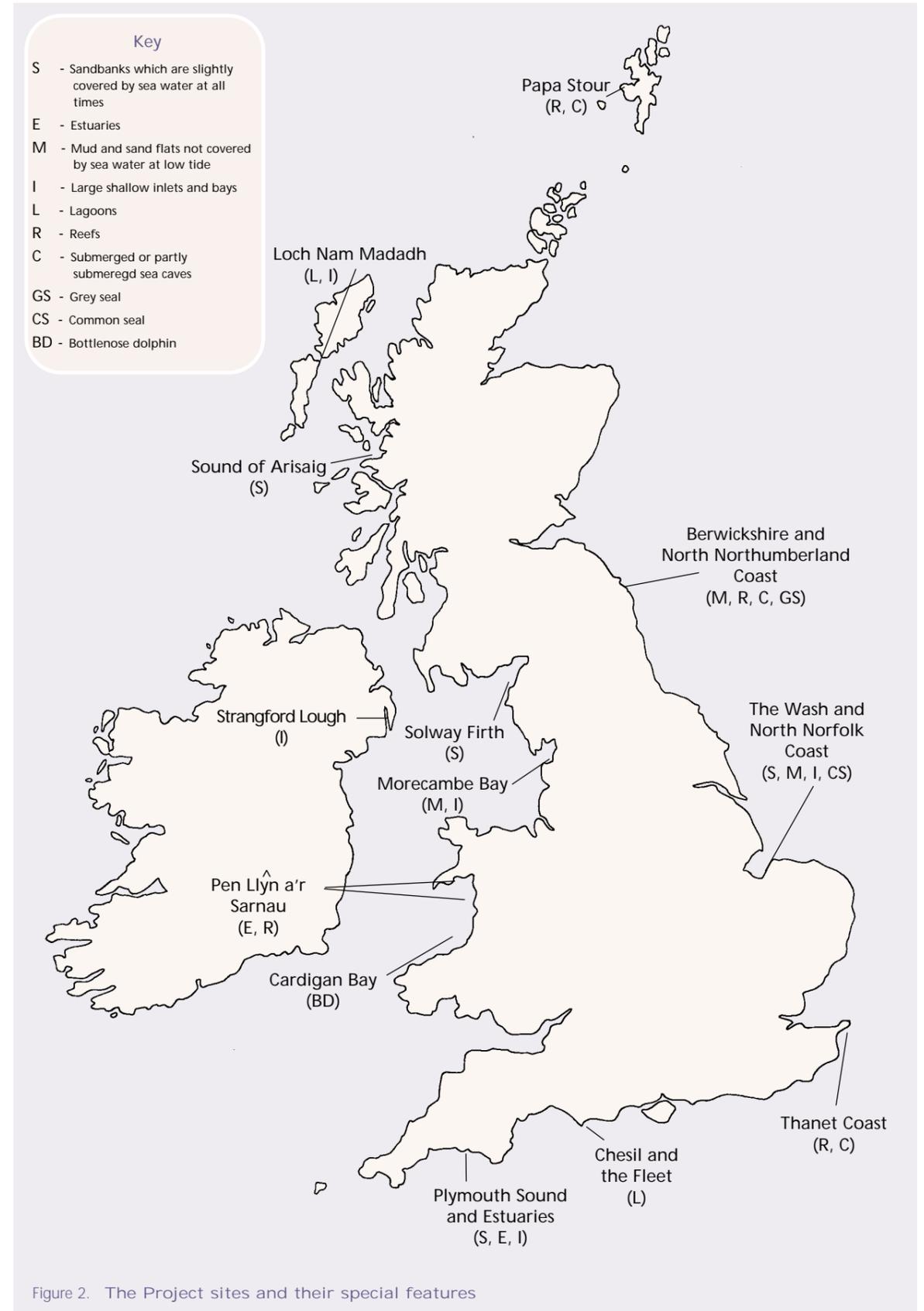Plymouth Sound and Estuaries (S, E, I)

Figure 2. **The Project sites and their special features**

Section 2
Building Support and Partnerships

2.1 Background

Partnerships underpin the development and implementation of management schemes on marine sites for legal and practical reasons. Legally, the UK approach shares the responsibility for managing these sites between all the relevant authorities. No single body has overall responsibility or control, though government retains an ultimate power to direct action if need be, and has the ultimate responsibility for compliance with the Directives.

In practice, the support of wider stakeholders in decisions on the uses of these sites is needed if management is to be sustained in the long term. Experiences across the world in protected area management indicate that this support requires in most instances an involvement in the decision-making itself (Kelleher, 1999). The importance of stakeholder participation is recognised in government's policies toward marine SACs (Department of the Environment, Transport and the Regions, 1998).

The main participants in developing the management scheme on a marine site are:

- relevant authorities and, in many instances, other competent authorities;

- stakeholders - the collective term for the wider users and their representatives, local communities, interest groups such as voluntary conservation organisations, research organisations.

The UK has not prescribed exactly what management structures should be used to involve these different participants in developing a management scheme. Government policy issued in England and Wales insists on the participation of stakeholders in the process and suggests the formation of 'management groups' and 'advisory groups' comprising the relevant authorities and stakeholders respectively. In practice, a range of structures has been adopted across the country from distinct hierarchical groups working through consultation and collaboration to more hybridised bodies in which relevant authorities and stakeholders participate jointly.

This section considers:

- the influence of the nature of sites on the selection of management structures;

- the development of effective management structures;

- approaches for increasing the commitment of participants to the schemes.

2.2 The selection of appropriate management structures

2.2.1 Different types of participation

Various researchers have recognised that participation in decisions can take a number of forms. One such categorisation is illustrated in Table 2.

Table 2. **Categorisation of participatory activities in marine site management (from Jones *et al*, 2001)**

Level of participatory activity	Examples of techniques	Objective
1. Information sharing activities	*Newsletters, web sites, leaflets, videos, public displays, slide presentations, media briefings*	*To place information in the public domain*
2. Consultative activities	*Management group consisting of relevant authorities consulting with stakeholders through surveys, focus groups, public meetings, face-to-face briefings with key individuals/ organisations*	*To encourage a two way exchange of information*
3. Collaborative activities	*Creating hierarchical management groups whereby relevant authorities collaborate with stakeholders through topic groups to scope problems and solutions, running site based events*	*To engage the knowledge and resources of stakeholders*
4. Empowerment activities	*Creating flat management groups combining relevant authorities and stakeholders, coopting individuals from relevant authorities and stakeholder groups, devolving budgets and resources*	*To share power and responsibility for the decisions being made and their outcomes*

Given the legislative frameworks operating in the UK, relevant authorities will normally engage in decisions at level 4. The participation of stakeholders is not specified. It varies both between site and the different stakeholder types within a site.

Management group - Loch Nam Madadh

The type of participation adopted on a site has a profound impact on the management scheme process, especially the management structures and the decision-making processes. It should be considered and planned in advance, with the involvement of the relevant authorities and stakeholders themselves. What is achievable will depend to an extent on the local political culture and in particular on the willingness of relevant authorities to share responsibility in decision-making. It will also depend on the opportunities (or lack thereof) for relevant authorities and other stakeholders to identify common goals.

Two other characteristics of the effectiveness of the process have been important in determining the type of participation appropriate on a site, and consequently the management structures. These are:

- the levels and types of socio-economic activity; and

- existing levels of trust and confidence.

2.2.2 Socio-economic activity

There is a wide spectrum of socio-economic activity on sites, from major commercial centres at one end to remote and sparsely inhabited islands at the other (see Table 1).

Sites with large, urban populations nearby tend to have a wider range of human activities and a greater potential for impacts on features. The user groups and local communities normally participate in the management decisions through representatives. These groups are accustomed to working with statutory authorities in consultative and collaborative ways, for example through advisory groups and topic groups.

Sites in more rural locations, with smaller populations tend to have fewer differing activities and impacts. The users and members of the communities have direct or close interests in the marine resource and are accustomed to participating closely in the decisions that affect them. The statutory bodies themselves increasingly recognise the need to involve the communities in decisions. There is therefore more of a practice of equal participation between the statutory and stakeholder groups.

A site may not fall neatly into one category and may contain elements of both i.e. those involving formal representation and those relying on individual and direct input.

2.2.3 Trust and confidence

Trust in the honesty, sincerity and integrity of those participants in developing the management scheme and the confidence in each others' respective knowledge, competence and authority has a major influence in shaping the likely success of participative approaches. Box 3 highlights how this trust and confidence is influenced by how participants have worked together in the past and the future.

Box 3:   **Building trust and confidence**

The confidence and trust in an area is influenced by what has gone on before on a site and in particular how previous conservation initiatives or developments have been debated. There are two main factors involved in developing trust and confidence:

- **Deliberation** - *opportunities for discussion and debate between people. Gaining understanding of others' viewpoints through discussion and debate is a vital part of building partnerships, providing for participation and moving towards consensus about what should be done.*

- **Time** - *time is needed for individuals to build relationships, gain confidence in each other's expertise and understand each other's perspectives.*

Where trust and confidence is high, there is often an informal network in place through which issues, concerns and solutions can be more easily discussed and agreed. On such sites, a less hierarchical and more consultative approach between relevant authorities and stakeholders can work successfully.

On some sites, trust and confidence is low - this may be due to a lack rather than a failure of previous initiatives. In such cases the approach to participation needs to ensure greater openness in decision-making. Otherwise there is a risk that stakeholders will feel alienated

from the site and the management scheme and, in turn, will be less likely to support implementation of management in the longer term. Without stakeholder support and involvement, some relevant authorities themselves are less likely to participate enthusiastically in the site.

Therefore on sites without sufficient levels of trust and confidence, management structures should seek a more equal participation by relevant authorities and stakeholder groups. This can be achieved by having stakeholder groups on the same forum as the relevant authorities or by giving the responsibility for reviewing and developing management proposals more directly to the users and interest groups.

2.2.4 Management structures

The management structures, through which relevant authorities and stakeholders have participated, have differed on each of the demonstration sites. In broad terms, two different types of structure can be recognised: separate or joint groups. In practice, many of the structures on the site have had elements of both. There may not be a right approach to apply and, after only a few years, it is too early to predict whether one approach is more successful than another in promoting sustained commitment and support for the management of a site. However, from the experience on the demonstration sites, certain pros and cons in the two options can be noted:

Separate advisory groups and management groups.

Separate but related advisory groups and management groups can be effective:

- where there are high levels of trust and confidence between the participants; and/or

- on sites with large populations and multiple interest groups where stakeholders are familiar with working through advisory structures.

In some instances, the management group may include organisations other than relevant authorities. These may be stakeholders or competent authorities who have substantial influence over the use and management of the site. Where this is proposed, care is needed to avoid upsetting local balance of power amongst other stakeholder groups.

This management structure relies upon a continuity of trust and confidence between the participants. There are risks in adopting it where such trust and confidence is not already established. Where this is weak, it is particularly important that there are good communications and a clear functional link between the advisory and management groups. This can be achieved by publicising agendas and minutes of meetings or for the chairs of the groups to be participants in both advisory and management groups.

Case example 1:

The establishment of a management scheme at Pen Llyn a'r Sarnau cSAC brought together a set of relevant authorities and stakeholders for the first time.   A management group comprising the relevant authorities initially was set up. It proved hard to get this body motivated. It was also difficult to identify and co-ordinate a body of stakeholders to provide input into the scheme's development and, when this was finally achieved, some strong criticisms were expressed that decisions on the management scheme had already been determined by the authorities. Over time, the support and contribution of stakeholders to the scheme were secured by demonstrating a real commitment to taking account of their views. This involved, amongst other things, delaying the timescale for parts of the scheme to enable further consultation. Some stakeholders were initially more supportive than others, and helped "bring the others round".

At Morecambe Bay, the European marine site was introduced after a successful estuary partnership had been established. This partnership had built good networks and trust including distinct advisory groups and management forums. A management group for the marine site evolved directly from the estuary partnership and the same advisory group was used. Links between the relevant authority group and stakeholders have operated successfully - the continuing liaison provided by the estuary partnership and between the two project officers was important in achieving this.

Joint relevant authority and stakeholder group.

A non-hierarchical structure can be effective where:

- trust and confidence between the participants needs building; and/or

- stakeholders are relatively few in number, have direct connections with the site, and are accustomed to being involved directly in decision making.

Case example 3:

The total population around Papa Stour amounts to some 150, many of whom have close economic and personal attachments to the site. The designation was initially opposed due to concerns about socio-economic restrictions. At the instigation of the Shetland Islands Council an advisory panel was established comprising both statutory and local groups. This panel has been successful in developing the scheme and its remit includes other marine sites in Shetland. Key factors in this success have been the wide representation of the panel which is open to participation from other organisations and individuals as appropriate.

Papa Stour - inflatable orca

Single management structures are easier to operate on small or rural sites where there may be fewer participants, although they can be adopted on large urban sites. Typically, the lack of familiarity of stakeholders and statutory bodies with this wider participation means that commitment and perseverance are needed to convince participants of this way of working and specialist facilitation skills are required to run and oversee the process.

There are perceived risks that the involvement of stakeholder groups in decisions, for example through single structures, will undermine the statutory responsibility that relevant authorities have. This might apply especially to larger sites but need not be the case. In the case of Thanet coast cSAC, considerable effort was put into enabling relevant authorities and stakeholders to trust the process they were working within. However relevant authorities and stakeholders must be clear about the minimum statutory requirements. The two groups can then work within these parameters to consider how the requirements can best be met.

Case example 4:

Thanet Coast cSAC is a relatively small site adjoining an urban population exceeding 127,000, with 2 million visitors to the coast per annum. Specialists in environmental dialogue were brought in to design and facilitate a sequence of participatory workshops which generated the content of the management scheme. This approach was advocated primarily by the project officer. Relevant authorities and stakeholder groups had an equal say in identifying the management issues and building consensus over solutions. There were some initial concerns amongst relevant authorities at applying such a process in the context of statutory obligations. The levels of attendance at workshops was strong and increased over the course of the process, as the benefits it brought were recognised.

2.3 Developing effective management structures and opportunities

The management structures need to be moulded to fit the characteristics of the site, particularly the presence of existing management structures (where they are effective) and networks and the site's physical geography.

2.3.1 Relationship to existing management structures

On some sites, there may be existing management fora and groups already in place for other purposes. Estuary partnerships, firths initiatives, marine nature reserves and heritage coast fora for example were already operating on a number of the demonstration sites. These partnerships and their networks have provided some sites with a ready-made structure on which the European marine site is able to build. In many instances, previous initiatives have also successfully developed trust and confidence between the key players for the management scheme. However, there may be risks in attempting to bring a statutory role to a structure which was set up for a different non-statutory purpose. There can only be one management scheme for a European marine site.

Case example 5:

The Plymouth Sound and Estuaries cSAC consists of several estuaries. For most of these the existing estuary management plan and voluntary marine conservation area had already engendered a sense of common ownership of the marine area and developed successful management partnerships involving statutory and non-statutory bodies. Rather than change a set of partnerships that were working well, the same networks have been used for the European marine site. Key staff involved in the previous initiatives were retained to coordinate the development of the management scheme and thereby have maintained a continuity between both existing and new initiatives.

In most cases, the imposition of a statutory nature conservation process on top of existing non-statutory initiatives appears to have been generally accepted by participants, albeit considered unnecessary in some instances. However, there can be more pronounced resistance to the marine site and management scheme, by existing management structures if it is perceived to subsume and replace successful strategies with different ones, particularly if these strategies have gained a high degree of local commitment and political support. In such cases, the specific good practice points below are particularly relevant.

Adopting the existing management structures wholesale may not always be appropriate, particularly if they have been set up for different objectives from that required for the European marine site, or cover a different area or have clearly failed to develop adequate trust and confidence. In the long run, on such sites it may be better to modify existing structures to fit the needs of the European marine site. In larger sites, establishing consultative groups and maintaining an integrated approach may present some difficulties.

Case example 6:

The Strangford Lough Management Committee had been originally established to co-ordinate opinions from a wide cross-section of statutory, user and interest groups into the development of proposals for a marine nature reserve. The Committee's earlier and ongoing input into this process is generally felt by participants to have been valuable and successful. The designation of the Marine SAC risked undermining these good local relationships by distinguishing a separate, statutory role for the relevant authority organisations. Furthermore, the trust and contacts available through the Committee could be highly effective in identifying and resolving many of the management issues that the scheme would need to address. The relevant authorities therefore agreed it should have a substantial role in developing the content of the management scheme.

A number of specific good practice measures are indicated by the learning and experience on the demonstrations sites. These were:

- to explain fully the role of the new designation and its relationship to previous and existing initiatives. The proliferation of existing designations and initiatives on sites such as Plymouth and the Fleet means that the role of the new marine SAC and management scheme needs to be well communicated and explained;

- to explain how the European marine site will support and strengthen, rather than threaten, existing compatible plans. European marine sites can provide a mechanism for progressing nature conservation aspects of Firth Strategies or Estuary Plans, whilst also being dependent upon some of the wider environmental actions that these initiatives can achieve;

- to continue to liaise throughout the management scheme process with existing initiatives in order to avoid duplication, to ensure the objectives are mutual and reinforcing and to benefit from their networks and knowledge. Progress on developing the management scheme on the Solway Firth cSAC was regularly reviewed and discussed at meetings of the Solway Firth Partnership - a body previously established to oversee the Firth Strategy. The scheme was established under the umbrella of the Partnership and a common advisory group was used;

- to modify the group's composition if necessary to fit the new purpose with the agreement of the group;

- to maintain regular communication between project officers for the European marine site and for other initiatives and seek tounderstand and use the local knowledge of the latter. In Cardigan Bay, the local authority co-ordinates both the SAC management scheme and the earlier marine Heritage Coast initiative.

2.3.2 Geographic extent, shape and diversity of sites

The size and shape of sites influences the composition of management structures and their effectiveness as vehicles for participation. On large sites, on top of the extra logistical and resourcing demands, there can be a significant variation across a site in the interests and concerns of stakeholders and relevant authorities. Communities in one part may feel little in common with those of another. Rather than one single body for getting the involvement of stakeholders, there may need to be several in different parts of the sites.

Case example 7:
The Wash and North Norfolk Coast cSAC consists of two geographic parts that have very distinct ecological interests, landscape and socio-economic characteristics. These characteristics affect the nature of the stakeholders prevalent in each part of the site. Therefore, in establishing the management structures, a separate advisory group has been created for each of the different parts. These groups provide a strong mouthpiece for their respective communities and effectively contribute to the management scheme process. Sufficient levels of consistency have been achieved by the participation of the project officer in each group and the reciprocal involvement of the Advisory Group chairs on the management group.

Aerial view, Holme-next-the-sea

Stakeholders may not relate to a new site immediately, unless it already has a clear geographic identity such as a bay or estuary. Until stakeholders can identify with a name and boundary of a site, they are less likely to feel much commitment and ownership to it. Building this identity takes time.

Where there are several marine sites within an area, it may be possible to extend the remit of the management structures to cover several sites. This is the case in the Shetland Islands where the Advisory Panel not only deals with Papa Stour cSAC but also with the other marine sites within the Islands.

2.4   Increasing committed participation in management schemes

"making organisations and individuals feel valued for their existing contribution and working with them to identify how the SAC could provide them with additional benefits"
- project officer

Participation in marine sites does not automatically flow from setting up the right management structures. It needs to be encouraged, particularly in contemporary society where people are becoming more disconnected from public life. There are fewer people willing to volunteer their time and energy for local activities.

Disinterest or disillusionment have been a feature amongst participants on many sites, particularly once the initial novelty, concerns and promotion have declined or in the midst of delays during elements of the process. This should not be taken as a signal to step down efforts to seek participation. A lack of opportunities for participation will eventually provoke the criticism of crucial stakeholder groups.

The experiences on sites has shown that if people are provided with the opportunity to influence decisions on their site, they are likely to take it, especially if it will clearly affect their interests. The professionally designed process carried out at Thanet coast cSAC saw attendance at workshops increasing over time (see case example 4).

Case example 8:
A management forum was established on the Sound of Arisaig to provide for the participation of relevant authorities and stakeholder groups alike. Over time, fishermen were persuaded that through the forum, they had an opportunity to raise their concerns and influence the management scheme being produced and it was therefore in their interests to participate.

Clearly, different stakeholders vary in terms of the level of their interest in the site and the degree of their ability to commit time to the management process. An important part of the process of building partnerships between relevant authorities and other stakeholders is to enable stakeholders as far as possible to 'select' themselves and determine their own type and degree of involvement. This can only be done by being as inclusive as possible to start, and ensuring that it is possible for people to choose different levels of involvement.

On the Pen Llŷn à'r Sarnau cSAC, community participation takes place mainly through publications, public meetings and more frequent meetings of a Liaison Group. The members of this group were appointed by the public meetings specifically to represent an area of interest and on the understanding that they would be prepared to engage with relevant authorities on the detailed preparation of the management scheme. Attendance at public meetings has varied enormously, whereas attendance at Liaison Group meetings has been relatively consistent, and the Liaison Group's input to the management scheme - and the time that some members have committed to it - have been substantial.

2.4.1 Addressing initial perceptions of European marine sites

The perceptions of the potential participants are affected by their recent contacts with relevant authorities, their experiences with nature conservation or developments, and especially with the site selection process. This latter process provides for relatively little local input into the decision to designate a site beyond the scientific case for it (Box 4). As a result the perception is of a designation handed down to them and their lack of involvement encourages mistrust amongst many stakeholders.

Box 4: Selection of marine SACs

In the UK, the JNCC was tasked with providing scientific advice to government on the selection of sites, in consultation with the statutory nature conservation agencies. This was based on the outputs of the Marine Nature Conservation Review (1987- 1998) though other sources were used too particularly for species. The government consulted statutory and non-statutory bodies on the proposed sites, prior to submitting the sites as Candidate SACs to the European Commission. The consultations were under taken by the nature conservation agencies and were only able to consider matters relating to the scientific rationale behind the sites selection.

The reactions to this process of selection set the stage for the initial discussions over the management scheme and are therefore important. These perceptions may be both positive and negative - within the same site, different groups and organisations can take different views and may include:

- **Approval** - support for the site and the prospect of better conservation of marine wildlife and habitats.

- **Accolade** - local pride that their previous efforts and their site are recognised externally and internationally.

- **External interference in local practices** - the management of marine activities for nature conservation is relatively new and the implications are untested and therefore sometimes resisted.

- **Threats to local economy and tradition** - the fear of potential threats to local livelihoods, pursuits and developments.

- **Cost and bureaucratic complication** - unnecessary intervention on top of existing layers of management and with new demands on resources.

Any negative perceptions need to be addressed at the site level in order that there can be constructive participation. Positive perceptions should be built on. Some of the approaches taken on sites that appear to be effective are listed in Table 3:

Table 3. **Effective approaches for addressing initial perceptions of European marine sites**

	Approach taken	Comments and examples
External interference	Meetings with participants to explain openly and fully the context to the designation.	One to one meetings between the project officer and key players have been most effective.
	Providing management structures that allow for and recognise the importance of local input into subsequent decision-making.	Joint meetings with relevant authorities and stakeholders, work best if they avoid over-emphasising legal requirements - especially in the very initial stages. However, facing up to statutory responsibilities is an important balance in this process.
	Avoiding an over-reliance on the statutory imperative for action when seeking participation.	Having local authorities act as lead authorities in the management groups has generally been beneficial.
		Establishing single management structures in which stakeholders and statutory bodies have more equal participation in developing management schemes.
Economic threats	Be up-front about conservation objectives and possible nature of potential impacts.	Early meetings and presentation of drafts can minimise misperceptions and fears developing.
	Identify economic benefits to the local area.	Creation of topic groups specifically to consider socio-economic and tourism opportunities.
	Make efforts to understand the objectives and aspirations of stakeholders' use of the site.	Employment of local people including the project officers.
	Identify and build upon the social, recreational and ethical support amongst stakeholders and relevant authorities for the site.	Promoting the potential for SACs to add value to local products and services.
Costs and bureaucracy	Recognise and build on existing management initiatives, especially those working well.	This is considered further in section 4.
	Integrate the management schemes with existing plans so that they mutually support each other.	This is considered further in section 4.
	Minimise additional costs to authorities on running the scheme.	Appointment of project officers, on may sites to co-ordinate development of scheme.
	Acknowledge that SAC management does cost time and money and seek necessary funding.	Relevant authorities to individually ensure they have the necessary resources. Also joint approaches by relevant and other stakeholders to sources of external funding.

2.4.2 Awareness and acceptance of legal responsibilities

The statutory imperatives and an acknowledgement that SAC management does cost time and money has been highly instrumental in achieving the participation and co-operation of relevant authorities in the establishment of management schemes on these sites. However, with the volume and variety of other legislative responsibilities falling to relevant authorities, there is frequently poor knowledge about the new duties relating to European marine sites, limiting the quality of input to the scheme. This obstacle is accentuated in large authorities where there may be a number of departments, each with specific functions in relation to a site. In such instances there are difficulties in securing a single organisational view or contribution to the scheme and in ensuring all sectors are aware of the sites and their implications.

Table 4. **Options for raising awareness of legal responsibilities**

Workshops to raise awareness	*Workshops, organised by the nature conservation agencies and with the active participation of government, on sites at an early stage in the process to raise awareness can provide a valuable trigger to getting relevant authorities together. However, there are dangers that such approaches emphasise the nature conservation agencies' role and responsibility over other relevant authorities and heavily legalistic messages may not be the most effective introduction to the site. They work only to the extent that attendees transfer learning to other relevant colleagues. On the other hand, relevant authorities must learn what their legal responsibilities are and shoulder them.*
Peer groups	*Peer group approaches appear to help, for example relevant authorities on different sites sharing experience, or having fellow professionals to run workshops on the roles and responsibilities ie planners talk to planners.*
One to one meetings	*Meetings between the project officer and relevant authorities are an effective means of building relationships and understanding of legal duties. It requires a significant investment of time.*
Relevant authority 'sign posts'	*Early in the process of establishing the scheme, project officers request relevant authorities to detail their areas of responsibility within the site; these responses are collated and circulated to the other participants.*
Raising awareness throughout the process	*As the management structures and scheme take shape, clarification over the legal context is needed and should be discussed between relevant authorities. This approach will keep the current participants informed and helps ensure the awareness raising is relevant and applicable. Conservation agencies should avoid being seen as the 'legal advisors' to the process to the extent that each relevant authority is encouraged to establish its own obligations.*

2.4.3 Demonstrating long-term commitment to sites

The perception of marine SACs as a short term government initiative and EC funded project under-mines the commitment amongst some relevant authorities. Demonstrations of a longer term vision, including the provision of resources such as forward funding for site officers and site moni-toring can help to diminish such fears and encourage the on-going participation of authorities and stakeholders. So far, these demonstrations have been less successful in levering significant future funding of sites from the relevant authorities themselves. In part, this may be due to the UK Marine SACs Project's emphasis on 'outputs' to be 'delivered' by

the end of the project. Placing an emphasis on the management scheme process rather than the production of a document may improve understanding of the long-term nature of the commitment required.

2.4.4 Issues-driven participation

Relevant authorities' interests in a site tend to track those of the local communities and users. There may be difficulty in maintaining their input if there are few perceived concerns to local communities - relevant authorities, and in particular local authorities, tend to give priority to issues of concern to the community they represent. This appears to be a particular problem on larger sites that do not have a single and distinct community associated with them - as is the case on Pen Llyn and Berwickshire and North Northumberland Coast. The conservation objectives and operations advice are significant in defining these potential impacts - delays in the preparation and issuing of this advice can diminish considerably the relevant authority interest. Conversely, a particular piece of casework or a common vision can deepen commitment.

Case example 10:
The Shetland marine cSAC Advisory Panel remained committed to the development of the management scheme for Papa Stour even though there were few significant impacts on the site. Key to this has been an understanding that the protection of local livelihoods depended on protection of the features of the SAC. But also the panel felt that the site must not lead to an outright 'ban' on potential economic development and that future potential impacts should be carefully viewed on a case by case basis.

2.4.5 Representation and operation of management groups

The appointment of the chairperson and secretariat needs careful consideration. A strong, well-respected chairperson and an effective secretariat can be critical to the credibility and commitment felt towards the management structures. A rotating chair has helped spread a sense of common responsibility within some management groups - risks of weak chairing must be considered and dealt with if this option is chosen.

Papa Stour volunteers

An organisation's representative on the management structures may need to represent the interests of several sections and individuals within that organisation. This representation can often be weak leading to poor internal communication. Organisations need to recognise and respond to such risks for example by putting in place arrangements for internal briefings, and for ensuring that their representatives are mandated to speak for the organisation. Commitment to the management process at a senior level in all relevant authorities is essential, even if the SAC raises conflicts of interest within an individual authority.

Defining and agreeing Terms of Reference by the management group can help clarify for representatives their role and responsibilities in the group. This may increase the ownership of the management scheme process by management groups.

2.4.6 Operation of stakeholder groups

There are various ways in which stakeholder organisations and groups can input their knowledge and concerns - topic groups, specific workshops, advisory groups, annual meetings. There are a number of potential obstacles to achieving good and sustained representation and participation.

- **Ability to attend meetings.** The timing of meetings may exclude certain stakeholder groups from participating. The needs of these groups should be considered in advance. Workshops during the winter months at Loch nam Madadh were much better attended, as the long nights meant people had more spare time.

- **No acknowledged representatives.** It may be necessary to set up special events for certain groups or to go out and meet people individually. On Chesil and the Fleet a workshop was arranged specifically with neighbouring farmers to discuss management issues. At Loch nam Madadh, where the local population is small but strongly connected to the site, the project officer called in on each inhabitant personally to discuss the site and any concerns. On Pen Llŷn a'r Sarnau cSAC, a presentation and discussion was held with the local inshore fisherman's association.

- **Waning interest.** Attendance often seems to flag after the initial round of workshops or meetings. This may be because people feel their concerns are being addressed, or perhaps that they have no real basis for influencing decisions. It is good practice to at least make some enquiries of stakeholders to check their motivation.

2.4.7 Personalities

The role of certain personalities - whether they be opponents or supporters - can have a substantial bearing on the successful partnerships within a management scheme process. Examples encountered across the demonstration sites included:

- local councillors carrying influence within key authorities;

- trusted and respected individuals - especially those having the ear of key user groups - who can explain the technical terms in the advice packages without seeming biased;

- chairpersons of lead authorities;

- project officers - both new and existing ones, see Section 5.2.

It is important to identify and involve such individuals from an early stage; they may encourage involvement from particular individuals and organisations, but can also act as inter-mediaries if communication between relevant authorities and stakeholders breaks down.

2.4.8 Promoting sites and features

The need to promote a site and features may arise for a number of reasons:

- raise awareness about the importance and value of a site;

- inform stakeholders about the management scheme process;

- invite participation and information relating to the process;

- update stakeholders on progress.

Depending on the purpose, there are a variety of approaches that can be taken.

Given the lack of appreciation of marine features, their inaccessibility and 'out of sight' nature, promotion and interpretation are an essential tool for justifying the objectives of European marine sites and winning support and commitment. Many of these involve time and resources to prepare products of appropriate quality, and skills to identify the effective approach and the designs to fit. Given the priority of other tasks, the promotion of sites tends to be subordinated to more pressing needs.

In spite of these constraints, many promotional initiatives were tried on the demonstration sites. It is generally true that, provided with information about their sites, especially visual material, relevant authorities and stakeholders have been impressed and fascinated.

As well as the actual products, all stages in the process of promotion offer excellent means of involving the community. The planning of the promotion, such as the preparation of an interpretive plan, can be a joint exercise that in itself can be used to raise ownership and understanding. The preparation of material can use local artists, children and enthusiasts. Using local businesses to carry out the work or to hire boats for example, can also contribute to a positive respect for the site and the benefits it can bring.

Loch Nam Madadh - glass bottomed boat

Table 5. **Promotional tools used on the demonstration sites**

Promotional Tool	Comments/issues
Leaflets, postcards	*Simple, professionally designed leaflets have been effective in instilling local sense of pride. Good photographs can reveal the wildlife treasures. Can be distributed in hotels, information centres etc.*
Booklets	*As above, well designed booklets can be highly effective in building local support and enthusiasm. However they are most effective once a site has gained a local identity.*
Newsletter	*Valuable as a means of building identity. They don't need to be glossy to be effective - large colourful versions can involve a major resource commitment. Make sure they are well targeted.*
Video	*Can be excellent tool for bringing a site to life. Using video footage cuts down on expense. However a high quality product for wide circulation is not straightforward and requires specialist skills and sufficient resources to match. Good to include not just information on sites and features but also the people who live and work there.*
Boat trips, open days, guided walks, slide shows, marine awareness days	*Good at raising awareness generally and for face to face contact. On a fine day a glass bottom boat trip for local people can be a highly successful means of raising the profile of the site - even if its not feasible to see all the features. The events can encourage discussion about the issues on site.*

Promotional Tool	Comments/issues
Posters/charts	*Map based information is a format that many users are familiar with and relate to with interest. This can be achieved relatively easily if site based information is stored on GIS. Information that can be pinned up on boards, in the cabins of boats are more likely to get used.*
Web sites	*Wide audience though limited currently. Can be technical difficulties in setting up and the longer term maintenance needs to be considered.*
Participating in surveys	*Giving stakeholders and relevant authorities an opportunity to participate in biological surveys - limited to intertidal in most cases - can be highly effective in interpreting a site and raising interest.*
Warden/Ranger	*Good for face to face contact but heavy resource requirement. Most effective if local person who has good links with the local stakeholders.*
Art projects, murals, marine educational chest	*Art projects such as murals can provide highly visual and long-term promotion of the site. Can involve a cross section of the community.*
New infrastructure - walks, interpretation centres	*These long-term, high profile enterprises involve significant resources and time. They can provide many opportunities for involving the local community and contributing to local and visitor facilities.*
Press releases	*Regular updates in local press keep the site in peoples' minds - particularly useful when starting on a new site. Good promotional events themselves are excellent opportunities for capturing local press interest.*

"The use of a glass bottom boat on Loch Nam Madadh let people see 'what all the fuss was about'" - Nature conservation agency.

There are many tools and approaches available for promoting sites. In determining which one to choose, it is important to consider the objectives of the exercise as noted above. The following are additional points to consider:

- An early priority is to build awareness and understanding of the site and its features. At this stage, cheap and quick approaches are best or ones that capture the imagination of the community. This may include simple leaflets, fact and news sheets or educational projects involving local schools;

- A warden or project officer, on the ground meeting people, giving talks and discussing the site is very valuable at the start of the process. This process includes identifying and tapping into those people in the locality, who are rich in knowledge, contacts and stories about the site;

- Once initial awareness and interest has been established, some local publicity can be very worthwhile - articles in local newspapers, radio interviews. These approaches may be best postponed if there are still very sensitive issues requiring discussion and reconciliation;

- As interest grows and the process is more fully underway, there can be a demand and need for more information. Newsletters and websites are potential options. In both cases, the investment of time and money can be high and require a long-term commitment. At this stage, more glossy publications extolling the site and its features can build pride and enthusiasm.

2.5 Key lessons for building support and partnerships

- plan the sort of participation wanted in advance, preferably with the involvement of the relevant authorities and stakeholders;

- develop management structures that reflect the site's characteristics, particularly their need for sharing in decision-making between relevant authorities and stakeholders;

- consider single, non-hierarchical groups on large urban sites, though be prepared to put in more resources and specialist skills;

- value the existing networks and partnerships already in place and explore and agree the relationship between these and the new European marine sites and any changes needed;

- research the attitudes and concerns of stakeholders, particularly to previous conservation initiatives and developments and apply learning to the new structures and approaches;

- hold meetings - preferably one-to-one between the project officer and respective relevant authorities and influential stakeholders;

- identify the causes of disinterest and disillusionment and maintain a focus on partnership building;

- identify the key personalities who shape local attitudes and concerns and understand their views;

- appoint a good and respected chair to all key groups, and ensure effective record-keeping and communication **between** meetings;

- think carefully about the purpose of promotion on sites before deciding on the right approaches;

- ensure funds, time and skills are available for promotion on sites.

3.1 Background

The establishment of management schemes is underpinned by information on the features, on-going activities, the key players and their aspirations. The amount of information required is potentially vast and, given the state of understanding of the marine environment, much of this can only be supplied through new, often expensive, survey and data gathering exercises. The understanding of natural systems and the effects of human activities on features will never be complete. The key for those managing sites is to have sufficient information to justify making management decisions and this is a function of the required level of certainty and the quality of the information. The balance between continuing to carry out activities with unknown effects on features and implementing new management measures which may restrict those activities needs to reflect the precautionary approach.

Planning, storing and managing the information requirements are critical in establishing the management scheme so that the right information is collected, without it being excessive. The process of collection and collation must also benefit the wider management scheme process. The conservation objectives and operations advice may provide a focus for the information requirements on sites, although the provision of this advice requires a certain baseline of information itself. It also provides critical information for developing and implementing the scheme.

This section considers the:

- key information requirements for developing the management scheme;

- processes for capturing and disseminating information;

- content and process of developing advice on conservation objectives and operations.

3.2 Key information requirements

Each stage in the process of developing the management scheme requires certain types of information. Those relating to the features and activities on the sites are set out in Table 6. Some of this information is obtainable through general scientific knowledge; other outputs of the UK Marine SACs Project have contributed to collating this information (see Box 4). Other types of information are site-based and must be collated or new data collected locally.

In addition to feature and activity based information, social information regarding the stakeholders and relevant authorities is also needed in developing the scheme. This information includes the views and aspirations of stakeholders and relevant authorities, the individuals with strong knowledge about the site, the personalities that shape and drive local policies, the successful networks and the history of recent management initiatives and any grievances. This information is highly valuable in establishing the right management structures on sites and in collating other site-based information. Local and established nature conservation agency and other relevant authority staff can be a good source of this knowledge. For project officers new to a site, and to an area, it can take time to discover and understand this knowledge.

Table 6. **Information requirements on the features and human activities on sites**

Stage	Required information (see 3.4 for explanation of terms)
Setting conservation objectives	*Sub-features and attributes that describe condition of the features on the site including extent of habitats, size of populations, supporting information on physical processes, "typical species" for habitats and supporting habitats for species. Judgements as to what constitutes favourable condition - these preferences on condition may depend heavily on understanding where current condition lies in relation to the variability of features over time.*
Setting operations advice	*Environmental conditions and operations to which the features are sensitive. Type and extent of activities occurring or likely to occur on sites, and where they occur. Location of features and sub-features.*
Establishing management measures	*Location and sensitivity of features and sub-features. Location, intensity and timing of activities. Current management and monitoring regimes operating on the site, including existing management plans.*
Establishing monitoring requirements	*Target values for the attributes that equate to favourable condition for each of the features. Techniques that are cost-effective in detecting change in the attributes.*

"understand the site but most importantly understand the people and have them understand you" - Nature conservation agency.

The development of the management scheme requires good science and knowledge about the site, its features and its people. Shortfalls in this knowledge are one of the main factors reducing the initial effectiveness and sharpness of management measures (see 4.2.1). Meeting the information needs, requires having a clear sense of the purpose of the information and an effective process for collating and disseminating it. The cost effectiveness of embarking on management measures in the absence of adequate information needs to be weighed against the costs of setting out to gather that information.

3.3 Process for capturing information and disseminating knowledge

There are four important elements in successfully meeting information needs for developing management schemes on marine sites:

- identify the purpose of the information in the context of long term needs;

- collate and review existing information and knowledge;

- identify shortfalls and fill the gaps;

- feedback the results of data collation and gap-filling.

3.3.1 Identifying the purpose of the information needs

The volume of information that can potentially be collated is substantial; even the amount of existing information is considerable. The capture of new data can be very expensive. Much of the new data collection on the demonstration sites related to the biological interest features and was largely funded by the nature conservation agencies. However, a significant proportion

of the information shortfalls that later emerged when it came to designing management measures related to the distribution and intensity of human activities. Through careful planning, and resourcing, some of these gaps could have been addressed earlier and added value may have been gained for wider benefit. It is therefore critical to review information needs carefully and consider them against longer-term management requirements in particular:

• defining the favourable condition of the feature on the site;

• identifying whether or not features are in favourable condition; and

• managing those activities likely to have a significant impact on features on the site.

"Although gaps in knowledge had been identified in a plan, these were not identified at an early stage and as such, the groups which may have been able to collect data, were not encouraged to do so" -
stakeholder

3.3.2 Collating and reviewing existing information

Much information is held by the relevant authorities and stakeholders themselves. In most cases this information is readily available. Certain individuals or organisations can be rich sources of existing information and knowledge (that is, the interpretation of that information). For example, Department for Environment, Food and Rural Affairs (DEFRA) formerly Ministry of Agriculture, Fisheries and Food (MAFF), and DEFRA's scientific agency CEFAS (The Centre for Environment, Fisheries and Agriculture Science) have a wealth of information on certain areas - however, this source may not have been fully exploited on some sites. The project officer needs to identify and build contacts with all such bodies.

In a few instances, for reasons of its commercial value or simply administrative hurdles within the authority concerned, some information may not be accessible. As a result it can be very slow to collate or may require purchasing.

Box 5:   **UK Marine SACs Project:** scientific reports

The UK Marine SACs Project *published a series of reports on the ecology and sensitivity of marine features and the impacts and management of human activities. These reports were based on current scientific knowledge in the literature and from experts. They provide valuable scientific information for the development of operations advice and assessment of management requirements. Other valuable sources of information that should be considered include* MarLIN.
http://www.marlin.ac.uk

The UK Marine SACs Project *has also published a handbook of techniques for monitoring marine SACs.*
http://www.ukmarinesac.org.uk

For further details of these reports, see Appendix 3.

Local and anecdotal information

The gathering of local knowledge is a highly important part of the information gathering on a number of counts. Firstly an important proportion of existing information is held by local stakeholders in the form of anecdotal information. Secondly as a process it can be a powerful means of building a sense of local ownership amongst participants. Finally through the process of collating the information, insights can be gained into the aspirations and values of the stakeholders.

Anecdotal information has played a valuable role in understanding the pattern of human activities and, therefore, in identifying potential impacts on a site. It also has its limitations, especially if attempts are made to map it, and it may not be considered reliable particularly if needed to justify significant additional management measures. In such instances, it can act as a precursor to more formal data collection exercises.

"making use of anecdotal information from other stakeholders tells us about people's values and aspirations"-
Nature conservation agency.

Approaches to collating local information

In terms of collating information on site, and building and sustaining support and understanding, individual meetings between a project officer and relevant authorities / stakeholders is the most effective approach. It is however time consuming on sites with large numbers of relevant authorities and many human activities.

Topic groups or workshops are more efficient for gathering information quickly amongst large groups of relevant authorities / stakeholders. A significant investment in time is needed by the project officer, or another, to establish and co-ordinate these groups. Accordingly these events need to be scheduled carefully in order to avoid conflict with other important work areas the project officer may have.

Some techniques used in topic groups and workshops to assist in gathering information are:

• **Matrices.**   A simple matrix of activities vs features provides a framework for exploring potential impacts and for gathering information on activities within the site.

• **Questionnaires.**   At Thanet coast cSAC, questionnaires were sent out to key stakeholders to collate information about the nature of activities. Maps were prepared from the responses and stakeholders invited to verify these through subsequent workshops.

• **Topic group papers.** The preparation of topic group papers works as a means of keeping such groups focused on the end-product and ensuring there is a useful product to take forward. These products can include reviews of human activities across sites and the identification by stakeholders of potential impacts and management shortfalls.

"topic groups can be much less formal and threatening than the wider management group for the site and bring together people with common interests"-
relevant authority.

Consultants can be used to collate and review information. As facilitators, their impartiality and skills can be helpful in collecting information in a climate of suspicion and mistrust. On the downside, the opportunity to develop contacts and the important incidental knowledge is likely to be lost.

3.3.3 Identifying shortfalls and filling the gaps

"it was a positive thing to have stakeholders realise that the authorities don't have all the answers" -
Nature conservation agency.

Consultation over the gaps in the information and how these gaps are filled is beneficial. It helps to build or maintain trust and establish greater acceptance of the outputs of subsequent survey work. Conversely, the results of a review or survey undertaken by one

authority without consultation with other relevant authorities and stakeholders risks being ignored or refuted more so than if jointly planned and implemented.

The collation of new data should be carefully planned so that the interpretation of data from later work is informed by the outputs of earlier collation exercises. Therefore, for example, an initial acoustic baseline survey of a site may be the first step before undertaking any more detailed feature or activity surveys.

Conducting underwater survey

Information collection provides excellent opportunities for collaboration that can strengthen local partnerships and maximise the use of resources. Successful collaborations applied on the demonstration sites have included:

- hiring local fishing vessels for survey work;

- joint research programmes with university research departments;

- linking with PhD research work;

- loan of sea fisheries survey vessels for biological mapping.

The degree of collaboration between relevant authorities is limited. In part the UK's statutory framework for European marine sites continues to emphasise the functional divisions of competence between authorities. As a result, collaboration so far tends to be at the project rather than at strategic level.

3.3.4 Feeding back the results of information collation

Relevant authority staff and stakeholders generally have a keen interest in understanding their site. Successful dissemination of the results of data collection and collation exercises can increase this interest and the sense of ownership of the site. It can also further understanding and acceptance of the need for management action.

Visual outputs are particularly effective in engaging people. Video footage from underwater surveys of features on sites have been shown to relevant authorities both to better interpret the interest of the site and, in some instances, to illustrate the damaging impact of specific activities. Once shown the evidence in this way, relevant authorities, and the users themselves, are much more willing to consider new management actions.

Maps capturing the data collected from biological surveys are very useful tools in getting authorities and stakeholders to identify activities and potential interactions. Overlaying feature and activity information can also assist relevant authorities in determining management requirements.

The compilation of data into databases - paper or electronic - and into more extensive reviews can help promote partnerships within groups by providing a common and valued resource.

Role of geographic information systems.

The visual outputs from geographic information systems and their versatility in assessing how human activities may interact with the features has been enormously useful on many sites. The value of these systems depends upon the degree and complexity of spatial analysis required on a site. As a shared tool, a system may also support wider objectives for relevant authorities beyond the European marine site. These benefits need to be considered against the costs which can be high - see Box 6.

Box 6: Typical costs for establishing a GIS to support development of a management scheme

Equipment   *£4, 000 (specialist software, hardware and printer)*

Training   *£1, 500 (assumption of two days dedicated training)*

Data entry   *£5, 000 **

* this cost will depend upon the amount of information entered and the need for conversion of electronic formats. On top of this is the on-going and long term updating of data and of extracting information.

3.4 Conservation objectives and operations advice

The purpose of selecting and managing European marine sites is to contribute to natural resource sustainability by maintaining or restoring the interest features to favourable conservation status. The Directive defines favourable conservation status - see Appendices. The translation of this term to a feature at a site level is described in the UK by the term 'favourable condition'. Conservation objectives set the standard for favourable condition for each interest feature at the site level. In so doing they also provide the goal which the management scheme should be designed to meet and set the standard by which the effectiveness of the management scheme can be later measured. The UK's approach to setting conservation objectives on European marine sites is contained in national standards for monitoring both national and international designations. The conservation objectives cover all the designated interest features, including SAC and SPA features where both designations apply.

Box 7:

Attributes defining condition include aspects of the quantity, quality or processes that support the feature, for example:

Extent of features
Diversity of constituent communities
Distribution of constituent communities
Nutrient status
Water temperature

3.4.1 Selecting attributes

The conservation objectives for a site describe the favourable condition of the interest features. The objective for a feature is developed by identifying the 'attributes' which describe or support the feature and the 'target value range' for each of these attributes that reflect the best judgement as to what condition is considered favourable.

Given the number of attributes that may be set for a feature, they need to be prioritised. The attributes that best define the condition of a feature will continue to evolve as understanding of the feature improves.

Eelgrass

Box 8:

Sub-features are distinctive biological communities or structural or geographical elements of the feature, for example

mussel beds - reefs
maerl beds - sandbanks
eelgrass beds - lagoons
kelp forest - reefs

Some of the Annex I habitats are large-scale physiographic features, such as estuaries and large shallow inlets and bays. It has been found very useful to identify distinctive biological communities or geographical areas of these features as 'sub-features' and to identify attributes and targets for each of these sub-features. The definition of sub-features has been particularly useful on complex sites.

3.4.2 Selecting target values

In order to provide a standard that can be monitored, the attributes that define condition must each have a target value representing favourable condition. The definition of these target values needs to take account of the fact that attributes fluctuate in response to natural processes as well as human impacts. For many features, current understanding means it is not possible to set numerical targets and ranges. In the absence of scientific knowledge to the contrary, target values are generally based upon the most recent surveys of the features and the specific attributes.

Another UK LIFE-Nature funded project - 'Living with the Sea' - is addressing the management of dynamic coasts where inter tidal habitats are being caught between rising sea levels and fixed flood and coastal defences, resulting in 'coastal squeeze'. This involves the assessment of favourable condition and the balance between habitat quality and quantity. It will use conservation objectives as a guide, but when considering the condition of a group of sites within a coastal system they alone will not be adequate. It may be more appropriate to use the health of the natural processes that create and sustain these habitats and features as a target, rather than setting numerical targets.

3.4.3 Advice on operations

The requirement in the Habitats Regulations on the statutory nature conservation agencies to provide advice as to operations that may cause deterioration or disturbance to interest features is to alert relevant authorities to the management of those activities that need particular review in the light of the conservation objectives. The identification of these activities is based primarily on an understanding of sensitivity of the respective feature, or sub-feature, to changes in environmental or ecological conditions that can be caused by human activities. The assessment must take account of the effects of activities outside the site, as well as potential activities.

To avoid any misunderstanding as to the potential impacts, the statutory advice on operations should provide a clear statement on those activities that may cause damage. On its own, a long list of activities may cause alarm to relevant authorities and stakeholders especially if it is perceived as presenting the prohibition of certain activities as a fait accomplit. It is therefore helpful to involve these bodies in the development of the list, especially in the early stages of information collation (see 3.3.2) so that relevant authorities and stakeholders can identify for themselves the areas of potential impact.

Fishing boats in Newlyn Harbour

One successful approach for increasing the acceptance of the statutory advice has been for the country's nature conservation agencies to identify broad ecological or environmental factors that the features are sensitive to, for example: physical abrasion, toxic contamination, biological disturbance. Other organisations can then consider and advise on how activities within or adjacent to the site might influence these factors. This separates the more scientific assessments of sensitivity from the local information on the actual pattern of human usage on the site. It also provides advice in a form that is more long-lived than simply the current assessments of potential activities.

3.4.4 Process of preparing conservation objectives and operations advice

The nature conservation agencies are responsible in the UK for providing the statutory advice on conservation objectives and operations likely to damage or disturb the interest features. The involvement of other relevant authorities and stakeholders in the development of this advice has been good practice for a number of reasons:

- **Raising understanding.** Without any explanation or caveats, the advice can be intimidating and confusing for some. A process that provides for their involvement can also give opportunities to explain the purpose and audience of the advice in the process of developing the scheme and increase local ownership of the objectives.

- **Sharing information.** Many other authorities and stakeholders have a good understanding about the location of the interest features, distribution and intensity of human uses and the potential impacts. This is valuable knowledge particularly in the operations advice and can improve the accuracy of the advice.

- **No surprises.** If stakeholders have contributed to the content of the advice, it can be understood, accepted and applied more quickly.

- **Develops commitment.** An open process that acknowledges the views, knowledge and concerns of others is more likely to promote trust and understanding between participants.

Workshops and individual meetings with relevant authorities and stakeholders can be used successfully to generate information about the pattern of human uses on sites and the potential impacts. This information can then be applied in preparing the conservation objectives and operations advice. Through such a process, the participants are likely to have identified for themselves the likely problems. The formal advice, when it arrives, will be familiar and sensible.

Consultations. Informal consultation on draft advice is very useful in providing opportunity for further comment and to familiarise relevant authorities with the content. There is no statutory requirement for more formal consultation on the advice, although it clearly provides a further opportunity for comment. It can involve significant time, and provided there have been appropriate informal consultations, does not appear to significantly increase ownership of and commitment to the advice.

Timing of advice. Delays in issuing conservation objectives and operations advice on some of the demonstration sites caused frustration amongst participants towards the site and the scheme process. This was particularly the case in cross-border sites where progress in both parts of the site was not necessarily consistent. Consideration should be given to providing parts of the advice early, perhaps in an initial draft state. The operations advice is particularly crucial in driving the management scheme process and initial advice can be provided relatively quickly once information on the pattern of human activities on a site is available.

The detailed supporting information on the conservation objectives, providing the link to the monitoring programme, can take time to develop. However this detail is not essential early in the management scheme process and can therefore be provided at a later stage.

Case example 14:
Five topic groups on Berwickshire and North Northumberland Coast were established to collate information on different activity sectors on the sites. The discussions were based upon the probable conservation objectives for the site, in the absence of formal advice. The outputs from each topic group were collated into a single report that identified the human uses on the site and likely management issues. This information was used to develop the formal advice on objectives and operations, but in the meantime was sufficient to enable discussions on the content of the management scheme to progress. This maintained the momentum on the site and the support of the partners.

3.4.5 Format and style of advice

The conservation objectives and operations advice can range from the minimum statutory requirement of a set of objectives and a list of activities to including supporting information on the sensitivity and vulnerability of features to activities, definitions of favourable condition and a link to the monitoring requirements.

On complex sites, a full package of conservation objectives and operations advice can be very extensive as well as technical. For some relevant authorities and stakeholders, this creates an obstacle to them accessing and understanding the information contained in the package. Table 7 identifies some of the concerns that have arisen during presentation of this material and the solutions that have been applied, and appear to work.

"Complexly worded advice is hard to digest and can result in misunderstandings and being ignored" - project officer.

Table 7. Presenting advice on conservation objectives and opera-

Concerns	Solutions
On large sites with several designations and numerous features, the entire package of advice is considered unwieldy and difficult to access.	Separate supporting information from the main statutory advice to keep it shorter. Produce a simplified, abbreviated version of the information for wider distribution to stakeholders and within relevant authorities. Using the project officer to explain the advice to relevant authorities and stakeholders through meetings and workshops held in parallel with distribution of advice.
The necessary scientific content makes the information difficult to digest.	Avoid using jargon and unnecessary scientific terms, include English species names where possible. Produce a user-friendly version as above.
Provokes perceptions of widespread controls.	Explaining the role of the advice to stakeholders and giving them an input into its preparation. Describing an activity as 'may cause damage' rather than 'likely to'. Avoiding use of pejorative language.

Concerns	Solutions
More information - more bureaucracy.	*Identify the contribution that the advice and the SAC makes to other on-going biodiversity and sustainability initiatives.* *Explain the statutory basis and purpose of the advice.*
Provides little useful guidance.	*Make the 'workings' available to show how the advice was derived and how it will evolve.* *Explain the role of the advice in the broader scheme process - the advice is not intended to provide all the answers.*

3.5 Key lessons for meeting information needs

- plan the need for information with regard to the potential impacts and management requirements;

- involve stakeholders and relevant authorities in determining the information gaps and the way to fill them;

- consider how information collection exercises might also build support and ownership locally in the site and sits feature;

- disseminate the outputs from information collations - common databases and visual products are especially valued;

- draw on local knowledge - one-to-one meetings, workshops or topic groups each can work;

- investigate university research interests in the site and seek collaborative research projects;

- consider providing early draft advice on conservation objectives and operations;

- involve relevant authorities and stakeholders through informal consultation in the development of the statutory advice on conservation objectives and operations advice;

- explain, through the project officer, the structure and application of conservation objectives and operations advice;

- separate out the scientific components in advice on operations from the local understanding of the site to engage stakeholders in the latter especially;

- provide digestible versions of complex or technical information.

Section 4
Determining the management measures

4.1 Context

The management of marine sites is conducted against a background where the science can be reasonably described as complex and novel and the management of the site for the European features for which it has been chosen is a relatively new objective.

Our understanding of the ecology and sensitivity of marine features has improved greatly in recent years. Gaps in our knowledge remain particularly in relation to natural variability of the biological components of these features. The relationship between human activities and their effect on features has been little studied and this is further complicated by the exposure of features to multiple factors and the potential for effects working in combination. The net result is that even if a change is observed in a feature, it can be difficult to confirm the cause of the change. Management measures need to be determined within these challenges and implemented. Through this, over time, understanding of these complexities and effective management will grow.

4.1.1 Aspects of the UK's approach

Responsibility in the UK for deciding the management of activities rests with the particular relevant or other competent authority that has statutory powers of control or regulation for the activity. There is no designated lead agency or other body to coordinate or take an overall decision-making role; though the government retains ultimate powers to direct a relevant authority to take specified actions if the management scheme is failing.

Furthermore unless there is evidence to the contrary, a widespread assumption is that the sites were in favourable condition when originally selected and therefore, the pattern of human use at that time was not causing significant damage. This contrasts with the policy concerning new developments, where some form of consent is needed and where the developer is required to demonstrate that a proposal will not adversely affect the integrity of the site.

Given a situation where it can take many years to build up a conclusive scientific case for management action, by which time the damage may be in practice irreversible, government guidance advocates use of the precautionary principle.

In the event that additional management measures are needed, government guidance states that voluntary options for management should be considered first. Where a voluntary measure is not likely to prove effective new statutory regulation may be needed.

Case example 15:
In Cardigan Bay cSAC, the feature is a population of 100 or so bottlenose dolphins. It is not known whether this is a healthy and sustainable population given current uses on the site or if the population is facing serious threats and is already facing severe stress. It cannot therefore be assumed that the population is in favourable condition. How do relevant authorities respond to this?

Bottlenose dolphins

This section considers:

- Constraints and solutions to defining effective management measures.

- Preparation of the management scheme document.

4.2 Obstacles and options for securing effective management

Management schemes need to ensure the avoidance of any deterioration or significant disturbance of the SAC and SPA features within the site. In practice, the initial schemes on the sites have aimed to address significant impacts. The resolution of all potential impacts and improvement in condition of features is generally a longer-term ambition. The identification of all these impacts, and the development of understanding and commitment amongst participants, are essential in achieving the longer term goals.

On the demonstration sites, there have been few on-going activities where there is clear and immediate evidence of a significant impact occurring. These typically concern fragile species and major physical damage for example in mobile fishing gear passing through brittle, slow-growing maerl or Sabellaria reefs. More commonly there is a perceived impact supported by anecdotal evidence of a downward trend combined with a variety of potential causes. In such instances, remedial management measures may be required before an obvious and irreversible impact occurs. Across the demonstration sites a number of obstacles arose in attempting to devise and agree such measures.

4.2.1 Knowledge

Understanding of the distribution and intensity of activities is commonly a constraint to developing effective additional management measures. In some cases, these are simple information gaps which could have been filled as part of the process of preparing the scheme but were not planned into work programmes by relevant authorities on account of the short lead in to the schemes and their unfamiliarity with the site and their new responsibilities. In other cases, the gaps are much more complex, concerning cause/effect relationships, where developing the necessary level of understanding will involve considerable time and expense.

Given the mosaic of activities occurring on sites, it is very difficult to identify any one activity as the cause of an adverse effect and to separate its impacts from natural changes. The research to gather sufficient evidence to identify the causes of detrimental change and to justify substantial management action can be significant.

In circumstances of uncertainty, a valid approach is to instigate a measure based upon the current best available knowledge and in accordance with the precautionary principle, implement it and review its effectiveness through a monitoring programme.

Where further studies or monitoring are proposed, it is beneficial for the scope and approach to these to be discussed with relevant authorities, rather than the authorities acting in isolation. In this way, any new understanding that emerges from the studies or monitoring is more likely to be accepted and applied by both users and regulating bodies.

4.2.2 Resources and policies

Even when understanding of cause and effect is reasonably sound, and sufficient information

firm initial action as required under the precautionary principle. This may be for reasons of:

- costs - the relevant authorities having to find the extra resources to fund new measures or adequate enforcement;

- political sensitivities toward local user and community groups, particularly where there may be negative impacts on inward investment or local jobs; and/or

- differing understanding of the precautionary principle and the level of information needed to justify management action.

A number of measures, individually or in combination may help address these obstacles:

Building commitment throughout a relevant authority is important. The promotion of the scheme, its wider benefits to local communities and interests and the legal obligations need to reach all levels within relevant authorities. Failure to do this may result in relevant authorities not taking adequate action as a result of misunderstanding and pressure from elected members and other senior figures in the organisation.

Political support can be increased if the measures proposed will contribute to wider initiatives affecting the site. Such wider benefits need to be identified and communicated. In a number of cases on the demonstration sites, new measures have been agreed as part of broader initiatives, for example in tandem with new fisheries regulations.

Importantly, management scheme documents should not be constrained by existing budgetary levels or even necessarily by existing policies and legislation. The documents need to be viewed as a mechanism for securing funds and/or identifying the need for policy or legislative change, rather than necessarily working within current constraints. In practice the six year time frame adopted by most schemes (to coincide with the government reporting cycle) exceeds most relevant authorities' capacity to forward commit funds and therefore the costs are provisional costs rather than confirmed.

In spite of all this, some relevant authorities may be unable or unwilling to undertake adequate measures and a strong and clear steer is needed by central government.

4.2.3 Voluntary vs statutory management

Where voluntary measures have been applied, the measures have involved relatively small changes to the existing pattern of an activity. They are only as effective as the willingness of users to support the measures, which in turn depend on the benefits expected from the voluntary measures or, conversely, the likely cost. Whilst their role is therefore limited - particularly when it comes to dealing with more significant management issues - they are able to secure initial support in situations where a statutory approach would have caused significant resentment for little additional gain.

Case example 16:
Hydraulic suction dredging and scallop dredging are both carried out to some extent in the Sound of Arisaig. These activities are known to be damaging to maerl. Whilst most dredging took place beyond areas where maerl occurs, there was a risk of damage taking place. There were strong concerns amongst user groups about the SAC and potential restrictions. A voluntary restraint on dredging in areas around the maerl, including a buffer zone, was proposed, rather than introducing a statutory measure. This was discussed with local fishermen individually when they entered port. The measure has been agreed largely because it has not substantially affected the users activities, and is expected to be largely self-policed.

4.2.4 Legal powers to manage

Relevant and competent authorities have a duty under the Habitats Regulations to exercise their existing functions so as to secure compliance with the Directive. Generally relevant authorities have sufficient legal instruments to manage potential impacts identified through the management schemes. However there are certain potential impacts that in practice are on-going activities but are within the jurisdiction of competent authorities, for example military or aviation activities. In such cases it is important that the respective national competent authorities are targeted and kept involved in the development of the management scheme, particularly those areas over which they have control.

4.2.5 Managing impacts outside the site

Some impacts may arise outside the boundary of the site and beyond the geographical area within which the local relevant authoritiesí powers apply. Similarly, mobile species such as bottlenose dolphin, common and grey seals may be affected by impacts during other periods of their life cycle experienced in other locations.

Management schemes need to identify the impacts on features originating outside the sites and develop appropriate management measures where possible. This may necessitate the involvement of relevant authorities and other bodies in adjacent areas. These bodies need to be involved alongside the local relevant authorities in the development of the scheme. There must also be a clear process whereby competent authorities operating at national levels are informed of and able to react to potential impacts within their jurisdiction. Identifying the right contact(s) in large national organisations can be difficult.

4.3 Achieving good management measures

Management schemes need to make a difference on sites. Where there are no clear impacts currently occurring, the scheme may be most significant in the partnerships and awareness it has promoted for managing future impacts and plans and projects and for the monitoring programme it has established. Where there are impacts, the steps below can be taken to ensure the management measures adequately deal with them. Figure 3 illustrates an example of how the process of devising measures can occur.

Focus on the impacts that matter. There must be clarity over the key impacts that are affecting the site and leading to deterioration or disturbance to interest features.

Marshal the science. The scientific basis for identifying deleterious effect needs to be clearly provided, if necessary drawing on evidence and experts from elsewhere.

Adopt a methodology to assigning management measures. It is useful to review management against potential impacts in terms of those management measures that need to: stop, start or continue.

Provide for consultation. The measures devised by a relevant authority should be considered by other relevant authorities and competent authorities with overlapping interests - and in particular the nature conservation agency. They need to comment specifically on the improvements needed to rectify potentially inadequate management measures.

Figure 3. **Determining management measures**
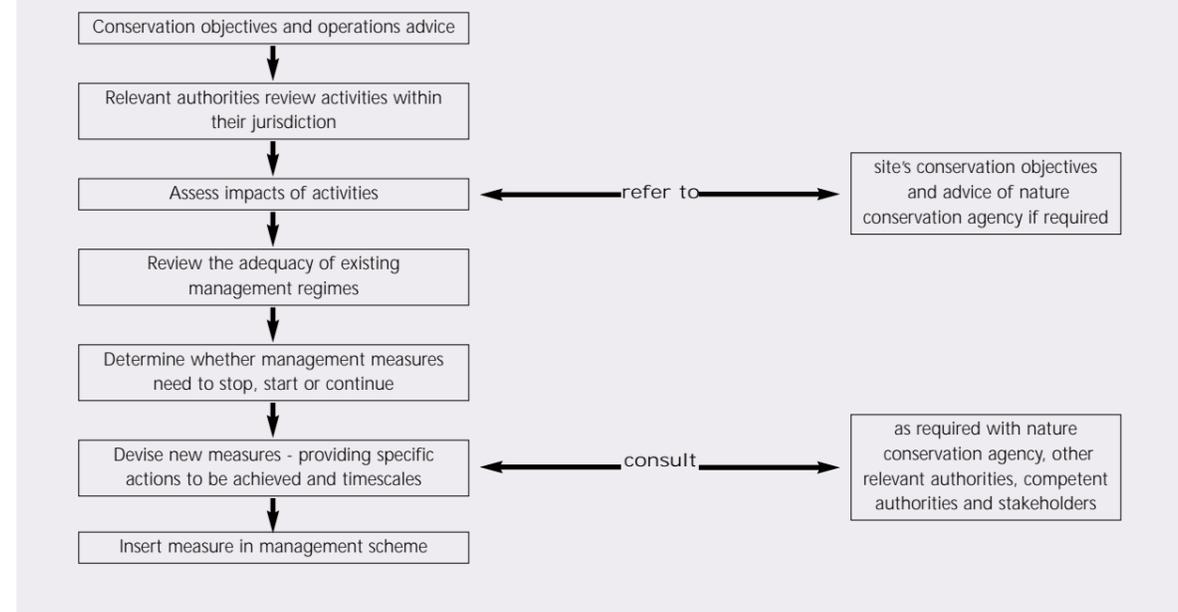
4.4 The management scheme document

The primary function of the management scheme document is to record the framework for the relevant authorities through which they will manage activities on or off the site. It acts as a tool with which the authorities perform their statutory functions. The document itself is, however, only part of the process. The document may serve a number of functions including promoting and interpreting the site, its features and impacts, subject to the needs of the site.

Sound of Arisaig
Management Strategy

The document should include the following information:

•   the conservation objectives, including targets against which the effectiveness of the scheme can be evaluated;

•   a summary of the main potential impacts to the features in light of the operations advice;

•   a strategy for meeting the conservation objectives;

- an action plan detailing:

  - precise action to be taken to implement the strategy;
  - organisation(s) responsible for each action;
  - timetable for implementation of each action;

- a framework for monitoring:

  - compliance with the action plan;
  - the achievement (or not) of the conservation objectives;
  - periodic review of the scheme.

4.4.1 The need for a management scheme

Marine sites range from major commercial hubs to uninhabited and remote islands. The statutory requirements to provide advice on conservation objectives and operations applies to all marine sites (SAC and SPA) although the power of relevant authorities to prepare a management scheme is discretionary.

On the great majority of sites, the development of a management scheme will be a sensible and practical tool in guiding relevant authorities in the proper exercise of their functions. On all sites there will need to be some evaluation of the actions required to meet the conservation objectives and operations advice. Therefore, in its broadest sense, there is likely to be some management scheme or revision of an existing plan, though the scale will depend on the number and complexity of the management issues.

4.4.2 Participation in preparing the scheme

Responsibilities. The management scheme provides a framework through which relevant authorities are able to meet their statutory obligations and they therefore have a strong interest in development of relevant sections. The development of the measures and the drafting of the document involves close collaboration between the project officer where appropriate, the relevant authority and the country nature conservation agency as authors of the conservation objectives and operations advice. On many of the demonstration sites, the role of competent authorities in preparing schemes has been vague and their involvement has tended to be weak. This is an area requiring clarification of government policy.

The definition of management measures involves determining that an impact is occurring, or potentially will occur, and then designing the proper measures to address it. The former is best undertaken jointly between relevant authorities and the nature conservation body. Relevant authorities are individually responsible for management of activities within their remits. In the longer term interests of encouraging greater ownership and acceptance of management measures, it is better that each authority undertakes its own review of management needs and identification of new measures. In view of the likely delays that can arise, it is preferable for the appointment of project officers to assist relevant authorities with their management assessments, to offer technical advice on the effects of activities on features and to chase them for their input to the scheme.

Participation. One to one meetings between relevant authorities and such project officers have been a key factor in facilitating the review of existing management and development of new management measures. They have allowed raising of issues which might not have been raised in more open meetings of authorities.

The involvement of different groups in developing management measures will reflect the characteristics of the sites that were set out in section 2. In particular, where stakeholder groups have strong interests in the sites or a traditional close involvement in local decisions, they should have a clear and central role in influencing the management decisions.

Case example 17:

On the Wash and North Norfolk Coast, there may need to be management measures for recreational activities such as dog walking or kite flying with regard to disturbance to birds. The imposition of 'outside' controls on these and traditional uses of the coast is strongly resisted and highly sensitive. It is agreed that the local advisory groups will lead on developing appropriate measures for these activities.

Consultation. Public consultation, particularly amongst local stakeholder groups, is good practice in terms of providing an opportunity for comment and input and raising awareness of the site and the management schemes process. If the scheme is long and largely technical, it can be helpful to provide an abbreviated and more accessible version in order to encourage comment and feedback. Examples of this approach are at Morecambe Bay, Pen Llyn a'r Sarnau and Cardigan Bay.

Solway Firth -
management scheme summary

Consultation within the relevant authorities can best take place through iterative developments of the draft and formal endorsements of final versions. Few comments and changes were made by relevant authorities during these consultations on the demonstration sites. It is more effective to get an adequate measure drafted initially than attempt to refine a poor one later.

4.4.3 Format of schemes

Guidance was issued at the start of the process by both government and the statutory nature conservation agencies with a suggested format for a scheme document (Department of the Environment,Transport and the Regions , 1998 & Countryside Council for Wales, 1996). Given that the scheme is a tool to primarily support local delivery of responsibilities, the general policy has been that relevant authorities should determine the format and content of their document. This has contributed to the local ownership of these documents, and is a pragmatic necessity given the variation between sites in their management issues and local culture. There has therefore been no move to press for consistency in the documents, though at least one national relevant authority, English Nature, has prepared and published its own criteria for schemes in support of its assessment of and comments on consultation drafts.

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Imposing a general template is not helpful, however, gaining local agreement on the vision for and purpose of the management scheme can be helpful. Clarity on this may have reduced confusion and wasted effort felt by some participants on sites.

Within this context of local discretion, there are certain features of schemes that are more critical to their effectiveness in the long term in managing the sites:

Precise actions. An action plan containing a set of specific management measures, which allocates responsibility to particular authorities and timescales, is a core part of the management scheme document. It is particularly helpful if actions are expressed in ways that enable their completion (or not) to be recorded.

Time frames. There are no specific procedures given for reviewing management schemes. However it is generally accepted that the time frame for the management schemes is six years corresponding to the cycle of reports to European Commission on the conservation status of the features specified in the Habitats and Birds Directives. Within this cycle, it is sensible to have more regular (possibly annual) reviews of the progress on the scheme, particularly in the initial few years. This can help consolidate the on-going management structures, ensure that the scheme is operating effectively and maintain momentum. Longer-term communication and sharing of information amongst participants to a scheme may be effectively served using the internet.

Promotion as 'living' documents. The principle that management schemes will be dynamic documents, reviewed over time has been a pragmatic and political necessity. In the light of new knowledge and improved understanding, it is inevitable that new or more precise management actions can be proposed. Likewise the interpretation and implications of the Directive are likely to evolve - not least of which, the review of the site network will necessitate a review of potential impacts and measures where a site is designated for additional interest features.

Integrated management. On all the sites, there are a range of existing mechanisms within and beyond the Directive which could deliver aspects of management regime required on the SAC including Shoreline Management Plans, Biodiversity Action Plans, firths and estuaries initiatives, local and regional development plans. Integrating the scheme with these other mechanisms is important for maximising the effectiveness of resources and reducing confusion and frustration amongst the body of stakeholders. Good practice in integration includes:

- identifying other delivery mechanisms within the action plan for the scheme;

- specifying what action is required of that mechanism, if a change is needed;

- not duplicating the information and actions that may be contained in related plans or strategies.

Connecting with plans and projects. The Habitats Regulations specify a separate process for dealing with plans or projects. Nevertheless, the management scheme may make helpful links to this process:

- providing guidance on the process for assessing plans and projects, for example, Chesil and the Fleet management scheme provides a decision tree with links to appropriate sections in the advice on conservation objectives and operations;

- establishing actions to support commonly occurring plans or projects;

- providing guidance on the strategic planning and management of new developments, for example, the Papa Stour management scheme includes guidance for potential developers on the siting and scale of fin fish and shellfish farms. This advice would be used in conjunction with the current works licence procedure operated by the Council.

Procedures for on-going consultation. The on-going arrangements for reviewing the effectiveness of the management scheme need to be agreed. In many cases this will simply be a continuation of the management structures that have overseen the development of the scheme. It is useful that these arrangements, including the specific management structures and timing of reviews, are set out in the scheme document.

An important aspect of discussions over the Loch nam Madadh management scheme centred on the longer-term arrangements for relevant authority and stakeholder participation in the management of the site. Formal and agreed procedures for this were important to ensure that adequate structures for participation would be available and which would help maintain interest in the site. In the future, an open forum will meet annually to identify management issues. Their recommendations must be considered by the relevant authorities in their subsequent reviews of the management actions.

4.5   Key lessons in determining the management measures

- identify all potential impacts on features in the management scheme;

- aim to identify initial remedial actions for potential impacts in the light of uncertainty rather than solely commissioning further surveys or research;

- view management schemes as bidding documents for funds rather than them being constrained within existing budgets;

- relevant authorities review and prepare management measures for their own sector with advice as needed from the project officer or nature conservation body;

- provide a process for consultation on draft measures for seeking comments at least from relevant authorities and stakeholders with close interests;

- involve stakeholders in the development of management measures relating to activities of particular concern to them;

- ensure that where needed, competent authorities are kept informed and involved in the development of management measures;

- design the format of the management scheme document to fit the needs of local relevant authorities;

- seek good integration of the scheme document with related management plans and strategies on the site;

- make sure management actions are precise and specific with responsibility allocated to particular authorities within specific timescales.

- include in the scheme, the process for reviews of scheme progress including the role of different management structures;

- view the management schemes as an evolving document, subject to review and change as new knowledge comes to light.

5.1   Timescales

The time taken to establish an agreed management scheme on the demonstration sites has typically been three to four years for sites with a project officer, measured from the time of officer appointment. A longer time period may be needed for sites without dedicated project officers.

It might be expected that the timescales would vary substantially according to the size and complexity of the site, the level of knowledge of the features, the management issues and any attitudes and cultures inherited from any previous initiatives. However, the timescale of the UK Marine SACs Project has tended to constrain the degree to which the progress on individual sites can vary to match local needs, and has arguably been the main influencing factor.

A considerable proportion of the time taken has been due to the novel nature of the work, including the relative novelty of marine conservation initiatives to both relevant authorities and other stakeholders, and the need to establish new approaches particularly in relation to conservation objectives and operations advice. With the benefit of learning gained since the start of the Project, it is tempting to speculate that the process could be undertaken in less time in the future and on other sites, although each new site would undoubtedly present new challenges. Furthermore, there are many different ways in which a 'management scheme' can be constructed, and the time needed will therefore vary accordingly.

White anemone

It is open to debate whether the imposition of essentially externally-driven timescales has been a net positive or negative factor in the success of the demonstration schemes. With more time, more collation of information could have been undertaken allowing for more discussion with relevant authorities on the need for new management measures, as opposed to the need for further data collection and research. Meanwhile, imposing timetables can undermine local ownership of, and responsibility for, delivery of the scheme and lead to frustration with the process. This can be a particular problem where the emphasis in management scheme development is on consensus building. It is important that relevant authorities and stakeholders are able to determine a timetable appropriate to their requirements.

On the other hand, it is usually a helpfully motivating factor to have an end point and milestones as targets and focus for scheduling work and recording progress. Furthermore, time-limiting the process is a means of constraining costs, and it may be difficult to sustain the commitment and participation of relevant authorities to an overly extended preparatory process.

Perhaps the main lesson is that it is useful, if not essential, to have a clear timetable, and that partners are likely to be more committed to it, if it is one which they themselves have determined.

5.2   Personnel

A management scheme is very unlikely to be developed without one, or more, individuals who can co-ordinate the overall process and particularly the inputs of the relevant authorities. A project officer, with the specific responsibility to undertake this co-ordination, is generally essential on most sites. Depending on the size and complexity of the issues, there may not need to be a full time officer and, where there are several neighbouring sites, it may be possible for single project officer to support more than one.

The range of skills and competencies needed in a project officer are described in table 8. The officer may often be involved in sensitive and confrontational discussions with stakeholders and relevant authorities. This calls for a mature individual, confident in working in such situations.

Table 8. **Skills and competencies of the project officer**

Skills and competencies	Comments
Good interpersonal skills	*Must be able to communicate with wide range of people from specialists to users and be able to promote the site through the media.*
Consensus building and arbitration skills	*Often have to act as go-between relevant authorities, conservation agencies and stakeholders.*
Advocacy skills	*Promote the idea of the site designation and management scheme process.*
High degree of self motivation, self management and organisation	*Able to manage wide range of duties and to co-ordinate others.*
Knowledge of relevant legislation	*Legislation relating to the process is complex, good knowledge early on is required to guide others through the process.*
Knowledge of marine ecosystems	*Helps with credibility on site and for supporting the other relevant authorities.*
Enthusiasm and (ideally) knowledge of the site	*Knowledge of the site and its activities helps to gain credibility, especially at the local level.*

Other core skills that the project officer may need to have access to, though not necessarily possess, include publicity and public relations; and use of geographic information systems. Special skills may be needed, or available, in facilitation and participatory processes if a more consensus-based approach is taken.

The project officer needs to be an enthusiast for the site, and sustaining its wildlife, though able to act independently of any one organisation, even if employed by one of the authorities. There are particular benefits to be gained from appointing a local person to the post of project officer:

•   existing staff can bring good networks, knowledge and trust to the table;

•   employment of local individuals can help to counter claims that the European marine site threatens local jobs;

•   local staff may be more accepted, particularly amongst close-knit communities.

One person is unlikely to have all the skills and competencies and a balance will be required. This in part will depend upon the nature of the site and the priorities. For example, if it is important to raise stakeholder support and enthusiasm, public relations experience and competence may be required as opposed to a strong technical ecology background. Equally, a site which has had a long history of research and scientific study may require a more technically knowledgeable individual who would be able to make best use of such information.

5.3   Funds

The demonstration projects were able to benefit from funds provided through the European LIFE-Nature programme, from the statutory nature conservation agencies and from a number of other relevant authorities. These funds supported many costs associated with survey work, the collation of existing information and the employment of project officers. These sources have considerably simplified the financing of the management scheme which, if it had been necessary to secure all the necessary funds from across the relevant authorities, would have been more difficult to achieve within short timescales.

Table 9 illustrates the magnitude of the actual costs in establishing a scheme on the demonstration sites. These can be considered average figures - the range will clearly depend particularly on the scale of the site and the amount and quality of existing information available.

Table 9. **Costs of develping a management scheme on a European marine site**

General cost area	Specific details	Overall costs
Biological surveys	*Acoustic subtidal survey with ground truthing*	£ 50k
	An intertidal biotope mapping survey	£ 10k
Collation of data sources		£ 5k
GIS and data entry	*Equipment and contracts*	£ 10k
Project officer	*Salary and running costs*	£ 75k (£ 25k per year for 3 years)
Promoting the site	*Leaflets, advertisements, public meetings, guided walks etc*	£ 10k
Publishing a scheme	*Design and printing both drafts and final*	£ 7k
Total		£ 167k

Table 9 does not include the on-going costs involved in implementation of the management scheme which are the responsibilities of the individual relevant authorities.

The costs identified in Table 9 are the core costs in developing a management scheme, some of which may be shared between the relevant authorities. Individually each relevant authority will have its own staffing costs in participating in the process including attending meetings and undertaking the reviews of management needs and measures. These staff costs will depend upon an organisation's levels of responsibility on a site but typically will lie between 15 and 50 person days each year.

Section 6
Conclusions

Over the last four years, management schemes have been established across a varied series of sites, adopting differing approaches that were appropriate to the local circumstances. The real test for these schemes will be in the degree to which they are successfully implemented and provide an effective management framework for resolving impacts on sites. This will only be revealed over time. Nevertheless, the successes and difficulties encountered in establishing these schemes provide many useful indications of good practice for other sites.

Sea pen

There is an important distinction between management schemes as a process and the published scheme documents. The documents published through the Project represent an early achievement in the scheme process. The documents will evolve and be modified over time.

In order to provide a framework for managing activities, some form of management scheme document is likely to be needed on all sites. As a minimum, the document is expected to include:

•   the conservation objectives for the site;

•   a summary of main potential impacts to the features in the light of the operations advice;

•   a series of actions by relevant authority and against time;

•   a framework for monitoring and review.

In addition to a framework for managing activities, management schemes can deliver other important benefits. Firstly, initiating and maintaining networks between a range of statutory and non-statutory bodies connected with the site over time can help build trust and confidence within this group of stakeholders. Secondly, integration of the objectives and actions of existing and future plans and strategies affecting a site provide working examples of integrated coastal zone management.

On each site, there are a few priority management issues that the management schemes must address. These should be identified early and remain the focus for discussions between relevant authorities and for consideration of new management measures. The management scheme process should put greatest effort into those issues which really matter and avoid getting diluted by those of least significance.

The general presumption that sites were in favourable condition when originally selected has put the onus on the nature conservation agencies to demonstrate that specific activities are having a negative impact on features. In theory, the precautionary principle ensures that sufficient remedial actions are taken. In practice, the principles are often weakly applied.

A stronger application would depend on greater relevant authority and government commitment.

Grey seal

There are several approaches for how relevant authorities and stakeholders participate in management schemes. The characteristics of the site themselves are important determinants. More innovative structures in which power is devolved to wider stakeholder groups have tended to reduce initial conflict and create greater support during the development of the scheme.

The responsibilities of competent authorities have not been fully clear in the development, and implementation, of management schemes. In some cases, they have responsibilities on a site that are akin to relevant authorities. Their involvement in developing schemes has however not always been adequate. Their role needs to be clarified and better promoted.

There has needed to be a relatively heavy input of resources, staff time and awareness raising by the nature conservation agencies to get management schemes off the ground. Relevant authorities have generally been slow to accept and fully respond to their new responsibilities. In such instances government departments must direct and steer relevant authorities more in order to achieve a proper acceptance of duties and appropriate response.

Project officers and effective chairpersons have been essential in driving forward the establishment of schemes and management structures on sites. In selecting these it is important to consider:

- the balance between scientific / political / people skills required on a site - these will depend upon whether the site is characterised by knowledge / impacts or by emotional responses;

- the maturity and standing that the site and key stakeholders will demand of the project officer;

- visionary, inspiring individuals can have a substantial effect on the scheme process by encouraging greater enthusiasm and interest.

A timetable for completing the management scheme document has been a helpful focus for relevant authorities and for planning purposes. If this timetable is worked up and agreed by the authorities themselves it can help to build local ownership and responsibility for the process. The converse can also occur.

Most of the scheme documents established through the Project took between three and four years. Shorter timescales may be achievable in the future as much of the initial work to develop the underpinning concepts and approaches has been completed.

Building and then retaining the interest of relevant authorities and stakeholders is difficult. Initially workshops to gather local knowledge and management concerns can be successful at building interest and involvement. Much progress can be made by presenting draft conservation objectives and it is important that delays in providing this advice do not hold up consideration of management requirements on a site.

The initial works leading up to the preparation of the first document can be expensive -

typically £ 170k. On top of this, relevant authorities need to understand and be prepared to commit significant time input, particularly at the stage of reviewing and drafting management measures.

Brittlestar

Concerns that additional resources will not be provided to fund longer-term implementation of actions has curtailed the willingness of some relevant authorities to commit to new management actions. A much stronger lead is expected from central government departments in funding costs in relation to supporting the core costs and the specific new or additional actions required by individual authorities.

Simple newsletters and articles for local newspapers have been some of the most cost-effective ways of promoting sites. Professionally designed glossy booklets and leaflets produced after general awareness and some support has been achieved, can build a sense of local pride in the European marine site.

Appendices

Appendix 1: **Favourable Conservation Status**

Conservation status of a natural habitat means the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species within the territory referred to in Article 2.

The conservative status of a natural habitat will be taken as 'favourable' when:

- its natural range and areas it covers within that range are stable or increasing;

- 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; and

- the conservation status of its typical species is favourable as defined below.

- Conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2.

The conservation status will be taken as 'favourable' when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; and

- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and

- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Annex I habitats	A natural habitat 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.
Attribute	A characteristic of a habitat, biotope, community or population of a species which most economically provides an indication of the condition of the interest feature to which it applies. For species these may include measures of population size, structure, habitat requirements and distribution. For habitats attributes may include measures of area covered, composition and structure and supporting processes such as ecosystem structure, tidal streams, salinity, sediment accretion/erosion, water quality, and the presence of typical species.
Birds Directive	The abbreviated term for Council Directive 79/409/EEC of 2 April 1979 on the Conservation of Wild Birds. This Directive aims to protect bird species within the EU through the conservation of populations of certain birds and the habitats used by these species.
Competent authority	Any Minister, government department, public or statutory undertaker, public body or person holding a public office that exercises statutory powers.
Conservation objective	A statement of the nature conservation aspirations for the features of interest on a site, expressed in terms of the favourable condition that the species and/or habitats for which the site has been selected should attain. Conservation objectives for European marine sites relate to the aims of the Habitats and Birds Directives.
Country agencies	The statutory national nature conservation bodies: the Countryside Council for Wales, English Nature, Scottish Natural Heritage and their Joint Nature Conservation Committee and the Environment & Heritage Service, (an agency within the Department of the Environment (Northern Ireland)).
European marine site	A European site (SAC or SPA) which consists of, or so far as it consists of, marine areas.
Favourable condition	The target condition for an interest feature in terms of abundance, distribution and/or quality of that feature within a site. A measure of the contribution that the site makes to the favourable conservation status of the feature. Interest features may be considered to be in: favourable condition; unfavourable-recovering; unfavourable-no change; or unfavourable-declining.
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 EU in the long term. The condition in which the habitat or species is capable of sustaining itself on a long-term basis.

Habitats Directive	The abbreviated term for Council Directive 92/43/EEC 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 EU.
Interest feature	A natural or semi-natural feature for which a European site has been selected. This includes any Habitats Directive Annex I habitat and any Annex II species and any population of a bird species for which an SPA has been designated under the Birds Directive.
Management Scheme	The framework established by the relevant authorities for 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.
Monitoring	Surveillance undertaken to ensure that formulated standards are being maintained. The term is also applied to compliance monitoring against accepted standards to ensure that agreed or required measures are being followed.
Natura 2000 network	The European network of protected sites established under the Birds Directive and the Habitats Directive.
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 habitat for which the site was designated.
Plans and projects	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.
Precautionary principle	The assumption that where there are real threats of serious damage to the environment, lack of full scientific information should not be used as a justification for postponing measures to prevent such damage occurring.
Relevant authority	The specific competent authority which has powers or functions which have, or could have, an impact on the marine environment within, or adjacent to, a European marine site.
Special Area of Conservation (SAC)	A site of Community importance designated by the Member States where the necessary conservation measures are applied for the maintenance or restoration, at a favourable conservation status, of the habitats and/or species for which the site is designated.
Special Protection Area (SPA)	A site designated under the Birds Directive by the Member States where appropriate steps are taken to protect the bird species for which the site is designated.
Statutory nature conservation agencies	The statutory nature conservation bodies: the Countryside Council for Wales, English Nature, Scottish Natural Heritage and their Joint Nature Conservation Committee and the Department of the Environment (Northern Ireland).

i)   Reference list

COUNTRYSIDE COUNCIL FOR WALES (CCW). 1996. *A guide to the production of management plans for nature reserves and protected areas. Countryside Council for Wales. Bangor.*

DEPARTMENT OF THE ENVIRONMENT TRANSPORT AND THE REGIONS (DETR). 1998. *European marine sites in England and Wales. A guide to the conservation (Natural Habitats &c.) Regulations 1994 and to the Preparation and Application of Management Schemes. London. (now known as Department for Environment, Food and Rural Affairs (DEFRA)).*

EUROPEAN COMMISSION (EC). 2000. *Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/ECS. Brussels: DGEnv.*

KELLEHER, G. 1999. *Guidelines for Marine Protected Areas. Gland, Switzerland: IUCN.*

JONES, P.J.S., BURGESS, J. AND BHATTACHARY, D. 2001. *An evaluation of approaches for promoting relevant authority and stakeholder participation in European marine sites in the UK.* Peterborough. English Nature.

ii)   Ecology and sensitivity of marine features

Dynamics and sensitivity characteristics of marine features (published as nine separate volumes, listed below):*

*Zostera biotopes**

*Intertidal sand and mud flats**

*Sea pens and burrowing megafauna**

*Subtidal brittlestar beds**

*Maerl**

*Intertidal reef biotopes**

*Infralittoral reef biotopes with kelp species**

*Circalittoral faunal turfs**

*Biogenic reefs**

Marine Features of the Habitats Directive: *European marine sites - ecological sensitivity and management requirements.**

Marine Habitat Reviews: *A Summary of ecological requirements and sensitivity characteristics for the conservation and management of marine SACs.**

Marine Life Information Network (MarLIN)   http://www.marlin.ac.uk/

iii)   Human interactions with marine features

Guidelines on potential impacts from and the management of human activities (published as seven separate reports, listed below):*

*Good practice guidelines for ports and harbours operating within or near UK European marine sites**

*A review of the potential effects of fishing within UK European marine sites**

*Guidelines for managing the collection of bait and other shoreline animals within UK
European marine sites**

*Guidelines for managing water quality impacts within UK European marine sites**

*Investigating and managing water quality in saline lagoons**

*A review of the effects of recreational interactions within UK European marine sites**

*Guidelines on the impact of aggregate extraction on European marine sites**

Marine Life Information Network (MarLIN)   http://www.marlin.ac.uk/

iv) Conservation objectives and monitoring

Marine Monitoring Handbook*

Guidelines for developing Conservation Objectives for Marine SACs - learning from
the UK Marine SACs Project 1996 - 2001*

v) Relevant authority and stakeholder participation

Indications of good practice for establishing management schemes on UK European
marine sites* (this report).

An evaluation of approaches for promoting relevant authority and stakeholder
participation in European marine sites in the UK*.

vi) Site information

The following information is available for the twelve demonstration sites:

Case Histories of the process of developing management schemes, Conservation
objective and operations packages and management schemes on local websites (listed on
the main project website).

Partherships in action. Proceedings of a conference held in Edinburgh, 15-16
November 2000.

These reports have been produced through the UK Marine SACs Project.
Copies of these and further introductory information may be obtained from the
projects website: http://www.ukmarinesac.org.uk

or by contacting: The Enquiry Service, English Nature, Northminster House,
                   Peterborough, PE1 1UA.
                   e-mail: enquiries@english-nature.org.uk
                   Phone: 01733 455100
                   Fax: 01733 455103

Project website **http://www.ukmarinesac.org.uk**

Photographs

P13	Papa Stour - inflatable orca	Karen Hall/ Shetland Isles Council
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P31	Eelgrass	English Nature
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