Summary of Current Legislation Relevant to Nature Conservation in the Marine Environment in the United Kingdom

Report to JNCC

Institute of Estuarine and Coastal Studies
University of Hull

11th July 2003
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For and on behalf of the Institute of Estuarine and Coastal Studies

Approved by: ______________________
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Notes arising from Sept 03 consultation:

Need more detail on legislation amending the 94 Habitats regs e.g. SI2000 no 192 & could have more explaining relationship between WCA81 and 94 regs.

Section on CMS, Ascobans and AEWA needs expansion with more detail. Some added.

Section 6.1 & 6.2 need comments on baseline waters. The last para on 6.1 could have a lot more detail. The CFP review is very important.


Section 8.2 EC Directive on anti-fouling in force July 2003 added but no information attached.

Section 10.3. have added info on Offshore EIA regs from website. This needs editing.

Section 11. A rapidly changing field – both energy and SEA. Section could be updated. Have added some websites.
1. INTRODUCTION

The marine environment and its areas of influence both inland and at sea are subject to a large number of human activities. These include fisheries and other biological resource exploitation, recreation and tourism, waste disposal and mineral extraction, energy generation and navigation. In addition, the coastal resource as space for development is protected and increased through coastal defences, hard and soft engineering and land claim. Despite each of these activities, the natural resource has to be protected in terms of biodiversity and health, its integrity and the sustainability of the ecosystem and its components. Within the context of this report, the term ‘marine environment’ covers all of the intertidal and subtidal areas within the estuarine, inshore, coastal and marine zones whereas the ‘coastal zone’ has an extent which differs according to the statute under consideration (Read et al., 2000).

In order to minimise the adverse effects of those activities but to allow them to be carried out without conflict and for economic benefits, each state requires its own statutory controls and administrative structures while acknowledging that many of the activities and effects may be transboundary. The latter dictates that many states need to create a system of regional and national controls while at the same time adopting and ratifying supra-national and international protocols and conventions. These aspects can be summarised in tenets required for the effective and sustainable use of the marine environment: actions inherent in managing the marine system should be environmentally sustainable, economically viable, technologically feasible, socially desirable, legislatively permissible and administratively achievable (Elliott, 2002). The latter two have to be operated at national, supra-national and international levels.

Marine legislation in the UK has been in operation for over a century but it has developed in a sectoral way and has resulted in regional, national, European and international actions. These have developed control over individual activities and uses and users of the coast but, as is described in the present report, there are few pieces of integrated legislation. There is currently a wide range and complex system of national, regional, European and international legislative controls impacting on and controlling the UK marine environment, which aim to regulate and harmonise development impacts whilst protecting nature conservation interests. With the High Court ruling in 1999, marine conservation designations (in the form of Special Areas of Conservation (SACs) and Special Protected Areas (SPAs)) will now have to extend out to the UK continental shelf and its water column. This has implications for UK nature conservation legislation and extends the protection afforded to sensitive marine areas beyond the twelve nautical mile limit of the UK territorial waters to the 200 nautical mile limit of the UK Continental Shelf. Also significant for UK nature conservation was the decision to apply EIA and SEA to offshore activities (oil/gas and renewables so far, gravel for EIA already, SEA shortly). These decisions are as yet unique in Europe.

In addition to the UK national legislation and the Directives provided by membership of the European Union, the UK marine environmental legislation reflects agreements through the state being a signatory to international conventions and agreements - for example the 1992 Oslo and Paris Convention, the 1979 Berne Convention and the 1992 UN Conference on Environment and Development as well as the North Sea Ministerial Conferences (1984, 1987, 1990 & 1995 & 2002), with Intermediate Ministerial Conferences held in 1993 on diffuse pollution and in 1997 on fisheries and the environment. As is reflected by the dates of the above, there has been a large increase in marine environmental protection legislation and agreements during the past 3 decades. In addition, there has been a change in philosophies during the past decade in the move from the sectoral to the
holistic approach, an ecosystem approach and whereby additional emphasis has been placed on maintaining the integrity and sustainability of marine areas.

1.1 The Irish Sea Pilot Study

The interim report of the UK Government’s Review of Marine Nature Conservation Working Group was submitted to Ministers in March 2001. One of the key recommendations of the Working Group was the promotion of a Pilot Scheme, at a regional scale, to test a proposed ‘framework’ for nature conservation and examine how far the conservation management needed to implement this framework could be delivered through existing legal, administrative and enforcement systems. The Irish Sea was chosen as the area for this Pilot Scheme. The aims of the Pilot Scheme are to:

- Test the framework proposed by the paper ‘An implementation framework for the conservation, protection and management of nationally-important marine wildlife in the UK at the scale of the Irish Sea’;
- Determine the potential of existing regulatory and other systems for delivering effective marine nature conservation; identify any gaps and recommend measures to fill the gaps identified;
- Evaluate the efficiency and effectiveness of current governance and enforcement regimes in implementing current legislation relevant to marine nature conservation, and make recommendations for improvements;
- Test ways of integrating nature conservation into key sectors (e.g. fisheries, energy, transport, minerals, tourism etc) in order to make an effective contribution to sustainable development on a regional basis.

1.2 Aims and Objectives of the Present Study

The objectives of this work in relation to the Irish Sea Pilot Project are to:

I. Produce a summary of current and immediately prospective legislation relevant to nature conservation in the marine environment over which the United Kingdom has jurisdiction;
II. Identifying clear gaps and weaknesses in this legislation and regulatory procedures from the standpoint of achieving effective nature conservation;
III. Identify the authorities responsible for ensuring this legislation is implemented;
IV. Identify the authorities with statutory responsibility for enforcing the legislation and the principle means of that enforcement;
V. Establish the views of the relevant enforcement agencies on the effectiveness, efficiency and weakness of the enforcement powers and procedures.

Against this background, this report aims to provide an objective, detailed review of the current marine and coastal environmental protection legislation and protocols in the UK. This report addresses:

- A review of legislative issues relevant in the UK marine environment.
The review will be conducted for the area of UK territorial waters and those designated within the UK continental shelf. Using a report produced by Read et al (2000) on “A Review of Marine and Coastal Environmental Protection Legislation”, this first report will update the existing legislation relevant to nature conservation in the marine environment.

Using the sixteen coastal and marine issues listed below, summaries are provided for the key legislation and its aims and objectives. Text is taken from the relevant pieces of legislation or departmental/Ministry documents for its implementation and from legal textbooks. Each chapter will be accompanied by a summary table listing the legislation/legal instruments currently enacted in UK law, European legislation and any proposed European Directives relating to that issue. Where possible this table will separate the UK into its constituent countries, listing the legislation under each respective government. Within the context of this report, it should be taken that the legislation and are applicable to the whole of the United Kingdom, except where stated. The report considers the activities and uses of the marine and coastal environment including:

- site protection regulation
- marine species protection
- control over introduction of non-native species
- conservation of man-made structures
- sea fisheries
- mariculture
- shipping & navigation
- military activities
- offshore oil and gas
- wave, tide & wind power generation
- sand & gravel extraction
- coastal engineering
- developments in the coastal zone
- tourism & recreation
- inputs of contaminants
- submarine pipelines and cables
2. SITE PROTECTION IN THE MARINE ENVIRONMENT

The need for site protection in the marine environment has been widely discussed by conservation groups since the Torrey Canyon disaster in March 1967. Statutory landscape protections to be found along UK coastal areas include National Parks and Areas of Outstanding Natural Beauty (AONBs). Relevant wildlife and habitat designations include Ramsar sites, Special Sites of Scientific Interest (SSSIs), National Nature Reserves (NNR), Marine Nature Reserves (MNRs), Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Heritage coasts provide a further layer of non-statutory protection for many parts of the English and Welsh coastlines and are designed to link the cultural and natural features of those coasts.

New commitments to the protection of biodiversity were made with the signing of the Convention on Biological Diversity in 1992 and interest in the protection of the UK marine environment is growing. In 1997 the UK acceded to the UN Convention on the Law of the Sea (UNCLOS), which establishes a legal regime for the seas and includes provisions on the protection of the marine environment and management of fish stocks. This chapter addresses site protection afforded to the UK’s marine environment to protect both species and habitats. Since 1949, successive governments in the UK have implemented statutory measures consisting of both conservation and planning legislation to safeguard coastal habitats and species, in part to implement commitments to EC Directives and International Conventions (Read et al., 2000). Table 1 shows the hierarchy of law in existence and how the UK countries have implemented the provisions in domestic law.

2.1 International Conventions

UNITED NATIONS CONVENTION ON THE LAW OF THE SEA (UNCLOS)

The UN Convention on the Law of the Sea (UNCLOS) was opened for signature in 1982 and entered into force in 1994. The United Kingdom acceded to UNCLOS in August 1997. UNCLOS provides a comprehensive framework for the regulation of all uses of the oceans. Article 3 of UNCLOS provides for the establishment of the territorial sea up to 12 miles from baselines. In accordance with Article 5, the baseline is normally the low water line. As a coastal State, the UK has sovereignty over the territorial seas and the marine living resources found in it. This includes the power to make regulations with respect to conservation, subject only to the UK's international obligations, in particular in respect of the right of innocent passage by ships of all States through the territorial sea. UNCLOS provides that fishing and any act of wilful and serious pollution are among activities which are not compatible with the exercise of innocent passage (Article 19.2(h) and (i)).

UNCLOS also allows the coastal State to adopt laws and regulations relating to innocent passage in a number of specific contexts, which include for the conservation of the living resources of the sea; the prevention of infringement of fisheries laws and regulations; and the preservation of the environment, including prevention, reduction and control of pollution (Article 21.1(d)-(f) (Jackson, 2000).

THE CONVENTION ON BIOLOGICAL DIVERSITY (1992)

The Convention on Biological Diversity (1992) entered into force on 29 December 1993 and was one of five major international environmental instruments resulting from the 1992 Rio Earth Summit (UN Convention of Environment & Development (UNCED)) (Sunkin et al., 2002). This Convention is believed to be the first to address all aspects of biodiversity ranging from conservation to the sustainable and equitable use of biological resources. The Convention focuses on the conservation of all species and ecosystems and therefore provides protection to all biodiversity. Contracting parties...
are required to take conservation measures for the protection of biodiversity within the limits of national jurisdiction (Article 4), therefore providing the means by which marine conservation areas could be created within Exclusive Economic Zones (EEZs). However, article 22(2) states that implementation with respect to the marine environment must be consistent with the law of the sea. The Convention requires Contracting Parties to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or to adapt existing strategies (Article 6a).

Article 8 of the Convention details how each Contracting Party should establish in situ conservation measures to protect and conserve biological diversity by developing guidelines for their selection, establishment and management within their natural habitats. Degraded ecosystems should be rehabilitated and restored to promote the recovery of threatened species through the development of management strategies (article 8(f)). The Convention also refers to the need for environmental impact assessment of proposed projects which are likely to have significant impact on biological diversity (Article 14(1)(a)).

The Convention covers biodiversity in its entirety promoting the conservation of every habitat and environment, which allows the protection of the marine environment to be fully addressed by Contracting Parties. In line with international commitments under the Convention on Biological Diversity, the UK has still to implement measures concerned with the protection of the full range of biological diversity in the North-East Atlantic and the restoration, where practicable, of marine areas which have been adversely affected by human activity. It is of note, however, that the obligations under the Convention are weakened by the requirement for action to be taken “as far as possible and appropriate”.

The UK Government has focused on the development of Biodiversity Action Plans (BAPs) implementing Article 6 which requires contracting parties to ‘develop national strategies, plans or programmes for the conservation of sustainable use of biological diversity’. Species Action Plans, Habitat Action Plans and Biodiversity Action Plans have been produced for intertidal and subtidal zones of the coastal zone and for maritime habitats (for details see the UKBAP website1).

RAMSAR CONVENTION

The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty which provides the framework for national action and international co-operation for the conservation and wise use of wetlands and their resources. The Convention entered into force on the 21 December 1975. Wetlands include areas with: ‘water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres’ (Article 1 (1)). Each Contracting Party should designate suitable wetlands within its territory for inclusion in the List of Wetlands of International Importance maintained by the Convention by Wetlands International as Ramsar sites with clearly defined boundaries. Each Contracting Party must formulate and implement their planning regime so as to promote the conservation of Ramsar sites. The Ramsar Convention is implemented in the UK through the existing planning and SSSI system, with a large proportion of Ramsar sites overlapping with SPAs or SACs (Read et al., 2000). Section 77 of the Countryside and Rights of Way Act 2000 provides for the existence of Ramsar sites to be notified to the nature conservation bodies and local authorities. UK Government policy (PPG9) is that Ramsar sites should be treated in the same way as SPA and SAC.

1 http://www.ukbap.org.uk/Plans/index.htm
2.2 European Nature Conservation Legislation

OSPAR CONVENTION

The Convention for the Protection of the Marine Environment of the North-East Atlantic (known as the "OSPAR Convention") provides a framework through Annex V - The Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area, for contracting parties to develop their own conservation measures. Article 2 requires parties to 'take the necessary measures to protect and conserve the ecosystems and the biological diversity of the maritime area, and to restore, where practicable, marine areas which have been adversely affected'. Annex V and the accompanying Appendix 3 were agreed at OSPAR/MMC, Sintra 1998 and have to be ratified by at least 7 Contracting Parties in order to enter into force. Such a ratification process takes time (the new OSPAR Convention itself was agreed in 1992 and entered into force 6 years later in March 1998).

Important species, habitats and ecological processes that are in need of protection are currently being identified using a set of criteria (the Texel-Faial criteria) which have been developed by OSPAR contracting parties. OSPAR has undertaken a review of existing marine protected areas (MPAs) in the OSPAR maritime area. Guidelines have been developed for the selection and management of MPAs to assist OSPAR in the development of a network of marine protected areas. These will contribute both to the protection of threatened species and habitats and to the conservation of areas which best represent the range of species, habitats and ecological processes in the OSPAR area. A series of Ecological Quality Objectives (EcoQOs) are also being developed for the North Sea that will provide a means of assessing the ecological status of the North Sea ecosystem. EcoQOs are being developed for aspects of the sea mammal, seabird, fish, benthic and plankton communities together with habitats, nutrient budgets, oxygen consumption and threatened species (JNCC, 2003).

During a meeting in Dublin (January 2003), the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) Biodiversity Committee discussed the selection of species and habitats that should be protected under the OSPAR convention Annex V. The initial list will be put forward to OSPAR 2003 (23-27 June) for adoption.

SPECIAL PROTECTION AREAS (SPAS)

The EC Directive on the Conservation of Wild Birds (the Birds Directive, 79/409/EEC) aims to protect all wild birds, their eggs, nests and habitats within the European Community. Additionally, it provides for the protection, management and control of all species of naturally occurring wild birds that are considered rare or vulnerable within the European Community as listed in Annex 1 of the Directive. Member States are required to take special conservation measures to conserve the habitats of rare or vulnerable species listed in Annex I and of all regularly occurring migratory birds (Article 4 (1)). Member States are to classify the most suitable territories (both at land and sea) as Special Protection Areas (SPAs) for the conservation of these species. SPAs will form part of a series of protected areas known as Natura 2000 and their conservation is now guided by the provisions of article 6 of the Habitats Directive.

The Birds Directive is enacted in the UK through the Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats, &c) Regulations 1994, and the Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995. The Wildlife and Countryside Act 1981 contains provisions for the protection of wild birds in general without specific reference to SPAs whereas the 1994 regulations implement article 6 of the Habitats Directive which provides for the protection of areas...
designated under the Birds and Habitats Directives. Protection of SPAs was one of the original purposes for the amendment to SSSI legislation in the Wildlife and Countryside Act 1981. The 1994 regulations did not replace SSSI provisions and all regulations concerning potentially damaging operations and nature conservation orders applicable to SSSI are also applicable to SPAs designated as SSSIs. This is the case for most SPAs but will not apply to offshore SPAs. The Conservation (Natural Habitats &c) Regulations 1994 were intended to strengthen the legal protection given to SSSIs which were subsequently designated as SACs and/or SPAs. The Habitats Directive and 1994 regulations also place importance on sustainability tests that may be challenged in Europe. The Countryside and Rights of Way Act 2000 strengthened the SSSI system in England and Wales by extending the provisions of the 1994 Regulations to domestic sites. For the enhanced protection of SSSIs in Scotland and Areas of Special Scientific Interest in Northern Ireland, please see section 2.4 on impending legislation.

Certain European case law has implications for implementation of site designation and consents processes in the UK. In relation to SPAs, the Basses Corbieres case is particularly relevant as it reinforces the role of Article 4 of the Birds Directive (1979) in protecting IBAs that have yet to be designated by Member States. This is important in a UK context and is the driver behind some extensions of SPAs currently underway.

**SPECIAL AREAS OF CONSERVATION (SACS)**

The EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive, 92/43/EEC) applies to the European territory of Member States. Marine Special Areas of Conservation (SACs) can be both intertidal and subtidal areas, and also land adjacent to the shore where it is used by marine species. Habitats and species of importance are listed respectively in Annex I and II of the Habitats Directive, with few listed as having priority status. Table 1.1 shows the habitats and species of concern in the UK. The purpose of designating and conserving SACs is to maintain or restore the habitats listed on Annex I and the species listed on Annex II of the Directive to *Favourable Conservation Status*. Favourable Conservation Status is defined in Article 1 of the Directive in the context of habitats as the establishment of conditions which will ensure that the extent and range of the habitat, and the populations of the constituent species of that habitat, will be maintained or increased over time. For Annex II species, this means that conditions have been established which will ensure that the viability, population size and range of that species will be maintained in the long term (Davies et al. 2001).

The UK government has implemented this Directive in Great Britain with ‘The Conservation (Natural Habitats &c) Regulations 1994’ which came into force on 30th October 1994, while in Northern Ireland the regulations were transposed through the Conservation (Natural Habitats &c) Regulations (Northern Ireland) 1995. Under the provisions of the Directive the UK Government has an obligation to recommend selected areas as Special Areas of Conservation (SAC) for the protection of habitats and species. The responsibility for the designation of these areas lay with the European Commission following recommendations made by Member States. In the UK, the list of proposed candidate SACs was drawn up by Scottish Natural Heritage, the Countryside Council for Wales, English Nature and the Heritage and Environment Services (Northern Ireland) working through the coordinating offices of the Joint Nature Conservation Committee.
Following the decision of Mr Justice Kay in the High Court (ruling in R v Secretary of State for Trade and Industry ex parte Greenpeace Ltd [2000] Env. LR 221), it is now established that SACs can extend out to the UK Continental Shelf and the waters above. As a result the Secretary of State for Trade and Industry produced the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001, which apply the requirements of both the Habitats Directive and the Birds Directive to oil and gas activities carried out in connection with the exploration for or production of petroleum on the UK continental shelf (UKCS) outside territorial waters. Please see section 10.3 for further details.

Table 1.2 The role of some “competent authorities” with marine responsibilities

<table>
<thead>
<tr>
<th>Competent Authorities</th>
<th>Legislation/Conservation Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Authorities</td>
<td>Remit: down to the low water mark</td>
</tr>
<tr>
<td>Sea Fisheries Committees (England &amp; Wales)</td>
<td>Remit: 6 mile limit</td>
</tr>
<tr>
<td>JNCC</td>
<td>Remit: 200 nm</td>
</tr>
</tbody>
</table>

In relation to marine areas, regulation 3(3) states that any “competent authority having functions relevant to marine conservation shall exercise those functions so as to secure compliance with the requirements of the Habitats Directive”. These authorities include ministers, government departments and public bodies such as the nature conservation bodies, port and harbour authorities, sea fisheries committees, and other maritime bodies (see Table 1.2). The regulations require that all the above bodies should exercise their functions under legislation relating to nature conservation to secure the requirements of the Directive.

Regulation 7 (2) states that for ‘aquatic species ranging over a wide area, SACs shall be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction.’

Regulation 33 (1) details how the appropriate nature conservation body may install markers indicating the existence and extent of a marine site, but these are subject to consent under section 34 of the Coast Protection Act 1949 regarding restriction of those works detrimental to navigation. Once a SAC has been established, Regulation 34 provides for the creation of a new legal framework for the management of marine areas proposed for designation. The Government has the power to give
directions to require ‘specified conservation measures to be included in the management schemes’ (regulation 35 (2a)). Once these plans have been established for each SAC, there is a duty placed upon bodies with jurisdiction in the marine environment to use their statutory powers to safeguard the conservation of the sites.

The provisions of the 1994 Regulations have been overtaken, to some extent, by the extensive strengthening of the SSSI system under the Countryside and Rights of Way Act 2000 applicable to England and Wales. Please see section 2.4 on impending legislation for the position on SSSIs in Scotland and ASSIs in Northern Ireland.

The EU LIFE-Funded UK Marine SAC Project was set up to establish management schemes on selected proposed marine (SACs). It focussed on twelve marine SACs around the UK coastline to build knowledge and establish the best practice needed for the management and monitoring of marine sites. These twelve original sites have been put forward by the Government for designation as SACs with a further 575\(^2\) currently having candidate SAC (cSACs) status in the UK. Table 1.3 shows the animal and plant species related to the marine environment which are protected under the Conservation Regulations 1994.

| Table 1.3 Animal & Plant species (marine and coastal) of community interest whose conservation requires the designation of special areas of conservation (SACs) |
|---|---|---|
| **Fish** | **Plants** | **Mammals** |
| • Sea lamprey *Petromyzon marinus* | • Dock Shore Rumex rupestris | • Bottlenose dolphin *Tursiops truncatus* |
| • Brook lamprey *Lampetra planeri* | • Gentian Early *Gentianella anglica* | • Harbour porpoise *Phocoena phocoena* |
| • River lamprey *Lampetra fluviatilis* | • Marshwort Creeping *Apium repens* | • Otter *Lutra lutra* |
| • Allis shad *Alosa alosa* | • Naiad slender *Najas flexilis* | • Grey seal *Halichoerus grypus* |
| • Twaite shad *Alosa fallax* | • Orchid Fen *Liparis loeselii* | • Common seal *Phoca vitulina* |
| • Atlantic salmon *Salmo salar* | • Plantain Floating-leaved water *Luronium natans* | • Great crested newt *Triturus cristatus* |

### 2.3 UK’s Nature Conservation Legislation

**NATIONAL NATURE RESERVES (NNRS)**

NNRs are established under sections 15 to 29 of the National Parks and Access to the Countryside Act 1949, with the provisions strengthened under the Wildlife and Countryside Act, 1981. The legislative provisions for the designation, protection and management of NNRS in England and Wales have since been amended by Environmental Protection Act 1990, Section 132 and also in Scotland as amended by the Natural Heritage (Scotland) Act 1991, Section 4. The relevant national statutory nature conservation agency has the power to establish and manage nature reserves where they consider it is in the national interest to do so.

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\(^2\) Includes terrestrial and marine sites as of January 2003 (JNCC, 2003)
National Nature Reserves (NNRs) can be established on land (and land covered by water). This is generally taken to mean that NNRs can extend into intertidal areas but not below water mark. They are defined under section 15 of the Act as areas managed for study or research into flora, fauna or geological or physiographical interest, and for preserving features of special interest. The power to enter into agreements, manage and declare NNRs, acquire land compulsorily and make byelaws is provided by the National Parks and Access to the Countryside Act 1949, Sections 15-20 (Bell & McGillivray, 2000). In Northern Ireland, the legislative provisions are contained in the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985, Articles 15-19.

LOCAL NATURE RESERVES (LNRs)

Local Nature Reserves (LNRs) may be established on land (including land covered by water) and intertidal areas, down to the low water mark. LNRs can be designated under the National Parks and Access to the Countryside Act 1949, Section 21, while in Northern Ireland, the powers of the district councils to establish LNRs are contained within the Nature Conservation and Amenity Lands (NI) Order 1985, Article 22. Under these measures, LNRs can be established by local authorities where valuable habitat is not considered to be of national importance, but is significant on a local scale for recreation and educational reasons.

AREAS OF SPECIAL PROTECTION

Sites which are of particular importance for birds can be afforded additional protection through the creation of Areas of Special Protection (AoSP) which replaced Bird Sanctuaries under the Protection of Birds Act 1954. It is of note that these are different to Special Protection Areas (SPAs) as designated under the Birds Directive. Under section 3 of the Wildlife and Countryside Act 1981, Orders creating Areas of Special Protection can contain provisions for the protection of individual sites (Reid, 2002). Within the designated areas, it can be an offence to intentionally kill, injure or take a wild bird, damage or destroy a nest or take eggs. The designation restricts access to the site at any time or during certain times of year. The effect of the designation is not to offer complete protection to all birds but to provide limited sanctuary mainly as an emergency measure during bad weather. AoSP can be designated for any area of land or water from the high water mark to a line three miles from the baseline established for measuring the territorial waters and have been used to protect areas of sea adjacent to sea bird colonies below low water.

SITES OF SPECIAL SCIENTIFIC INTEREST (SSSIs)

Sites of Special Scientific Interest (SSSI) in England, Wales and Scotland are designated under the Wildlife and Countryside Act 1981, with the equivalent Areas of Special Scientific Interest (ASSI) designated under the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 in Northern Ireland. These are areas of land that have been identified by the appropriate nature conservation body as being of the highest degree of conservation value. The legal framework for SSSIs has been strengthened several times since their creation under the National Parks Act 1949, with the latest, radical changes being made by the Countryside and Rights of Way Act 2000 which replaced section 28 of the 1981 Act in England and Wales.

SSSIs & ASSIs are representative samples of British habitats and are established to maintain the present diversity of wild animals and plants. They are regarded as the foundation blocks of UK conservation. It is government policy that all Biosphere Reserves, Biogenetic Reserves, Special Protection Areas, Ramsar sites, Areas of Special Protection, (Candidate) Special Areas of Conservation and National Nature Reserves have first to be notified as SSSIs/ASSIs and the latter therefore play an integral role in UK nature conservation management. This has proved problematic
for marine conservation as the SSSI is, essentially, designed to protect terrestrial features in a context of land ownership.

The country conservation agencies (CCAs) have the role of defining the boundaries of SSSIs / ASSIs and notifying land owners and occupiers of the land, the relevant planning authority and the Secretary of State specifying why the land has been designated as a SSSI and also listing any potentially damaging operations which are likely to damage the site (section 28 (1–4)). It is generally accepted that sites can currently be designated to the point of mean low water in England and Wales, and the point of mean low water spring tides in Scotland (Laffoley et al., 2000) although the possibility of their extending further offshore has not been tested in the courts.

In England and Wales, once sites have been notified under the Wildlife and Countryside Act 1981, owners and occupiers are required to consult the CCAs before carrying out any potential damaging operation listed in the notification with a view to preventing landholders from doing anything likely to damage or destroy the features of special interest. The CCA must provide landowners with a management statement outlining their long-term objectives for the site. Owners and occupiers are encouraged to maintain and enhance the conservation of the site and may be eligible for funding under management agreements. Failure to carry out desired management can lead to the compilation of a management scheme outlining precisely what is expected and, ultimately, a management notice requiring the landholder to carry out work or restrain from specified activities.

These measures only apply in England and Wales. Please see section 2.4 on impending legislation for the position on SSSIs in Scotland and ASSIs in Northern Ireland.

MARINE NATURE RESERVES (MNRS)

A Marine Nature Reserve (MNR) is the equivalent of an NNR within coastal waters and can be designated for any area of land or water from the high water mark to a line three miles from the baseline established for measuring the territorial waters (section 36). However, by order in the Privy Council, MNRs can be designated out to twelve nautical miles. MNRs were designed to be the marine equivalent of NNRs, but are less flexible in design and less effective in operation. In the UK, the Wildlife and Countryside Act 1981 (section 36) or in Northern Ireland the Wildlife (Northern Ireland) Order 1985 enables the designation of an MNR. Reserves can be designated for the purpose of conserving marine flora and fauna or geological or physiographical features of special interest, and to provide special opportunities for marine research (section 36 (1a-b)). The impact of an area being designated as a MNR lies in the provision of making byelaws which may protect the reserve from pleasure boats, the killing and disturbance to plants and animals and the deposit of rubbish in the reserve (section 37(2)). However, the byelaws cannot prohibit or restrict the right of passage by a vessel (section 37(3)), render unlawful the discharge of any substance from a vessel or prohibit the securing the safety of a vessel in a reserve (section 37(4)). Neither can they interfere with the functions of any other regulator (Read et al., 2000).

NATIONAL PARKS

National Parks in England and Wales were created under the National Parks and Access to the Countryside Act 1949, which has been significantly amended by the Environment Act 1995. The

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3 Some SSSIs in Wales extend below mean low water
Countryside Agency (in England) and the Countryside Council for Wales advise government on National Parks, each of which is administered by a Park Authority. National Parks were created to preserve and enhance the most beautiful, dramatic and spectacular expanses of countryside, while promoting public enjoyment of them, and having regard for the social and economic well-being of those living in the area. In 1998 SNH presented proposals to Government to inform separate legislation to be considered by the new Scottish Parliament, introducing National Parks in Scotland. This designation has now been created through The National Parks (Scotland) Act 2000, with the first two National Parks designated in 2002-03. The Act specifically allows the establishment of marine National Parks within Scotland with the aim of delivering a more integrated management of areas of outstanding natural and cultural heritage. The Act provides an order giving power to allow for changes to a number of specified elements of the Act to allow for the modification of the designated procedures to meet the specific circumstances of such areas (section 31). The Act also allows for full consultation with relevant interests within any part of the National Park area consisting of the sea (SNH, 2003).

2.4 Impending Legislation

WATER FRAMEWORK DIRECTIVE

The Water Framework Directive (2000/60/EC) was adopted by the European Parliament and the Council of the European Union on 22nd December 2000. Its objective is to establish a framework for community action in the field of water quality to protect all waters including transitional (estuaries) and coastal waters. The Directive also aims to prevent further deterioration and protects and enhances the status of aquatic ecosystems and, with regards to their water needs, terrestrial ecosystems and wetland directly dependent on the aquatic ecosystem. There is an obligation on Member States to maintain and restore estuarine and coastal waters at or to good ecological status within the criteria set out in Annex V. Within the scope of the Directive, Articles 8 and 9 both require Member States to designate protected areas for the purposes of water protection. The register of Protected Areas required under Article 9 shall include, where relevant for the purposes of water protection, the following types of Protected Areas (Annex IV):

- the definition and description of protected areas designated for the abstraction of water intended for human consumption under Article 8,
- for areas to be designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection, including relevant Natura 2000 sites designated under the Habitats Directive (92/43/EEC) and the Birds Directive (79/409/EEC).

One of the further environmental objectives set out in Article 4 requires Member States to draw up and make operational within a comprehensive River Basin Management Plan the programme of measures. These should be in place by 2009 and all measures operational by 2012 (article 11(7)). The objectives for Protected Areas have to be met by Member States by 2015, unless otherwise specified in the Community, national or local legislation under which the individual Protected Areas have been established (article 4(1)(c)).

It has been suggested that the implications of the WFD for nature conservation may be greater than those provided by previous directives e.g. The Habitats and Species Directive (Pollard & Huxham, 1998). As a minimum, SPAs and SACs will have to be designated as Protected Areas under the WFD (Foster et al., 2001; Read et al, 2001).
The Water Framework Directive has already been transposed into Scottish law by the Water Environment and Water Services (Scotland) Act 2003.

**NATURE CONSERVATION (SCOTLAND) BILL (DRAFT)**

The Scottish Executive has published a draft Nature Conservation (Scotland) Bill that will give greater protection to Scotland's wildlife and natural habitats. As part of the draft, the Executive has launched a public consultation, with interested parties having until June 2003 to comment on the proposals. The draft bill outlines measures to strengthen protection for Scotland's most special natural heritage sites, places a duty on public organizations to further biodiversity and proposes new legislation to tackle wildlife crime. Although similarities exist to the Countryside and Rights of Way Act (“CRoW”), which came into force in England and Wales in 2000, the draft Nature Conservation (Scotland) Bill “offers a specifically Scottish approach to safeguarding our natural heritage” (Scottish Executive, 2003a). Key features of the draft Bill include a general biodiversity duty which will apply to all Scottish public bodies and office holders; the enhanced protection for SSSIs and related reforms; and improved methods to tackle wildlife crime.

**THE ENVIRONMENT (NORTHERN IRELAND) ORDER 2002**

The purpose of Part VI of this Order is to introduce measures to allow for the better protection and management of Areas of Special Scientific Interest (ASSIs) which will provide Northern Ireland with legislation broadly similar to that in England and Wales under the Countryside and Rights of Way Act 2000. The provisions of Part IV will replace the existing provisions pertaining to ASSIs in Part VI of the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985. The provisions are also comparable to the legislative provisions introduced to protect ASSI equivalent sites in England and Wales (namely Sites of Special Scientific Interest) as part of the Countryside and Rights of Way Act 2000.

**IMPENDING OFFSHORE HABITATS REGULATIONS**

Legislation to implement the Habitats Directive into offshore waters, beyond the 12 mile territorial limit, is being considered in 2003.
Table 1  Key Legislation for Marine Site Protection  (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>International Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNESCO Man and the Biosphere Programme 1971</td>
<td>Biosphere reserves are established to protect areas of terrestrial and coastal ecosystems promoting solutions to reconcile the conservation of biodiversity with its sustainable use.</td>
</tr>
<tr>
<td>Convention on Wetlands of International Importance especially</td>
<td>Contracting Parties must designate suitable wetlands within its territory for inclusion as Ramsar sites with clearly defined boundaries. Each Contracting Party must formulate and implement their planning regime so as to promote the conservation of Ramsar sites.</td>
</tr>
<tr>
<td>as Waterfowl Habitat (the Ramsar Convention) 1971</td>
<td></td>
</tr>
<tr>
<td>Council of Europe Convention on the Conservation of European</td>
<td>Chapter II - Article 4 - appropriate and necessary legislative and administrative measures to ensure the conservation of the habitats of the wild flora and fauna species &amp; the conservation of endangered natural habitats. Special attention to the protection of areas that are of importance for the migratory species and which are appropriately situated in relation to migration routes, as wintering, staging, feeding, breeding or moulting areas. The protection of the natural habitats referred to in this article when these are situated in frontier areas.</td>
</tr>
<tr>
<td>Wildlife and Natural Habitats (The Bern Convention)</td>
<td></td>
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<table>
<thead>
<tr>
<th>European Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council Directive 79/409/EEC on the conservation of wild birds</td>
<td>Article 1 - Relates to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaty applies. It covers the protection, management and control of these species and lays down rules for their exploitation. It applies to birds, their eggs, nests and habitats. Article 3 - Preserve, maintain or re-establish a sufficient diversity and area of habitats, through the creation of protected areas; upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones; re-establishment of destroyed biotopes &amp; the creation of biotopes. Article 4 - Member States shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species, taking into account their protection requirements in the geographical sea and land area where this Directive applies.</td>
</tr>
<tr>
<td>“Wild Birds Directive”</td>
<td></td>
</tr>
<tr>
<td>Council Directive 92/43/EEC on the conservation of natural</td>
<td>To contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States to which the Treaty applies. Measures taken pursuant to this Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest (Article 2).</td>
</tr>
<tr>
<td>habitats and of wild fauna and flora “Habitats and Species</td>
<td></td>
</tr>
<tr>
<td>Directive”</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>UK Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Parks and Access to the Countryside Act 1949</td>
<td>Section 4 (&amp; Schedule 1) establishes National Parks down to low water.</td>
</tr>
<tr>
<td>Amended by: Environment Act 1995</td>
<td>Section 15 establishes National Nature Reserves (NNR) down to low water. Section 15 of the Act as areas managed for study or research into flora, fauna or geological or physiographical interest, and for preserving features of special interest.</td>
</tr>
<tr>
<td>Wales</td>
<td>Section 21 establishes Local Nature Reserves (LNR) down to low water. Established by local authorities where valuable habitat is not considered to be of national importance, but is significant on a local scale for recreation and educational reasons.</td>
</tr>
<tr>
<td>SI 1995/2803 National Park Authorities (Wales) Order 1995</td>
<td></td>
</tr>
</tbody>
</table>
### Wildlife and Countryside Act 1981 amended by:
- Countryside and Rights of Way Act 2000 (s.77)

**Scotland**

Section 3 - establishes Areas of Special Protection (ASP) - (which replaced Bird Sanctuaries under the Protection of Birds Act 1954). Protection generally down to mean low water but unclear in law.

Section 28 - Special Sites of Scientific Interest (SSSI). Designated down to low water. SSSIs protected against potentially damaging operations (PDOs). SSSI notifications underpin / facilitate some of the requisite protection for Ramsar and SPA sites.

Section 36 - Marine Nature Reserves (MNR) - designated out to 3 miles from the baseline used to measure territorial waters. Section 37 - Provision of byelaws for their protection.

Section .37A - Ramsar sites designated through SSSI designations. Protection to low water.

### Northern Ireland - The Wildlife (Northern Ireland) Order 1985 Amended by:
- The Wildlife (Amendment) (Northern Ireland) Order 1995

Designation of Natural Heritage Areas (NHAs include and succeed former Areas of Scientific Interest (ASI) under the 1999 amendment to the Wildlife Act 1976).


Article 12 - National Parks
- Articles 15 to 17 - Nature Reserves (NRs)
- Article 18 - National Nature Reserves (NNRs)
- Article 20 - Marine Nature Reserves (MNRs)
- Articles 23 to 27 - designation of Areas of Special Scientific Interest (ASSI)


Northern Ireland - Conservation (Natural Habitats, etc) Regulations (NI) 1995

An obligation to recommend selected areas as Special Areas of Conservation (SAC) for the protection of habitats and species. With SPA, part of the Natura 2000 series. Originally considered applicable to 12 mile limit (territorial seas), but now extends to 200 mile limit (UK Continental shelf) by SI 2001/1754. Regulation 3(3) states that any “competent authority having functions relevant to marine conservation shall exercise those functions so as to secure compliance with the requirements of the Habitats Directive”. Regulation 34 provides for the creation of a new legal framework for the management of marine areas. Regulation 50 provides for review of existing consents that may impact a Natura site.

### Countryside and Rights of Way Act 2000

Wales - Countryside & Rights of Way Act 2000 (Commencement No 1) (Wales) Order 2001

Areas of Outstanding Natural Beauty (England & Wales only) - Low water

Section 77 - provides for the existence of Ramsar sites to be notified to the nature conservation bodies and local authorities.

### National Parks (Scotland) Act 2000

Designation of National Parks in Scotland. Section 31 allows the designation of Marine National Parks.

### Non-statutory Designations

**Heritage Coasts**

England and Wales - No Statutory protection however must be considered by planning authorities in any decisions likely to affect the area nearby. The local authorities are normally responsible for managing Heritage Coasts.
## Summary of Current Legislation Relevant to Nature Conservation in the Marine Environment in the UK

**Joint Nature Conservation Committee (JNCC)**

### Impending Legislation

<table>
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<tr>
<td><strong>“Water Framework Directive”</strong></td>
</tr>
<tr>
<td>As a minimum, Special Protection Areas (SPAs) under the Birds Directive, and Special Areas of Conservation (SACs) under the Habitats Directive will require designation as Protected Areas under the WFD. The Directive also allows for, but does not require, the designation of other areas for the protection of habitats and species, e.g. Special Sites of Scientific Interest (SSSI’s) where the maintenance or improvement of the status of water is an important factor in their protection.</td>
</tr>
<tr>
<td>Transposed into Scottish Law by the Water Environment and Water Services (Scotland) Act 2003</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OSPAR - Annex V. The Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important obligations including the protection against adverse effects of human activities, conservation of marine ecosystems, restoration of marine area and the development of strategies for the conservation and sustainable use of biological diversity.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Convention on Biological Diversity, 1992</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“Biodiversity Treaty”</strong></td>
</tr>
<tr>
<td>Commits governments to protect the functioning of their marine ecosystems as well as establishing (or consolidating) representative systems of marine and coastal protected areas. Relevant parts of the UK Action Plan.</td>
</tr>
<tr>
<td>Now supported by the Jakarta Mandate 1995.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nature Conservation (Scotland) Bill (draft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The draft bill outlines measures to strengthen protection for Scotland's most special natural heritage sites, places a duty on public organizations to further biodiversity and proposes new legislation to tackle wildlife crime.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Environment (Northern Ireland) Order 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of Part VI of this Order is to introduce measures to allow for the better protection and management of Areas of Special Scientific Interest (ASSIs) which will provide Northern Ireland with legislation broadly similar to that in England and Wales under the Countryside and Rights of Way Act 2000.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impending Offshore Habitats Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>To implement the Habitats Directive out to the 200nm limit.</td>
</tr>
</tbody>
</table>
3. MARINE SPECIES PROTECTION

To help protect marine species of conservation importance from human related threats and environmental impacts, a variety of legislation exists in the UK. The aim of many government and non-government organisations is to oversee the conservation and where possible enhancement of wild species and wildlife habitats, with the chosen method of protection being the establishment of criminal offences of interfering and causing direct harm to specified wildlife under legislation (Bell & McGillvray, 2000; Reid, 2002). A summary of legislation relating to marine species protection for the UK is listed in Table 2.

CONTROL OF TRADE IN ENDANGERED SPECIES REGULATIONS 1997 (COTES)

The COTES Regulations were introduced in 1997 to supplement Council Regulation (EC) No. 338/97 and Commission Regulation (EC) 939/97 (since repealed by EC Regulation 1808/2001) on the protection of wild species of fauna and flora by regulating trade in them. The EC Regulations implement, in particular, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) throughout the EU. The COTES Regulations specify the offences against the operation of the provisions of the EC Regulations within the UK, specifying the powers available to police officers to investigate suspected offences, and the powers available to Defra wildlife inspectors to check compliance with the wildlife trade Regulations. Penalties are set for breaches of the provisions.

A review of the Control of Trade in Endangered Species (Enforcement) Regulations 1997 (COTES) has been put forward by the Global Wildlife Division of Defra for public consultation (Defra, 2003). The consultation paper sets out the Government's proposals for amendments to the COTES Regulations with recommendations to increase penalties for illegal wildlife trade within the UK from a two to five-year prison sentence.

ENDANGERED SPECIES (IMPORT AND EXPORT) ACT 1976

The Convention on International Trade in Endangered Species (CITES) 1973 regulates the international trade in endangered species both for plants and animals. It has been enacted in UK law by the Endangered Species (Import and Export) Act in 1976 which restricts the importation, exportation and sale of endangered species. In Great Britain, the Management Authority responsible for the implementation and enforcement of the Convention and for issuing permits and certificates where appropriate is Defra, while the Department of Agriculture (NI) carries out this function in Northern Ireland. The two UK Management Authorities both take scientific advice from two separate scientific authorities. For plants this is the Royal Botanic Gardens, Kew, while the Joint Nature Conservation Committee advise on animals, including birds (Taylor, 1998).

CITES regulates the international trade in plants and animals through a permit system based on whether a species concerned is listed on one of three Appendices to the treaty (Sunkin et al., 2002). Appendix I species include all species threatened with extinction and therefore the trade in these species in prohibited. Appendix II lists species which, whilst not immediately threatened with extinction, may become so if trade in them is not controlled. Appendix III allows signatory countries to list any of their own protected species about which they seek international co-operation to control trade.
HABITATS AND SPECIES DIRECTIVE 1994

Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ‘The Habitats and Species Directive’ obliges Member States to take the measures needed to establish a strict protection system on certain marine animal species in their natural range. Article 12 is important in the marine context which asks Member States to establish a system with which to monitor incidental capture and killing of listed species and to undertake further research or conservation measures to ensure that no “significant negative impact” occurs on the species concerned. To achieve favourable conservation status, species protection has been incorporated into the SAC designation (Gubbay, 1994). SACs can be established to protect species such as the bottlenose dolphin where fishing may be prohibited or restricted through byelaws. Common and grey seals are listed in Annex II of the Directive as species requiring attention to maintain or restore to favourable conservation status.

CONVENTION ON MIGRATORY SPECIES (CMS), ASCOBANS & AEWA

The CMS (also known as the Bonn Convention, web link: http://www.wcmc.org.uk/cms/) was signed in Bonn in 1979 and came into force in 1983. This International instrument includes 74 Parties and four signatories from Africa, America and the Caribbean, Asia, Europe and Oceania. It provides a framework within which Parties may make tackle effectively threats that operate throughout a species’ range. Two Appendices to the Convention list migratory species that would benefit from conservation measures taken by Range States. Strict protection measures are required for migratory species that have been categorised as endangered (listed under Appendix I). Species with an unfavourable conservation status (but not necessarily in danger of extinction) and that would benefit from the implementation of international co-operative Agreements for their conservation and management are listed in Appendix II. Range States need not be CMS Parties before acceding to such Agreements.

An important agreement for cetaceans made under the Bonn Convention is the Agreement on the Conservation of Small Cetaceans of the Baltic and North Sea (ASCOBANS). Signatories and observers to ASCOBANS address the scientific advice and practical solutions required to protect small cetaceans from fishing by-catch and other threats (e.g. pollution and disturbance).

The African-Eurasian Waterbird Agreement (AEWA) is the largest of its kind developed so far under CMS. It entered into force on 1 November 1999. The AEWA covers 235 species of birds ecologically dependent on wetlands for at least part of their annual cycle, including many species of pelicans, storks, flamingos, ducks, waders, terns, gulls and geese. The Agreement covers 117 countries from Europe, parts of Asia and Canada, the Middle East and Africa from the northern reaches of Canada and the Russian Federation to the southernmost tip of Africa. The Agreement provides for coordinated and concerted actions to be taken by the Range States throughout the migration systems of the waterbirds to which it applies. Parties to the Agreement are called upon to engage in a wide range of conservation actions which are described in a comprehensive Action Plan (2000 – onward). This detailed plan addresses such key issues as: species and habitat conservation, management of human activities, research and monitoring, education and information, and implementation.

WILDLIFE AND COUNTRYSIDE ACT 1981

The WCA 1981, coupled with the Conservation (Natural Habitat etc.) Regulations 1994 to ensure compliance with the EC Habitats & Species Directive, are the main pieces of UK legislation providing protection to birds, other wild animals and plants. Two major pieces of legislation protecting wildlife in Britain pre-dated, and were repealed by the passing of the Wildlife and Countryside Act 1981 were the Protection of Birds Acts of 1954 (as amended) and the Conservation of Wild Creatures and Wild Plants Act 1975. Animals and plants are listed under Schedules 5 and 8 of the Wildlife and Countryside Act 1981 and every five years, the statutory nature conservation agencies (English Nature, Countryside Council for Wales and Scottish Natural Heritage and
EHS(NI)), working jointly through the Joint Nature Conservation Committee (JNCC), are required to review and make recommendations for these lists of species to be changed or amended.

### 3.1 Birds

**Protection for Wild Birds under the Wildlife and Countryside Act, 1981**

All wild birds, their nests and their eggs are protected by law to the limits of territorial waters. Sections 1 to 7 of the 1981 Act address the protection for wild birds which makes it an offence to kill, injure or take any wild bird (Section 1). Wild birds and their eggs are fully protected (Section 2) with Section 5 dealing with the offences relating to the illegal methods of killing or taking wild birds. The level of this protection depends on whether the bird is rare or endangered with birds protected by special provisions at all times listed under Schedule 1, Part I and those birds which are protected during the close season are listed on Schedule 1, Part II. Bird species which can be taken or killed outside the close season (quarry species) are listed on Schedule 2 Part I, and Part II of that Schedule lists the bird species that may only be taken or killed by authorised persons at all times. Schedule 3 lists the bird species that may be sold, and Schedule 4 lists the captive bird species which must be registered and ringed.

Sections 16-27 of the Wildlife and Countryside Act, 1981 contain the licensing and enforcement provisions for wild bird protection.

In England and Wales, enforcement provisions were extended by the Countryside Rights of Access Act, 2000, Section 81 and Schedule 12. Section 1(5) now makes it an offence for any person to intentionally or ‘recklessly’ disturb any wild bird included in Schedule 1 while it is building a nest or is in or near a nest containing eggs or young. In the past it had proved difficult to prosecute the offence, mainly because of the need to prove that the defendant went with the objective of causing disturbance. By adding the lesser test of reckless disturbance, a prosecutor will have to show that a person either deliberately took an unacceptable risk or failed to notice an obvious risk and thereby caused disturbance.

**Table 2.1 Bird species (marine and coastal) of community interest protected under the Wildlife and Countryside Act 1981 (Schedule 1)**

<table>
<thead>
<tr>
<th>Avocet</th>
<th>Harriers</th>
<th>Shorelark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bittern</td>
<td>Kentish Plover</td>
<td>Black Winged Stilt</td>
</tr>
<tr>
<td>Chough</td>
<td>Little Ringed Plover</td>
<td>Stint (Temminck’s)</td>
</tr>
<tr>
<td>Divers (all species)</td>
<td>Ruff</td>
<td>Bewick’s Swan</td>
</tr>
<tr>
<td>Long Tailed Duck</td>
<td>Sandpiper (Green, Purple, Wood)</td>
<td>Whooper Swan</td>
</tr>
<tr>
<td>Black-tailed Godwit</td>
<td>Seap</td>
<td>Black Tern</td>
</tr>
<tr>
<td>Greenshank</td>
<td>Common Scoter</td>
<td>Little Tern</td>
</tr>
<tr>
<td>Little Gull</td>
<td>Velvet Scoter</td>
<td>Roseate Tern</td>
</tr>
<tr>
<td>Mediterranean Gull</td>
<td></td>
<td>Whimbrel</td>
</tr>
</tbody>
</table>

In Northern Ireland, the legal provisions are similar to those in Great Britain and are provided by the Wildlife (Northern Ireland) Order, 1985 (Amended 1995), Articles 4-9 and 18, and the protected wild birds are listed on Schedules 1-4, in a similar way to those birds listed under the Schedules for Great
Wild birds which are typically found on the coast or marine environment have been listed in Table 2.1 as included under Schedule 1 of the Wildlife and Countryside Act 1981.

### 3.2 Non-Bird Animal Protection

**PROTECTION FOR ANIMALS UNDER THE WILDLIFE AND COUNTRYSIDE ACT, 1981**

Sections 9 to 12 of the WCA, 1981 affords protection against the intentional killing, injuring and taking of wild animals of those species listed in schedules 5 to 7 of the Act. There are regulations similar to those for wild birds against the killing, injuring or taking any such wild animal (section 9(1)) or to have in ones possession any animal or part of an animal which is live or dead (section 9(2)). It is an offence to use any explosive (other than ammunition for a firearm) for the killing or taking of any wild animal (section 11 (1b)) and, in addition to various other prohibited means of killing or harming animals listed on Schedule 6, it is an offence to use any mechanically propelled vehicle in immediate pursuit of such an animal (includes all cetaceans) for the purpose of driving, killing or taking the animal (section 11 (2e)).

It is also an offence to damage or destroy a habitat or shelter which is occupied by a Schedule 5 animal. The Act provides protection to species and their habitats through the designation of SSSI and MNRs. Some species are under special protection, including marine mammals under schedules 5 and 6. The intentional catching of all species of cetacean, or their treatment once caught, is prohibited within coastal waters of the United Kingdom under the Whaling Industry (Regulation) Act 1934 as amended by the Fishery Limits Act 1981. This 1934 Act also prohibits the use of any ship for the whaling of any species of cetacean within the 200 mile zone providing the single conservation-related provision that extends across UK waters (prior to any extension of Natura regulations into the offshore zone). In England and Wales it is an offence under the 1981 Act to intentionally or recklessly disturb any dolphin or whale, while in Scotland it is an offence to drive ashore any of the smaller types of whale commonly known as bottlenose or pilot whales (Reid, 2002).

In England and Wales, enforcement provisions were extended and some amendments for protection made by the Countryside Rights of Access Act, 2000 Section 81 and Schedule 12. In Northern Ireland, the legal provisions are set out in the Wildlife (Northern Ireland) Order, 1985 (amended 1995), Articles 10-13 and 16-29, and the protected wild animals are listed on Schedules 5 to 7. The Annexes of the Wildlife and Countryside Act are regularly updated and during the 1998 amendments, the basking shark, was listed under the Act granting protection in UK waters from fishing and disturbance. Wild animals which are typically found on the coast or marine environment have been listed in Table 2.2 as listed under Schedule 5 & 6 of the Wildlife and Countryside Act 1981.

**THE CONSERVATION OF SEALS ACT 1970**

The Conservation of Seals Act 1970 provides for the protection and conservation of seals in England, Wales and Scotland and in the adjacent territorial waters. This Act provides for a closed season during which it is an offence for any person to wilfully kill, injure or take seals. The closed season for the grey seals is 1st September to 31st December inclusive and for common seals, 1st June to 31st August inclusive, coinciding with the pupping season (section 2). Section 9 allows for general exceptions including treating disabled animals, incidental killings as well as killing to prevent damage to fishing gear or catches. Section 10 allows for the issue of licences to kill or take seals during the close season for a number of reasons including the prevention of damage to fisheries. Extensions to the closed season can be made on a temporary basis by order. The Conservation of Seals (Scotland)
Order 2002 extends close season protection (a prohibition on the killing, injuring or taking) to the whole year for common seals throughout Scotland and to grey seals on a more limited basis. However the exceptions under sections 9 and 10 still apply.

### Table 2.2 Marine and coastal animal species protected under the Wildlife and Countryside Act 1981 (Schedule 5 & 6)

<table>
<thead>
<tr>
<th>Mammals</th>
<th>Invertebrates</th>
<th>Sea Anemones and Allies</th>
</tr>
</thead>
</table>

### Fish

- Sturgeon *Acipenser sturio*
- Allis shad *Alosa alosa*
- Twaite shad *Alosa fallax*
- Basking shark *Cetorhinus maximus*
- Giant goby *Gobius cobitis*
- Couch’s goby *Gobius couchii*

### Invertebrates

- Lagoon sand shrimp *Gammarus insensibilis*
- Lagoon sea slug *Tenellia adspersa*
- Lagoon sand worm *Armandia cirrhosa*
- De Folin’s lagoon snail *Caecum armoricum*
- Tentacled lagoon snail *Alkmaria romijni*
- Fan mussel *Atrina fragilis*
- Northern Hatchet shell *Thyasira gouldi*
- Fiery Clearwing Moth *Bembecia chrysidiformis*
- Sussex Emerald Moth *Thalera fimbrialis*
- Essex Emerald Moth *Thetidia smaragdaria*.
- New Forest burnet *Zygaena viciae*
- Fisher’s Estuarine Moth *Gortyna borelli*

### Terrestrial invertebrates

- Fiery Clearwing Moth *Bembecia chrysidiformis*
- Sussex Emerald Moth *Thalera fimbrialis*
- Essex Emerald Moth *Thetidia smaragdaria*.
- New Forest burnet *Zygaena viciae*
- Fisher’s Estuarine Moth *Gortyna borelli*

### Amphibians

- Natterjack toad *Bufo calamita*
- Great Crested Newt *Triturus cristatus*
- Sand Lizard

### 3.3 Plants

**PROTECTION FOR PLANTS UNDER THE WILDLIFE AND COUNTRYSIDE ACT, 1981**

The statutory measures relating to wild plants are more restricted than those for wild animals, with a general level of protection which is enhanced for certain species, whilst allowing for pest control and measures against the spread of disease (Taylor, 1998). Under Section 13 and Schedule 8 of the Wildlife and Countryside Act 1981, it is offence for anyone other than an authorised person to intentionally pick, uproot or destroy any wild plant listed on Schedule 8 of the Act (section 13 (1a)). In addition it is also an offence for an unauthorised person to intentionally uproot any wild plant not included in schedule 8 of the Act (Bell & McGillivray, 2000). Section 13 (2a & b) details the offence of selling, offering for sale, possessing or transporting for the purpose of sale, any plant (live or dead, part or derivative) on Schedule 8 and the advertising for buying or selling such things. Schedule 8 of
the Wildlife and Countryside Act 1981 lists the wild plants that are protected. In England and Wales, enforcement provisions were extended by the Countryside Rights of Access Act, 2000 Section 81 and Schedule 12. In Northern Ireland, the legal provisions are similar to those in Great Britain and are covered by the Wildlife (Northern Ireland) Order, 1985 (Amended 1995), Articles 14 and 18, and the protected wild plants are listed on Schedule 8.

3.4 Other Regulations

The Conservation (Natural Habitats, &c.) Regulations 1994

Further to the offences stated in the Wildlife and Countryside Act 1981, Part III of the Conservation (Natural Habitats, &c.) Regulations 1994 in England, Wales and Scotland, and the Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995 for Northern Ireland provides for the protection of certain wild animals and plants. In particular, regulation 39 makes it an offence, subject to certain exceptions, deliberately to capture, kill or disturb those animals or to trade in them. Schedules 2 and 3 of the Regulations list the animals protected by the Habitats Directive and animals which may not be taken or killed in certain ways respectively. The 1994 Regulations have extended the list of species for which non-selective methods of killing and taking cannot be used, which includes all seals likely to occur in UK waters, lamprey, allis and twaite shad. It is also an offence to kill these animals from a prohibited form of transport including aircraft or moving motor vehicles. Regulation 43 makes it an offence, subject to certain exceptions, to pick, collect, cut, uproot or destroy any plants listed in Schedule 4 or to trade in them.

Impending Legislation

The draft Nature Conservation (Scotland) Bill could be on statute in 2004 and will include provisions to extend the protection offered to cetaceans and basking sharks in Scotland.
### Table 2  Key Legislation for Marine Species Protection  (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>International Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 1975</td>
<td>An international agreement between Governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.</td>
</tr>
<tr>
<td>Convention on the Conservation of European Wildlife and Natural Habitats &quot;Bern Convention&quot;</td>
<td>Chapter III - Article 5- special protection of the wild flora species specified in Appendix I from deliberate picking, collecting, cutting or uprooting of such plants shall be prohibited. Article 6 - ensure the special protection of the wild fauna species specified in Appendix II against deliberate capture and keeping and deliberate killing; the deliberate damage to or destruction of breeding or resting sites; the deliberate disturbance of wild fauna, particularly during the period of breeding, rearing and hibernation, insofar as disturbance would be significant in relation to the objectives of this Convention; the deliberate destruction or taking of eggs from the wild or keeping these eggs even if empty.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>European Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The EU Wildlife Trade Reg, Council Regulation (EC) No. 338/97 and Commission Regulation (EC) No 1808/01 (replaced Regulation 939/97 on 19 9 2001).</td>
<td>Set out the rules for the import, export, sale and movement of the listed species. The regulation of trade is based on a system of permits and certificates which may only be issued where certain conditions are met.</td>
</tr>
<tr>
<td>ASCOBANS (Agreement on Conservation of Small Cetaceans of the Baltic and North Seas) (made under the BONN Convention on Migratory Species of Wild Animals.</td>
<td>Signatories and observers to ASCOBANS address the scientific advise and practical solutions required to protect small cetaceans from fishing by-catch and other threats (e.g. pollution and disturbance).</td>
</tr>
<tr>
<td>Council Directive 79/409/EEC on the conservation of wild birds “Wild Birds Directive”</td>
<td>Article 5 - Member States shall take the requisite measures to establish a general system of protection for all species of birds referred to in Article 1, prohibiting in particular deliberate killing or capture by any method; deliberate destruction of, or damage to, their nests and eggs or removal of their nests; taking their eggs in the wild and keeping these eggs even if empty; deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as disturbance would be significant having regard to the objectives of this Directive; keeping birds of species the hunting and capture of which is prohibited.</td>
</tr>
<tr>
<td>Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora “Habitats and Species Directive”</td>
<td>Article 2 - To contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States to which the Treaty applies. Measures taken pursuant to this Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UK Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI 1997/1372 Control of Trade in Endangered Species (Enforcement) Regulations 1997</td>
<td>Controls trade in whale and seal products. Regulations 5 - 7 - Protects wild species of fauna and flora by regulating the trade.</td>
</tr>
</tbody>
</table>
### Endangered Species (Import and Export) Act 1976

An Act to restrict the importation, exportation and sale of certain animals, plants and items.

- Appendix I - Prohibited trade on species threatened with extinction
- Appendix II - controlled trade to prevent extinction
- Appendix III - protect native species by international cooperation on trade. Whales, Basking shark (New addition)


amended by:

- **Countryside and Rights of Way Act 2000** (England and Wales)
- **The Wildlife (Northern Ireland) Order 1985** Amended in 1995

- **Birds** WCA, 1981 Sections 1-6 (Schedule 1). All wild birds, their nests and eggs are protected by law. Schedule 2 - birds taken or killed outside closed season; Schedule 3 the selling of birds & Schedule 4 registered and ringed species.
- **Other Animals** Section 9-12 (Schedule 5). Protection against intentional killing, injuring and taking of wild animals. Includes cetaceans.
- **Plants** WCA, 1981 Section 13 (Schedule 8)
  - CROW, 2000 Section 81 (Schedule 2)
  - W(NI)O 1985 Article 14 & 18 (Schedule 8)


As amended by SI 1997/3055 & SI 2000/192

Conservation (Natural Habitats, etc) Regulations (NI) 1995

- Regulation 39 - offence subject to certain exceptions to deliberately capture, kill or disturb animals or trade in them listed in Schedule 2.
- Regulation 43 - offence, subject to certain exceptions, to pick, collect, cut, uproot or destroy any plants listed in Schedule 4
- Regulations 37 - 41 & Schedule 4 - protection of plants

### The Conservation of Seals Act 1970

SI 1996/2686 Import of Seal Skins Regulations 1996

Protection and conservation of seals up to territorial waters.

- Section 2 - Provides closed seasons for the grey and common seal.
- Section 9 - Exception is the lawful killing of seals if caught up in fishing net or tackle.

### Scotland

SSI 2002/404 Conservation of Seals (Scotland) Order 2002

Imposes a total prohibition on the killing, injuring or taking of common seals and a more limited geographical restriction concerning grey seals.

### Pending legislation

<table>
<thead>
<tr>
<th>Nature Conservation (Scotland) Bill (draft)</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Will extend species protection in Scotland</td>
</tr>
</tbody>
</table>
4. CONTROL OVER INTRODUCTION OF NON-NATIVE SPECIES IN THE MARINE ENVIRONMENT

The spread of non-native species of animals, plants and fishes into the coastal and marine environment can lead to the imbalance of ecosystems through predation, diseases and interaction with native species. This can lead to undesirable ecological consequences. The relevant legislation enacted over the years to try and reduce and regulate this activity is shown in Table 3.

4.1 Non-native Species

THE WILDLIFE AND COUNTRYSIDE ACT, 1981

Provisions have been established for the protection of the UK’s native flora and fauna through Section 14 of the Wildlife and Countryside Act, 1981, amended by Schedule 12 of the Countryside and Rights of Way Act 2000 and through Article 15 and Schedule 9 of the Wildlife (Northern Ireland) Order 1995. In England and Wales further amendments to the enforcement procedures are covered by the Countryside and Rights of Way Act, 2000, Schedule 12. This legislation is necessary to prevent the establishment of non-native species which may be detrimental to our native wildlife. Section 14 of the Wildlife and Countryside Act, 1981 prohibits the release to the wild animals which are not ordinarily resident or that are not regular visitors to Great Britain. These animals are listed in Part I of Schedule 9. Part II of Schedule 9 lists the plants which cannot be planted or encouraged to grow in the wild in the UK. Under the Wildlife and Countryside Act 1981, it is an offence to release or to allow the escape of any non-native fish into the wild.

One principal concern with regard to the maintenance of vessel's hulls at sea is the release of non-native animals and plants into the sea resulting from their being scrubbed or scraped off a vessels hull. The introduction of non-native species of animals and plants into UK waters as a consequence of the maintenance of vessel hulls at sea may impact upon the existing local flora and fauna and may potentially be very harmful to native biodiversity. Scraping non-native species off ships' hulls, (for example bivalves or crustaceans), which resulted in releasing them into the wild in Great Britain would fall within the provisions of the Wildlife and Countryside Act 1981 Section 14. There is therefore a general prohibition on the introduction of all non-native animal species, but only for specified plant species. Releases do not have to be intentional to be prohibited, although Section 14(3) provides a defence if the defendant can show that all reasonable steps were taken and all due diligence exercised to avoid committing an offence. Deliberately scraping non-native marine organisms off a ship's hull and effectively releasing them into the water is liable to constitute an offence under the Wildlife and Countryside Act 1981, especially if no measures were taken to prevent their release into the sea (MCEU, 2003).

4.2 Fish

FISH HEALTH REGULATIONS 1997

These Regulations revoke the 1992 regulations applying to Great Britain and implement Council Directive 91/67/EEC concerning the animal health conditions governing the placing on the market of aquaculture animals and products. They are enacted in Northern Ireland by the Fish Health Regulations (Northern Ireland) 1993. The Regulations prohibit the placing on the market of aquaculture animals and products unless certain requirements relating to their health status are met (regulation 3). The transport of aquaculture animals is prohibited unless certain requirements relating to the welfare of the aquaculture animals and the prevention of the spread of disease are met.
(regulation 4). Centre for Environment, Fisheries and Aquaculture Science (CEFAS) are the responsible body in England and Wales. Within the context of the control over non-native species to the marine environment, regulations 7 to 9 are the most important. Regulation 7 prohibits the introduction into Great Britain from elsewhere in the European Union of live fish, eggs and gametes, with regulation 9 controlling live molluscs, eggs and gametes unless they are accompanied by appropriate movement documents. Regulation 8 prohibits the introduction into Great Britain from elsewhere in the European Union of certain dead fish which have not been eviscerated unless they come from areas of appropriate fish health status.

**IMPORT OF LIVE FISH ACT, 1980**

Defra introduced the Prohibition of Keeping or Release of Live Fish (Specified Species) Order 1998, made under the Import of Live Fish (England and Wales) Act (1980), to place further controls on the keeping and release of particular species. The list of species covered by the measures was subsequently extended, with regard to England, by the Prohibition of Keeping or Release of Live Fish (specified species) (amendment) (England) Order 2003. In Scotland this is enacted through the Import of Live Fish (Scotland) Act 1978, with a draft Order to be made under the 1978 Act currently out for consultation in Scotland.

The Order makes it illegal to keep or release any of the species listed into any water (including tanks and ponds) without a licence. New species may be added to the list if these are considered to be a potential threat. The list includes non-native freshwater fish species already known to be present in the UK in the wild, non-native cold-water species being kept for ornamental purposes and certain other non-native species thought to have the potential to survive and possibly thrive in the wild in the UK. New species may be added to the list if these are considered to be a potential threat.

Under Article 2 of the Prohibition of Keeping or Release of Live Fish (Specified Species) Order 1998, an offence will have been committed if a person holds, keeps or releases a listed fish species in the Schedule without being in possession of an ILFA licence. Other offences include the failure to meet any conditions (specific or general) placed on an ILFA licence, including the supply of a listed species to a third party who is not in possession of an appropriate ILFA licence. The Order sets out measures of prosecution for the offender and measures to deal with illegal fish stocks (FBAS, 2003).

### 4.3 Plants

If there is any likelihood of damage to plants in Great Britain being caused by non-native organisms, the relevant plant health authority must be informed (DTI, 2003). Defra's Plant Health Division, in England and in liaison with the National Assembly for Wales, and SEERAD's Scottish Agricultural Science Agency in Scotland, may grant licences under the Plant Health (Great Britain) Order 1993 (PHO) to import and keep for scientific and research purposes plant feeding insects and other invertebrates, plant material, pathogens and soil that are normally prohibited. DARDNI co-ordinates Northern Ireland’s regulation.

**PLANT HEALTH (GREAT BRITAIN) ORDER 1993**

The Plant Health Order made under the Plant Health Act 1967, regulates the imports of invertebrate species and their host plants or prey may also be subject to plant health controls. The Plant Health (Great Britain) Order 1993 as amended, controls the licensing measures for the appropriate precautions, for trials, scientific or varietal selection work on plants, plant pests, soil and growing medium which would otherwise be prohibited. A plant pest is defined as pests of plants and harmful
organisms liable to infect plants or plant products which belong to the animal or plant kingdoms, or which are viruses or other pathogens including genetically modified plant pests (Defra, 2001).

The Order prohibits the landing of certain plant pests and specifies the conditions under which landing of various plants, plant products and other objects may be permitted (article 3). It prohibits the introduction into protected zones of certain plant pests, plants, plant products and other objects and specifies the conditions under which other such items may be introduced (article 5). This Order prohibits the import, movement and keeping of any plant pest which has been genetically modified and any plant material that has been modified such that it contains genetic material derived from a plant pest. The legislation also prohibits any activity that involves genetic modification of any plant pest. It is an offence under this Order to knowingly keep, release, sell, exchange or give away any live invertebrate that is considered to be a plant pest (Articles 6 & 7).

There are currently no plant health restrictions on importing into Great Britain dead invertebrates, any live terrestrial invertebrate that does not feed on plants, any marine or freshwater invertebrate and live specimen of plant feeding invertebrate species (Defra, 2000a).

**GENETICALLY MODIFIED ORGANISMS (DELIBERATE RELEASE) REGULATIONS 1992**

These Regulations, together with Part VI of the Environmental Protection Act 1990 give effect to Council Directive 90/220/EEC which controls the deliberate release into the environment of genetically modified organism. Part I of the Regulations makes provision as to interpretation of the Regulations and as to the application of the definitions of "artificial techniques" and "harm" in the Act. Part II of the Regulations makes provision as to the circumstances in which consents for the release of genetically modified organisms to the environment are required, and makes provision as to applications for consents and the conditions on which consents are held.

**THE GENETICALLY MODIFIED ORGANISMS (CONTAINED USE) REGULATIONS 1992**

These Regulations are designed to protect persons and the environment from risks arising from activities involving the contained use of genetically modified organisms. These Regulations are designed to ensure the safe use and handling of genetically modified organisms, including invertebrate plant pests, under containment. They require, with certain exceptions, that anyone carrying out any activity involving genetic modification does so in conditions of contained use which satisfy the Directive in order to prevent their release (Defra, 2000a).

**Plant Pests**

There is a very large body of legislation implemented for regulating plant pests although the remit has never been extended to the marine environment. There are two major reviews currently awaiting public consultation:

- The environmental consultancy Ecoscope is reviewing the legislation on non-native plant species;

- Defra are currently reviewing the policy on non-native species. This is currently with Ministers and includes all Defra responsibilities including those in the marine environment.
### Table 3: Key Legislation for the Control over the Introduction of Non-native Species (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>International Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Convention on Biological Diversity</td>
<td>Article 8(h) “prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species”</td>
</tr>
<tr>
<td>Convention on the Conservation of European Wildlife and Natural Habitats &quot;Bern Convention&quot;</td>
<td>Article 11(2)(b) “to strictly control the introduction of non-native species.”</td>
</tr>
<tr>
<td>Cartagena Protocol on Biosafety 2000</td>
<td>A supplementary agreement known as the Cartagena Protocol on Biosafety to the Convention on Biological Diversity. The Protocol seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>European Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora “Habitats and Species Directive”</td>
<td>Article 22(b) &quot;ensure that the deliberate introduction into the wild of any species which is not native to their territory is regulated so as not to prejudice natural habitats within their natural range or the wild native fauna and flora and, if they consider it necessary, prohibit such introduction. The results of the assessment undertaken shall be forwarded to the committee for information.”</td>
</tr>
<tr>
<td>Council Directive 2000/29/EC of 8th May 2000 on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community</td>
<td>Article 1 - the introduction of organisms which are harmful to plants or plant products &amp; the spread of harmful organisms within the Community by means related to movements of plants, plant products and other related objects within a Member State Article 3 - Member States shall ban the introduction into their territory of the harmful organisms listed in Annex I, Part A &amp; ban the introduction into their territory of the plants and plant products listed in Annex II, Part A, where they are contaminated by the relevant harmful organisms listed in that part of the Annex.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UK Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife (Northern Ireland) Order 1995</td>
<td></td>
</tr>
</tbody>
</table>

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| **Plant Health Order 1993** | Regulates the import of invertebrate species and their host plants or prey. It is an offence under this Order to knowingly keep, release, sell, exchange or give away any live invertebrate that is considered to be a plant pest (Articles 6 & 7) |
| Created under the **Plant Health Act 1967** | |
| **SI 1992/3217 The Genetically Modified Organisms (Contained Use) Regulations 1992** | These Regulations have effect with a view to protecting persons and the environment from risks arising from activities involving the contained use of genetically modified organisms. |
| Amended by SI 2000/2831 | |
| **SI 1992/3280 Genetically Modified Organisms (Deliberate Release) Regulations 1992** | Part I - the application of the definitions of "artificial techniques" and "harm". |
| Amended in 1995 & 1997 | Part II - circumstances in which consents for the release of genetically modified organisms to the environment are required, and makes provision as to applications for consents and the conditions on which consents are held. |
| **Environmental Protection Act 1990 (Part VI)** | Section 106-127 deals with preventing or minimising any damage to the environment which may arise from the escape or release from human control of genetically modified organisms. |
| **Food and Environment Protection Act 1985.** | FEPA - considers some biological control agents as pesticides |
| **SI 1997/1881 The Fish Health Regulations 1997** | Concerns the animal health conditions governing the placing on the market of aquaculture animals and products. |
| **Northern Ireland** | Regulation 7 - prohibits introduction of live fish, eggs and gametes controls marketing of animals and products. |
| **Fisheries (Northern Ireland) Act 1966** | Regulation 8 - prohibits introduction of dead fish which have not been eviscerated. |
| **Fish Health Regulations (Northern Ireland) 1993** | Regulation 9 - controls live molluscs, eggs and gametes unless they are accompanied by appropriate movement documents. |
| **Import of Live Fish (England and Wales) Act 1980** | To restrict the import, keeping or release of live fish or shellfish or their eggs. Order makes it illegal to keep or release any of the species listed into any water without an ILFA licence. |
| Amended in 1998 & 2003 | |
| **Scotland** | |
| **Import of Live Fish (Scotland) Act 1978** | |
5. CONSERVATION OF MAN-MADE STRUCTURES IN THE MARINE ENVIRONMENT

The Department for Culture, Media and Sport through English Heritage, Historic Scotland, CADW: Welsh Historic Monuments and the Environment and Heritage Service of Northern Ireland all have statutory duties to protect ancient monuments, archaeological and historic interests in and around UK waters. The diversity of designated historic wrecks indicates the wealth of maritime information preserved under the sea around the coast of the UK (Dean et al., 2002). They range from the scattered remains of a Bronze Age cargo through to the first RN submarine designed and built in Britain that sank in 1911 and survives almost intact on the seabed. The principal Acts that relate to historic wrecks are the Protection of Wreck Act 1973, the Merchant Shipping Act 1995 and the Protection of Military Remains Act 1986. Monuments and Listed buildings are also protected under key legislation. The relevant legislation relating to the conservation of management made structures in the marine environment can be seen in Table 4.

5.1 Historic Wrecks & Ancient Monuments

PROTECTION OF WRECKS ACT 1973

The Protection of Wrecks Act 1973 allows the Government to protect historic wreck sites or similarly to make orders prohibiting approaches to dangerous wrecks. Such orders are applicable within UK territorial waters, including rivers subject to the ebb and flow of ordinary spring tides (i.e. estuaries), but may not affect areas above high-water mark at those tides. This Act was introduced as a private member’s bill following the high profile looting of several wreck sites (Roberts & Trow, 2002). The Act is administered by the Department for Culture Media and Sport, Historic Scotland, CADW: Welsh Historic Monuments and the Environment & Heritage Service of Northern Ireland. It is anticipated that DCMS will pass their responsibilities on to English Heritage in the near future (Dean et al., 2002).

Section 1 of the Act allows the Government to designate a wreck to prevent uncontrolled interference. Designated sites are identified as being likely to contain the remains of a vessel, or its contents, which are of historical, artistic or archaeological importance. A "restricted area" may be designated around the actual or suspected site of a wreck on account of the historical, archaeological or artistic importance of the vessel itself or its contents. Full consultation must occur with appropriate bodies before making an order, but this does not apply in an emergency. Once a restricted area has been designated, it is a punishable offence to carry out or permit any of the following without a licence:

- tamper with, damage or remove any part of a wrecked vessel or its former contents;
- carry out diving or salvage operations (or use such equipment) to explore a wreck or remove objects from it or the sea bed;
- deposit anything which might obliterate the site or obstruct access to it, or might damage the wreck, for example fishing nets and anchors.

Bathing, angling and navigation are permitted within a restricted area provided there is no likelihood of, or intention to, damage the wreck or obstruct work on it. Anchoring on the site is only permitted for licensed activities or in cases of maritime distress. The Protection of Wrecks Act 1973 does not ban diving on designated sites, however it controls the activity so that these important wrecks are not
put at risk from undisciplined investigation. Anyone can apply to dive on a protected wreck, but a licence is more likely to be issued if it will be of benefit to the care or understanding of the site.

A Statutory Instrument (SI) identifies the location of the site and also the extent of the restricted area used to ensure the protection of the site. In some cases the site may be indicated by a buoy, usually yellow and inscribed Protected Wreck. All protected wrecks are listed in the annual *Admiralty Notices to Mariners* and are marked on appropriate UK Hydrographic Office charts (Dean *et al.*, 2002).

A "prohibited area" may be designated around the site of a wreck that ought to be protected from unauthorised interference because its contents make it a potential danger to life or property (section 2). It is an offence punishable by a fine to enter a prohibited area on the surface or under water without written authority from the Secretary of State. Section 2 of this Act is administered by the Maritime & Coastguard Agency through the Receiver of Wreck.

Orders designating either "restricted" or "prohibited" areas must be revoked when they are no longer needed, and no offence is committed by emergency action, the exercise of statutory functions, or acts of necessity due to weather or navigational hazards (s 3).

There are currently 48 sites designated under the 1973 Act, a small number compared to the hundreds of thousands of wrecks thought to be in the UK's Territorial Seas. They are selected because of their cultural importance using criteria set out in Appendix 5, and need to be treated with respect (Dean *et al.*, 2002).

**MERCHANT SHIPPING ACT 1995**

The Merchant Shipping Act 1995 plays a significant role in the reporting of recovered marine archaeological material. Wreck material which comes from UK territorial waters or is landed in the UK from outside UK territorial waters must by law be declared to the Receiver of Wreck (Section 236). A wreck is defined as anything which is found in or on the sea, or washed ashore from tidal waters. All items which are recovered, regardless of age, importance or ownership, must be reported to the Receiver of Wreck; this includes artefacts recovered from designated sites. In the case of historically or archaeologically important material, finds are often placed in museums in the area near the find site.

Section 24 of the Merchant Shipping and Maritime Security Act 1997, empowers the Secretary of State for Transport to make orders implementing international agreements on the protection of wrecks outside United Kingdom waters. Such orders may designate wrecks or the areas where they are situated, may prohibit or restrict access or interference with them, and may provide for licensing and enforcement. However, offences can only be committed in the United Kingdom and its waters or on board UK ships, or by British citizens, subjects, nationals, protected persons or companies in international waters. These powers were exercised in May 1999 to give effect to the Agreement between the Republic of Estonia, the Republic of Finland and the Kingdom of Sweden regarding the M/S Estonia.

**THE PROTECTION OF MILITARY REMAINS ACT 1986**

The Protection of Military Remains Act deals with military remains of both aircraft and ships and is aimed at protecting such sites where lives were lost. This Act followed the high profile disturbance of a number of naval vessels during the 1980’s. It applies to all World War I and later aircraft that
have crashed on military service, and to specified World War I and later military vessels lost in British or international waters (Roberts & Trow, 2002). All military aircraft are automatically designated under this legislation and wrecks may be designated either as a Protected Place or as a Controlled Site. Divers may visit a Protected Place on a 'look but don't touch' basis but divers are prohibited from visiting Controlled Sites. This Act is administered by the Ministry of Defence and they will be producing guidelines for divers and other sea users (Dean et al., 2002).

Following a public consultation in 2001, the Secretary of State for Defence announced that criteria would be considered in determining whether to designate a vessel under the Act. Sixteen vessels currently within UK jurisdiction would be designated as Controlled Sites and five vessels in international waters would be designated as Protected Places (MoD, 2001).

ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979

The Ancient Monuments and Archaeological Areas Act 1979 Chapter 46, repealing Parts II and III of the Historic Buildings and Ancient Monuments Act 1953, deals with Ancient Monuments (Part 1) and Archaeological Areas (Part 2). With regard to the marine environment, sites on the seabed can be scheduled under this Act if they comprise a building, structure or work, or any vehicle, vessel, aircraft or movable structure that is of public interest by virtue of its historic, architectural, traditional, artistic or as archaeological interest, providing it is not already designated under the Protection of Wrecks Act. Schedule 1 of this Act regulates the work carried out on a site and associated damage.

In Scotland, Historic Scotland have made it their policy to use the 1979 Act in preference to the 1973 Act where marine sites are established diver attractions providing local economic benefit, or where the 1973 Act would be restrictive in a way counterproductive to the long term well being of the site (Roberts & Trow, 2002). This Act has not been used in England yet.

NATIONAL HERITAGE ACT 2002

Amending the National Heritage Act 1983 and the Ancient Monuments and Archaeological Areas Act 1979, the National Heritage Act 2002 harmonises the roles of the UK heritage agencies by extending the remit of English Heritage for the preservation of ancient monuments in, on or under the seabed to the 12-mile limit (the territorial sea) around the English coastline. This Act also enables the Secretary of State to exercise its functions through the heritage agencies relating to ancient monuments in or under the sea bed on its behalf. Under Section 3 of the Act, English Heritage will take over responsibility for a number of administrative functions relating to underwater archaeology and the Protection of Wrecks Act 1973. This allows terrestrial and marine archaeology in England to be treated on an equal basis and bring the situation in England into line with that in the rest of the UK (IDG, 2002).

5.2 Listed Buildings

PLANNING (LISTED BUILDINGS AND CONSERVATION AREAS) REGULATIONS 1990

The Planning (Listed Buildings & Conservation Areas) Regulations 1990, amended by the Planning and Compensation Act 1991 makes provisions for special controls in respect of buildings and areas of special architectural or historic interest. These are implemented in Scotland by the equivalent Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997, and in Wales by the Town and Country Planning (Listed Buildings in Wales and Buildings in Conservation Areas in Wales) (Welsh Forms) Regulations 1990. These Acts set out the legal requirements for the control of
development and alterations which affect buildings, including those which are listed or in conservation areas, and the framework by which control is maintained.

The principal Act requires development plans to include policies for 'the conservation of the natural beauty and amenity of the land' and for 'the improvement of the physical environment'.

Part 1 of the Regulations relates to Listed Buildings. Section 1 of the Act imposes on the Secretary of State for National Heritage a duty to compile or approve lists of buildings of special architectural or historic interest. Sections 8 to 26 provide details for the authorisation of works affecting listed buildings with sections 47 to 53 preventing the deterioration and damage of listed buildings. Part II of the Regulations deal with the designation of Conservation Areas. Section 69 of the Act imposes a duty on local planning authorities to designate as conservation areas any 'areas of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance'. Sections 74 to 80 provide legislation on consents to demolish buildings in a conservation area, how to apply against the demolition of a building and how to carry out works, or to authorise local authority to carry out works to preserve unoccupied buildings in conservation areas.


TRANSPORT AND WORKS ACT 1992

Since 1 January 1993, when Part I of the Transport and Works Act 1992 came into force, proposals which would have previously been authorised under a Private Bill procedure have instead had to be authorised by Orders made under that Act (DoE & DoNH, 1994). Such proposals include the construction or operation of railways, tramways, trolley vehicle systems, other guided transport systems, inland waterways, and structures interfering with rights of navigation. The Act brings the procedures for authorising such schemes more into line with those which have applied for years to highways projects. Where the proposal involves works to a listed building, or demolition of an unlisted building in a conservation area, a separate application must be made to the local planning authority for listed building consent or conservation area consent respectively. These changes are set out in the Transport and Works Applications (Listed Buildings, Conservation Areas and Ancient Monuments Procedures) Regulations 1992.
### Table 4 Key Legislation for the Conservation of Man-made Structures  
(Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>International Legislation</th>
<th>Provisions</th>
</tr>
</thead>
</table>
| The Convention concerning the Protection of the World Cultural and Natural Heritage 1972 | **Article 1** - the following shall be considered as "cultural heritage":
- **monuments**: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;
- **groups of buildings**: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;
- **sites**: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view. |
| “The World Heritage Convention” | |

<table>
<thead>
<tr>
<th>UK Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancient Monuments and Archaeological Areas Act 1979 Amended in 1981 &amp; 1984</td>
<td>Sites on the seabed can be scheduled under this Act if they comprise a building, structure or work, or any vehicle, vessel, aircraft or movable structure that is of public interest by virtue of its historic, architectural, traditional, artistic or as archaeological interest, providing it is not already designated under the Protection of Wrecks Act. Schedule 1 of this Act regulates the work carried out on a site and associated damage.</td>
</tr>
<tr>
<td><strong>Scotland</strong> - SI 1996/1507</td>
<td></td>
</tr>
<tr>
<td>Protection of Wrecks Act 1973 (c.33) As amended</td>
<td>Enables the government to designate the wreck of a vessel which it considers should be protected from unauthorised interference because of its historical, archaeological or artistic importance. Such orders are applicable within UK territorial waters. Enables the designation of ‘restricted areas’ (section 1) and ‘prohibited areas’ (Section 2).</td>
</tr>
<tr>
<td><strong>Scotland</strong> - SSI 2001/242</td>
<td></td>
</tr>
<tr>
<td><strong>Northern Ireland</strong> - Protection of Wrecks Act 1973 (c.33) &amp; SI 1995/1625 (N.I. 9)</td>
<td></td>
</tr>
<tr>
<td>Protection of Military Remains Act 1986</td>
<td>Allows sites to be designated as War Graves, to prevent interference with human remains. This applies to any UK vessel aircraft and foreign vessels in UK waters. It covers all vessels or aircraft lost in military service after 4th August 1914 and all military vessels and aircraft lost in service less than 200 years old.</td>
</tr>
<tr>
<td>Merchant Shipping Act 1995</td>
<td>Section 236 - any material brought to the surface must be declared to the Receiver of Wreck, whose aim is to determine the ownership of the object.</td>
</tr>
</tbody>
</table>
Summary of Current Legislation Relevant to Nature Conservation in the Marine Environment in the UK
Joint Nature Conservation Committee (JNCC)

<table>
<thead>
<tr>
<th>National Heritage Act 2002</th>
<th>Extends the remit of English Heritage to the limit of the territorial sea. Section 3 relates to underwater archaeology and protection of wrecks.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planning (Listed Buildings and Conservation Areas) Act 1990</strong>&lt;br&gt;<strong>Part II</strong>&lt;br&gt;amended by:&lt;br&gt;<strong>Planning and Compensation Act 1991</strong>&lt;br&gt;Scotland - Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997&lt;br&gt;Northern Ireland - The Planning (Northern Ireland) Order 1991</td>
<td>Provisions for special controls in respect of buildings and areas of special architectural or historic interest.&lt;br&gt;Part I - Listed Buildings. Section 1 imposes a duty to compile or approve lists of buildings of special architectural or historic interest.&lt;br&gt;Sections 8 to 26 provide details for the authorisation of works affecting listed buildings with sections 47 to 53 preventing the deterioration and damage of listed buildings.&lt;br&gt;Part II - designation of Conservation Areas.</td>
</tr>
<tr>
<td>Transport and Works Act 1992</td>
<td>Protects listed buildings, or demolition of an unlisted building in a conservation area against development.</td>
</tr>
</tbody>
</table>

**Planning Guidance**

**England**

Planning Policy Guidance 15: Planning and the Historic Environment (PPG15)

Planning Policy Guidance 16: Archaeology and Planning (PPG16)

**Wales**

Welsh Office Circular 61/96, Planning and the Historic Environment: Historic Buildings and Conservation Areas

Welsh Office Circular 1/98 Planning and the Historic Environment.

**Scotland**

National Planning Policy Guideline 5 - Archaeology and Planning (NPPG5)

National Planning Policy Guideline 18 - Planning and the Historic Environment (NPPG18)


**Northern Ireland**

PPS6 - Planning, Archaeology and Built Heritage

**Non-statutory**

**Provisions**

<table>
<thead>
<tr>
<th>Code of practice for Seabed Developers</th>
<th>Joint Nautical Archaeology Policy Committee has drawn up this non-statutory code to ensure that an archaeological assessment and evaluation is carried out prior to development, so that archaeological sites can be protected or excavated.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICOMOS Charter</td>
<td>The International Council on Monuments and Sites (ICOMOS) has drawn up a charter for the Protection and Management of the Underwater Cultural Heritage (1996). This aims to ensure the protection of underwater cultural sites, or their proper excavation, recording, conservation of the finds and publication.</td>
</tr>
</tbody>
</table>
6. SEA FISHERIES

The basis for fisheries management in EU waters is the Common Fisheries Policy (CFP). In recent years concern has been expressed over the environmental impacts of fishing and reports of crises in fish stocks around the UK (e.g. Intergovernmental Ministerial Meeting, Bergen, 1997). For most whitefish stocks, exploitation levels are close to or outside sustainable limits and conservation measures have been introduced under the CFP. These have included total allowable catches (TACs), regulation of gear type fleet reductions and technical conservation measures, (the term applied to methods which regulate fishing gear such as mesh sizes, and enforce minimum landing size and closed areas). Taken together, these have had some success in conserving fish stocks. Despite this, increasing over-fishing and concerns for the future sustainability of the fishing industry have dictated that alternatives are needed to the present system.

Much of the policy is implemented through Regulations which are effective from a specified date and apply immediately in each Member State without the enactment of separate national legislation. Within the UK most legislation takes effect through statutory instruments whereby the principles are translated into detailed regulations for the fishing industry. Those areas of fisheries management which were devolved back to the UK government from the CFP, are governed by separate legislation (Symes, 1998). Current fisheries legislation applying to the UK fishing industry is listed in Table 5.

6.1 Offshore Fisheries

COMMON FISHERIES POLICY

In the UK, the administration and management of sea fisheries is carried out by government departments in accordance with the Common Fisheries Policy (CFP) of the European Union (EU). European Council regulations are implemented through UK law, usually by means of statutory instruments, which define limits and restrictions and set down powers of enforcement and penalties. All national regulation measures conform with the requirements of the CFP. The CFP seeks to manage stocks of fish in EU waters principally by implementing catch quota management measures, by setting agreed annual Total Allowable Catches (TAC) for particular stocks of commercial fish and by means of various technical conservation measures, including minimum landing sizes and fishing gear restrictions. The policy came into effect in 1983, was subject to a mid-term review in 1993, and a full review carried out in 2002.

As with all EC policies, the CFP is underpinned by the principle of non-discrimination between member states, with the basic precept of ‘equal access’ as defined in Article 2(i) of Regulation 101/76 which requires Member States to ‘ensure in particular equal conditions of access to and use of fishing grounds situated in the waters referred to...’ (Symes, 1998). Under the current CFP, waters out to 6 nautical miles from baseline may only be fished by vessels registered in the UK. Between 6 and 12 nautical miles other member states with historic rights also have access. Beyond 12 miles (the limit of British Territorial Seas) access to vessels from the other member states is limited, based on historic rights and to vessels from non-member countries by reciprocal agreements with the EU.

The new measures entered into force on 1 January 2003 and replaced the basic rules governing the CFP since 1993. The objectives of the CFP have been reviewed with the aim to focus more on the sustainable exploitation of living aquatic resources based on sound scientific advice and on the precautionary approach to fisheries management. The CFP is intended to be firmly integrated within the Community's policy on sustainable development and to take account of environmental, economic and social aspects in a balanced manner.
6.2 Inshore Fisheries

Although the CFP applies throughout all marine waters pertaining to EU member states, the derogation relating to access rights within the 0-6 and 6-12 nm zones (outlined in 6.1) provides the opportunity for member states to implement additional legislation for the conservation of fish and shellfish stocks in inshore waters, providing these are consonant with the basic principles and practice of the CFP. Within the UK, the responsibility for inshore fisheries legislation has been devolved to the constituent countries (Symes, pers comm. 2003).

In England and Wales, the institutional framework for the management of inshore fisheries has been in place for over one hundred years since the Sea Fisheries Regulation Act 1888 first laid down the conditions for special committees (e.g. Sea Fisheries Committees, SFCs) to take responsibility for a range of management activities.

**SEA FISHERIES REGULATION ACT 1966**

The principal legislation governing inshore fisheries is the Sea Fisheries Regulation Act 1966 which defines the powers and responsibilities of these SFCs for the management of inshore fisheries. The SFCs are responsible for the management and conservation of coastal fisheries in England and Wales out to 6 miles from baselines subject to the basic Common Fisheries Policy regulations (e.g. quotas etc.). The coastal waters of England and Wales have been divided into 12 local Sea Fisheries Districts, each of which has a sea fisheries committee which manages the inshore waters. The Environment Agency also assumes fisheries management in a limited number of instances i.e. salmon, with the Environment Agency also holding a seat on the Sea Fisheries Committees *ex officio*. Salmonid fisheries are regulated by the Environment Agency through provisions in the Water Resources Act 1991 which covers certain estuarial waters and coastal waters. In the case of some areas, such as the Inner Thames estuary, the duties of the SFC are carried out by the Environment Agency although this situation is unusual and does not occur elsewhere. In 1995 the duties of the SFCs were extended to include a broader environmental remit through the provision of the Environment Act 1995 (Symes & Phillipson, 1995).

Under the Sea Fisheries Regulation Act 1966 fisheries committees may make byelaws regulating activities within the Fisheries District, as defined by the Ministerial Order creating the Fisheries District.

In Scotland, inshore fisheries management remains under central direction through the Scottish Executive Environment and Rural Affairs Department (SEERAD) under the Inshore Fishing (Scotland) Act 1984 with inshore fishing thus regulated through a general order the Inshore Fishing (Prohibition of Fishing and Fishing Methods) (Scotland) Order 1989 amended in 1994, 1996, 1999 and 2001. There are currently 75 Salmon Fishery Districts in Scotland, with salmonid fisheries managed by 51 District Salmon Fishery Boards but with legislative powers confined to the Secretary of State. Byelaws have not been used to the same extent as in England and Wales, with more attention placed on Regulating and Several Orders made under the Sea Fisheries (Shellfish) Act 1967, however to date, only one Regulating Order has been issued in Scotland.

Inshore fisheries in Northern Ireland are similarly administered centrally through the Department of Agriculture and Rural Development (DARD). An important feature is the “voisinage” principle which emerged from the London Fisheries Convention 1964, whereby fishermen from Northern Ireland and the neighbouring republic of Ireland can fish within each others’ 6 mile limits, in compliance with local regulations (Symes and Phillipson, 1997). Fisheries are regulated through The

**SEA FISHERIES (WILDLIFE CONSERVATION) ACT 1992**

In recent years, organisations responsible for inshore fisheries have gradually acquired a range of responsibilities and powers relating to marine environmental protection. The Sea Fisheries (Wildlife Conservation) Act 1992 was promoted to ensure fisheries managers would have to consider the environmental consequences of their actions. The Act requires fisheries managers to have regard for nature conservation and in making decisions, find a balance between this and other considerations. SFCs and other fisheries regulators have a duty to balance the conservation of marine flora and fauna with other factors which affect their exercise of sea fisheries functions. Local fishermen are also involved in some areas in taking voluntary steps (Codes of Practice) to limit environmental damage or conflict with other users. Where coastal areas are designated under the Habitats or Birds Directives, new legislation for schemes of management for these areas will broaden the powers and duties of Sea Fisheries Committees to act for environmental purposes and will assist in a greater participation in coastal management plans. For example, the SFC will be a relevant Authority for the management of SAC and in some cases they may be the lead authority.

The SFCs hold powers to restrict or prohibit fishing, to regulate fishing methods, and to regulate, protect and develop shellfisheries. They operate through byelaws which are subject to public consultation and approval by the appropriate minister. At present SFCs are only empowered to regulate fishing and shellfisheries for the purpose of the conservation of fish stocks. The 1992 Act now requires SFCs to take account of the conservation of marine flora and fauna, but only in so far as this is consistent with fisheries conservation objectives (DoE, 1993). The Committee for each Sea Fisheries Committee area includes Secretary of State Nominees to balance elected representatives on the Committee. In the absence of SFCs or similar statutory organisations in Scotland and Northern Ireland, the implications of the Act only have direct relevance to the Minister’s duties.

**ENVIRONMENT ACT 1995**

The Environment Act 1995 effectively redefined the structure and role of Sea Fisheries Committees (SFCs) in order that they might more fully embrace new responsibilities for marine environmental management. Sections 102 to 105 have the effect of amending the Sea Fisheries Regulation Act 1966, for example by allowing the appointment of ‘persons having knowledge of, or expertise in, marine environmental matters’ (section 102.2), where ‘marine environmental matters’ means firstly the conservation or enhancement of the natural beauty or amenity of marine or coastal areas and secondly the conservation of flora and fauna which are dependent on, or associated with a marine or coastal environment.

Since 1992, fisheries regulators have had the duty to “have regard to the conservation of marine flora and fauna” when exercising their functions. However those functions related to the protection and management of fisheries and their powers could not be used to protect the environment alone. SFCs already had the powers to make byelaws within the Sea Fisheries Regulation Act 1966 for prohibiting or restricting fishing of all or specified kinds of sea fish, prohibiting or restricting specified methods of sea fishing and regulating. The Environment Act 1995 gave the powers which enable fishery ministers, local sea fisheries committees and the Environment Agency to make orders or byelaws for marine environmental purposes. This section thus enabled the management of fisheries on environmental grounds, where previously such powers were restricted to fisheries management per
Before submitting any byelaws for Ministerial confirmation under Sea Fisheries Regulation Act 1966 s.6, the SFC is required by SFRA 1966 section 5 to consult English Nature or CCW.

The Sea Fish (Conservation) Act 1967 was also amended with the provision to allow powers to restrict fishing on the grounds of marine environmental purposes. In this instance ‘marine environmental purposes’ means for the purpose of conserving or enhancing the natural beauty of the marine or coastal area and secondly for conserving the flora and fauna which are dependent on the marine or coastal environment. With the Environment Act 1995 and in association with the Conservation Regulations 1994 and Birds Directive 1979, SFCs were given shared responsibilities for the implementation of specific marine sites designated as SACs and SPAs.

The Scottish Inshore Fishing (Scotland) Act 1984 was also amended by the Environmental Act 1995 with the powers to restrict fishing or to prohibit the carriage of specified types of net, for marine environmental purposes (S. 103 2A) (Read, et al., 2000). See below for further information.


The powers included in this Act allow for the setting of minimum landing sizes for fish and shellfish, control of the use of different types and sizes of fishing gear, the licensing of fishing vessels and landing controls. The 1992 amendment was made to introduce vessel licensing to all boats including those under 10m (due to EU regulations). Licensing was necessary to help ensure that the size and capacity of the fishing fleet was not allowed to expand further (Moray Firth Partnership, 2002). There are several examples of Orders made under this Act that are targeted specifically at fishing for salmon but which have the additional advantage of probably reducing by-catches of other fish, birds and marine mammals. Examples of these include the Salmon and Migratory Trout (restriction on Landing) Order 1972 as amended and the Salmon and Migratory Trout (Enforcement Order) 1973.

Scotland

Inshore Fishing (Scotland) Act 1984

The Inshore Fishing (Scotland) Act 1984 provides general powers to prohibit sea fishing in specified areas, for all or specified species of fish and by any specified method of fishing. The Act operates out to 6 miles from land. This Scottish Act was recently amended in 1994 in response to difficulties that had arisen in controlling cockle fishing. It was possible to control boat-based dredging using the Act, but not tractor-drawn dredges. These were not covered by the Act as they were not “vessels”. The amendment allowed for the control of fishing “from or by means of any vehicle or any vehicle of a specified description” and “fishing by means of a specified description of equipment”. Specific prohibitions relating to the closed season etc are made under the Inshore Fishing (Prohibition of Fishing and Fishing Methods) (Scotland) Order 1989 and are reviewed on a triennial basis, with the latest review due for completion in 2003. The Minister does however have powers to introduce Orders relating to inshore fisheries outwith the triennial review process.

Again there are Orders in force that affect not only salmon, but also provide indirect protection for other marine wildlife. Example include the Inshore Fishing (Salmon and Migratory Trout) (Prohibition of Gil nets) (Scotland) Order 1986 and the Inshore Fishing (Monofilament Gill Nets) (Scotland) Order 1996 both made under the 1984 Act.
The Environment Act (1995) has further amended the Inshore Fishing Act so that it now has powers to restrict fishing for “marine environmental purposes”. Previously the various Sea Fisheries Acts could only be used for the management of fisheries and fishery ministers were not allowed to use their powers for any other purpose.

**SALMON AND FRESHWATER FISHERIES (PROTECTION) (SCOTLAND) ACT 1951**

Under the provisions of this Act, salmon and freshwater fisheries legislation extends into inshore waters. The methods of fishing for salmon outside estuary limits are restricted to rod and line, net and cable, and fixed engine. The netting methods have been defined in the Salmon (Definition of Methods of Net Fishing and Construction of Nets) (Scotland) Regulations 1992 (as amended by SI 1993 No. 257 (S.20) and SI 1994 No. 111 (S.4). As the materials, dimensions, and modes of operation have been defined, they act to regulate fishing for salmon, and will also have an effect on other wildlife by reducing by-catches.

**Northern Ireland**

**THE FOYLE FISHERIES ACT (NORTHERN IRELAND) 1952**

The Foyle Fisheries Commission is a statutory body formed jointly in 1952 by the Dublin and Stormont Governments to co-ordinate the management and protection of fisheries in the Foyle Area. The Commission was established under the Foyle Fisheries Act (Northern Ireland) 1952 and a parallel Act in the Republic of Ireland. The Foyle Fisheries Acts also make provision for an Advisory Council for the Foyle Area which is representative of the various salmon fishing interests. The functions of the Advisory Council are "to watch over the interests of the holders of fishing licences and the occupiers of fisheries in the Foyle Area, to make such suggestions and representations as it thinks proper to the Commission in relation to any of the Commission's functions and to advise the Commission upon any matter referred to it by the Commission" (Secretary of State, 1999). Angling was also empowered to the Foyle Fisheries Commission under the Foyle Fisheries Act (Northern Ireland) 1952, to make regulations for the conservation and protection of all species of fish.

**FISHERIES ACT (NORTHERN IRELAND) 1966**

Since 1966, the Fisheries Act (Northern Ireland) has been amended several times to take account of new fishing regimes and environmental demands on inshore fishing. The principal amendments of the Fisheries (Amendment) Act (Northern Ireland) 1999 were to extend the powers of the Department of Agriculture to secure the development of derelict waters for angling (Article 4). It also gives powers to enable the Fisheries Conservancy Board to restore the fish population of polluted waters in certain circumstances (Article 11) and to facilitate the passage of fish past obstructions and hazards (such as dams and mill sluices) in waterways (Articles 13, 15 and 16).

The Fisheries (Amendment) Act (Northern Ireland) 2001 is the most recent Act to make amendments to the Fisheries Act (Northern Ireland) 1966. Section 3 of the Act removes the prohibition on trading in farmed salmon roe while retaining the protection for wild stocks. It also makes it an offence to remove material from the bed of a river without the prior consent of the Fisheries Conservancy Board (FCB). Section 5 extends the byelaw making powers of the FCB to enable the Board to make byelaws for any aspect relating to the management and protection of fisheries. Section 7 empowers the FCB to carry out reinstatement works in waters affected by pollution and to recover the cost of such works from the convicted polluter.
6.3 Shellfisheries

**SEA FISHERIES (SHELLFISH) ACT 1967**

The Sea Fisheries (Shellfish) Act 1967 also makes provisions for salmon and fresh water fisheries. Section 1 of the Act empowers the Secretary of State for Environment, Food and Rural Affairs (or the National Assembly for Wales) to make orders conferring for up to 60 years the right of ‘several fishery’ for shellfish or the right of ‘regulating’ a fishery. These Orders are of potential significance in the sustainable management of shellfish stocks. The Sea Fisheries (Shellfish) (Amendment) Act 1997 added lobsters and other crustaceans specified in regulations to the list of molluscs (i.e. oysters, mussels, cockles, clams, scallops and queens) for which several or regulating orders may be made.

Regulating and Several Orders under the Sea Fisheries (Shellfish) Act 1967 provide the opportunity for comprehensive management of areas like the Wash and Thames Estuary. Several Orders give exclusive rights to an individual or company to take named species of shellfish within a defined area, and may protect shellfish from harm caused by other activities (e.g. bait collection). Regulating Orders enable a Local Authority or other suitable body to regulate a fishery, usually by licensing fishermen. Regulating Orders in particular are of potential significance for the sustainable management of shellfish stocks, permitting the grantee to introduce a comprehensive management plan for the conservation of shellfish stocks through the implementation of restrictive licensing, catch limits etc which are not available under the provisions of the Sea Fisheries Regulation Act 1966. The provisions of the 1967 Act have been widely used in England and Wales but to date only one Regulating Order has been issued in Scotland for the Shetland Islands (Symes, pers comm. 2003).

Crabs were specified for this purpose in England by the Shellfish (Specification of Crustaceans) Regulations 2001, and in Wales by the Shellfish (Specification of Crustaceans) (Wales) Regulations 2002. In Scotland crabs, whelks and razorshells have been included by the Shellfish (Specification of Molluscs and Crustaceans) (Scotland) Regulations 1999 (Gibson, 2002).

6.4 Byelaws

Byelaws form the most important and widely used instrument for the regulation of inshore fisheries. SFCs have the powers to limit fishing effort, implement with respect to local conditions the national regulations and they can implement zoning schemes to solve fishing conflicts. Their main use is in the regulation of local shellfisheries. Conservation of fish has generally been for the purpose of preserving fish stocks although byelaws may be made under section 5a of the Sea Fisheries Regulation Act 1966, section 5a of the Sea Fish (Conservation Act) 1967 and section 2a of the Inshore Fishing (Scotland) Act 1984 for marine environmental purposes. These purposes include that of “conserving flora or fauna which are dependent on, or associated with, a marine or coastal environment”. Thus although they may usually be made for plants or birds, such byelaws could prevent fishing of certain species.

6.5 Closed Areas & No-Take Zones

Limiting access to certain grounds is amongst the oldest and most widely practised fisheries conservation measure, and it continues to be adopted in the CFP. All of the Sea Fisheries Committees enforce restrictions on the size and power of vessels which may trawl within their area of jurisdiction although this discriminates in favour of smaller vessels to the disadvantage of the larger ones. However, it does limit the total fishing effort that is expended in the coastal waters (Amos, 1994).
Closed areas are an important element of EC Community Regulation with Commission Regulation (EC) No 850/98 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms (as amended) and Commission Regulation (EC) No 2056/2001 establishing additional technical measures for the recovery of stocks of cod in the North Sea and to the West of Scotland. These are implemented to protect juvenile fish and spawning adult fish, by allowing for certain technical measures for the conservation of fishery resources. All closed areas established within Community regulations are firmly based on scientific advice (Svelle et al., 1997). Examples of closed areas include the plaice box in the south-eastern North Sea and the Norway pout box where nets should have a mesh size of less than 100mm. In the UK a system of 34 nursery areas have been designated for the protection of juvenile bass under national legislation. The UK also has a system of closed areas for salmon and sea trout species with regulations implying a total or partial prohibition on fishing in defined areas for specific time periods.


Devon Sea Fisheries (DSF) Committee in partnership with English Nature, has agreed to make a byelaw to create a ‘No Take Zone’ (NTZ), which will ban all forms of fishing for a two-mile area, on the eastern side of Lundy Island where rare species can be found. The zone will mean no living natural resources, including lobsters, crabs and fish, can be taken from the area (NFSA, 2002).

Rogers (1997) reviews other UK legislation which has the effect of creating closed areas. Exclusion zones are created around military ports and artillery ranges. Ports occupied by the Royal Navy often exclude fishing activity with examples including areas of the Firth of Forth, the Clyde and Rosneath Point. Areas around Historic Wrecks are protected from fishing under the Protection of Wrecks act 1973, and the areas are marked on Admiralty Charts. The other important piece of legislation which provides a form of closed area to fisheries is around oil and gas installations. The Secretary of State has powers under section 21-24 of the Petroleum Act 1987 to designate “safety zones” up to 500m around every installation within tidal waters and parts of the sea in or adjacent to the UK, up to the seaward limit of the territorial sea and waters designated under the Continental Shelf Act 1964. Additional areas posing restrictions to fisheries include areas of aggregate extraction whereby fishing activity is temporarily prohibited during the licensed period.
Table 5  Key Legislation for Sea Fisheries  (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>European &amp; International Legislation</th>
<th>England &amp; Wales Legislation</th>
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<tbody>
<tr>
<td>UNCLOS</td>
<td>•  Sea Fisheries Regulation Act 1966</td>
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<td></td>
<td>•  Sea Fish (Conservation) Act 1967 Amended by:</td>
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<td></td>
<td>•  Sea Fisheries (Wildlife Conservation) Act 1992</td>
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<tr>
<td>European Union Document No. 2341/2002 of 20th December 2002, a Council Regulation fixing for 2003 the fishing opportunities and associated conditions for certain fish stocks, applicable in Community waters and, for Community vessels, in waters where catch limitations are required</td>
<td>•  Salmon and Freshwater Fisheries Act 1975</td>
</tr>
<tr>
<td>Commission Regulation (EC) No 850/98 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms (as amended)</td>
<td>•  Fishery Limits Act 1981</td>
</tr>
<tr>
<td>Commission Regulation (EC) No 2056/2001 establishing additional technical measures for the recovery of stocks of cod in the North Sea and to the West of Scotland)</td>
<td>•  Fisheries Act 1981</td>
</tr>
<tr>
<td></td>
<td>•  Conservation (Natural Habitats &amp;c.) Regulations 1994</td>
</tr>
<tr>
<td></td>
<td>•  The Environment Act 1995</td>
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<tr>
<td></td>
<td>Various Sea Fisheries Regulating and Several Orders &amp; byelaws</td>
</tr>
<tr>
<td>Enacting Legislation in Northern Ireland</td>
<td>As above</td>
</tr>
<tr>
<td></td>
<td>•  Foyle Fisheries Act (NI) 1952</td>
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<td></td>
<td>•  Foyle Area (Close Season) Regulations 1999</td>
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<tr>
<td>European and International Legislation</td>
<td>Enacting Legislation in Scotland</td>
</tr>
<tr>
<td>As above</td>
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<tr>
<td></td>
<td>•  Inshore Fishing (Scotland) Act 1984 (regulates up to 6nm)</td>
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<tr>
<td>European and International Legislation</td>
<td>Enacting Legislation in Scotland</td>
</tr>
<tr>
<td>As above</td>
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<tr>
<td></td>
<td>•  Inshore Fishing (Prohibition of Fishing and Fishing Methods) (Scotland) Order 1989</td>
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<tr>
<td></td>
<td>•  Salmon and Freshwater Fisheries (Protection) (Scotland) Act 1951</td>
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<tr>
<td></td>
<td>Various Sea Fisheries Acts &amp; byelaws</td>
</tr>
</tbody>
</table>
7. MARICULTURE

Mariculture is the cultivation of marine species in coastal waters. In the UK the administrative responsibility for aquaculture rests with CEFAS under the Department for Environment, Food and Rural Affairs (Defra), the Scottish Executive for Environment and Rural Affairs (SEERAD) for Scotland, the Welsh Office Agricultural Department, and the Department of Agriculture and Rural Development (DARD) for Northern Ireland. The legislation varies between different parts of the country and distinguishes between finfish farming and shellfish farming. The ownership of the foreshore and seabed enables the Crown Estate to grant leases for fish farming development following consultation with a number of bodies which include the relevant government department, the statutory conservation agencies, environmental protection agencies, the relevant local authority and general public. All discharges from fish farms are subject to regulations under the Control of Pollution Act 1974, although there are reciprocal arrangements under the Food and Environment Protection Act 1985, and disease control is under the Diseases of Fish Acts 1937 and 1983. The environmental management of aquaculture is undertaken by many pieces of European and national legislation with Table 6 showing all the legislation relevant to mariculture within the UK.

7.1 Fish & Shellfish Health

DISEASES OF FISH ACT 1937 (AMENDED BY THE DISEASES OF FISH ACT 1983)

The Diseases of Fish Act 1937 of Great Britain is almost certainly the longest-standing example of national legislation specifically devised to control fish diseases. It was introduced in response to several outbreaks of furunculosis disease in wild salmon and other fish species in the rivers of England, Wales and Scotland, which were attributed to the importation of infected live rainbow trout from Germany. The Act prohibited the importation of live salmonids into Great Britain, and made it illegal to import salmonid ova and all live freshwater fish species without a licence (Hill, 1996).

This Act controls the import into Great Britain, from non-EU countries, of live fish of the salmon family, freshwater fish and eggs of these species. This is to prevent the spreading of disease among native salmon and freshwater fish. Section 1 gives the power to grant licences to import live freshwater fish or live fish eggs of the salmon family or freshwater fish. Sections 2, 2A and 2B provide the power to designate inland or marine waters as infected waters and to serve notices and to require removal of fish. Section 3 provides the power to undertake investigations to infected waters with the authorisation to serve notices in relation to infected marine waters is given in Section 5. Section 6 provides powers for those appointed as Inspectors under this Act to take samples of any fish, eggs of fish or fish feed for testing purposes. Where the presence of disease is suspected, a 30-day notice may be placed on the site, and movements of live fish, eggs of fish and fish feed either to or from the site may be controlled for the period of time covered by the notice. Where the presence of disease is suspected or confirmed, a Designated Area Order (DAO) may be made under Section 2 of the Act, and placed on the site (CEFAS, 2003).

4 However, in November 1998 the Crown Estate welcomed the introduction of interim arrangements involving partial transfer of the regulatory role to local authorities. The relevant local authority now makes recommendations to the Crown Estate as to whether or not a lease should be granted for modification applications. In Scotland, the full transfer of the regulatory role awaits legislation from the Scottish Parliament (Crown Estate, 2001).
7.2 Environmental Impact Assessment & Planning Control

**EIA (FISH FARMING IN MARINE WATERS) REGULATIONS 1999**

The EC Directive on Environmental Assessment (85/337/EC) as amended by Directive 97/11/EC seeks to ensure that where a development is likely to have significant effects on the environment, the potential effects are systematically addressed in a formal environmental statement. The Environmental Impact Assessment (Fish Farming in Marine Waters) Regulations 1999 bring the amended Directive into force and supersede the Environmental Assessment (Salmon Farming in Marine Waters) Regulations 1988. An EIA now applies to all marine fish farm developments but not marine shellfish farming. Marine fish farming falls within the types of projects listed in Annex II to the Directive, such developments must therefore, be subject to EIA whenever they are likely to have significant effects on the environment. These regulations apply to England, Wales and Scotland. EIA for fish farming in Northern Ireland is administered through the Environmental Impact Assessment (Fish Farming to Marine Waters) Regulations (Northern Ireland) 1999.

The Regulations apply to applications regarding fish farming in marine waters, where any part of the proposed development is in a sensitive area, or the proposed development is designed to hold a biomass of 100 tonnes or greater, or will extend to 0.1 hectare or more of the surface area. This includes changes or extensions to existing developments that may have significant adverse effects on the environment even where the original development was not subject to EIA. The Regulations also apply to renewal of existing leases (SI 1999/367). Regulation 3 provides that the relevant authority shall not grant consent for fish farming in marine waters where the project is likely to have significant effects on the environment, without taking into consideration environmental information in respect of the proposed project. Essentially this means that virtually all new fish farming applications require to be subjected to the Regulations and, as a result, a number will be supported by an environmental impact assessment (Crown Estate, 2001).

**Scotland**

**WATER ENVIRONMENT AND WATER SERVICES (SCOTLAND) ACT 2003**

This Act introduces planning controls over marine fish farming in transitional water and coastal water in Scotland. This is achieved largely through amendments to the Town and Country Planning (Scotland) Act 1997 ("the 1997 Act") The definition of ‘development’ in section 26(6) of the 1997 Act is amended to include fish farming in coastal water and transitional water as defined in the Act. Fish farms within the 3-mile limit of UK territorial waters adjacent to Scotland will require planning permission (however this will not come into force until 2005). Fish farming in inland waters is already subject to planning control under the 1997 Act. In addition, the Act provides for amendment to section 40 of the 1997 Act with regard to both marine and freshwater fish farms. The extension of planning controls is in respect of marine fish farming only and does not apply to any other offshore developments, and does not extend the general planning jurisdictions of local authorities.

7.3 Pollution Control

**CONTROL OF POLLUTION ACT 1974 AMENDED BY WATER RESOURCES ACT 1991**

The Environment Agency in England and Wales, SEPA in Scotland and the Department of Culture, Arts and Leisure in Northern Ireland has a duty to control discharges to surface waters and groundwaters, including tidal waters out to the three-mile limit. This is carried out by a legally-binding consent to discharge under the Control of Pollution Act 1974. For aquaculture, discharges
are from a range of premises such as hatcheries discharging into fresh and salt water, and cage sites in lochs and the sea. Under the Control of Pollution Act 1974, consent is required for the discharge of effluent from marine fish farms to coastal waters from the regulatory bodies (section 34). Regulatory bodies can attach reasonable conditions to a consent issued under this section relating to non-natural waste from aquaculture.

COPA 1974 was amended and consolidated by the Water Resources Act 1991. A consent is required in order to discharge any trade or sewage effluent into controlled waters. It is an offence under the Water Resources Act 1991 to ‘cause or knowingly permit’ such a discharge (Section 85). Controlled waters are defined as waters which extend seaward for three miles from the baselines from which the breadth of the territorial sea adjacent to England and Wales is measured and include coastal waters, inland waters and groundwaters (Section 104).

### 7.4 Impending Legislation

**WATER FRAMEWORK DIRECTIVE**

In the context of aquaculture, The Freshwater Fish Water Directive, the Shellfish Water Directive and the Dangerous Substances Directive will be integrated into the Water Framework Directive and repealed by the 31st December 2007 when all the obligations established under these Directives will be put into a more coherent framework covering all waters. In regulating marine cage fish farming, competent authorities in the UK will be required to ensure the areas comply with the Dangerous Substances Directive and the Shellfish Directive throughout coastal and territorial waters by ensuring that both Environmental Quality Standards (EQS) and a BATNEEC-based (Best Available Technology Not Entailing Excessive Cost) approach are utilised. The setting of EQSs as required by the Water Framework Directive, combined with the control of pollution at source, will provide stricter regulation of mariculture activities (Read *et al.*, 2001).
<table>
<thead>
<tr>
<th>European Legislation</th>
<th>Provisions</th>
</tr>
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<tbody>
<tr>
<td>EC Freshwater Fish Directive (78/659/EEC)</td>
<td>Provides for the protection and improvement of fresh waters to support fish life. It sets water quality standards and monitoring requirements and requires the designation of appropriate rivers and lakes into two categories of water: those suitable for salmonids (i.e. mainly salmon and trout but also grayling) and those suitable for cyprinids (including carp, tench, bream, roach, chub and minnows).</td>
</tr>
<tr>
<td>Shellfish Hygiene Directive (91/492/EEC)</td>
<td>Lays down the health conditions for the production and placing on the market of live bivalve molluscs.</td>
</tr>
<tr>
<td>Shellfish Waters Directive (79/923/EEC)</td>
<td>The Shellfish Waters Directive requires Member States to designate shellfish waters which they consider require protection or improvement. The Directive lays down Imperative (I) values for certain parameters of water quality which must be attained in designated waters. It also sets Guideline (G) values which Member States must &quot;endeavour to observe&quot; in establishing programmes for improvement of designated waters.</td>
</tr>
<tr>
<td>Environmental Impact Assessment Directive (97/11/EC)</td>
<td>Seeks to ensure that where a development is likely to have significant effects on the environment the potential effects are systematically addressed in a formal environmental statement. Marine fish farming falls within the types of projects listed in Annex II to the Directive, such developments must therefore, be subject to EIA whenever they are likely to have significant effects on the environment.</td>
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<table>
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<tr>
<th>UK Legislation for Fin Fish</th>
<th>Provisions</th>
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</thead>
</table>
| Diseases of Fish Act 1937 and 1983                       | This Act totally prohibited the importation of live salmonids into Great Britain, and made it illegal to import salmonid ova and all live freshwater fish species without a licence  
Section 1 gives the power to grant licences to import live freshwater fish or live fish eggs of the salmon family or freshwater fish.  
Sections 2, 2A and 2B provide the power to designate inland or marine waters as infected waters and to serve notices and to require removal of fish.  
Section 3 provides the power to undertake investigations to infected waters with the authorisation to serve notices in relation to infected marine waters as given in Section 5. |

<table>
<thead>
<tr>
<th>UK Legislation for Shell Fish</th>
<th>Provisions</th>
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</table>
| Sea Fisheries (Shellfish) Act 1967                       | Section 1 - to make orders conferring for up to 60 years the right of `several fishery’ for shellfish or the right of ‘regulating’ a fishery.  
Section 7 - an offence to interfere with a shellfish bed to which a "several" order applies or with a private oyster bed.  
Section 17(1) - an offence for any person to take, have in his possession, sell, expose for sale, buy for sale or consign to any person for the purpose of sale any edible crab carrying any spawn attached to the tail or other exterior part of the crab, or any edible crab which has recently cast its shell. |
| Scotland                                                 |                                                                                                                                                                                                                                                                                                                                           |
| Sea Fisheries (Shellfish) Amendment (Scotland) Act 2000  |                                                                                                                                                                                                                                                                                                                                           |
Amendments have added lobsters and other crustaceans specified in regulations to the list of molluscs (i.e. oysters, mussels, cockles, clams, scallops and queens) for which several or regulating orders may be made.

<table>
<thead>
<tr>
<th>UK Legislation - control of development</th>
<th>Provisions</th>
</tr>
</thead>
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<tr>
<td><strong>SI 1999/367 EIA (Fish Farming in Marine Waters) Regulations 1999</strong></td>
<td>The Regulations apply to applications as regards fish farming in marine waters, where any part of the proposed development is in a sensitive area, or the proposed development is designed to hold a biomass of 100 tonnes or greater, or will extend to 0.1 hectare or more of the surface area. This includes changes or extensions to existing developments that may have significant adverse effects on the environment even where the original development was not subject to EIA. EIA applies to all marine fish farm developments but not marine shellfish farming.</td>
</tr>
<tr>
<td><strong>Northern Ireland</strong></td>
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<tr>
<td><strong>SR 1999/415 Environmental Impact Assessment (Fish Farming to Marine Waters) Regulations (Northern Ireland) 1999</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Scotland</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Town and Country Planning (Scotland) Act 1997</strong></td>
<td>Section 24 of the WEWS 2003 (which will not be brought into force until 2005) will introduce various amendments to the Town and Country Planning (Scotland) Act 1997 and will provide powers for the Scottish Ministers to make statutory instruments in connection with the extension of planning controls to marine fish farms up to the three-mile limit.</td>
</tr>
<tr>
<td><strong>Water Environment and Water Services (Scotland) Act 2003 (WEWS)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Coast Protection Act 1949</strong></td>
<td>Section 34 - Consent needed under this Act for establishing mariculture establishments in tidal waters where they may affect navigation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UK Legislation - control of pollution</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control of Pollution Act 1974</strong></td>
<td>Section 34 - Consent is required for the discharge of effluent from marine fish farms to coastal waters from the regulatory bodies.</td>
</tr>
<tr>
<td>Amended by:</td>
<td></td>
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<tr>
<td><strong>The Water Resources Act 1991</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Scotland</strong></td>
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<tr>
<td><strong>Water Environment and Water Services (Scotland) Act 2003</strong></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Impending Legislation</th>
<th>Provisions</th>
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</table>
8. SHIPPING & NAVIGATION

Shipping legislation covers a broad range of areas but the largest and one of greatest concern is pollution. Three of the world’s largest oil pollution incidents have occurred within British Waters – the Torrey Canyon (1967), the Braer (1993) and the Sea Empress (1996). Like other offshore activities, shipping can contribute to marine pollution in three main ways: normal operational pollution, pollution caused by accidents and illegal pollution. Following the grounding of the Braer in the Shetland Islands, the Government appointed an Inquiry led by Lord Donaldson, to consider what further measures could be taken to protect the UK coastline from pollution from merchant shipping. The Inquiry’s report Safer Ships, Cleaner Seas was published in May 1994, and has been widely welcomed both in the UK and internationally (Holgate-Pollard, 1996). 103 recommendations were proposed by Lord Donaldson of which to date, 93 have been accepted by the Government and either implemented through the Merchant Shipping and Maritime Security Act 1997 or through the International Maritime Organisation (IMO) (Read et al., 2000). Shipping is an international industry, and the only effective way to address shipping related issues is through a standardised international system. This has been one of the main features of the success of IMO in its more than 50 year history (IMO, 2003). A list of shipping and navigation legislation relevant to the UK can be seen in Table 7. The proposed EC Directive on Liability for Environmental Damage has also been published to tackle problems in the wake of the Erika oil spill off Brittany in 1999.

8.1 Control of Shipping & Pollution

THE MERCHANT SHIPPING AND MARITIME SECURITY ACT 1997

The primary piece of legislation governing the control of oil pollution from ships is the Prevention of Oil Pollution Act 1971. This Act has since been supplemented and amended by the Merchant Shipping (Prevention of Pollution) Order 1983, made under section 20 of the Merchant Shipping Act 1979, together with the Merchant Shipping (Prevention of Pollution) (Intervention) Order 1980, the Merchant Shipping Act 1974 and the Merchant Shipping Act 1995 which was recently amended by the Merchant Shipping and Maritime Security Act 1997. These provide the statutory framework for the United Kingdom law designed to prevent oil pollution and aid shipping safety (Abecassis & Jarashow, 1985).

The Merchant Shipping and Maritime Security Act 1997 provides stricter controls over marine pollution and onshore disposal of ships’ waste. However many of the Act’s provisions will require further regulations to bring them into effect. The Act’s main provisions have extended the Government’s powers to intervene in shipping incidents which may cause pollution and has enabled it to introduce regulations on the provision and use of reception facilities for ship’s waste (ENDS, 1997).

The 1997 Act amends the Merchant Shipping Act 1995, extending the powers of:

- fire authorities to use fire brigades and equipment at sea;
- to make further provision about the protection of wrecks;
- to amend Part III of the Aviation and Maritime Security Act 1990;
- to make provision about piracy;
• to provide for the continuing application to the International Oil Pollution Compensation Fund of section 1 of the International Organisations Act 1968;

• to make provision about the International Tribunal for the Law of the Sea.

The first part of the Act, sections 1 to 4, extend the powers of the Secretary of State for Transport to deal with emergencies at sea. This includes the provision for temporary exclusion zones around shipping casualties. The exclusion zones can be applied by the Secretary of State where a ship or other structure is in UK waters and is wrecked, damaged or in distress. Temporary exclusion zones can be designated if significant harm will or may occur as a direct or indirect result of the relevant casualty and that significant harm, or the risk of such harm, would be prevented or reduced (s1.100(A2)). Section 137 of the 1995 Act gives powers to the Secretary of State to give directions and take other action where a shipping accident threatens pollution on a large scale in the United Kingdom or in United Kingdom waters. This is amended by section 2 of the 1997 Act to allow wider powers of intervention to the Secretary of State in relation to pollution incidents (Read et al., 2000).

Sections 5 to 12 of the 1997 Act allow greater provisions for pollution control and marine safety. These specify 18 measures to tackle deliberate discharges of waste from ships including a fivefold increase in maximum fines for pollution offences. Section 7 (1) repeals section 131(3)(a) of the 1995 Act by replacing the fine of "£50,000" with "£250,000". Section 144(4)(c)(i) and (ii) of the 1995 Act regarding the security for the release of a ship in case where a pollution offence is suspected has also been increased from "£55,000" to "£255,000". These higher limits applied from May 1996.

Other issues amended or included with this are indemnities in connection with counter-pollution measures; greater powers for the inspection and detention of ships; power to require ships to be moved if they pose a threat to safety or pollution; powers to prescribe safety standards for ships receiving trans-shipped fish; and the preparation of plans under International Convention on Oil Pollution Preparedness, Response and Co-operation.

Funding of maritime services is dealt with in section 13. A new section on the Liability and compensation of the Carriage of hazardous and noxious substances is to be added to the 1995 Act. This is to be inserted as Chapter V before Part VI of the 1995 Act (prevention of pollution).

MERCHANT SHIPPING (OIL POLLUTION PREPAREDNESS RESPONSE AND CO-OPERATION CONVENTION) REGULATIONS 1998

Many UK ports and harbours are currently developing or revising their oil pollution emergency or contingency plans according to the requirements of the Merchant Shipping (Oil Pollution Preparedness and Response Convention) Regulations 1998. The Maritime and Coastguard Agency and DTI have produced detailed guidelines for ports, harbours and oil handling facilities in developing the new oil spill contingency plans (Stone, undated).

Oil spill contingency plans represent a preconceived plan of action to follow in the event of an oil spill to assist in providing the immediate response. Oil contingency plans should be compatible with the national contingency plan for marine pollution from shipping and the offshore industry with the plans constructed with the approval of the various government departments, environment and countryside agencies.
MERCHANT SHIPPING (PORT WASTE RECEPTION FACILITIES) REGULATION 1997

The Merchant Shipping (Port Waste Reception Facilities) Regulation 1997 allows controls to be more effective through improving regulations and their enforcement. It also improves the facilities for the legal disposal of wastes in ports and increase the penalties for illegal discharge. The Regulations require ports, harbours, terminals, installations, marinas, piers and jetties in the UK to produce a report to the Government on how they plan their port reception facilities for ship generated waste. A waste management strategy is a systematic approach that outlines how and by whom waste is managed. It outlines the practical action, such as collection, transport and disposal and the legislative controls that ensure that these actions are carried out. A total waste management strategy incorporates handling of both ship generated wastes, which are received in a port, and land generated waste, either from domestic or industrial origin (IMO, 1995). The production of a waste management plan requires that each type of waste generated by ships is considered separately, according to the relevant regulations (ABP Research, 1999).


THE PILOTAGE ACT 1987

The Pilotage Act 1987 transfers local responsibility for pilotage from separate pilotage authorities to "competent harbour authorities" which means any harbour authority which has statutory powers in relation to the regulation of shipping movements and the safety of navigation within its harbours (section 1). The authorities have a general duty to consider the need for pilotage services and compulsory pilotage, and to provide such services as they consider necessary (section 2). In places such as estuaries where there are several harbour authorities, they may agree mutually acceptable arrangements, subject to the approval of the Secretary of State for Transport (sections 11-13).

Following the Sea Empress oil spill, the then Department of the Environment, Transport and the Regions undertook a review of the arrangements for harbour pilotage in 1997. Its report, *Review of the Pilotage Act 1987* (DETR, 1998b) concluded that harbour authorities should retain responsibility for pilotage, which should be integrated with their other functions relating to port safety. Other recommendations included that harbour authorities should review pilotage requirements formally at least every three years, ensuring that they have a proper number of suitably qualified pilots for their needs and that further investigations should be carried out to determine whether all harbour authorities which have pilotage powers should retain them.

8.2 Regulation of Ballast Water Discharge, Anti Fouling & Garbage Measures

BALLAST WATERS

The carriage of ballast water is an essential part of tanker and other freight shipping operations needed for the stability of the vessel. While the ballast water is pumped on board the ship, planktonic organisms from the water column and the sediment are also taken up from the surrounding waters. Although not particularly harmful when taken on board, when the ballast water is finally discharged, the vessel may have travelled across several oceans and hence will redistribute these organisms, now deemed alien, into foreign waters (Elliott, 2003). Since the recognition of this problem there have been many documented accounts in which harmful aquatic species have been introduced and consequently survived in ports, harbours, estuaries and coastal waters (INTERTANKO, 2002).
Legislative developments at an international level have been in process in the UN International Maritime Organisation (IMO) for nearly a decade. The IMO Working Group on Harmful Aquatic organisms have produced ‘Guidelines for the control and management of ships’ ballast water to minimise the transfer of harmful aquatic organisms and pathogens’ (Assembly Resolution A.868(20)). The guidelines are the precursor to mandatory regulations that are now in a draft format. It is hoped that these regulations will form part of a new Convention ‘International Convention for the Control and Management of Ships Ballast Water and Sediments’ which should be ready in 2004.

IMO (2003) states that member countries are working to develop and adopt an international legal regime for ballast water by 2003. One of the activities of the IMO through its GloBallast Programme, is to develop legislation which countries will be able to use to rapidly implement the existing IMO Ballast Water Guidelines (IMO, 1997) and/or the new Ballast Water Convention. However, despite the significant efforts being expended by IMO member countries to develop an international legal instrument, many countries and even sub-national jurisdictions have unilaterally developed or are developing national or local legislation. This includes the port of Scapa Flow in Scotland. The Orkney Islands Council has developed independent legislation for all ships wishing to discharge ballast at Flotta Terminal. These regulations state that ballast from liquefied gas carrying tankers may be discharged into Scapa Flow if it has been taken on board within 24 hours, and at least 12 miles from shore. The master must provide the Harbour Authority with signed advice stating date, time and positions between which ballasting operations were carried out, quantity of ballast and tanks in which it is contained. Ballast samples will be taken by authorities to assess suitability for discharge (INTERTANKO, 2003).

ANTIFOULING

Any deposits in UK controlled waters resulting from the removal of anti-fouling paints from a ship's hull under normal maintenance of a vessel, hovercraft or marine structure (or anywhere at sea if the vessel etc is British-registered) are exempt from the requirements of the Food and Environment Protection Act 1985 (as amended) (FEPA) which licences deposits in the sea, provided certain conditions specified in the Deposits in the Sea (Exemptions) Order 1985 are satisfied. Although Item 12 in the Exemptions Order exempts such maintenance from the need for a licence, paragraph 4 of the Exemptions Order specifically states that the recovery from, or the disposal in, the sea, of waste arising from such maintenance is only permitted if:

"the type and quantity of waste involved, and the method of disposal or recovery, are consistent with the need to attain the objective of ensuring that waste is recovered or disposed of without endangering human health and without using processes or methods which could harm the environment and in particular without - (i) risk to water, air, soil, plants or animals; or (ii) causing nuisance through noise or odours; or (iii) adversely affecting the countryside of places of special interest."

It is unlikely that any maintenance operation that results in the release of residues of anti-fouling paints could be considered to fall under this exemption. If the exemption does not apply, anyone proposing to carry out such an operation would need to apply for a licence under the Food and Environment Protection Act 1985 to carry out the work. A licence will only be issued after taking full account of the impacts of this activity on the marine environment and fisheries in and around the locality where the work will be carried out. Indirect and far-field effects, as well as cumulative impacts would also have to be considered.
Article 5 of the International Convention on the Control of Harmful Anti-Fouling Systems on Ships states that "taking into account international rules, standards and requirements, a Party (e.g. the UK) shall take appropriate measures in its territory to require that wastes from the application or removal of an anti-fouling system are collected, handled, treated and disposed of in a safe and environmentally sound manner to protect human health and the environment."

The EC has implemented a Directive on anti-fouling which came into force on 1 July 2003.

**GARBAGE**

Garbage is controlled under Annex V of the MARPOL Convention enacted in the UK by the Merchant Shipping (Prevention of Pollution by Garbage) Regulations 1998. This legislation prohibits the overboard disposal of garbage and introduces a number of requirements for waste disposal management offshore. It requires the preparation of management plans. Provisions may be allowed for detaining ships suspected of contravening the Regulations and, in relation to such ships, may apply section 284 of the Merchant Shipping Act 1995.

### 8.3 Dredging for Navigation

**COAST PROTECTION ACT 1949**

Section 34 of the Coast Protection Act 1949 (CPA) provides for the restriction and removal of works detrimental to navigation. The purpose of the control under section 34 of the Act is primarily to ensure that works do not endanger navigation. The Act legislates for any person wishing to carry out any of the following:

- the construction, alteration or improvement of any works on, under or over any part of the seashore lying below the level of mean high water springs;
- the deposit of any object or materials below the level of mean high water springs; or
- the removal of any object or materials from the seashore below the level of mean low water spring tides (e.g. the dredging of minerals).

A harbour authority (or other party) is likely to require a CPA consent from the Marine Consents and Environment Unit (MCEU) on behalf of the Department for Transport (DfT) Ports Division both to undertake the dredging and the deposit of the arisings at sea where such activities are outside the provisions of any local harbour powers or where the Secretary of State's consent may also be necessary. Similar consents will be needed from the Scottish Executive or DARD(NI). In all cases where a deposit of articles or materials is made into the sea, a licence will also be required under FEPA from the MCEU on behalf of Defra or the Welsh Assembly Government in England or Wales (via the MCEU); the Scottish Executive (Marine Laboratory, Aberdeen) in Scotland or DoE(NI) in Northern Ireland.

**HARBOUR WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 1999**

Where consent is required for works in a harbour area which is likely to have a significant environmental effect, there has to be an environmental statement. Both navigation and environmental issues will be taken into consideration. A consent to dredge for navigational purposes is subject to the Harbour Works (Environmental Impact Assessment) Regulations 1999. Consideration must be given to the dredging and disposal of material, even though the consent requirement may relate to the
disposal only. Consents may also be subject to the Conservation (Natural Habitats &c) Regulations 1994 (as amended), which provide a framework for sustainable development and special assessments on works which may adversely affect a European site, and may limit the range of development activities that are consented unless there are imperative reasons of over-riding public interest.

There are similar controls on harbour orders in Schedule 3 of the Harbours Act 1964 (as amended). It is even more likely in these cases that an environmental assessment will be required, or that adverse effects on a European site will have to be considered. In Part II, regulation 4 provides for a developer who is minded to make an application relating to harbour works to be able to obtain a prior opinion on the information to be supplied in an environmental statement. Regulations 5 and 6 provide for two different procedures on such an application, depending on whether or not a prior opinion has been obtained. Regulation 7 provides for publication of notices by the developer, and regulation 8 provides for the involvement of other EEA States in transboundary cases.

FEPA CONTROLS ON DISPOSAL OF DREDGED MATERIAL

The disposal of dredged materials at sea can pose a threat to marine life if not properly controlled. A strict control is achieved through a strict licensing system under FEPA. MCEU is responsible for FEPA on behalf of Defra for English waters and the WAG for Welsh waters. It is the licensing authorities' policy that no waste should be disposed of at sea if there is a safe and practicable land-based alternative. Indeed, since the end of 1998 most forms of disposal at sea have been prohibited, the only significant exception being material dredged from ports and harbours. Even this is strictly controlled and only allowed where the material cannot be used beneficially (see below), for example to replenish beaches. Disposal at sea will only be agreed to after rigorous scientific assessment and under strict conditions. In addition to assessing the potential risk to the environment and impact upon others, before granting a licence the licensing authority has a duty to consider what practical alternative disposal options are available, including the beneficial use of dredged materials (MCEU, 2003).

FEPA provides the necessary statutory means to meet the UK’s obligations under both the the OSPAR\(^5\) and London Convention \(^6\) which address the prevention of marine pollution from dumping at sea - the former in the north-east Atlantic; the latter world-wide. The Act is amended by the Waste Management Licensing Regulations 1994 bringing it into line with the provisions of the Waste Framework Directive 91/156. Operations involving the disposal of any material at sea or under the seabed (below MHWS) - including dredged material - will not normally require a waste management licence from the Environment Agency provided they are covered by a FEPA licence or are exempt from such control by virtue of the Disposal at Sea (Exemptions) Order 1985 (as amended) (MCEU, 2003).

In addition to this, other European Directives such as the Environmental Impact Assessment Directive (97/11/EEC), Habitats & Species Directive (92/43/EEC) and the Wild Birds Directive (79/409/EEC) shall be taken into consideration by the appropriate licensing authority. If dredging or disposal is likely to affect the conservation value of a European site, occurring either outside or within such an area, the licensing authority must ensure that an Appropriate Assessment is carried out. Although FEPA embodies the requirement for assessment of environmental impacts and the licensing authority having powers to request such information that it deems necessary, new Regulations are currently in

\(^6\) The Convention for the Protection of the Marine Environment of the North-East Atlantic
preparation to fully transpose the requirements of the EIA Directive. Similarly, the new Regulations will make more transparent the application of the Habitats Directive to FEPA.

The majority of disposal applications under FEPA relate to regular dredging activity within long established ports, at which considerable experience has been accumulated by both the regulatory agencies and the port authorities. This information includes sediment quality characteristics of the areas involved and the impacts of dredging and disposal on the surrounding marine environment. At such long-established sites around the UK coast, the disposal site for which FEPA approval is sought has also been in regular use for a number of years. Conditions at the site hence reflect the steady inflow of material. In such cases, too, the disposal and its environmental impact have frequently been accepted as a normal part of the activity of a port.

The assessment of an application for a new site, for a site which has not been in use for some years, or for a site where some major change in usage is proposed, may require additional study. In these situations, the proposed disposal site has not experienced or had no recent experience of, an input of dredge material. Possibly this may be quite different in characteristics from the naturally occurring sediment, existing at the location or of that material previously deposited. The response of the site and its various forms of marine life to the deposit and the effects of potential movement of the material away from the site to other areas will then require detailed study. In addition, the disposal activity, clearly visible, may in itself generate concern about the environment from an audience who are neither familiar with the activity nor are likely to benefit from it (CEFAS, in press).

With regard to the beneficial use of dredged material, there is a presumption in favour of minimising the disposal of clean dredged materials - especially sands and gravels - in favour of identifying beneficial uses such as beach nourishment, the reclamation of saltmarshes or mud flat enhancement. This also serves to reduce the loss of material from coastal sediment cells. The licensing authority works with licence applicants, nature conservation bodies, coast protection authorities, the Environment Agency and others, to identify potential schemes to utilise dredged material in a practical, beneficial and appropriate manner. It may also be appropriate for suitable material to be 'recycled' in such a manner that it can mitigate adverse effects of the excavation of the material or to offset natural effects upon habitats (MCEU, 2003).

Other Legislation affecting dredging and the disposal of dredged material.

In addition to this, other European Directives such as the Environmental Impact Assessment Directive (97/11/EEC), Habitats & Species Directive (92/43/EEC) and the Wild Birds Directive (79/409/EEC) shall be taken into consideration by the appropriate licensing authority. If dredging or disposal is likely to affect the conservation value of a European site, occurring either outside or within such an area, the licensing authority must ensure that an Appropriate Assessment is carried out. Although FEPA embodies the requirement for assessment of environmental impacts and the licensing authority having powers to request such information that it deems necessary, new Regulations are currently in preparation to fully transpose the requirements of the EIA Directive. Similarly, the new Regulations will make more transparent the application of the Habitats Directive to FEPA.

In locations where dredging is not specifically authorised under a local harbour act, dredging and dredging disposal has to be approved by the Department for Transport under the Coast Protection Act 1949 and sections of the Merchant Shipping Act. When considering applications for approval the Department may wish to enforce the requirements of Statutory Instrument No 424, Harbours, Docks and Piers and Ferries - The Harbour Works (Assessment of Environmental Effects No 2) Regulations 1989. A requirement for monitoring may then follow.
A recent review of FEPA dump sites in relation to their proximity and impact on European Marine Sites has been undertaken by CEFAS.

### 8.4 Proposed Legislation

**ENVIRONMENTAL LIABILITY DIRECTIVE (PROPOSED)**

A proposal for a Directive on Environmental Liability with regard to the prevention and restoration of environmental damage COM (2002) was published by the European Commission on 23rd January 2002. This is in response to a number of major oil spills from tankers within Europe. Key features of the proposed Directive include that a framework should be established whereby environmental damage will be prevented and restored. Member States may adopt more stringent provisions if they wish. Environmental damage is widely defined to include water pollution, land contamination which poses a threat to human health and biodiversity damage of Community and nationally protected sites. The regime is based on ‘the polluter pays’ principle so that the person causing the damage is liable for its clean up. Where there is a threat of environmental damage occurring, the competent authority of the member state must require the operator to take the necessary preventative measures. Where environmental damage has already occurred, the competent authority must require the operator to restore the damage and recover the costs (Freshfields Bruckhaus Deringer, 2002).

### Table 7 UK Legislation for Shipping & Navigation (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>International Legislation</th>
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<tbody>
<tr>
<td>International Convention on Oil Pollution Preparedness, Response and Co-operation</td>
</tr>
<tr>
<td><strong>MARPOL Convention 1973 - International Convention for the Prevention of Pollution from Ships</strong></td>
</tr>
<tr>
<td>Annex I - Oil discharge; Annex II - Noxious liquid substances by bulk; Annex III - Harmful substances carried by sea; Annex IV - Sewage; Annex V - Garbage; Annex VI - Air emissions</td>
</tr>
<tr>
<td>Contributes to the international control and prevention of marine pollution. It prohibits the dumping of certain hazardous materials, requires a prior special permit for the dumping of a number of other identified materials and a prior general permit for other wastes or matter.</td>
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</tbody>
</table>

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<tr>
<th>European and Regional Seas Legislation</th>
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<tr>
<td><strong>Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention).</strong></td>
</tr>
<tr>
<td>Contributes to control and prevention of marine pollution within the waters of the North East Atlantic (which include all UK waters), as well as scientific cooperation in assessing the quality of NE Atlantic waters. It prohibits the dumping of all wastes or other matter except for certain specified wastes which include dredged material. No specified waste can be dumped without authorisation or regulation by a competent authority and must be recorded.</td>
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Regulation (EC) No 2099/2002 of the European Parliament and of the Council of 5 November 2002 establishing a Committee on Safe Seas and the Prevention of Pollution from Ships (COSS) and amending the Regulations on maritime safety and the prevention of pollution from ships


EC Directive on anti-fouling in force July 2003

**UK Legislation**

**Enacting MARPOL:**

**Merchant Shipping Act 1995**

Amended by:

**The Merchant Shipping and Maritime Security Act 1997** (of which there are 35 statutory instruments pertaining to this Act in the UK law)

Including:

- SI 2002/1473 Merchant Shipping (Safety of Navigation) Regulations 2002
- SI 1998/1500 Merchant Shipping (Control of Pollution) (SOLAS) Order 1998

**Pilotage Act 1987**

Section 1 - The Pilotage Act 1987 transfers local responsibility for pilotage from separate pilotage authorities to "competent harbour authorities" i.e. any harbour authority which has statutory powers in relation to the regulation of shipping movements and the safety of navigation within its harbours.

**S.I. 1999/3445 Harbour Works (Assessment of Environmental Effects) Regulations 1999**

Where consent is required for works in a harbour area which is likely to have a significant environmental effect, there has to be an environmental statement. Both navigation and environmental issues will be taken into consideration.

**Coast Protection Act 1949**

Section 34 of the Coast Protection Act 1949 provides for the restriction and removal of works detrimental to navigation. The purpose is primarily to ensure that works do not endanger navigation.

**Food and Environment Protection Act 1985**

This legislation controls the deposit of articles and materials in the sea, and also controls incineration at sea. Licenses are only granted for the disposal of dredged material and the disposal of waste from onshore fish processing which has been assessed as suitable for dumping. All other waste disposal (apart from garbage generated on board ships or fishing vessels) is usually prohibited by FEPA.

**Guidelines**

‘Guidelines for the control and management of ships’ ballast water to minimise the transfer of harmful aquatic organisms and pathogens’ (Assembly Resolution A.868(20)).
<table>
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<tr>
<th>Proposed Legislation</th>
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<tbody>
<tr>
<td>Proposal for a Directive on Environmental Liability with regard to the prevention and restoration of environmental damage</td>
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9. MILITARY ACTIVITIES

The Ministry of Defence (MoD) owns a large amount of land along the UK coastline and operates legislation to restrict access and navigation at the coast. Byelaws can be made to restrict access on MoD land and property for operational and safety reasons. As a government department, the MoD is subject to the Habitats Directive and enabling UK legislation, although a proposed development would be in the overriding public interest for defence needs. The MoD have exemptions from legislation such as the Port Waste Regulations, but have a policy of applying them anyway under normal circumstances. The MoD is also exempt from the planning regulations but has an equivalent system provided under Circular 18/84. Table 8 summaries the key legislation governing military activities in the UK.

MILITARY LANDS ACT 1892

The Secretary of State for Defence is empowered by Part II of the Military Lands Act 1892 to make byelaws in relation to land managed by him or belonging to a Reserves Forces and Cadets Association (RFCAs), which is used for naval, army or air force purposes. Such byelaws may be made for regulating the use of the land and securing the public from danger, but may not adversely affect any right of common access (section 14) (Gibson, 2002; P Morrison pers. comm. 2003).

MILITARY LANDS ACT 1900

The above powers were extended by the Military Lands Act 1900, section 2, to apply to sea and tidal water that either abuts on defence land or over which firing takes place from defence land. In addition, the consent of the Secretary of State for Transport is required if the byelaws interfere with public rights of navigation, anchoring, grounding, fishing, bathing, walking or recreation. The consent of the Crown Estate Commissioners must also be obtained in relation to any Crown foreshore or sea bed affected by the byelaws (Gibson, 2002; P Morrison pers. comm. 2003).

The Military Lands Acts of 1892 and 1900 provide powers to exclude access to land owned by the Ministry of Defence for the purposes of military training or national defence, through the making of byelaws. The Countryside and Rights of Way Act 2000 makes provisions for this under “excepted land” defined in this context as “land the use of which is regulated by byelaws under section 14 of the Military Lands Act 1892 or section 2 of the Military Lands Act 1900” (Schedule 1 Part 1 (13)). The Secretary of State for Defence for the purposes of military training or national defence can make byelaws to exclude access, however any existing previous access allowed for in the byelaws (where applicable) will continue to apply.

As a competent authority under the Habitats Directive, the MoD are required to exercise those functions so as to ensure compliance this Directive. Section 3(3) of the Conservation (Natural Habitats &c.) Regulations 1994 requires that the MoD perform their functions under the Military Lands Act 1900 and the Dockyard Ports Regulation Act 1865 so as to ensure compliance. However, discretion is provided under section 2(2) of the Military Lands Act 1900 (provisions as to use of sea, tidal water or shore) which states that the MoD is not required to exercise its functions to ensure compliance with the Habitats Directive, with Section 2 (2) providing the enactment of byelaws to restrict access into these sea tidal water or shore areas.
**LAND POWERS (DEFENCE) ACT 1958**

The previous powers were further extended by the Land Powers (Defence) Act 1958, section 7, to sea areas not abutting on defence land or subject to firing from such land. Byelaws under this section may now be made in relation to any area of sea, tidal water or shore used for defence purposes, provided that it lies at least partly within the seaward limits of territorial waters (Gibson, 2002; P Morrison pers. comm. 2003).

**DOCKYARD PORTS REGULATION ACT 1865**

Dockyard ports are governed by the Dockyard Ports Regulation Act 1865. A dockyard port is a port or other navigable water in or near which Her Majesty has a dock, dockyard, steam factory yard, victualling yard, arsenal, wharf or mooring (section 2). Each dockyard port is supervised by a Queen's Harbour Master appointed by the Secretary of State for Defence (section 4). An Order in Council can contain regulations which may lead to prohibiting any mooring or anchoring that obstructs navigation; reserving moorings or anchorages for the exclusive use of HM vessels; prohibiting or restricting the possession of gunpowder and the possession or discharge of loaded guns on vessels in specified places, prohibiting and regulating the loading or unloading of gunpowder; restricting the use of fire and light, or the possession of combustible substances, on vessels in specified places; limiting the speed of steam vessels in specified places, and prohibiting the cleaning of the vessel hull in specified places (section 5). Fines are imposed for the breach of any regulation. On the joint recommendation of the Secretaries of State for Defence and Transport, an Order in Council may also make rules concerning lights, signals and the avoidance of collisions in a dockyard port or its approaches, which shall apply to HM vessels as well as others (section 7) (Gibson, 2002).

Legislation detailed elsewhere in this document (such as the Merchant Shipping Acts) impacts on military activities as well, and that whilst the MoD is exempt from some of this, for example MARPOL (except for the RFCAs which are not exempt) it is MoD policy to apply the legislation as a matter of course whenever possible (P Morrison pers. comm. 2003).

**THE PROTECTION OF MILITARY REMAINS ACT 1986**

The Protection of Military Remains Act applies to any aircraft which crashed at any time while in military service and to vessels designated by the Secretary of State for Defence which sank or were stranded after 4 August 1914 while in military service. This Act followed the high profile disturbance of a number of naval vessels during the 1980’s and aims to protect such sites where lives were lost. It applies to all World War I and later aircraft that have crashed on military service, and to specified World War I and later military vessels lost in British or international waters (Roberts & Trow, 2002). All military aircraft are automatically designated under this legislation and wrecks (both in territorial and international waters) either as a Protected Place or as a Controlled Site. There are various restrictions under the designations which make tampering, entering, excavating, diving, salvaging on the site illegal. The Secretary of State for Defence may grant licences authorising conduct that would otherwise be an offence. Divers may visit a Protected Place on a 'look but don't touch' basis but divers are prohibited without a licence from visiting Controlled Sites. This Act is administered by the Ministry of Defence and they will be producing guidelines for divers and other sea users (Dean et al., 2002).

Following a public consultation in 2001, the Secretary of State for Defence announced that criteria would be considered in determining whether to designate a vessel under the Act. Sixteen vessels currently within UK jurisdiction would be designated as Controlled Sites and five vessels in international waters would be designated as Protected Places (MoD, 2001).
Table 8 UK Legislation for Military Activities  (Key Legislation in **BOLD**)

<table>
<thead>
<tr>
<th>UK Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dockyard Ports Regulation Act 1865</td>
<td>Prohibits through Orders in Council activities within designated dockyard port areas managed by the Secretary of State for Defence.</td>
</tr>
<tr>
<td>Military Lands Act 1892</td>
<td>Making of byelaws in relation to land managed by the Secretary of State for Defence or belonging to a territorial, auxiliary or volunteer reserve association, which is used for naval, military or air force purposes.</td>
</tr>
<tr>
<td>Military Lands Act 1900</td>
<td>Making of byelaws applicable to sea and tidal water that either abuts on defence land or over which firing takes place from defence land. Requests permission from the Secretary of State for Transport if the byelaws interfere with public rights of navigation, anchoring, grounding, fishing, bathing, walking or recreation.</td>
</tr>
<tr>
<td>Land Powers (Defence) Act 1958</td>
<td>Extends jurisdiction to sea areas not abutting on defence land or subject to firing from such land. Byelaws required for any area of sea, tidal water or shore used for defence purposes, provided that it lies at least partly within the seaward limits of territorial waters</td>
</tr>
<tr>
<td>Protection of Military Remains Act 1986</td>
<td>Protection of military remains of both aircraft and ships and is aimed at protecting such sites where lives were lost.</td>
</tr>
</tbody>
</table>
10. OFFSHORE OIL AND GAS

Sub-sea exploitation of oil and gas began in the 1920s. In recent years due to technological advances, drilling has occurred in deeper waters and in some of the most hostile environments. Discharges from oil and gas operations are controlled by a variety of regulations which are implemented by the DTI and other government authorities. Table 9 details the relevant legislation relating to offshore oil and gas within the UK.

There are more than 200 production installations, over 2,500 exploration and appraisal wells and over 2,300 development and production wells, impacting the seabed on the UK Continental Shelf (UKCS). Chronic or cumulative impacts on the wider marine ecosystem of offshore chemicals discharged to the sea is largely unknown (Linley-Adams, 1998). ACOPS yearbook reports that the offshore oil spills doubled in 1996, from 145 incidents in 1995 to 300 in 1996, the second highest recorded. Since then, there has been significant improvement. Up to date information on the DTI’s website (http://www.og.dti.gov.uk/information/bb_updates/chapters/Table_chart3_1.htm) shows total oil spilt has decreased from a peak of 866 tonnes in 1997 to 94 tonnes in 2001. The DTI state that ‘the total amount of oil spilled during 2001 was 94 tonnes, although this is an increase in the amount reported during 2000, this may be attributed to the increase in the number of installations reporting spills (139 in 2001 compared with 117 in 2000). It is evident that the trend for reporting even the smallest spills continues with 419 reports of less than 1 tonne (this represents 96% of the reports).

The Continental Shelf Act 1964 applied the provisions of the Petroleum (Production) Act 1934 (repealed by the Petroleum Act 1998) to the UK Continental Shelf (UKCS) outside territorial waters. The Crown Estate is the landowner within territorial waters, with the exploration of resources regulated by the Department of Trade and Industry who grant licences to explore for and exploit all oil and gas resources. The prime environmental control is exercised through the body of legislation listed in table 9.

10.1 Oil Exploration & Production

A good source of up to date information on regulations/legislations that are relevant to the oil and gas industry is http://www.og.dti.gov.uk/regulation/legislation/index.htm

PETROLEUM ACT 1998

The Secretary of State has powers under section 21-24 of the Petroleum Act 1987 to designate “safety zones” which may have some benefit for nature conservation. They can extend up to 500m around every installation within tidal waters and parts of the sea in or adjacent to the UK, up to the seaward limit of the territorial sea and waters designated under the Continental Shelf Act 1964. Strict regulations apply to these zones around installations for the safety of those installations and other shipping. Once designated, no vessel can enter a zone unless directed by the Secretary of State and fines can be applied for the breaching of these regulations.

The 1998 Petroleum Act consolidated The Petroleum (Production) Act 1934 (c.36), The Petroleum and Submarine Pipelines Act 1975 (c.74), elements of The Continental Shelf Act 1964 (c.29), The Oil and Gas (Enterprise) Act 1982 (c.23), The Petroleum Act 1987 (c.12), and The Offshore Safety Act 1992 (c.15).

The legislation is required to regulate oil and gas development in the national interest, to safeguard the environment and to ensure that optimum use is made of reserves. The Petroleum Act 1998 vests
ownership of oil and gas within the UK and its territorial sea in the Crown, and gives the Government rights to grant licences to explore and exploit these resources (s.2). The UK rights to oil and gas beyond the territorial sea derive in part from the United Nations Convention on the Continental Shelf of 1958. The Continental Shelf Act 1964 gives effect to these rights and extends the licensing powers of the Petroleum Act 1998 to the UK Continental Shelf (UKCS) (DTI, 1997). Before granting petroleum licences, the Secretary of State for Trade and Industry is required by the Petroleum Act 1998 (Section 4) to make regulations prescribing the procedure for applicants, application fees, the dimensions of licensed areas, and model clauses for inclusion in licences. The Act 1998 sets out how and by whom applications for licences may be made and Schedule I specifies the model clauses to be incorporated into the licences.

**PETROLEUM (PRODUCTION) (SEAWARD AREAS) REGULATIONS 1988**


The Seaward regime applies to the remainder of the UKCS. DTI (1997) explains how for licensing purposes, the UKCS is divided into quadrants, each measuring 1° latitude by 1° longitude (except where the coastline of a neighbouring country’s continental shelf intervenes). Each of these quadrants is given a unique number and then subdivided into 30 blocks. In some heavily used areas blocks have been further subdivided, with the average block size measuring 250 square kilometres.

There are two types of seaward licences: exploration and production licences. Exploration licences are non-exclusive and allow non-intrusive surveys to be conducted, such as seismic or gravity and magnetic data acquisition, over any part of the UKCS that is not held under a production licence. Wells can be drilled to a depth of 350m but permission must be sought from the Secretary of State for deeper explorations. Each licence is valid for three years and licence holders may be commercial geophysical survey contractors or licence operators. Production licences grant exclusive rights to holders “to search and bore for, and get, petroleum” in a specific block or blocks. These are issued in licensing rounds and the DTI invites applications in respect of a number of specified blocks. Successful applicants have to pay an initial payment for the licence, followed by annual rentals on an escalating scale. See the DTI website above for the latest details of the licensing system.

Large marine areas within bay closing lines such as the Sea of Hebrides and the Minches, are regulated by landward licensing procedures. Many different landward licences had been granted over the years under previous systems including Mining Licences, issued during or before 1967, Production Licences issued between 1968 and 1984, and three different types of licence introduced in 1984 to cover the identifiable stages of activity: Exploration Licences, Appraisal Licences and Development Licences. All of these licences are still currently valid but no longer issued. The Petroleum (Production) (Landward Areas) Regulations 1995 introduced a single licence to replace the previous three licence system, called the Petroleum Exploration and Development Licence (PEDL) which is broadly similar to a Seaward Production Licence. Blocks are usually 10km by 10km, based on the National Grid system. This system applies to all territory above the low water mark and within bay closing lines\(^6\). Like the seaward licences, landward production licences grant the holder

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\(^6\) The term ‘bay closing line’ refers to the legal definition of a bay within the Territorial Sea Convention (article 7) and the Law of the Sea Convention (article 10), whereby rules are applied to establish whether an
exclusive rights to explore for and produce petroleum in one or more particular blocks in response to invitation. The rights granted by Landward Licences do not include any rights of entry onto land without the prior permission of the landowner, licensees must also obtain consent under current legislation, including planning permission.

**COAST PROTECTION ACT 1949**

Offshore installations within territorial waters, including those used for the exploration and exploitation of resources, fall under the jurisdiction of the DTI. Siting of installations are controlled under Section 34 of the Coast Protection Act 1949 which imposes restrictions on the construction, alteration or improvement of “any works under or over any part of the seashore lying below (the level of mean high water spring tides)”, the “deposit of any object or materials on any such part of the seashore as aforesaid” and the removal of materials from any part of the seashore lying below the high water mark (s.34 (1a-c)) if this will prove detrimental to coast protection works. The Continental Shelf Act 1964 amended the Coast Protection Act to extend the remit of the 1949 Act to cover the UK continental shelf out to the limit of UK controlled waters. The 1964 Act provides measures to control the siting of such installations and provides for safe navigation. Section 4(1) of this Act reiterates section 34(1)(a&c) (referenced above) of the Coast Protection Act 1949 whereby these provisions shall also apply in relation to any part of the sea bed in a designated area as it applies in relation to the seashore.

10.2 Pollution Control

**PREVENTION OF OIL POLLUTION ACT 1971**

Pollution aspects of oil and gas developments in the UK are regulated by the Prevention of Oil Pollution Act, 1971 (as amended). This Act prohibits any discharge of oil to the sea from oil and gas operations unless an exemption has been specifically issued. Section 3 of this Act states that, “if any oil from a pipeline or (otherwise than from a ship) as a result of any operation for the exploration of the sea bed and subsoil or the exploitation of their natural resources in a designated area, then the owner of the pipeline or the person carrying on the operations shall be guilty of an offence.” This also applies in Northern Ireland. DTI are currently consulting on ‘The Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2003 which will replace the Prevention of Oil Pollution Act 1971.

Environmental safeguards in the oil and gas industries are produced by the licensing system which is further complemented by enabling legislation and adopted international conventions. Licences incorporate clauses to prevent the escape of oil into the water and to notify the Secretary of State of any escape. Since 1986, the DTI has funded surveillance flights over UKCS installations to monitor compliance with regulations (Read et al., 2000).

**THE MERCHANT SHIPPING (OIL POLLUTION PREPAREDNESS RESPONSE AND CO-OPERATION CONVENTION) REGULATIONS, 1998**

These Regulations introduce the specific requirements for oil spill contingency plans for mobile and fixed offshore installations, and confirmed the requirements to report all oil spills. A proposal for a Directive on Environmental Liability with regard to the prevention and restoration of environmental indentation is a bay in the legal sense. The bay closing line is the line drawn across the mouth of a bay representing the baseline.
damage COM (2002) was published by the European Commission on 23rd January 2002 which will also have potential impacts on the oil and gas industry (see Section 8.4 for further details).

10.3 Environmental Impact Assessment


Scope of the regulations

The purpose of the Regulations is to require the Secretary of State for Trade and Industry to take into consideration environmental information before making decisions on whether or not to authorise various offshore projects. The Regulations require that any Licensees who wish to undertake a project must first prepare an Environmental Statement having made an assessment of the impact that the project would have on the environment unless the Secretary of State has given a direction that such a Statement need not be prepared.

Habitats Directive

In accordance with Article 4(2) of the Habitats Directive, member states are obliged to take certain protection and conservation measures in respect of sites designated as candidate Special Areas of Conservation (SACs), or which are Special Protection Areas (SPAs) under the Birds Directive 79/409/EEC. This requirement is reflected in regulation 3(4) of the 1994 Regulations, which requires "every competent authority in the exercise of any of their functions to have regard to the requirements of the Habitats Directive". In the context of offshore oil and gas production, the DTI complies with this regulation as the competent authority on offshore licensing, initially by consulting the JNCC before areas are offered for licensing. Regulations have already been made through the Conservation (Natural Habitats, &c) Regulations 1994 (since amended) which implement the Directive in relation to activities carried out onshore and within territorial waters.

The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001

The UK High Court, ruled in November 1999 that the Habitats Directive extends across the continental shelf and its superjacent waters. As a result, the Secretary of State for Trade and Industry has produced the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001, which apply the requirements of both the Habitats Directive and the Birds Directive to oil and gas activities carried out in connection with the exploration for or production of petroleum on the UKCS outside territorial waters. The Regulations, which are administered by the DTI, affect the award of petroleum licences, the conduct of licensed activities, pipe-line authorisations and the decommissioning of offshore installations.
Regulation 3 requires the Secretary of State to exercise functions consistently with the aim of securing that UKCS oil and gas activities are carried out in a manner that is consistent with the requirements of the Habitats and Birds Directives. Before granting any UKCS licence or consent, the Secretary of State must make an Appropriate Assessment of the effects of certain oil and gas activities in view of the site's conservation objectives (Regulation 5(1)). In doing this he must confer with the Joint Nature Conservation Committee and have regard to any representations made by that body on the grounds of nature conservation (Regulation 5 (2)).

Table 9 UK Legislation for Offshore Oil & Gas (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>International &amp; European Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARPOL Convention 1987/78</td>
<td>Defines offshore installations and applies controls</td>
</tr>
<tr>
<td>MARPOL Annex IV</td>
<td>Regulation of sewage discharges</td>
</tr>
<tr>
<td>MARPOL Annex VI (not yet in force)</td>
<td>Regulation of atmospheric emissions (SOx, NOx and particulates).</td>
</tr>
<tr>
<td>OSPAR Convention - Prevention and elimination of offshore pollution</td>
<td>Annex 3 Art 3: Prohibits any dumping of wastes or other matter from offshore installations.</td>
</tr>
<tr>
<td><strong>UK Legislation</strong></td>
<td><strong>Provisions</strong></td>
</tr>
<tr>
<td>Continental Shelf Act 1964 amended by: The Petroleum Act 1998</td>
<td>Section 2 - vests ownership of oil and gas within the United Kingdom and its territorial sea in the Crown, and gives the Government rights to grant licences to explore and exploit these resources.</td>
</tr>
<tr>
<td>Coast Protection Act 1949 Amended: Continental Shelf Act 1964</td>
<td>The siting of offshore installations within territorial waters and the UK continental Shelf, are controlled under Section 34.</td>
</tr>
<tr>
<td>Food and Environment Protection Act 1985</td>
<td>Disposals to and under the seabed. Offshore industry FEPA licences for English &amp; Wales issued by DEFRA; Scotland by DTI LCU on behalf of the Scottish Executive.</td>
</tr>
<tr>
<td>Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998</td>
<td>Implementing legislation for OPRC. Regulations introduce the specific requirements for oil spill contingency plans for mobile and fixed offshore installations, and confirmed the requirements to report all oil spills.</td>
</tr>
<tr>
<td>Prevention of Oil Pollution Act 1971 As amended</td>
<td>Prohibits any discharge of oil to the sea from oil and gas operations unless an exemption has been specifically issued. Section 3 details types of offences and fines.</td>
</tr>
<tr>
<td>Offshore Combustion Installations (Pollution Prevention and Control) Regulations 2002</td>
<td>Regulates emissions from combustion plant on Offshore Installations (principally power generation)</td>
</tr>
<tr>
<td>MS (Prevention of Oil Pollution) Regulations 1996</td>
<td>Implements MARPOL Annex I</td>
</tr>
<tr>
<td>Offshore Chemical Regulations 2002</td>
<td>Controls, by a permitting and risk assessment procedure, all use and discharge of chemicals from offshore installations.</td>
</tr>
<tr>
<td>Control of Pollution Act 1974</td>
<td>Any potential related coastal facilities</td>
</tr>
<tr>
<td>Environmental Protection Act 1990</td>
<td>Waste Disposal onshore</td>
</tr>
<tr>
<td>The Conservation (Natural Habitats) Regulations 1994</td>
<td>Potential for impacts on coastal sites from offshore activities or related coastal developments.</td>
</tr>
<tr>
<td>The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001</td>
<td>Apply Habitats &amp; Birds Directives to oil and gas exploration &amp; production activities on the UKCS. Regulate award of licences &amp; the conduct of licensed activities, pipe-line authorisations and the</td>
</tr>
</tbody>
</table>
decommissioning of offshore installations. Ensures that environmental consequences of certain plans and programmes are identified & assessed during preparation and before adoption.

<table>
<thead>
<tr>
<th>Proposed Legislation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2003</td>
<td>Will replace POPA 1971. Improves and widens definition of ‘oil’, defines and clarifies powers of inspectors and will operate a permit system.</td>
</tr>
<tr>
<td>EU Emissions Trading Scheme</td>
<td>Will require the establishment of an EU-wide trading scheme in Greenhouse gas emission quotas and will cover the offshore industry</td>
</tr>
<tr>
<td>EU Persistent Organic Pollutants</td>
<td>Will probably include offshore installations – PAH’s and PCB’s.</td>
</tr>
</tbody>
</table>

Proposal for a Directive on Environmental Liability with regard to the prevention and restoration of environmental damage
11. WIND POWER GENERATION IN THE MARINE ENVIRONMENT

In 1998, an EC Decision was made concerning a multiannual programme for the promotion of renewable energy sources in the Community. This encouraged Member States to increase renewable share of energy supply from 4% to 8% by 2005. In 2001, Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 was passed to promote electricity produced from renewable energy sources in the internal electricity market. This proposal for a directive on the promotion of electricity from renewable energy sources has been unveiled aiming to double 'green' energy. The non-binding indicative national target for renewable sources for the UK is from 1.7% in 1997 to 10% in 2010. The Scottish Executive has set the target for energy production from renewable sources to 90% by 2010. The UK has significant potential for the generation of electricity from offshore renewable sources such as wind power and offshore wind technology is already advanced to the extent that the industry is poised for major and rapid expansion.

The Crown Estate, as landowner of the seabed out to the 12 nautical mile territorial limit plays an important role in the development of the offshore wind industry by leasing areas of seabed for the placing of turbines. The Crown Estate announced a round of licensing for wind energy sites in territorial waters in 2000 and has entered into leasing arrangements for the first round of wind farms for a term of 22 years. A lease can be signed between the Crown Estate and the wind farm developer only after all the necessary statutory consents for the development have been obtained from the relevant Government Departments. Development consents and the regulatory control of marine activities are matters for the appropriate Government Department. In the UK, the Department for Trade and Industry (DTI) has responsibilities for energy in England, Wales and Scotland. The DTI have established an Offshore Renewable Consents Unit to act as a "one-stop shop" for applications for offshore windfarm development in order to make the process of gaining consents from the different government departments more streamlined. However policy responsibilities and powers are devolved to Wales and Scotland within their territorial waters. In Scotland, responsibility for the promotion of renewable energy (including waters adjacent to Scotland) rests with the Executive as does that for consents under the Electricity Act (1989). In Northern Ireland, responsibilities for energy are with the Department of Enterprise, Trade and Investment for Northern Ireland (DTI, 2002).

Although windfarm technology provides the greatest potential for offshore electricity generation at present, much development and experimental work is underway to assess the commercial and technological viability of other forms of technology such as wave generators and tidal current turbines (Crown Estate, 2003). However, for offshore renewable energy, the legal system is only defined for UK territorial waters (out to 12 nautical miles) and until new legislation is brought into force, it will only be possible to offer development within these coastal waters. There is currently no comprehensive legal framework beyond the limits of territorial waters for regulating development of the resource, nor for granting developers security over a site. At present there is little reference of decommissioning through statutory consents although the FEPA licence for the Robin Rigg Development in the Solway Firth included provision for decommissioning. Generally, decommissioning relies on the requirement for a decommissioning plan through the Crown Estate lease.

There are currently two ways of obtaining a consent under the UK legislative system for offshore energy projects within the UK territorial waters. The first is under the Electricity Act 1989 and the Coast Protection Act 1949, and the second being through an order created by the Transport and Works Act 1992. However a consent through the Transport and Works Act is not applicable in
Scottish waters. Under both of these methods, there is a requirement for a FEPA licence under the Food and Environment Protection Act 1985 for the placement of structures on the seabed.

Table 10 shows the relevant legislation within the UK with summaries of the main requirements below.

### 11.1 Regulation of Offshore Renewable Energy

**ELECTRICITY ACT 1989**

Section 36 of the Electricity Act 1989 requires developers to obtain a consent from the Secretary of State (for Trade and Industry) for the construction, extension or operation of a generating station of a capacity above the permitted capacity. For offshore wind and water driven generating stations in the territorial waters surrounding England and Wales, this has been modified under the Electricity Act 1989 (Requirement of Consent for Offshore Wind and Water Driven Generating Stations) (England and Wales) Order 2001 for developments generating one megawatt. The developer can also apply for planning permission for ancillary works on-shore under this Act.

Section 36 consents for generating stations located in Scotland rest with Scottish Ministers. The Scottish framework mirrors that in England & Wales, i.e. offshore generating stations driven wholly or mainly by wind or water require section 36 consent if their capacity exceeds 1MW (The Electricity Act 1989 (Requirements of Consent for Offshore Generating Stations)(Scotland) Order 2002 which came into force in September 2002).

**COAST PROTECTION ACT 1949**

Section 34 of the Coast Protection Act 1949 requires that a consent is obtained from the Minister for Transport for any person wishing to carry out any of the following:

- the construction, alteration or improvement of any works on, under or over any part of the seashore lying below the level of mean high water springs;
- the deposit of any object or materials below the level of mean high water springs; or
- the removal of any object or materials from the seashore below the level of mean low water springs (e.g. the dredging of minerals).

The purpose of the consent requirement is to ensure that marine works will not be detrimental to navigation. The consents process for England and Wales is managed by the Department for Transport (via the MCEU). The Scottish Executive determines applications relating to developments in territorial waters adjacent to Scotland.

**TRANSPORT & WORKS ACT 1992**

An alternative method of obtaining permission to site an offshore energy installation for English and Welsh waters is by an Order under section 3 of the Transport and Works Act 1992. This Act enables the Secretary of State to make an order relating to the construction or operation which might interfere with rights of navigation in waters within or adjacent to England and Wales, up to the seaward limits of the territorial sea, and which are of a description prescribed by order (Section 3(b)). The Order can include a provision which specifically removes public rights of navigation over water and can
therefore provide a statutory defence against a claim of public nuisance for interfering with navigation rights.

Section 16 of the Transport and Works Act allows the Secretary of State to issue a planning direction under Section 90 (2A) of the Town and Country Planning Act 1990 deeming planning permission to be granted for the works authorised by a Transport and Works Act Order. As with section 36 of the Electricity Act, a developer can request deemed planning permission for ancillary on-shore works when applying for a TWA Order for off-shore works. The Welsh Assembly Government deals with Orders for projects in territorial waters adjacent to Wales (DTI, 2002), however this Act does not extend to Scotland where developers may choose to promote a private bill, but do not necessarily need it. An Order under the Transport and Works Act can also provide the right to create navigation exclusion zones around the turbines to protect mariners, their vessels and equipment and the turbines themselves.

**FOOD AND ENVIRONMENT PROTECTION ACT 1985 (PART II)**

Under both methods of consent, there is a requirement for a FEPA licence under the Food and Environment Protection Act 1985. Under part II of the Food and Environment Protection Act 1985, Construction licences are required for the placement of materials or articles in tidal waters other than for the primary purpose of their disposal. Construction is taken to include a wide range of activities including, the building of harbours, jetties, offshore structures, land reclamation, sea walls, outfalls, beach recharge schemes and other coast defences. The purpose of the legislation is to protect the marine ecosystem and human health, and to minimise nuisance and interference to other legitimate uses of the sea. MCEU is responsible for FEPA applications on behalf of Defra for English waters and administers the process within Welsh waters on behalf of the Welsh Assembly Government. The Scottish Executive is responsible for licensing developments in territorial waters adjacent to Scotland. In Northern Ireland the Department of the Environment is the competent authority under Part II of the Food and Environment Protection Act (FEPA), 1985 to control deposit of articles in the sea.

**11.2 Environmental Impact Assessment**

**THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2000**

The Environmental Impact Assessment Directive requires an environmental assessment to be made of the effects of certain public and private projects, including energy projects. This Directive is given effect for electricity generation projects in England and Wales by the Electricity Works (EIA) Regulations 2000. These revoke the Electricity and Pipe-line Works (Assessment of Environmental Effects) Regulations 1990 (as amended by the Electricity and Pipe-line Works (Assessment of Environmental Effects) (Amendment) Regulations 1996 and the Electricity and Pipe-line Works (Assessment of Environmental Effects) (Amendment) Regulations 1997). The Regulations legislate for EIA for all projects producing over 1MW of electricity. It is DTI policy to require EIAs for all offshore wind farms. Under the Conservation (Natural Habitats, &c.) Regulations 1994 which implement the Habitats Directive in territorial waters, the Secretary of State has to consider the effect of the development on European sites in England in considering whether to grant a Section 36 consent (DTI, 2002) 7. The equivalent is enacted in Scotland by the Electricity Works (Environmental Impact Assessment) Regulations 2005. It should be noted that the application of the EIA process and Conservation Regulations is also likely to be applicable to the Food and Environment Protection Act 1985, the Transport & Works Act 1992 and the Coast Protection Act 1949.
(Scotland) Regulations 2000. The Scottish Executive has the jurisdiction for EIA regulations in Scottish Waters.

These Regulations apply in the case of any application under section 36 of the Electricity Act 1989 for consent to construct, extend or operate a generating station. They also apply for any application under Section 37 of the Electricity Act 1989 for consent to install or keep installed an electric line above ground. Sections 3 and 4 of these Regulations (together with certain definitions in regulation 2(1) and with Schedules 1 and 2) set out what constitutes EIA development and prohibit the granting of consent under section 36 or 37 of the Electricity Act 1989. All development listed in Schedule 1 of this Act is EIA development. Development listed in Schedule 2 constitutes EIA development if it is likely to have significant effects on the environment. Other types of development which require consent under section 36 or 37 of the Electricity Act 1989 may also constitute EIA development if likely to have significant effects on the environment.

**STRATEGIC ENVIRONMENTAL ASSESSMENT DIRECTIVE (SEA)**

Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, is known as the “strategic environmental assessment” or SEA Directive. Its objective is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment (EEA, 2003).

A current consultation paper entitled *Future Offshore* (DTI, 2002) recognises the wind industry's potential for development offshore and sets out the elements of the framework which will be needed to ensure that it can be realised quickly and efficiently, but in a way which is environmentally responsible. The framework will ensure proper evaluation of impacts at the planning stage through Strategic Environmental Assessment (SEA), as well as through environmental impact assessment of individual development applications. SEA is not defined in law, but one frequently quoted definition is (DTI, 2002):

>'the formal, systematic and comprehensive process of evaluating the effects of a proposed policy, plan or programme or its alternatives, including the written report on the findings of that evaluation, and using the findings in publicly accountable decision making'.

The key challenge is to ensure that in the drive to meet renewable energy targets, full regard is taken for the impacts on flora and fauna of the marine environment. Possible impacts could include bird kills on turbines and other impact on marine ecology, the visual impact, and the possible impact on other marine activities. All these effects need to be understood and evaluated in order to make decisions on the scale of development that is acceptable in different regions (English Nature, 2003; Crown Estate, 2003).

The development and implementation of a Strategic Environmental Assessment (SEA) has commenced, with the first round due to be published in early 2003. During this period the major risks and uncertainties of future offshore development should be identified and work programmes undertaken to provide data to reduce them. This first SEA work will therefore inform decisions regarding the next round.
In this rapidly developing area, the position in late 2003 is that the DTI have concluded their consultation on Future Offshore. Also the Offshore Windfarm Development SEA is complete. For further details visit: [http://www.og.dti.gov.uk/offshore-wind-sea/process/envreport.htm](http://www.og.dti.gov.uk/offshore-wind-sea/process/envreport.htm).

The DTI have issued the Offshore Windfarms Round 2 Announcement. For the latest information visit: [http://www.dti.gov.uk/energy/renewables/publications/docs/round2finalbrief2.doc](http://www.dti.gov.uk/energy/renewables/publications/docs/round2finalbrief2.doc)

### 11.3 Impending Legislation

There is impending legislation for the consenting of offshore wind farms beyond territorial waters, which is currently seeking parliamentary time.

NB: (ed.) The above websites give the following information (October 2003):

**Round 2 sites outside territorial waters**

The Energy White Paper indicated that the Government would bring forward legislation as soon as the legislative timetable allows to enable renewable energy generation to take place beyond the limits of the territorial sea. Until such legislation is brought into force, the Government is able only to grant development consent for windfarms within territorial waters. However, the Round 2 strategic areas go beyond the territorial water boundary onto the UK Continental Shelf. The Crown Estate is inviting developers to tender for any site in the three Strategic Areas apart from the excluded 8-13km coastal strip and the shallow water areas in the North West Strategic Area, as defined by DTI. For sites beyond territorial waters The Crown Estate will award exploration licences, rather than option agreements.

### Table 10  Key Legislation for Wave, Tide & Wind Power Generation (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>European Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>98/352/EC Decision concerning a multiannual programme for the promotion of renewable energy sources in the Community</td>
<td>Encourages Member States to increase renewable share of energy supply from 4% to 8% by 2005</td>
</tr>
<tr>
<td>Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market</td>
<td>A proposal for a directive on the promotion of electricity from renewable energy sources has been unveiled aiming to double 'green' energy. The non-binding indicative national target for renewable sources for the UK is from 1.7% in 1997 to 10% in 2010. The Scottish Executive has set the target for energy production from renewable sources to 18% by 2010</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UK Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Environment Protection Act 1985 (Part II) (FEPA responsibilities devolved to Wales, Scotland and Northern Ireland)</td>
<td>Under part II of the Food and Environment Protection Act 1985, Construction licences are required for the placement of materials or articles in tidal waters other than for the primary purpose of their disposal.</td>
</tr>
<tr>
<td>Electricity Act 1989</td>
<td>Section 36 of the Electricity Act 1989 requires developers to obtain a consent from the Secretary of State (for Trade and Industry) for</td>
</tr>
</tbody>
</table>
### Summary of Current Legislation Relevant to Nature Conservation in the Marine Environment in the UK

**Joint Nature Conservation Committee (JNCC)**

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Electricity Act 1989</strong> (Requirements of Consent for Offshore Generating Stations) (Scotland) Order 2002</td>
<td>Includes executive devolution of powers under sections 36 and 37 of the Act.</td>
</tr>
<tr>
<td><strong>Northern Ireland:</strong> Draft Statutory Instrument 2003 The Energy (Northern Ireland) Order 2003</td>
<td>Part VII relates to Electricity from renewable sources</td>
</tr>
<tr>
<td><strong>Coast Protection Act 1949</strong></td>
<td>The siting of offshore installations within territorial waters and the UK continental Shelf are controlled under Section 34.</td>
</tr>
<tr>
<td><strong>Water Resources Act 1991</strong></td>
<td>Section 109 (if erecting structure in a water course)</td>
</tr>
<tr>
<td><strong>Transport &amp; Works Act</strong></td>
<td>To obtain permission for projects may affect rights of navigation in territorial waters (Section 3)</td>
</tr>
<tr>
<td><strong>SI 2000/1927 Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000</strong></td>
<td>The Environmental Impact Assessment Directive requires an environmental assessment to be made of the effects of certain public and private projects, including energy projects. It applies EIA to sections 36 and 37 of the Electricity Act 1989 and legislates EIA for all projects producing over 1MW of electricity.</td>
</tr>
<tr>
<td><strong>SSI 2000/320 Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Planning Guidance</strong></td>
<td><strong>England</strong> - PPG22 - Renewable Energy</td>
</tr>
<tr>
<td></td>
<td><strong>Scotland</strong> - National Planning Policy Guideline 6 - Renewable Energy Developments (NPPG6)</td>
</tr>
</tbody>
</table>
12. SAND AND GRAVEL EXTRACTION IN THE MARINE ENVIRONMENT

Marine aggregate dredging is the extraction of sand and gravel from the seabed for economic gain or for beach nourishment schemes. The main licensed areas for marine aggregate on the UK’s continental shelf are Liverpool Bay and the River Mersey, the Bristol Channel, the South Coast, Thames Estuary, East Coast and Humber estuary. There are very extensive deposits of sand and gravel on the seabed in English marine waters. Whilst the majority of the dredged sand deposits are immobile, there is movement of sand across the seabed transported by wave and tidal currents. Gravel deposits (defined as material greater than 5mm in diameter) exploited by the dredging industry are, for practical purposes, immobile in the depths of water that dredging takes place (ODPM, 2002a).

The Crown Estate as the owner of the UK seabed and the natural resources of the UK Continental Shelf (with the exception of oil, coal and gas), issues licences for the commercial extraction of marine aggregates which are widely used in the building industry. If a viable deposit is located, then an application to dredge is submitted to the relevant authority. Before the Crown Estate issues a licence, a consent to extract marine aggregates is coordinated under a process known as the Government View Procedure, (12.1 below) by the Office of the Deputy Prime Minister (ODPM) in England, and the Welsh and Scottish Executives respectively8. Although the government department has no remit in issuing any consent for the dredging process, they administer the application for the developer. An application must include a wide variety of environmental studies, including coastal processes, fisheries, marine archaeology and biology.

If an application is environmentally acceptable, then a permission and licence are granted however, conditions are usually attached which include regular environmental monitoring and zoning to restrict the area dredged at any one time. The Department for Environment, Food and Rural Affairs (Defra) have particular responsibility for overseeing and monitoring the effects of dredging and the Crown Estate as the landowner monitors tonnage removal and compliance with licence conditions.

In Northern Ireland there is generally considered to be an oversupply of sand and gravel and there has been little pressure to look beyond existing onshore sources. There are currently no licences for the extraction of aggregates in the Northern Ireland offshore area. Some interest was expressed in a small number of licence areas that were subsequently offered for tender at the end of 1995, but no licences were issued (Nevin, 1997).

Table 11 shows the statutory and non-statutory regulations currently governing the UK at present.

12.1 Dredging of Marine Aggregates

THE COAST PROTECTION ACT 1949

The Coast Protection Act 1949 states that, “subject to the provisions of this section…it shall be unlawful to excavate or remove any materials (other than minerals more than fifty feet below the surface) on, under or forming part of any portion of the seashore….” (s.18(1)). However this shall not affect the right of excavation of the Minister of Transport for the purposes of navigation or

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8 Sand extraction can also be consented through planning permission (e.g. Bedwin Sands in the Severn estuary) and through Harbour Works.
anyone holding a licence for the removal of aggregate. A coast protection authority can make an order to protect a certain part of the seashore within the territorial sea, for the purposes of coastal protection (s.18(3)). However the authority which made the order under section 3, can grant licences to a second party for mineral extraction within their area, with responsibility for enforcing the licences lying with the coast protection authority.

Section 34 of the 1949 Act controls the provisions for the safety of navigation making it an offence to “remove any object or any materials from any part of the seashore lying below the level of mean low water springs” (s.34 (1)) if the operation is likely to cause obstructions or danger to navigation. Exceptions are allowed within harbours and ports to allow safe navigation and also “any work more than fifty feet below the surface in connection with the getting of minerals” (S.35 (1d)).

GOVERNMENT VIEW PROCEDURE (GVP)

Granting of licences by the Crown Estate for the exploitation of sand and gravel has since 1968 been controlled through the non-statutory ‘Government View Procedure’. The GV procedure was amended in 1998 with the introduction of ‘Interim Procedures’, to make the application and determination process more rapid and more transparent. Guidance on the Interim Procedures was published in May 1998 (DETR, 1998c). This is an extended consultative process administered currently through the Office of the Deputy Prime Minister (ODPM) for England and has devolved administrations for Scotland, Wales and Northern Ireland for their respective territorial waters (Vivian, 2003). The process of issuing a Government View is currently a non-statutory extended consultative process which follows the principles of UK land-based planning procedures. The GV procedure involves wide consultation within Government, with specialist, independent consultees, with local authorities and the general public. If a dredging proposal poses any threat to sediment dynamics and the coastline, a favourable GV would not be issued. Fish and shellfish spawning/nursery grounds may be excluded from permissions to dredge. Furthermore, in considering applications for a GV, Defra maintains a presumption against dredging unless the environmental and coastal impact issues are satisfactorily resolved. To date, an unfavourable view has never been issued by the relevant government department, but this reflects the fact that where there have been unresolved issues for a development, the applicant has usually withdrawn from the GV process. It is also worth noting that all EIA for Govt. View procedure are undertaken by the same consultancies (as a matter of direction). This gives a degree of consistency and provides some necessary certainty about the approach since not all consultancies have the appropriate experience or report neutrally.

The revised GV system will itself be replaced shortly by a statutory system which will transpose the provisions of the Environmental Impact Assessment and Habitats Directives, insofar as they relate to marine minerals dredging, into UK law. The statutory procedures will require dredging operators to obtain a Dredging Permission from the Secretary of State. Separate guidance will be provided in due course. Defra intend publishing formalised planning guidance for dredging to accompany the new statutory procedures so that all involved in the process understand the Government's policy and criteria. The scope of the guidance will be framed in more detail as development of the guidance proceeds. It is likely to require the provision of information on a wide range of topics such as the extent of the potential resource and existing reserves, and assessment of the potential effects of dredging on the marine environment and on coastal protection.

12.2 Environmental Impact Assessment

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA are part of the non-statutory Government View Procedure. The 1997 amendment to the 1985
EIA directive added ‘marine and fluvial dredging’ to the Schedule 2 list of projects. Although the UK implemented this amendment under a number of different regulations and for a number of different projects, the government have yet to implement the requirement for an EIA for aggregate extraction beyond mean low water. However, the government are currently drafting such regulations which are expected late 2003.

The EIA regulations would require authorisation of marine dredging of minerals to be subject to a statutory Government View Procedure, involving a full environmental impact assessment of the impact of dredging from the seabed. It was the intention that these Regulations would be applicable to the UK in March 1999, however there have been numerous delays in the implementation of the EIA and Habitats (Extraction of Minerals by Marine Dredging) Regulations. The new Regulations will transpose into UK legislation the requirements of the EC EIA and Habitats Directives in so far as the marine dredging of minerals is concerned and will apply them throughout the entire extent of the UK share of the European Continental Shelf. It will be based on the practices and procedures of the Town and Country Planning Legislation. There is a requirement for the EIA of dredging proposals, the provision for wide ranging public consultation and procedures for public inquiries to be held (IDG, 2002; Vivian, 2003).

Scotland and Northern Ireland are now preparing their own marine dredging regulations. The UK government has been developing statutory controls for sand and gravel extraction, however to date no regulations have yet been made. Although there is no statutory support to submit an EIA for aggregate extraction proposals, Environment Statements have been submitted with every GV application since 1989 due to the co-operation of the dredging industry.

MARINE MINERALS GUIDANCE NOTE 1 (MMG1): GUIDANCE ON THE EXTRACTION BY DREDGING OF SAND, GRAVEL AND OTHER MINERALS FROM THE ENGLISH SEABED

The policy guidance contained in MMG1, issued in 2002, applies only to dredging for minerals in English territorial waters. It applies both to applications for dredging licences considered under the Government View (GV) procedure and for Dredging Permissions granted under the forthcoming statutory system. The guidance applies to the extraction of minerals by dredging in tidal waters and parts of the sea adjacent to the United Kingdom from the mean high water mark out to the seaward limits of territorial waters, and waters in any area presently designated under section 1(7) of the Continental Shelf Act 1964 (ODPM, 2002a). However, this approach is also adopted for applications beyond 12 nm.

Under section 15 of this guidance note, particular consideration will be given to aggregate extraction proposals which might impact adversely on areas that are:

- in the view of Defra, important for fish spawning, migration routes, or as nursery and over-wintering grounds;
- areas within, adjacent to, or likely to impact upon, Sites of Special Scientific Interest (SSSIs); National Parks, Heritage Coast, Areas of Outstanding Natural Beauty (AONBs), European sites (Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)), Marine Protected Areas (MPAs), Ramsar sites, Marine Nature Reserves and other nationally designated conservation areas;
- and war graves, wrecks and other remains of archaeological interest.
Marine Policy Guidance 6

Marine Policy Guidance note 6 (MPG6), revised in 1994, sets out the government's planning policy with regard to aggregate extraction. The guidance reflects the Government's sustainable development principles in particular by reducing the landbank for sand and gravel, setting targets for the increased use of recycled and secondary aggregates in order to conserve primary aggregates, and making assumptions about the amount of aggregate material likely to be imported from superquarries or won from marine dredging (DETR, 1998c). Paragraph 49 of MPG 6 recognises that marine extraction should only occur if the environmental and coastal impacts are satisfactorily resolved. Paragraph 50 states that all applications will be subject to the following assessments:

- contribution of aggregate supplies enable by the application;
- the effects on coastal interests;
- effect on commercial fisheries;
- effect on marine ecosystems;
- effect on navigation;
- effect on archaeological sites;
- effect on other sea users.
Table 11 UK Legislation for Sand and Gravel Extraction  (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>UK Legislation</th>
<th>Provisions</th>
</tr>
</thead>
</table>
| **Coast Protection Act 1949**                       | Section 18 - subject to provisions…it shall be unlawful to excavate or remove any materials (other than minerals more than fifty feet below the surface) on, under or forming part of any portion of the seashore….”  
Section 34 - controls the provisions for the safety of navigation making it an offence to “remove any object or any materials from any part of the seashore lying below the level of mean low water springs” if the operation is likely to cause obstructions or danger to navigation.  
Section 35 - Exceptions are allowed within harbours and ports to allow safe navigation and also “any work more than fifty feet below the surface in connection with the getting of minerals”. |
| **Food and Environment Protection Act 1985 (Part II)** | Under part II of the Food and Environment Protection Act 1985, licences are required for the re-deposit of materials or articles in tidal waters ‘out of specification’ loads.                                      |
| **Draft EIA and Habitats etc) Regulations (2003)**   | These Regulations will require authorisation of marine dredging of minerals to be subject to a statutory Government View Procedure, involving a full EIA of the seabed impact of dredging. Although EIA for aggregate extraction proposals are not statutory, Environment Statements have been submitted with every GV application since 1989 due to the co-operation of the dredging industry. |
| **Northern Ireland Mineral Development Act (NI) 1969** | Section 52 to 58 applies to renewable energy generation.                                                                                                                                                 |
| **Northern Ireland Act 1998**                        |                                                                                                                                                                                                           |
| **Non-statutory Procedures**                         | Provisions                                                                                                                                                                                                 |
| **Government View Procedure (GVP)**                 | The process of issuing a Government View (GV) is currently a non-statutory extended consultative process which follows the principles of UK land-based planning procedures. In considering applications for a GV, ODPM maintains a presumption against dredging unless the environmental and coastal impact issues are satisfactorily resolved.  
The revised GV system will itself be replaced shortly by a statutory system which will transpose the provisions of the EIA and Habitats Directives & require dredging operators to obtain a Dredging Permission from the Secretary of State. Separate guidance will be provided in due course. |
| **Planning Guidance**                               |                                                                                                                                                                                                           |
| **England**                                         |                                                                                                                                                                                                           |
| Minerals Planning Guidance Note 6. (MPG6) - England  |                                                                                                                                                                                                           |
| MMG1 - Guidance on the Extraction by Dredging of Sand, Gravel and other Minerals from the English Seabed |                                                                                                                                                                                                           |
| **Wales**                                           |                                                                                                                                                                                                           |
| Minerals Planning Policy Wales (MPPW) - Wales        |                                                                                                                                                                                                           |
| **Scotland**                                        |                                                                                                                                                                                                           |
| National Planning Policy Guideline 4: Land for Mineral Working (NPPG4) - Scotland |                                                                                                                                                                                                           |
13. COASTAL ENGINEERING

Flood and coastal defence in England and Wales is regulated by Defra and the Welsh Assembly respectively while in Northern Ireland the Department of Agriculture and Rural Development (DARD) takes the lead role and in Scotland, the Scottish Executive for Environment and Rural Affairs Department (SEERAD). Current legislation and responsible agencies can be seen in Table 12.

13.1 Coastal Flood Defence

The policy aim is to protect human life and to reduce the risk and extent of flooding in urban and rural areas and to combat coastal erosion. This includes the need to protect internationally important habitats but also to defend residential areas and industry in the national interest. The Ministry works closely with the operating authorities in delivering this aim and provides national strategic and other guidance to the operating authorities, and specialist help, supported by a research and development programme. Defra also provides substantial financial support to capital works which satisfy engineering, economic and environmental criteria, and achieve an appropriate priority score (Read et al., 2000). There is the need to secure a FEPA licence in respect of the temporary or permanent deposit of materials during coast protection or flood defence works, including beach nourishment and other ‘soft-engineering solutions’.

ENVIRONMENT ACT 1995

The Environment Act 1995 section 4(1) states that the Environment Agencies (EA in England and Wales and SEPA in Scotland) in discharging their functions, must protect the environment and make such contributions towards attaining the objective of achieving sustainable development. Section 6(1(a-c)) details general duties with respect to water including the conservation and enhancement of the natural beauty of inland waters and land associated with such waters, the conservation of flora and fauna which are dependent on an aquatic environment and the use of inland waters for recreational purposes. Section 7 requires the Environment Agency to contribute to the conservation of nature and the heritage when carrying out their flood defence functions under the relevant Acts.

In carrying out their functions the Environment Agency, Water Companies and Internal Drainage Boards and local authorities in England and Wales have a statutory duty to further conservation terrestrially and in the marine environment, where consistent with purposes of enactments relating to their functions. These are set out in the legislation relating to flood defence in the relevant countries. Commitments to the Convention on Biodiversity and the subsequent production of Biodiversity Action Plans (BAP) now recommend that policy and legislation should ‘continue to ensure that flood defence works are undertaken in an ecologically sensitive manner’.

With the introduction of tighter regulations for nature conservation in relation to planning control, flood and coastal defence legislation has now to take into account specific environmental objectives. The Conservation (Natural Habitats & c.) Regulations 1994 (described in section 2.2.2.1) require ‘competent authorities’ (see glossary for definition) to have due regard to the requirements of the Habitats Directive when carrying out their works/functions and also to make an Appropriate Assessment of the impact before approving any ‘plans or projects’ which may affect a European site (SPA/SAC). The relevant authority in the case of flood and coastal defence and coastal protection will be the Environment Agency, IDB and local authorities.
There are a number of the European Protected Species which may be affected by flood or coastal
defence works in the UK like for instance the great crested newt (Triturus cristatus), natterjack toad
(Bufo calamita), allis shad (Alosa alosa) and the fen orchid (Liparis loeselii). However, of the Annex
II fish species, especially the diadromous species migrating between freshwaters and the marine area,
some will be affected by the infrastructure development such as weirs, barriers and land claim.

When an Appropriate Assessment shows that a proposed development e.g. re-profiling of a flood
defence bank, will have an adverse effect on the integrity of a European Site, the following criteria
need to be met to allow the development to proceed. If a site is designated as a European site but is
not classed as a priority habitat, a development can only proceed if there are no alternative solutions
and there are imperative reasons of overriding public interest including those of a social or economic
nature. If an area does host a priority site then development can only go ahead if there is no
alternative solution and secondly there are imperative reasons of overriding interest relating to human
health and safety or beneficial consequences of primary importance to the environment (unless on
application, the EC is of the opinion that there are other imperative reasons of overriding public
interest which could justify the development).

The Flood Prevention (Scotland) Act 1961 and Land Drainage (Scotland) Act 1958 does not
explicitly refer to conservation and environmental concerns but the Scottish Executive has directed
that these matters should be taken into account in all assessments and procedures.

England and Wales

LAND DRAINAGE ACT 1991 & WATER RESOURCES ACT 1991

In England, it is the responsibility of Defra for policy in respect to flood defence, with the Secretary
of State for Wales having an equivalent responsibility in Wales. Jointly they administer the Land
Drainage Act 1991 and the flood defence provisions of the Water Resources Act 1991 and
Environment Act 1995. The responsibility and regulation for flood defence has greatly changed since
the introduction of the Environment Act 1995. All responsibilities for flood defence, as stated in the
Land Drainage Act 1991 and Water Resources Act 1991, were transferred to the Environment
Agency through this new piece of UK legislation.

Subject to Section 106 of the Water Resources Act 1991 (regarding the obligation to carry out flood
defence functions through Flood Defence Committees), the Environment Agency shall in relation to
England and Wales exercise a general supervision over all matters related to flood defence (section
6(4)).

The term drainage in both the Water Resources Act 1991 and the Land Drainage Act 1991 is defined
as including ‘defence against water, including sea water; irrigation and warping’ (section 113 (1a-d)
& section 72 (1) respectively). This term encompasses both coastal and inland flood defence. The
Environment Act 1995 amended this definition under section 100 to include the management of water
levels as part of the roles of the Environment Agency, Internal Drainage Boards (IDB) and local
authorities.

Flood and coastal defence duties are controlled by ten flood defence committees established under the
WRA 1991, through which the Environment Agency’s functions relating to flood defence in respect
to each area are carried out (section 106(1)). The Environmental Agency’s functions extend out to
the territorial sea in so far as the area of any regional flood defence committee includes any area of
the territorial sea, or provision is provided for in the WRA 1991 section 165 (2) for ‘drainage works
for the purpose of defence against sea water or tidal water.’ The Environment Act 1995 also makes provision for the creation of local flood defence committees within the area of a regional flood defence committee. The Environment Agency through its regional and local flood defence committees, undertakes measures to reduce the risks of flooding from all designated main rivers and the sea. A regional committee can submit a local flood defence scheme within its area to the Environment Agency or revoke a scheme or suggest an alternative scheme for an area of coast or river (section 17(3)) (Read et al., 2000).

Responsibility is given to the Environment Agency under the LDA 1991 (section 1&7) for the general supervision over the 240 IDBs throughout England and Wales. Provision has also been made for private land owners to protect their land under the LDA 1991, where companies like Railway Operators may also undertake such works to protect their land from flooding by the sea.

Section 165 of the WRA 1991 provides the Environment Agency with a range of powers to be exercised in conjunction with works for flood defence and land drainage. The Environment Agency with regard to main rivers has a role to ‘maintain, improve and construct works’ and may provide and operate flood warning systems (section 166). The Environment Agency also has the powers for compulsory purchase of land through the WRA 1991.

Part IVA of the LDA 1991, which was inserted by the Land Drainage Act 1994, requested the IDB and the Environment Agency to consider environmental and recreational factors within their duties. Duties were placed on IDBs and the local authorities to further the conservation and enhancement of natural beauty and the conservation of flora, fauna and geological and physiographical features of special interest. Also there is the need to have regard to the ‘desirability’ of protecting and conserving historical buildings and areas and to take into account any effect which the work proposals would have on the beauty or amenity of any rural or urban area (section 61A1). Due regard also needs to be given to the ‘desirability of preserving’ for the public, any freedom of access to woodland, mountains, moor, heath, down, cliff or foreshore (section 61(2)). All these duties in respect to the environment and recreation are applicable to any works being carried out by the Environment Agency and IDB. Boards must also seek the consent of navigation authorities, harbour authorities and conservancy councils before carrying out any works which may cause navigation to be obstructed and to ensure the water or land is made available for recreational purposes.

THE ENVIRONMENTAL IMPACT ASSESSMENT (LAND DRAINAGE IMPROVEMENT WORKS) REGULATIONS 1999

The Regulations apply to specified land drainage projects in England and Wales and prohibit drainage bodies from carrying out improvement works unless specified conditions are met. The principal requirements of the Regulations are that drainage bodies must determine whether improvement works are likely to have significant effects on the environment (regulation 4 and Schedule 2). Where a drainage body considers improvement works are unlikely to have such effects, they must publicise their intention to carry out the works. If no representations are received to the effect that the environmental effects are likely to be significant, they may proceed (regulation 5 and Schedule 2). However if the drainage body concludes that the works are likely to have significant effects on the environment an environmental statement must be prepared (regulations 6 and 7).
Northern Ireland

DRAINAGE (NORTHERN IRELAND) ORDER 1973

In Northern Ireland the Rivers Agency, as an Executive Agency within the Department of Agriculture and Rural Development (DARD), acts as the statutory drainage and flood defence authority. Under the terms of the Drainage (Northern Ireland) Order 1973 the Agency has discretionary powers to:

- maintain watercourse and sea defences which have been designated by the Drainage Council for Northern Ireland;
- to construct and maintain drainage and flood defence structures;
- and to administer enforcement procedures to protect the drainage function of all watercourses.

The Rivers Agency is not charged with responsibility for preventing flooding and its powers are limited to providing free-flowing watercourses to alleviate flooding. Section 7 defines the general powers of the Department as to “undertake, construct and maintain all such drainage works” which includes the construction of embankments and walls for the prevention of flooding or erosion, the removal or alteration of artificial objects such as sea defence works and the construction of sea defence works (Schedule 2). The Department can carry out emergency works to sea defences when the Department feels the defences are in imminent danger of being breached by the sea or rendered ineffective (section 9).

With the introduction of the Water (Northern Ireland) Order 1999 (SI 1999 No.662), general duties of the Rivers Agency have been defined as to “promote conservation and cleanliness of water resources. The Rivers Agency shall promote the conservation of the water resources of Northern Ireland; promote the cleanliness of water in waterways and underground strata” (section 4 (1)) (DARD, 2001).

DRAINAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS (NORTHERN IRELAND) 2001

The Rivers Agency carries out drainage and flood protection works with care and respect for the environment, with a statutory duty to protect fisheries. All drainage and flood defence proposals are subject to the new Drainage (Environmental Impact Assessment) Regulations (Northern Ireland) 2001, which requires DARD to assess the environmental impact of its proposed drainage works and schemes on the environment (regulations 5 & 18 and Schedule 2). Where the responsible Department considers that the works or scheme have such effects, it must publicise its intention to carry out the works. If representations are received that the environmental effects are likely to be significant, but the Department still considers otherwise, it must apply to the Water Appeals Commission for a determination (regulations 6 and 18). Where the environmental effects are considered significant, the responsible Department must prepare an environmental statement detailing the environmental effects and the measures proposed to mitigate those effects (DARD, 2001).

Scotland

FLOOD PREVENTION (SCOTLAND ) ACT 1961 & LAND DRAINAGE (SCOTLAND) ACT 1958

In Scotland, policy responsibility for flood prevention and land drainage lies with the Scottish Executive for Environment and Rural Affairs Department (SEERAD) and is regulated through the Scottish Environment Protection Agency (SEPA). The Flood Prevention (Scotland) Act 1961 deals with flood prevention for non-agricultural land and the Land Drainage (Scotland) Act 1958 covers land drainage and flood prevention on agricultural land. Grants towards the costs of approved schemes are available at similar levels to that in England and Wales.
The Land Drainage (Scotland) Act 1958 makes provision for the approval of works to improve the drainage of agricultural land or carry out works to prevent erosion or flooding. The Act, while it does not exclude individuals, is primarily aimed at groups of landowners who wish to co-operate in carrying out works affecting more than one property. Improvement schemes promoted under the Act invariably involve works of larger scale than is undertaken at any one time by individual farmers acting on their own.

In Scotland, policy responsibility for flood prevention and land drainage lies with the Scottish Executive. Flood Prevention (Scotland) Act 1961 empowers regional and islands councils to carry out work to prevent or mitigate flooding of land in their area, not being agricultural land, so far as they think fit (section 1). Any work other than maintenance and management operations must be authorised by the Scottish Executive (section 4). The primary responsibility for safeguarding land or property against natural hazards such as flooding remains with the owner, including local authorities as owners of land and property. Regional and islands councils may also maintain or repair existing flood defences but improvements or construction of new channels or defences requires the council to prepare a flood prevention scheme. Eligible expenditure on confirmed schemes is grant aided by SEERAD (Scottish Office, 1995). Regional and islands councils also have permissive powers under the Flood Prevention (Scotland) Act 1961 to clean, repair, and otherwise maintain any watercourse (including the bed and banks of any river, stream or burn, ditch, drain, cut, canal, culvert, sluice or passage carrying or designed to carry water) (Read et al., 2000). The Flood Prevention and Land Drainage (Scotland) Act 1997 amends the Flood Prevention (Scotland) Act 1961 in relation to flood prevention measures to be taken by local authorities.

The Environment Act 1995 (s.25) states that the Scottish Environment Protection Agency (SEPA) will have the assessment of flood risk, so far as it considers it appropriate, as one of its functions and a duty to provide advice, based on information held, to the planning authority if requested.

THE ENVIRONMENTAL IMPACT ASSESSMENT (SCOTLAND) REGULATIONS 1999

The Regulations apply to various projects, with Part IV of the Regulations relating to drainage works authorised under the Land Drainage (Scotland) Act 1958. Landowners must apply to Scottish Ministers for an Improvement Order, which authorises the work to be carried out, at agreed estimated costs. Orders may also make provision for the maintenance of the works and they may provide for the appointment of an Improvement Committee to administer the scheme. Before making an Improvement Order, Scottish Ministers must be satisfied that the applicants’ proposals are in the interests of agriculture in the area, that the works will be cost-effective and that there are no unresolved objections.

13.2 Coastal Protection

Coast protection is described as the protection of the land from coastal erosion. Protection works normally take the form of embankments, revetments, gabions and groynes.

COAST PROTECTION ACT 1949

The Coast Protection Act 1949 is “An Act to amend the law relating to the protection of the coastline of Great Britain against erosion and encroachment by the sea”. The Act therefore relates to the protection of the coastline from permanent erosion or permanent occupation of the land by the sea, as opposed to temporary flooding events which are covered by the Water Resources Act 1991 and the Land Drainage Act 1991.
The prevention of coastal erosion comes under the remit of the maritime district council which nowadays includes borough and city councils and unitary authorities. The council within each maritime district shall be the coastal protection authority for the district and will assume powers to perform such duties in connection with the protection of land in their areas imposed by this Act (section 1). A Coast Protection Board can be convened by the Minister consisting of the coast protection authority, Environment Agency, IDB, harbour authorities, local sea fisheries committees, country conservation authority, crown estates and any other body having any powers or duties for the coast within this area (section 2a-e). However to date, no coast protection boards have ever been set up under Section 2. As the coast is a dynamic system, any works on the coast can potentially affect other users and uses of the coast, therefore a detailed consultation process is required (French, 1997). At present while there is no compensation for the loss of land or property through natural processes, any such loss demonstrated to be caused by adjacent works is compensatable.

Each coast protection authority (CPA) is given the powers to carry out protection works whether inside or outside their area as may appear necessary for the protection of any land (section 4(1)). Land can also be made available through compulsory acquisition for work or repair to enable the CPA to carry out work. Any proposed work must be advertised in one or more local papers and made known to the other authorities previously mentioned in section 2(a-e). Any sustained objection to the notice shall give rise to a local inquiry.

Sections 6-7 detail the preparation and confirmation of ‘Work Schemes’ whereby the scheme shall indicate the nature of any work, specify the work to be undertaken and give an indication of the cost. The scheme will then be advertised and circulated for public consultation and review. Once a works scheme has been confirmed by the Minister the authority shall have the power to take all necessary steps towards carrying out the work (section 9). This “works scheme” procedure detailed in sections 6-11 has now been discontinued.

All the following sections and schedules set out various supplementary provisions with regard to coastal protection works. Where it appears to a CPA that the coastal defences are in need of repair to give sufficient protection to the land, the authority may serve on the owner and occupier of the land on which the works are situated, a notice specifying the work necessary (section 12). Grants are payable to maritime District Councils who wish to protect their coastlines against erosion.

Scotland

In Scotland, the Coast Protection Act 1949 is also applicable with the regional and island councils being the coast protection authorities under the Act. The Coast Protection Act 1949 empowers coast protection authorities (islands councils and councils of regions adjoining the sea) to carry out such coast protection work as may appear to them to be necessary or expedient for the protection of any land in their area (section 4). Certain coast protection work must be authorised by the Scottish Executive (section 6). This legislation does not specifically refer to conservation and environmental concerns but the Scottish Executive has directed that these matters should be taken into account in all assessments and procedures (Scottish Executive, 2003b).

Northern Ireland

In Northern Ireland there is currently no statutory provision governing measures to combat coastal erosion. Responsibilities for carrying out essential coastal protection works to combat the effects of erosion is currently shared between three Government Departments on the basis of the formula (known a the Bateman Formula) agreed in 1967. This formula states that –
• the Ministry of Commerce (relevant functions now carried out by the Department of Enterprise, Trade & Investment for Northern Ireland (DETI)) would be responsible for schemes related to tourism or harbours;

• the Ministry of Development (relevant functions now carried out by the Department of the Environment (DoE)) would deal with schemes where there is a road or promenade interest, for which the Ministry of Commerce would have no responsibility; and

• the Ministry of Agriculture (now Department of Agriculture and Rural Development (DARD)) would be the sponsor without portfolio of any essential schemes not falling within (a) or (b).

Any works to combat erosion are subject to DoE approval.
### Table 12 UK Legislation for Coastal Engineering (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>UK Legislation for Flood Defence</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Drainage Act 1991</strong></td>
<td>Part IVA - which was inserted by the Land Drainage Act 1994, request the IDB and the Environment Agency to consider environmental and recreational factors within their duties. Duties were placed on IDBs and the local authorities to further the conservation and enhancement of natural beauty and the conservation of flora, fauna and geological and physiographical features of special interest.</td>
</tr>
<tr>
<td>amended by:</td>
<td></td>
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<tr>
<td>Land Drainage Act 1994</td>
<td></td>
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<tr>
<td><strong>Scotland</strong></td>
<td></td>
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<tr>
<td>Land Drainage (Scotland) Acts 1930, 1941 &amp; 1958</td>
<td></td>
</tr>
<tr>
<td><strong>Northern Ireland</strong></td>
<td></td>
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<tr>
<td>Drainage (Northern Ireland) Order 1973</td>
<td></td>
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<tr>
<td><strong>Water Resources Act 1991</strong></td>
<td>Section 165 of the WRA 1991 provides the Environment Agency with a range of powers to be exercised in conjunction with works for flood defence and land drainage. The Environment Agency with regard to main rivers are to ‘maintain, improve and construct works’ and may provide and operate flood warning systems (section 166). The Environment Agency also have the powers for compulsory purchase of land through the WRA 1991.</td>
</tr>
<tr>
<td><strong>Scotland</strong></td>
<td></td>
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<tr>
<td><strong>Northern Ireland</strong></td>
<td></td>
</tr>
<tr>
<td>Water (Northern Ireland) Order 1999</td>
<td></td>
</tr>
<tr>
<td><strong>Flood Prevention (Scotland) Act 1961</strong></td>
<td>Enables local authorities to construct flood prevention schemes. The legislation gives Councils permissive powers to promote flood prevention schemes and to maintain watercourses in urban areas.</td>
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<tr>
<td>amended by:</td>
<td></td>
</tr>
<tr>
<td>Flood Prevention and Land Drainage (Scotland) Act 1997</td>
<td></td>
</tr>
<tr>
<td><strong>Environment Act 1995</strong></td>
<td>Section 4(1) - Environmental protection agencies in discharging its functions, must protect the environment and to make such contributions towards attaining the objective of achieving sustainable development. Section 7 requires the Environmental protection agencies to contribute to the conservation of nature and the heritage when carrying out their flood defence functions under the relevant Acts. The relevant authorities in the case of flood and coastal defence and coastal protection will be the Environment Agency / SEPA, IDB and local authorities.</td>
</tr>
<tr>
<td><strong>Food and Environment Protection Act 1949</strong></td>
<td>Needed for the temporary or permanent deposit of materials during flood defence works, including beach nourishment and other ‘soft-engineering solutions’</td>
</tr>
<tr>
<td><strong>SI 1999/1783 The Environmental Impact Assessment (Land Drainage Improvement Works) Regulations 1999</strong></td>
<td>Regulation 4 &amp; Schedule 2 - apply to specified land drainage projects in England and Wales and prohibit drainage bodies from carrying out improvement works unless specified conditions are met. The principal requirements of the Regulations are that drainage bodies must determine whether improvement works are likely to have significant effects on the environment.</td>
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</tbody>
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Assessment (Scotland) Regulations 1999
Northern Ireland
SR 2001/394 Drainage (Environmental Impact Assessment) Regulations (Northern Ireland) 2001

<table>
<thead>
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<td>Coast Protection Act 1949</td>
<td>The Act relates to the protection of the coastline from permanent erosion or permanent occupation of the land by the sea. Section 1 - The prevention of coastal erosion comes under the remit of the maritime district council. A Coast Protection Board can be convened by the Minister consisting of the coast protection authority, Environment Agency, IDB, harbour authorities, local sea fisheries committees, country conservation authority, crown estates and any other body having any powers or duties for the coast within this area (section 2a-e). Section 4 - Each coast protection authority (CPA) is given the powers to carry out protection works whether inside or outside their area as may appear necessary for the protection of any land.</td>
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<td>Needed for the temporary or permanent deposit of materials during coast protection works, including beach nourishment and other ‘soft-engineering solutions’</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>Currently no statutory provision governing measures to combat coastal erosion. Based on the Bateman Formula the DETI is responsible for schemes related to tourism or harbours; DoE would deal with schemes where there is a road or promenade interest, for which the Ministry of Commerce would have no responsibility; and DARD would be the sponsor without portfolio of any essential schemes not falling within (a) or (b).</td>
</tr>
</tbody>
</table>

Planning Guidance

England

Wales
Development and Flood Risk. Planning Guidance (Wales): Technical Advice Note (Wales) 15

Scotland

Non-Statutory Measures

Shoreline Management Plans (SMPs)
Water Level Management Plans (WLMPs)
Coastal Habitat Management Plans (CHAmps)
Estuary Management Plans (EMP’s)
Catchment Flood Management Plans (CFMPs)
Local Environment Agency Plans (LEAPs)
River Basin Management Plans (RBMPs)
Heritage Coast Management Plans
Biodiversity Action Plans
Integrated Coastal Zone Management Plans (ICZM)
Local Agenda 21
Aquaculture Framework Plans (AFPs)
**Impending Legislation**

“Water Framework Directive” | Provides an opportunity for a fresh approach to flood management based on integrated river basin and coastal management plans. |
14. DEVELOPMENT IN THE COASTAL ZONE

The coastal zone can be divided into development on land (i.e. above high water) and development below low water. The predominant control over development above the high water mark is the town and country planning system. Within the intertidal area, the town and country planning system operates in conjunction with other legislation designed to control development on a sectoral basis, while the regulation of development beyond low water in England and Wales in the offshore and intertidal areas is already extensive and largely regulated on sector by sector approach controlled by the regulating authority (Read et al., 2000).

All development in the marine environment should aim to be environmentally sustainable and to maintain the biodiversity of the area. However, there is an explicit requirement to implement through policy and action, to enhance economic growth without jeopardising key environmental assets and natural resources. Development within the marine environment can have many detrimental effects if co-operation and consultation are not applied between neighbouring authorities and offshore regulatory bodies.

Planning legislation and development controls applicable in the UK coastal zone above and below the low water mark can be seen in Table 13. The table also includes non-statutory plans and government planning guidance notes.

14.1 Landward Coastal Development

County councils are the principal authorities managing activities within the coastal zone especially outside harbour authority areas. In general local authority jurisdiction coincides with the authority’s seaward administrative boundary which is usually the low water mark. However, administrative boundaries and jurisdictions can, but do not always, extend to waters internal of the baseline (DTA, 2000). The low water mark usually defines the seaward boundary of the maritime local authorities control and therefore planning control, but in some instances, local authority jurisdiction extends below low water. In tidal estuaries it extends to the point where the river and sea meets and also covers certain harbours and bays.

The Town and Country Planning laws with guidance provided from the Government in the form of Planning Policy Guidance (PPGs) and Government circulars are the main source of legislation. This elevated hierarchy of legislation in the planning framework is supported by regional guidance from the Office of the Deputy Prime Minister (ODPM) who provides the framework for the preparation of

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9 Planning authority jurisdiction does not extend beyond the mean low water mark of ordinary spring tide in Scotland (derived from Argyll & Bute District Council vs SofS for Scotland, 2nd Division, Court of Session 1976).

10 In Scotland, some local authorities do have boundaries that extend into the sea, but due to the above ruling they are not able to exercise planning powers in the parts of their territory that extend beyond the low water mark. Second, under the Zetland County Council Act 1974 and the Orkney County Council Act 1974, the local authorities in Shetland and Orkney possess powers to control development in designated coastal waters by awarding works licences. These are not the same thing as planning permissions and operate separately from planning legislation. They were principally designed for use in relation to oil industry developments but have since been applied to other developments such as fish farming.
structure plans. Structure and local plans develop regional planning in more detail and provide the opportunity to set out general policies and proposals for the UK’s coastal areas.

**TOWN & COUNTRY PLANNING ACT 1990**

All planning and development in England is now consolidated in the Town and Country Planning Act 1990 with important changes made under the Planning and Compensation Act 1991. Following devolution, planning in Wales remains under the Town and Country Planning Act 1990 but powers in relation to delegated legislation, and powers of the Secretary of State, have passed to the National Assembly of Wales. In Scotland, planning legislation was consolidated in the Town and Country Planning (Scotland) Act 1997 amended by the Town and Country Planning (General Permitted Development) (Scotland) Amendment Order 1997. Following devolution, the responsibility for town and country planning passed to the Scottish Parliament. In Northern Ireland, planning legislation is through the Planning (Northern Ireland) Order 1991 which mirrors the Town and Country Planning Act 1990, with an amendment proposed in 2003 for the Planning (Amendment) (NI) Order 2003. However there are important differences to the English system with responsibility for planning and planning applications lying with the Department of the Environment (Northern Ireland), with no central role for local authorities. Appeals and called in applications are decided by a separate Northern Ireland Planning Appeals Commission (Bell & McGillivray, 2000).

The town and country planning system is designed to regulate the development and use of the land in the public interest. It is an important instrument for protecting and enhancing the environment, and reconciling the interests of conservation and development (DoE/Welsh Office, 1993). In the coastal zone, one of the primary objectives of planning policy is the need for sustainable development that enhances social wellbeing without detracting from the quality of the environment. This can be achieved through the preparation of development plans and the exercise of development control functions.

The town and country planning system is complex and covers all aspects of planning and development to protect both the public and the environment. "Development" has been defined as the carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land (s.55 England & Wales & s.26 (1) Scotland). The Town and Country Planning Act 1990 has been amended many times over the last decade to keep up with changes to development within the UK.

The Planning and Compensation Act 1991 (c. 34) is an Act amending the law relating to town and country planning. It extends the powers to acquire by agreement, land which may be affected by carrying out public works and it amends the law relating to compulsory acquisition of land and to compensation where persons are displaced from land or where the value of land or its enjoyment may be affected by public works.

The Town and Country Planning (Development Plan) Regulations 1991 and the amendments in the Town and Country Planning (Development Plan) (Amendment) Regulations 1997 make provision for the form and content of structure plans, local plans, mineral local plans, waste local plans and unitary development plans made under the Town and Country Planning Act 1990. The procedures for making, altering and replacing such plans is addressed, together with the rules for resolving conflict between and within such plans (SI 1997 No. 531). The main changes to the 1991 Regulations are to require local planning authorities to have regard to any future national waste strategy in formulating development plans (regulations 3 and 4). National Waste Strategies have been prepared for England and Wales by Defra and in Scotland by SEPA (Defra, 2000b; SEPA, 2003).
Local planning authorities in England and Wales are required to include a new National Park Authority as the sole local planning authority for the Park area and to consult any local authority or urban development corporation for an area covered by the development plan proposals (regulation 5). Regulations 6 and 7 require a local planning authority, in giving notice of its intended adoption of its plan, to consult not only with the main objectors to the scheme but to any other person or body the authority considers should be given notice.

STRUCTURE & LOCAL PLANS

County councils are responsible for structure plans and local plans relating to certain country subjects such as minerals planning and waste disposal (Bell & McGillivray, 2000). Structure plans should distinguish between the developed, undeveloped and isolated coast, set out general policies for the protection of the coastal environment, including in particular Special Areas of Conservation and Special Protection Areas and identify areas at risk from coastal erosion and flooding. In considering development proposals for land bordering the coast and estuaries, particular attention should be paid to ensuring that there will be no significant detriment to navigation, fisheries, the on and off-shore environment, coastal protection and flood defences. Structure plans should wherever possible promote and protect the quality and integrity of intertidal habitats from proposed development. The Government states in all planning policy guidance that this should generally be done as part of and in the context of the normal process of structure plan preparation rather than by promoting a specific alteration dealing with the coast. Structure plans should identify the key coast-related policy issues and provide the policy framework, including the general areas over which such policies should operate.

In the protection of the natural and built environment, Structure Plans promote the policy of no-net-loss. Where significant environmental loss or damage to the natural environment is unavoidable, replacement habitats or features should be provided as locally as possible so that any net environmental loss due to development is minimised.

Local plans provide the opportunity to define the areas to which specific policies apply. For example in the coastal zone, sites for proposed coast-related uses include flood defence, marinas and identifying areas at risk from flooding, erosion and land instability.

In the process of preparing structure and local plans, it is helpful to identify areas where a comprehensive approach to coastal issues, which goes wider than land use planning, is required. Through involvement with other groups and agencies with an interest in the coast, it should be possible for planning authorities to identify these priority areas in their development plans.

PLANNING POLICY GUIDANCE

Under the 1990 Act, local planning authorities are required, in formulating the general policies in a structure plan or Part 1 of a unitary development plan, to have regard to any regional and strategic planning guidance and to current national policies. The latter include Planning Policy Guidance notes (PPGs). PPGs are prepared by the Government, after public consultation, to provide guidance to local authorities and others on policies and the operation of the planning system. Under the devolved Welsh National Assembly, PPGs were replaced by Technical Advice Notes (TANs), however these remain similar in context to the English PPGs. In Scotland, policy on nationally important land use and other planning matters, supported where appropriate by a locational framework, is contained within Scottish Planning Policy (SPP) documents. SPPs are replacing National Planning Policy Guidelines (NPPGs) but existing NPPGs will have continued relevance to decision making until they
are replaced by a SPP. There are notable differences in the wording of the Scottish SPPs/NPPGs and English PPGs.

Of particular relevance to the marine environment is PPG20, which covers planning policy for the coastal areas of England and Wales. PPG20 was published in 1992 as part of the Government’s response to the Environment Committee’s report on Coastal zone protection and planning. It sets the general context for policy and identifies planning polices for the coast. Secretaries of State and their Inspectors should have regard to planning policy guidance in dealing with appeals and called-in planning applications, and expect local planning authorities to have regard to it in the exercise of their planning functions (DoE/Welsh Office, 1992).

PPG20 on Coastal Planning sets out the general context for policy and identifies planning policies for the coast. Policies for development that require a coastal location is addressed with subsequent guidance given on how these policies should be reflected in the development plans.

Above the low water mark, the principal planning control of the land is through the Town and Country Planning System. PPG20 recommends it should be a duty of coastal authorities to allocate land along their coastlines in a responsible manner. Development should account for physical circumstances such as risk of flooding, erosion and land instability, and conservation policies. Development should only be contemplated if that development needs a coastal location and it should not be permitted in areas that would require expensive engineering works to provide protection from erosion or flooding from the sea. PPG20 considers that a precautionary approach should be adopted to development in these vulnerable areas and it advises that vulnerable areas should be mapped and clearly identified within local authority development plans. PPG14 on Development on Unstable Land and its updated Annexes on Landslips and Planning (Annex 1) and Subsidence and Planning (Annex 2) (ODPM, 2002b) suggests that local planning authorities should not permit built development where there is potential for landslips during the lifetime of the structure.

PPG20 gives advice on the provision of coastal protection and defence improvements. Improvements to existing sea defences are not normally subject to planning control, but permission is required for new works. All associated environmental impacts should be taken into consideration. PPG20 also states that in undeveloped coasts, the option of managed realignment should be considered and that hard defences should not be presumed to be the best option. Major developments should only be permitted if demonstrated that a coastal location is essential. PPG20 explains that developments of national or regional importance should normally be addressed in structure plans. Examples of such projects include ports, oil and gas terminals, barrages, and refineries. To assist the decision on such development, it is important that development plan policies are well grounded in an understanding of coastal processes (Read et al., 2000).

PPG20 emphasises the importance that planning policies for the coast in neighbouring areas are consistent to reduce conflict caused by opposing development policies, for example, development in one authority’s area may reduce the scenic and nature conservation of coastal areas in those of neighbouring authorities. The Government emphasised the need for co-operation between local coastal authorities and other relevant authorities, bodies and agencies which have responsibilities for development within the marine environment.

Following an internal review of the significant legislative and policy changes since its original adoption, PPG20 is currently being revised to take account of these changes with consultation expected during 2003 (IDG, 2002).
PPG12 on Development Plans and Regional Planning Guidance, emphasises the Government’s intention to work towards ensuring that development and growth are sustainable, that the continued development of policies are consistent with the concept of sustainable development and thirdly, that there is a requirement that development control decisions should accord with the development plan unless material considerations indicate otherwise (ODPM, 1999a).

The Welsh Office has recently brought out Planning Guidance (Wales): Planning Policy which states that planning authorities should only promote development in undeveloped coastal areas that specifically require coastal locations. The developed coast, by contrast, may provide opportunities for restructuring and regenerating existing urban areas. Where new development requires a coastal location, the developed coast will normally provide the best option, provided that due regard is paid to the risks of erosion, flooding or land instability. Development Plans should reflect this policy (Welsh Office, 1999).

The Scottish National Planning Policy Guideline 13 (NPPG13) on Coastal Planning advocates the use of Structure Plans whereby a strategic planning policy context can be established for the coast (Scottish Office, 1997). The impact of development on natural and cultural heritage interests and effects of natural processes are not always confined to local areas nor are the impacts or effects always evident in the short term. This may result in damage elsewhere to habitats, fisheries, cultural heritage or recreational resources, alteration to the natural processes of erosion and deposition and increased risks to existing development and coastal defences.

14.2 Seaward Coastal Development

Town planning legislation does not normally apply below the low water mark (see section 14.1 for exceptions). Development control at sea relies on a variety of consents and licences which are predominantly sectoral rather than integrated controls - the main exceptions being FEPA and CPA that have very broad application. Development within the boundaries of local authorities will normally be subject to control under the planning system. In addition, almost all development carried out at sea, on the seabed or within other tidal waters requires to be licensed under FEPA and, except where covered by local harbour powers, Private Acts or an Order under the Transport & Works Act, is liable to need a consent under the Coast Protection Act from the Department for Transport which has responsibility for works that may obstruct or endanger navigation. Other developments include harbour developments, minerals dredging, disposal at sea, fish farming, oil and gas exploitation, pipelines and cables. Consents in England and Wales are administered by the MCEU, with similar arrangements applying in Scotland. Details on the legislation and consents required for mariculture, offshore renewable energy, oil and gas exploration and aggregate extraction can all be found under their respective chapters in this report.

FOOD AND ENVIRONMENT PROTECTION ACT 1985

Under the Food and Environment Protection Act 1985, Part II (FEPA) the licensing authority is Defra or the Welsh Assembly Government in England and Wales (administered through the MCEU), the Scottish Executive in Scotland and DoE(NI) in Northern Ireland. They all have powers to control by licence the "deposit of substances or articles" in the sea or under the seabed:

- anywhere at sea from a British registered vessel, vehicle, aircraft, hovercraft or marine structure
• in UK controlled waters (as defined by reference to the Continental Shelf Act) around England and Wales from any vessel, vehicle, aircraft, hovercraft or marine structure or

• the loading of materials in England, Wales or UK controlled waters intended for deposit anywhere at sea.

These controls extend to the placement of materials during the course of construction and related works; the disposal of waste - principally dredgings; coast defence; beach nourishment; harbour/marina developments; jetties; pontoons; land reclamation and outfalls. The Act also regulates the approval of products for treatment of oil spills.

In exercising this control, Defra as the licensing authority has a statutory duty to protect the marine ecosystem and human health, and to minimise interference and nuisance with other legitimate uses of the sea, such as fishing (section 8(1)). Impacts on hydrology; interference with other marine activities and the possibility of turbidity and drift of fine materials to smother seabed flora and fauna with associated adverse impacts on designated conservation areas, must be primary considerations. The Act also empowers the licensing authority to pay due regard to any other matters it considers relevant and, in determining whether to issue a licence, Defra also takes into account such aspects as the availability of alternative disposal options, including the beneficial use of all or part of dredged materials and the risk of coastal erosion.

A charge is levied to cover the cost of issuing and administering the licence (section 8). In processing an application, a detailed assessment of the potential adverse impacts of any deposit on the marine ecosystem and others using the sea is made by the Department’s scientists and fisheries advisors. The licensing authority in this instance may ask for an additional fee to cover the expense (section 13 (1&2)) or the responsibility for funding the monitoring and assessment is passed to the licensee.

Construction licences can be applied for with respect to the placement of materials or articles in tidal waters other than for the primary purpose of their disposal. Developments include new harbours, jetties, sea walls, outfalls and land reclamation schemes, and also ‘soft engineering’ developments such as beach nourishment and associated groynes and revetments. Unlawful disposal or placement of articles and substances below mean high water springs is considered an offence under section 21 of the Act. Anyone found guilty of an offence shall be liable on conviction “to a fine of an amount not exceeding £50,000” or “imprisonment for a term not exceeding two years” (section 21 (2)) or both.

14.3 Ports & Harbours

HARBOURS ACT, 1964

The statutory definition of "harbour" for the purposes of the Harbours Act 1964 is very wide. Section 57 within the Act defines it as "any harbour, whether natural or artificial, and any port, haven, estuary, tidal or other river or inland waterway navigated by sea-going ships, and includes a dock, wharf ..". The area of water comprising the harbour must be sufficiently enclosed to enable such vessels to ship or unship goods or passengers. The same definition is adopted in other statutes including the Pilotage Act 1987 and the Ports Act 1991.

Most harbours are administered under individual local Acts of Parliament, or under revision or empowerment orders made by the Secretary of State for Transport (under the Harbours Act 1964). The Harbours Act 1964 (as amended by the Transport and Works Act 1992), controls the construction of harbours, the extension of harbours and construction of projects within harbour authorities, which
could interfere with other rights of navigation, as regulated by the Department for Transport, Defra and the Welsh Office in the case of fisheries harbours. Substantial areas of harbours fall within the jurisdiction of local planning authorities and are therefore subject to planning control. In addition to national legislation, each harbour authority has its own powers, laid down in a private act of parliament or in a harbour empowerment or revision order (DoE, 1993). Older local Acts often incorporate provisions from the Harbours, Docks and Piers Clauses Act 1847. Also, Orders made under the Harbours Act 1964 include clauses from the 1847 Act, e.g. the Portland Harbour revision Order 1997 (SI 1997 No.2949).

Schedule 3 of the Transport and Works Act 1992 has extended the scope of harbour orders to include recreational as well as commercial harbours and to enable harbour authorities to obtain byelaw-making powers for nature conservation. It has also placed environmental duties on all harbour authorities.

Under the 1964 Act, the Secretary of State may, by order, prohibit a number of harbour activities including the construction, reconstruction, improvement or repair of a harbour or harbour buildings and structures (section 9). Harbour Revision Orders are granted for securing the safety and efficiency of the harbour and these together with Harbour Empowerment Orders can be granted for the improvements, maintenance or management of a harbour (whether natural or artificial) or of a port, haven, estuary, tidal or other river or inland waterway so navigated (section 16 (1)). If the development is for the benefit of a fisheries harbour, an application can be made to Defra who may grant a Harbour Empowerment Order. If, however, the improvements are for the benefit of commercial shipping and the developer does not have the means to achieve the development, an application can be sent to Defra, who may designate another body to pay for the construction (section 16 (1 & 2)).

Schedule 3, Part I of the Act implements the EU EIA Directive to proposed harbour development. A project which falls within Annex I of the Directive will be subject to a mandatory Environmental Assessment, whereas a project which falls within Annex II of the Directive will be made subject to an environmental assessment dependent on its characteristics (Sch3. Part 1, A2 (2a7b)). See Harbour Works (Environmental Impact Assessment) Regulations 1999 for more details.

Section 48 of the Act imposes environmental duties on harbour authorities when considering any proposal relating to its functions. They should have regard to the conservation of natural beauty of the countryside and of flora, fauna and geological or physiographical features of special interest, to the desirability of preserving for the public any freedom of access to places of natural beauty and also to maintain the availability of archaeological and historical buildings and sites. The natural beauty of the countryside, flora, fauna or any such feature or facility should be taken into account when considering a proposal.

With the amendments made to Schedule 2 of the Harbours Act, harbour authorities may obtain powers for nature conservation purposes through a Harbour Revision Order. Any revisions to impose or confer powers for nature conservation must be consistent with the basic functions of harbour authorities to improve, maintain or manage the harbour.

The amended Act now exempts operations authorised by harbour orders from the requirement to obtain the consent of the Secretary of State under section 35 of the Coast Protection Act 1949 which provides for the safety of navigation. Their powers vary widely and many harbour authorities hold powers to control activities within their jurisdiction on both land and water. Byelaws enable the
control of many activities from traffic management to establishing zones of recreational water use. These powers are typically broader than those of local authorities but are limited to those provided by statute and can only be used to provide effective harbour management and safety (DoE, 1993).

14.4 Environmental Impact Assessment

Environmental Assessment is essentially a management tool for identifying, predicting and evaluating the potential biological, physical, social and health effects if a proposed development. It seeks to encourage environmental concerns to be incorporated into the planning decisions and has an important role to play in achieving sustainability in the coastal and marine environment. EIA regulations have been addressed under specific coastal issues in previous chapters, with some of the remaining regulations addressing other developments in the coastal zone detailed below.

TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) (ENGLAND AND WALES) REGULATIONS 1999


The Regulations integrate the EIA procedures into the existing framework of local authority control, allowing a more systematic approach of assessing the environmental implications of developments that are likely to have significant effects. Development that falls within a relevant description in Annex 1 makes EIA compulsory and covers major developments. Annex 2 projects are at the discretion of Member States and are for less major projects; however, in the UK, all projects seem to be covered under the planning guidelines and permission regulations. This applies when the project exceeds one of the relevant thresholds listed in Schedule 2 or is located in a 'sensitive area', as defined in regulation 2(1).

Where an EIA is required, an Environmental Statement (ES) must be prepared by the developer in which all relevant information must be used. This document (or series of documents) must contain the information specified by regulation 2(1) and in Schedule 4 to the Regulations. Under regulation 12, certain public bodies (defined in regulation 2(1) as 'the consultation bodies') must, if requested, make information in their possession available to the developer for the purposes of preparing an ES (ODPM, 1999b).

HARBOUR WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 1999

The European Community Directive on the assessment of the effects of certain public and private projects on the environment (as amended) lists trading ports and piers which can take vessels over 1,350 tonnes as projects that must be subject to environmental impact assessment (Annex I). The construction of harbours and port installations (including fishery harbours), marinas and modifications to Annex I projects require EIA if they are likely to have significant effects on the environment by virtue of their nature, size or location etc (Annex II). The Directive suggests that Annex 2 developments are subject to EIA at the discretion of member states. These requirements are
implemented in the UK through the Harbour Works (Environmental Impact Assessment) Regulations 1999 (as amended) under the Harbours Act 1964.

Where consent is required for works in a harbour area which is likely to have a significant environmental effect, there has to be an environmental statement. Both navigation and environmental issues will be taken into consideration.

**DRAINAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS (NORTHERN IRELAND) 2001**

The Drainage (Environmental Assessment) Regulations (Northern Ireland) 1991 as amended by the Drainage (Environmental Assessment) (Amendment) Regulations (Northern Ireland) 1998 provide for the implementation in relation to drainage schemes and drainage works carried out by the Department of Agriculture and Rural Development (DARD). The new Regulations require DARD to assess the environmental impact of its proposed drainage works and schemes and they require the Department of Culture, Arts and Leisure to assess the environmental effects of any canal scheme or marina project that it may undertake. Where the environmental effects are considered significant, the responsible Department must prepare an environmental statement detailing the environmental effects and the measures proposed to mitigate those effects. The Regulations also specify that publicity is to be given to Departmental determinations on the significance of environmental effects, any environmental statements prepared and also any further environmental information obtained.
### Table 13  Key Legislation for Development in the Coastal Zone  (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>European Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment amended by: 97/11/EC &amp; 2001/42/EC</td>
<td>Seeks to ensure that where a development is likely to have significant effects on the environment the potential effects are systematically addressed in a formal environmental statement. Annex I and II lists types of projects which must be subject to EIA whenever they are likely to have significant effects on the environment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UK Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town and Country Planning Act 1990 amended by: The Planning and Compensation Act 1991</td>
<td>Complex system which covers all aspects of planning and development to protect both the public and the environment. &quot;Development&quot; has been defined as the carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land (s.55 England &amp; Wales) &amp; (s.26 (1) Scotland). England, Wales and Scotland - responsibility for planning and planning applications lie with local authorities.</td>
</tr>
<tr>
<td>Northern Ireland Planning (Northern Ireland) Order 1991 Draft Planning (Amendment) (NI) Order 2003 SI 1999/293 Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 amended by SI 2000/2867</td>
<td>In Northern Ireland, responsibility for planning and applications lie with the Department of the Environment (Northern Ireland), with no central role for local authorities. The Regulations integrate the EIA procedures into the existing framework of local authority control, allowing a more systematic approach of assessing the environmental implications of developments that are likely to have significant effects. Regulations 2(1) - Development that falls within a relevant description in Schedule 1 to the Regulations always requires EIA. Schedule 2 projects require an EIA only when there are significant environmental effects. This applies when the project exceeds one of the relevant thresholds listed in Schedule 2 or is located in a 'sensitive area'.</td>
</tr>
<tr>
<td>Scotland SI 1997/1870 Environmental</td>
<td></td>
</tr>
</tbody>
</table>
### Summary of Current Legislation Relevant to Nature Conservation in the Marine Environment in the UK

<table>
<thead>
<tr>
<th>Assessment (Scotland) Amendment Regulations 1997</th>
<th>Under part II of the Food and Environment Protection Act 1985, construction licences are required for the placement of materials or articles in tidal waters other than for the primary purpose of their disposal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>partially revoked by SSI 1999/1 &amp; amended by SSI 2002/324</td>
<td>Food and Environment Protection Act 1985 (Part II)</td>
</tr>
<tr>
<td><strong>Food and Environment Protection Act 1985 (Part II)</strong></td>
<td>(FEPA responsibilities devolved to Wales, Scotland and Northern Ireland)</td>
</tr>
<tr>
<td><strong>Harbours Act 1964</strong> (as amended by the Transport &amp; Works Act 1992)</td>
<td>Controls the construction of harbours, the extension of harbours and construction of projects within harbour authorities, which could interfere with other rights of navigation, as regulated by the Department for Transport, Defra and the Welsh Office in the case of fisheries harbours.</td>
</tr>
<tr>
<td>Harbours Act (Northern Ireland) 1970</td>
<td>Substantial areas of harbours fall within the jurisdiction of local planning authorities and are therefore subject to planning control.</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>Each harbour authority has its own powers, laid down in a private act of parliament or in a harbour empowerment or revision order.</td>
</tr>
<tr>
<td>SI 2002/3155 Harbours (Northern Ireland) Order 2002</td>
<td>Schedule 2 - harbour authorities may obtain powers for nature conservation purposes through a Harbour Revision Order</td>
</tr>
<tr>
<td>SI 1999/3445 Harbour Works (Environmental Impact Assessment) Regulations 1999</td>
<td>Annex 1 - lists trading ports and piers which can take vessels over 1,350 tonnes as projects that must be subject to environmental impact assessment</td>
</tr>
<tr>
<td>amended by SI 2000/2391</td>
<td>Annex II - construction of harbours and port installations (including fishery harbours), marinas and modifications to Annex I projects require EIA if they are likely to have significant effects on the environment by virtue of their nature, size or location etc.</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>Northern Ireland - 1990 Regulations ask an assessment to be made of the environmental effects of any canal scheme or marina projects.</td>
</tr>
<tr>
<td>The Harbours (Assessment of Environmental Effects) Regulations (NI) 1990</td>
<td><strong>Planning Guidance</strong></td>
</tr>
</tbody>
</table>

#### England
- PPG20 - Coastal Planning
- PPG12 - Development Plans and Regional Planning Guidance
- PPG9 - Nature Conservation

#### Wales
- Technical Advice Note 14 - Coastal Planning 1998
- PG Wales - Planning policy (First Review)

#### Northern Ireland
- PPS1 - General Planning Principles
- PPS2 - Planning and Nature Conservation

#### Scotland
- NPPG13: Coastal Planning
- Planning Advice Note: PAN 53 - Classifying the Coast for Planning Purposes
15. TOURISM AND RECREATION IN THE MARINE ENVIRONMENT

With the growing popularity of tourism and recreation at the coast, increasing pressures have been exerted on the marine environment. Onshore and water based recreation have become increasingly popular and the need to control these activities for nature conservation purposes and also to resolve conflicts between different users of the coast has become increasingly apparent. The Merchant Shipping Act 1995 legislates the use of boats for leisure within coastal waters, and where voluntary measures are impractical or have already failed, it may be necessary to adopt a regulatory approach to the management of activities in the form of byelaws. Table 14 shows the legislation applicable in the UK coastal zone to regulate tourism and recreation activities.

15.1 Control of Leisure Sailing

MERCHANT SHIPPING (VESSELS IN COMMERCIAL USE FOR SPORT OR PLEASURE) REGULATIONS 1998

The Merchant Shipping (Vessels in Commercial Use for Sport or Pleasure) Regulations 1998 amended in 1999 add a Code of Practice for the safety of small vessels in commercial use for sport or pleasure operating from a nominated departure point (Megayacht Code). The Code applies to vessels which operate to sea up to 20 miles from a Nominated Departure Point. It is, therefore, complementary to the Codes of Practice for the Safety of Small Commercial Sailing and Motor Vessels. The Regulations require compliance by larger vessels (over 24 metres in length, or for older vessels, over 150 gross tons) with the Code of Practice.

15.2 Controls on Bathing & Near-shore Recreation

COUNTRYSIDE AND RIGHTS OF WAY ACT 2000

Access to the foreshore for recreational pursuits can be made by the Secretary of State (in England) or the National Assembly for Wales (in Wales). An order can extend the statutory right of access to all or any part of the foreshore and land adjacent to the foreshore under Section 3 of the Act. In making such an order, the Secretary of State (or the National Assembly for Wales) may modify the application of this Part of the Act in so far as it applies to access to the foreshore.

Byelaws

Byelaws around the UK coast have been enacted under various pieces of legislation. The role of byelaws has been the subject of a recent review by an inter-departmental working group with the results published by DETR in October 1998. The specific principal powers of byelaws have been designed to regulate the activities taking place on the seashore and on promenades, to licence pleasure boats for commercial purposes, to regulate public bathing (primarily for safety reasons), regulate speed, use and noise of pleasure boats and promote good rule and government in their area. Throughout the review, the working party looked at the three main aims of recreation management for public safety, protecting amenity and preventing environmental damage. The working party made 59 recommendations for the use of byelaws in the management of recreation on the coast. Many of these recommendations have relevance to management for amenity, safety and nature conservation purposes (DETR, 1998d).
COUNTRYSIDE ACT 1968

Under Section 8 of the Countryside Act 1968, local authorities have the power to make byelaws which relate to the construction of recreational works in the sea where it bounds country parks down to low water.

PUBLIC HEALTH (AMENDMENTS) ACT 1907

Under Sections 82 and 83 of the Public Health (Amendments) Act 1907, local authorities may make byelaws for the prevention of danger, obstruction or annoyance to persons using the seashore. These provisions must be locally adopted to become law. The Public Health (Amendments) Act 1907 states:

“The local authority may for the prevention of danger, obstruction, or annoyance to persons using the seashore make and enforce byelaws to regulate the erection of or placing on the sea-shore, or on such part to parts thereof as may be prescribed by such byelaws, or any booths, tents, sheds, stands and stalls and generally regulate the user of the seashore for such purposes as shall be prescribed by such byelaws”

These byelaws generally ensure public safety, maintain the appearance of beaches for amenity purposes, or safeguard harbour walls, slipways and boat moorings. Section 94, which applies to navigation on the sea, clearly enables local authorities to regulate activities within areas that are neither owned nor leased.

PUBLIC HEALTH ACT 1936

Under section 231 of the Public Health Act 1936, all local authorities are authorised to make byelaws with respect to public bathing. The Act states:

"(1) A local authority may make byelaws with respect to public bathing and may by such byelaws

(a) regulate the areas in which, and the hours during which, public bathing shall be permitted

(f) regulate, for preventing danger to bathers, the navigation of vessels used for pleasure purposes within any area allotted for public bathing during the hours allowed for bathing."

PUBLIC HEALTH ACT 1961

Under Section 76 of the Public Health Act 1961, all local authorities are authorised to make byelaws to regulate the speed and use of pleasure boats so as to prevent them being a danger, obstruction or annoyance to bathers in the sea or users of the seashore.

LOCAL GOVERNMENT (MISCELLANEOUS PROVISIONS) ACT 1976

The area within which a local authority may make such byelaws under S.231 of the Public Health Act 1936 may be extended by S.17 Local Government (Miscellaneous Provisions) Act 1976 which states:

"Where any part of the area of a local authority having power to make byelaws under both section 231 of the Public Health Act 1936 and section 76 of the Public Health Act 1961 is bounded by or is to seaward of the low water mark, the authority may exercise that power as respects any area of the sea which is outside the area of the authority and within 1000 metres to seaward of any
LOCAL GOVERNMENT ACT 1972 & LOCAL GOVERNMENT (SCOTLAND) ACT 1973

Local authorities within Scotland have the powers to make byelaws for the good rule and government of the whole or any part of their area and for ‘the prevention and suppression of nuisance’. These can be made under Section 235 of the Local Government Act 1972 and Section 201 Local Government (Scotland) Act 1973.

CIVIC GOVERNMENT (SCOTLAND) ACT 1982

This Act is enforced by the Scottish Executive for Environment and Rural Affairs Department (SEERAD) and Local Authorities. The Act enables Councils to make byelaws for the purpose of preventing nuisance or danger at, or preserving or improving the amenity of the seashore, and for conserving the natural beauty of the seashore by regulating the exercise of sporting and recreational activities. Competent authorities with functions under sections 120 to 122 of this Act (control of the seashore and adjacent waters) must exercise these so as to secure compliance with the requirements of the Habitats Directive (DETR, 1998e).

NATIONAL PARKS (SCOTLAND) ACT 2000

Paragraph 8 of Schedule 2 sets out an authority's powers to make byelaws. A National Park authority may make byelaws for the National Park for the purposes of protecting the natural and cultural heritage of the National Park, preventing damage to the land or anything in, on or under it and to secure the public's enjoyment of, and safety in, the National Park. Sub-paragraph 2 provides examples of matters for which byelaws might be made. These include to prohibit the depositing of rubbish and the leaving of litter, to regulate or prohibit the lighting of fires, for the prevention or suppression of nuisances, to regulate the use of vehicles (other than the use of vehicles on a road within the meaning of the Roads (Scotland) Act 1984 (c.50)), and to regulate the exercise of recreational activities.
### Table 14  Key Legislation for Tourism and Recreation (Key Legislation in **BOLD**)

<table>
<thead>
<tr>
<th>UK Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Countryside and Rights of Way Act 2000</strong></td>
<td>Access to the foreshore for recreational pursuits can be made by the Secretary of State (in England) or the National Assembly for Wales (in Wales). Section 3 - an order can extend the statutory right of access to all or any part of the foreshore and land adjacent to the foreshore.</td>
</tr>
<tr>
<td><strong>SI 1998/2771 Merchant Shipping (Vessels in Commercial Use for Sport or Pleasure) Regulations 1998</strong> amended by SI 2000/482</td>
<td>Establish a Code of Practice for the safety of small vessels in commercial use for sport or pleasure operating from a nominated departure point (Megayacht Code). The Code applies to vessels which operate to sea up to 20 miles from a Nominated Departure Point.</td>
</tr>
<tr>
<td><strong>Countryside Act 1968 Section 8</strong></td>
<td>local authorities have the power to make byelaws which relate to the construction of recreational works in the sea where it bounds country parks</td>
</tr>
<tr>
<td><strong>Public Health (Amendments) Act 1907 Sections 82 and 83</strong></td>
<td>local authorities may make byelaws for the prevention of danger, obstruction or annoyance to persons using the seashore.</td>
</tr>
<tr>
<td><strong>Public Health Act 1936 Section 231</strong></td>
<td>local authorities are authorised to make byelaws with respect to public bathing</td>
</tr>
<tr>
<td><strong>Public Health Act 1961 Section 76</strong></td>
<td>local authorities are authorised to make byelaws to regulate the speed and use of pleasure boats</td>
</tr>
<tr>
<td><strong>Local Government (Miscellaneous Provisions) Act 1976 Amended to extend the jurisdiction to 1km offshore</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Scotland Local Government (Scotland) Act 1974</strong></td>
<td>Addresses Local Authority involvement in leisure and recreational facilities or programmes provided or supported by them under ... adequate provision for facilities ... for recreational, cultural and sporting activities”.</td>
</tr>
<tr>
<td><strong>Scotland Civic Government (Scotland) Act (1982)</strong></td>
<td>covers the creation of byelaws for recreational craft up to 1000 metres beyond the low-water mark.</td>
</tr>
<tr>
<td><strong>Planning Guidance</strong></td>
<td><strong>Provisions</strong></td>
</tr>
<tr>
<td>England &amp; Wales PPG20 - Coastal Planning PPG21 - Tourism</td>
<td></td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>PPS8 - Open Space, Sport, Recreation, Leisure and Community Facilities</td>
</tr>
<tr>
<td><strong>Impending Legislation</strong></td>
<td>Recommendation 2002/413/EC of the European Parliament and of the Council concerning the implementation of Integrated Coastal Zone Management (ICZM) in Europe</td>
</tr>
</tbody>
</table>
16. INPUTS OF CONTAMINANTS IN THE MARINE ENVIRONMENT (ORIGINATING PRIMARILY FROM LAND)

Many human and industrial activities have the potential to cause pollution. With respect to water quality, pollutants may enter surface or groundwater directly, run-off the surrounding catchment, or be deposited from the atmosphere. They may enter a system through a point source discharge (e.g. discharges through pipes), or may be more dispersed and diffuse (e.g. agricultural run-off). The marine environment is ultimately the sink for many of these contaminants. Over the years, a number of controls have been established to regulate the types of waste being deposited from land into the marine environment. With the adoption of the Water Framework Directive, these controls will be significantly tightened and better regulated. Table 15 shows the current and future legislation within the UK for controlling inputs of contaminants into the marine environment (originating primarily from land).

16.1 Waste Disposal

**FOOD AND ENVIRONMENT PROTECTION ACT 1985**

The Secretary of State for Environment, Food and Rural Affairs (and in Wales, the National Assembly) has a statutory duty to control the deposit of articles or materials in the sea and or tidal waters. This duty is exercised through the Food and Environment Protection Act 1985, Part II (FEPA). FEPA provides the necessary statutory means to meet the UK’s obligations under both the OSPAR and London Conventions which address the prevention of marine pollution from dumping at sea. The main aim of the legislation is to protect the marine ecosystem and human health, and minimising interference and nuisance to others. The 1985 Act requires the licensing authority, in deciding whether to issue a licence, to have regard to the need to protect the marine environment and the living resources which it supports and human health, prevent interference with legitimate use of the sea and to minimise nuisance and noise arising from the disposal of waste. The controls apply equally to all waste materials which are dumped at sea (principally dredged materials) where, in addition to the environmental factors above, consideration may focus particularly on the potential risk to fish and other marine life from contaminants and burial of benthic communities (MCEU, 2003).

**POLLUTION PREVENTION AND CONTROL REGULATIONS 2000**

The Pollution Prevention and Control (England and Wales) Regulations 2000, came into force on 1st August 2000 and were amended on 1 April 2001 by the Pollution Prevention and Control (England and Wales) (Amendment) Regulations 2001. These have been implemented in Northern Ireland by the Pollution Prevention and Control Regulations (Northern Ireland) 2003, and in Scotland by the Pollution Prevention and Control (Scotland) Regulations 2000. These Regulations set out a pollution control regime for the purpose of implementing the Integrated Pollution Prevention and Control Directive (Council Directive 96/61/EC) and for regulating other environmentally polluting activities not covered by the Directive. The Regulations apply to England and Wales and are applicable to territorial waters.

The 2000 Regulations as amended introduce a more integrated approach to controlling pollution from industrial sources, across England and Wales. The main aim of IPPC is to achieve a high level of

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11 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972
protection of the environment by preventing and or reducing emissions into the air, water and land from major industrial sectors. The Regulations will eventually replace the existing legislation (under Part 1 of the Environment Protection Act 1990). The Regulations control the operation of any installation or mobile plant carrying out any of the activities listed in Part 1 of Schedule 1 to the Regulations. The list of controlled activities include energy industries, production and processing of metals, the mineral and chemical industries, waste management and other activities including paper and pulp. Operators of installations under IPPC have to apply for a permit from the Regulator (the Environment Agency or Local Authority) prior to operation.

The regulations request that the applicant must consider all the environmental impacts associated with the installation when preparing the application. This includes potential impacts of granting a permit near European sites as designated under the Conservation (Natural Habitats, &c.) Regulations 1994. Where in such a case the competent authority considers that any adverse effects of the plan or project on the integrity of a European site would be avoided if the permit were subject to conditions, they may grant a permit, or cause a permit to be granted, subject to those conditions. Where on the review of such a permit the competent authority considers that any adverse effects on the integrity of a European site of the carrying out or, as the case may be, the continuation of activities authorised by it would be avoided by a variation of the permit, they may vary it, or cause it to be varied, accordingly.

**WATER RESOURCES ACT 1991**

From 1 December 1991, the Water Resources Act 1991, Part III, replaced the Water Act 1989, Part III (which itself replaced the Control of Pollution Act 1974, Part II). It provides the machinery for implementation of the OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic 1992 and the EC directives on bathing water (76/160/EEC), dangerous substances (76/464/EEC), shellfish waters (79/923/EEC) and urban waste water treatment (91/271/EEC). Part III of the Water Resources Act applies to "controlled waters" (i.e. "relevant territorial waters" up to three miles from the baselines, "coastal waters" landward of the baselines up to the limit of the highest tide or the fresh-water limit of rivers and watercourses). The Secretary of State may also establish "water quality objectives" for controlled waters (section 83), and he and the Environment Agency will be under a duty to use their powers under the Act to ensure that those objectives are met (section 84).

Under section 85 of the Water Resources Act 1991, a person commits an offence if he causes or knowingly permits any poisonous, noxious or polluting matter or any solid waste matter to enter controlled waters, or any trade or sewage effluent to be discharged into controlled waters or from land in England and Wales through a pipe into the sea outside controlled waters. Discharging to controlled waters can only be made by consent issued by the Environment Agency, SEPA or Environment & Heritage Services (Northern Ireland) (section 88). The Environment Agency and equivalent bodies must also maintain public registers of water quality objectives, applications and consents (section 190).

**ENVIRONMENTAL PROTECTION ACT 1990**

Part I of the Environmental Protection Act 1990 sets out the framework for controlling releases to air, land and water from prescribed process. These processes are listed under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991 with Part A processes subject to Integrated Pollution Control by the environmental protection agencies. Part B processes are subject to air pollution control only by local authority Environmental Health Departments. Part III of the Environmental Protection Act 1990 combats statutory nuisances. Under this, dust, smoke, fumes,
other gases and odours could all constitute a nuisance under some circumstances. Local authorities are required to investigate complaints of nuisance within their boundaries. Local government, environmental health departments are responsible for dealing with complaints relating to nuisance within territorial waters. These include those arising from noise pollution or release of noxious substances under the Environmental Protection Act 1990. The Environmental Protection Act 1990 imposes a duty of care on all persons in the waste management chain to take all reasonable measures to ensure that waste is safely and legally disposed of, specifically, to ensure that no offence is made by anyone else in the waste chain. Waste must be safely contained, may be transferred only to authorised persons and a waste transfer note must be completed by the two parties when the waste changes hands. An authorised person is a holder of a Waste Management Licence under Section 35 of the Environmental Protection Act or a registered waste carrier under the Control of Pollution (Amendment) Act 1989 (ABP Research, 1999).

Scotland

WATER ENVIRONMENT AND WATER SERVICES (SCOTLAND) ACT 2003 (WEWS)

The Act sets out new arrangements for the protection of the water environment with new powers conferred on Scottish Ministers to make regulations to control any activity (referred to as a "controlled activity") that they consider is necessary or expedient for the purposes of protecting the water environment. This activities include anything liable to cause pollution of the water environment; abstraction of water from bodies of surface water or groundwater; the construction, alteration or operation of impounding works in bodies of surface water; and the building, engineering or other works in, or in the vicinity of, any body of inland surface water.

The act contains a significant difference from the provisions of the WFD which extend to only one nautical mile from baseline as described in section 16(3) below. Section 2(8) of WEWS states that ‘Coastal water means water (other than groundwater) within the area extending landward from the three mile limit up to the limit of the highest tide or where appropriate, the seaward limits of any bodies of transitional water, but does not include any water beyond the seaward limits of the territorial sea of the UK adjacent to Scotland.

Northern Ireland

Northern Ireland has implemented its own legislation for the control of contaminants in to the marine environment. Of the primary legislation the following have a direct bearing on the control of effluent discharges:

THE WATER (NORTHERN IRELAND) ORDER 1999 (WO)

Article 4(1) of the WO requires the Department to promote the conservation of the water resources of Northern Ireland and to promote the cleanliness of water in waterways and underground strata. The Department should take account of the needs of industry and agriculture, the protection of fisheries, the protection of public health, the preservation of amenity and the conservation of flora and fauna and the conservation of geological and physiographical features of special interest and any feature of archaeological, historical, architectural or traditional interest (article 4(2)). Article 7 of the Water (Northern Ireland) Order 1999 makes it an offence, whether knowingly or otherwise, to discharge or deposit any poisonous, noxious or polluting matter so that enters a waterway or water in any underground strata.
FOYLE FISHERIES ACT 1952 & FISHERIES ACT 1966

Both Acts make it an offence to discharge deleterious matter into waters, which impacts on fish, or spawning grounds.

16.2 Coastal and Marine Litter

Litter is a growing problem in the marine environment. Not only is it unsightly but it is long lasting and can pose harm to marine wildlife. Marine litter is a collective term for any management-made object present in the marine environment. Debris/pollution comprises a wide variety of materials (e.g. crisp packets, cans, plastic bottles, oil drums, trawler nets, fishing lines and disposable nappies), and originates from a number of sources including direct littering by tourists, discarded waste from fishing vessels, sewage discharges and illegal dumping by ships. Similarly, it may be carried to the sea via rivers and streams and subsequently washed up on local beaches.

Apart from being an aesthetic (visual) problem, marine debris poses a health risk to beach visitors and can have severe environmental impacts on the local wildlife such as birds and mammals. Wildlife may be smothered, entangled in fishing lines, ingest litter or become coated in oily residues. Similarly, coastal and marine plants may also be smothered by debris.

ENVIRONMENTAL PROTECTION ACT 1990

Section 87 of the Environmental Protection Act 1990 makes it an offence for any person to throw down, drop or otherwise deposit in, into or from any public open place, any relevant highway or relevant road and any trunk road which is a special road, any place on relevant land of a principal litter authority; any place on relevant Crown land, any place on relevant land of any designated statutory undertaker and any place on relevant land within a litter control area of a local authority.

All coastal local authorities are required to remove litter from mean high water spring line and above from amenity beaches between May and September.

Section 146 of the Environmental Protection Act 1990 amends Part II of the Food and Environment Protection Act 1985 (under which licences are required for deposits by British vessels etc at sea anywhere or by foreign vessels etc in United Kingdom waters or, in certain circumstances, anywhere at sea for the control of deposits of substances and articles at sea).

MERCHANT SHIPPING (PREVENTION OF POLLUTION BY GARBAGE) REGULATIONS 1988

The Merchant Shipping (Prevention of Pollution by Garbage) Regulations 1999 as amended in 1993 give effect to regulations 1—6 of Annex V to the International Convention for the Prevention of Pollution from Ships 1973 (as amended). The Regulations apply to United Kingdom ships wherever they may be and to other ships while they are within the United Kingdom or United Kingdom territorial waters (Regulation 2). The term "ships" in these Regulations includes submersible craft and offshore installations.

The disposal from a ship into the sea outside Special Areas of any plastics is prohibited. It is also prohibited to dispose other types of waste unless they are as far from the nearest land as possible (not less than 25 miles) (Regulations 3 & 4). The requirements applicable to discharges in Special Areas are more stringent than those applicable outside Special Areas. Regulation 5 and 6 states that the disposal from a ship into the sea within Special Areas of any garbage other than food wastes is prohibited. If a ship fails to comply with the requirements of these Regulations the owner, manager,
charterer and master are each guilty of an offence punishable on summary conviction by a fine not exceeding the statutory maximum or on conviction on indictment by a fine (Regulation 9).

16.3 Impending Legislation

WATER FRAMEWORK DIRECTIVE

The Water Framework Directive (2000/60/EC) was adopted by the European Parliament and the Council of the European Union on 22 December 2000. It establishes a framework for Community action in the field of water policy to protect all waters including transitional (estuarial) and coastal waters. Article 2(6) of the Directive defines transitional waters as “bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows”. Article 2(7) defines coastal waters as “surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters is measured, extending where appropriate up to the outer limit of transitional waters”. The Directive establishes a framework for the protection of all waters (including inland surface waters, transitional waters, coastal waters and groundwater) which:

- Prevents further deterioration of, protects and enhances the status of water resources;
- Promotes sustainable water use based on long-term protection of water resources;
- Aims at enhancing protection and improvement of the aquatic environment through specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing-out of discharges, emissions and losses of the priority hazardous substances;
- Ensures the progressive reduction of pollution of groundwater and prevents its further pollution.

By the end of 2003, the UK should be able to bring into force the necessary provisions to comply with the requirements of this legislation. Extensive provision is included within the Directive for water resource management, groundwater protection and controls on dangerous substances in water, with the repealing of the Dangerous Substances protection and controls on dangerous substances in water, with the repealing of the Dangerous Substances (76/464/EEC), Groundwater Directive (80/68/EEC), Surface Water Directive (75/440/EEC) and Shellfish Waters Directives (79/923/EEC). In the context of controlling inputs of contaminants in the marine environment, the Directive will link and enhance the Bathing Water Directive (76/160/EEC), the Integrated Pollution Control Directive (96/61/EEC), Urban Waste Water Treatment Directive (91/271/EEC) and Nitrates Directive (91/676/EEC) (Read et al. 2001).
Table 15  Key Legislation to Control Inputs of Contaminants (primarily from land) (Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>European Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972. (London Convention, 1972)</td>
<td>Contributes to the international control and prevention of marine pollution. It prohibits the dumping of certain hazardous materials, requires a prior special permit for the dumping of a number of other identified materials and a prior general permit for other wastes or matter.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UK Legislation</th>
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</thead>
<tbody>
<tr>
<td>SI 2000/1973 Pollution Prevention and Control (England and Wales) Regulations 2000 amended by SI 2001/503; SI 2002/275; SI 2002/1559 &amp; SI 2002/1702</td>
<td>The 2000 Regulations as amended introduce a more integrated approach to controlling pollution from industrial sources, across England and Wales. The main aim of IPPC is to achieve a high level of protection of the environment by preventing and or reducing emissions into the air, water and land from major industrial sectors. The Regulations control the operation of any installation or mobile plant carrying out any of the activities listed in Part 1 of Schedule 1 to the Regulations. The regulations request that the applicant must consider all the environmental impacts associated with the installation when preparing the application. This includes potential impacts of granting a permit near European sites as designated under the Conservation (Natural Habitats, &amp;c.) Regulations 1994.</td>
</tr>
<tr>
<td>SSI 2000/323 Pollution Prevention and Control (Scotland) Regulations 2000 Water Environment &amp; Water Services (Scotland) Act 2003</td>
<td>Part III - &quot;controlled waters&quot;. Section 83 - The Secretary of State can establish &quot;water quality objectives&quot; for controlled waters Section 85 - a person commits an offence if he causes or knowingly permits any poisonous, noxious or polluting matter or any solid waste matter to enter controlled waters, or any trade or sewage effluent to be discharged into controlled waters or from land in England and Wales through a pipe into the sea outside controlled waters.</td>
</tr>
<tr>
<td>Water Resources Act 1991 (Part 3)</td>
<td></td>
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<tr>
<td>Northern Ireland</td>
<td></td>
</tr>
<tr>
<td>SI 1999/662 Water (Northern Ireland) Order 1999</td>
<td></td>
</tr>
<tr>
<td>Environmental Protection Act 1990</td>
<td>Section 87 - Offence to drop litter in any public place, including beaches</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td></td>
</tr>
<tr>
<td>Foyle Fisheries Act 1952</td>
<td>Both have control on effluent discharge (particularly on fishery areas).</td>
</tr>
</tbody>
</table>
## Summary of Current Legislation Relevant to Nature Conservation in the Marine Environment in the UK

Joint Nature Conservation Committee (JNCC)

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fisheries Act 1966</strong></td>
<td>Controls the deposit of articles or materials in the sea and or tidal waters. The main aim of the legislation is to protect the marine ecosystem and human health, and minimising interference and nuisance to others. Requires protection of the marine environment and the living resources which it supports and human health, prevent interference with legitimate use of the sea and to minimise nuisance and noise arising from the disposal of waste. The controls apply equally to all waste materials which are dumped at sea (principally dredged materials).</td>
</tr>
<tr>
<td><strong>Food and Environment Protection Act 1985</strong></td>
<td>Regulations 2 - Applicable to UK ships wherever they may be and to other ships while they are within the UK or UK territorial waters. The term &quot;ships&quot; in these Regulations includes submersible craft and offshore installations. Regulations 3 &amp; 4 - The disposal from a ship into the sea outside Special Areas of any plastics is prohibited. Regulation 5 and 6 states that the disposal from a ship into the sea within Special Areas of any garbage other than food wastes is prohibited.</td>
</tr>
<tr>
<td><strong>Merchant Shipping (Prevention of Pollution by Garbage) Regulations 1988 in conjunction with 1993 regulations of the same title.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Impending Legislation</strong></td>
<td><strong>Provisions</strong></td>
</tr>
</tbody>
</table>
17. SUBMARINE CABLES AND PIPELINES

Around the UK, submarine cables have been installed for many years for the transmission of electrical power and for telecommunications. Although there has been a reported decrease in the amount of cables laid in recent years, with the increase in offshore windfarm proposals, the laying of cables for electricity supply will once again increase this activity. A number of regulatory consents are required for the laying of submarine cables with Table 16 listing those relevant to the UK marine environment. Consents for the laying of subsea cables, pipelines and associated works may be required under the Coast Protection Act 1949 (or in some circumstances, the Telecommunications Act 1984) and the Food and Environment Protection Act 1985 (these being administered by the MCEU in England and Wales and the Scottish Executive in Scotland).

COAST PROTECTION ACT 1949

The laying of cables and pipelines on or under the seabed (or elsewhere in tidal waters) will normally require a consent under the Coast Protection Act 1949 for navigational rights. The consent process in England and Wales is managed by the Department for Transport (through the MCEU). For pipelines which will lie between high and low water marks or across bays, estuaries etc, a separate application has to be made by the developer to the Marine Division of Defra. For offshore submarine pipelines, the consent for a works authorisation is made on behalf of the developer by the DTI (DTI, 1999a). Where an application is made under the CPA, the Secretary of State's powers extend to the entire length of the cable across the United Kingdom continental shelf by virtue of the CPA's jurisdiction being extended by the Continental Shelf Act 1964, Section 4(1). For more information on this Act please see chapters 8 and 10 to 13.

THE CROWN ESTATE ACT 1961

The Crown Estate was established in its present form by the Crown Estate Act 1961. Under this Act, the Estate is managed by a Board of Commissioners who have a duty to 'maintain and enhance the value of the estate and the return obtained from it, but with due regard to the requirements of good management'. The Crown Estate owns about half of the foreshore around the UK (between mean low and mean high water), 55 percent of the beds of tidal rivers and estuaries and almost all of the seabed out to the 12 mile territorial limit. Activities using the foreshore and seabed include marine aggregate extraction, pipelines, cables, outfalls, fish farms, ports, jetties and boating facilities as well as a large number of conservation leases (Crown Estate, 1998). The Crown Estate Act 1961 provides for the rights of occupation for the purpose of placing structures on, or passing cables over, the seabed and foreshore in the ownership of the Crown.

PIPE-LINES ACT 1962

Section 1 of this Act concerns authorisation procedures for the construction of cross-country pipelines (i.e. those exceeding or intended to exceed 16.093 kilometres in length). The Act applies to pipe-lines in land which includes the foreshore (the land between high and low water marks) and partially enclosed areas of the sea such as bays, estuaries and harbours. The precise limits of its applicability are the baselines defined in the Territorial Waters Order in Council 1964 (DTI, 1999a).

Under sections 35 and 36 of the Pipe-lines Act 1962, pipeline operators are reminded of their obligations to inform local authorities of pipe-line construction activities and provide maps of their locations. Notice is required to be given two weeks before the initial use of a pipe-line, the abandonment of a pipe-line, the expiration of three years from the date on which a pipe-line was last
used and if a disused pipe-line should be reutilised. Section 37 makes it a duty to make arrangements in advance whereby various authorities can be given immediate notice of the accidental escape or ignition of anything in the pipe-line (DTI, 1999a).

**TRANSPORT AND WORKS ACT 1992**

An order is required under the Transport and Works Act 1992 for the construction and laying of offshore submarine cables.

**PETROLEUM ACT 1998**

The Petroleum Act 1998 repealed and replaced the Petroleum and Submarine Pipelines Act 1975, with Part III of the 1998 Act relating to submarine pipelines. Under the Petroleum Act 1998 an authorisation is required for the construction and/or use of a "pipeline" in controlled waters. Section 14 of the Petroleum Act 1998 states that no person shall execute in, under or over any controlled waters any works for the construction of a pipeline except in accordance with an authorisation given by the Secretary of State. Controlled waters means the UK territorial sea and any part of the sea on the UK continental shelf (section 14(2)).

The permanent placing or deposition of materials such as gravel, rock, mattresses or protective pipeline covers on the seabed during the construction of a pipeline is governed by the Pipeline Works Authorisation (PWA). Schedule 2 of the authorisation prohibits any further deposition except with the prior written consent of the Secretary of State. For pipelines which do not have a PWA, for example, pipelines constructed prior to the coming into force of the Petroleum and Submarine Pipelines Act 1975, any deposition would require a licence under FEPA, the successor to the dumping at sea Act 1974 which will have consented to these pipelines, (see below for further details). Applications for consent to deposit materials under a PWA should be made to Offshore Pipelines Administration at the DTI (DTI, 1999a).

Until 1998 the decommissioning of offshore oil and gas installations and pipelines on the United Kingdom Continental Shelf (UKCS) was controlled through the Petroleum Act 1987. However, the decommissioning provisions of the 1987 Act have been consolidated, along with various other petroleum legislation, within the Petroleum Act 1998. The Government's Guidance Notes for Industry on the Decommissioning of Offshore Installations and Pipelines were published in final form on 21 August 2000 (DTI, 2000). Before the owners of an offshore installation or pipeline can proceed with its decommissioning they must first obtain approval of a decommissioning programme under the Petroleum Act 1998. If a decommissioning programme includes any new deposits in the sea, for example, of rock gravel or grout bags, a sea disposal licence may be required under Part II of FEPA which is administered by the MCEU for Defra in England and Wales and by the DTI in Scottish waters.

**FOOD AND ENVIRONMENT PROTECTION ACT 1985 (FEPA)**

A licence under Section 5 of FEPA is required to deposit non oil and gas pipelines at sea. This application will be made to the Offshore Renewable Consents Unit (ORCU), although the decision will be made by Defra who has a responsibility to protect both marine ecosystems and human health.

Most subsea cables are exempt from licence control under FEPA (though associated works such as rock armouring/mattressing, the construction of facilities at the shore landing and pre-sweep/trenching may require a FEPA licence). However, where a cable is an integral component of a larger scheme, such as the construction of an offshore energy generation project, any FEPA licence
issued for the project will need to include the laying of the cable. Cable protection activities, such as rock dumping or the deposit of concrete mattresses, are likely to require a FEPA licence unless specifically consented by a PWA under the Petroleum Act 1998. For more information on FEPA licences please refer to Chapters 11, 14 and 16.

The installation of subsea oil and gas pipelines are exempt from FEPA licensing, provided that the developer has a 'Works Authorisation' from DTI under the Petroleum Act 1998 which covers the deposit in the sea of all material associated with these works. Maintenance works on the pipeline are similarly exempt, though extra protection such as rock armouring or mattressing may need a licence if not covered by a PWA. Outfall pipes for effluent or cooling waters and intakes will usually be subject to both FEPA and CPA consent.

**TELECOMMUNICATIONS ACT 1984**

Consent is required from the Secretary of State for Transport for any proposal to install telecommunications cables below the level of Mean High Water Springs (MHWS). The type of consent required depends upon whether the applicant has a licence to run a telecommunications system within the United Kingdom under Part 2 (Section 7) of the Telecommunications Act 1984. These licences are granted by the Secretary of State for Trade and Industry. If the applicant does have such a licence then the application should be made under Paragraph 11 of Schedule 2 of the Telecommunications Act 1984 (TA). If not, (e.g. so called "dark fibre" cables), then Section 34 of the Coast Protection Act 1949 (CPA) applies. Applications for proposed cables landing in Scotland should be made to the Scottish Executive. Under the Telecommunications Act 1984, the Secretary of State's powers will normally only apply out to the 12 mile limit of United Kingdom territorial waters. However, if the proposed cable route passes within 500 metres of an offshore installation, Section 107 of the Act will apply in respect of the installation, extending those powers to the United Kingdom continental shelf (MCEU, 2003).

**THE OFFSHORE PETROLEUM PRODUCTION AND PIPE-LINES (ASSESSMENT OF ENVIRONMENTAL EFFECTS) REGULATIONS 1999**

Legislation applying EC rules on environmental assessment to offshore oil and gas projects finally came into force on 30 April 1999, almost ten years behind schedule requiring offshore operators to assess the potential environmental impacts of all significant new oil and gas development. The Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999 implement the Directive for wells, field developments and pipelines in the United Kingdom Territorial Sea and on the United Kingdom Continental Shelf (UKCS).

The “relevant area” means that area comprising tidal waters and parts of the sea adjacent to the United Kingdom from the low water mark up to the seaward limits of territorial waters; waters in any area for the time being designated under regulation 1(7) of the Continental Shelf Act 1964 (designation of areas of continental shelf); and the seabed and subsoil under the territorial waters and the continental shelf (regulation 3(1)).

Offshore operators will apply to the Secretary of State for a direction that no assessment is required, submitting information on a project’s “main environmental consequences” (regulation 3(1)). Provision is made requiring the Secretary of State where he grants licences pursuant to the Petroleum Act 1998 to include in such licences requirements to obtain his consent to the drilling of a well, the getting of petroleum on those producing more than 500 tonnes of oil or 500,000m³ of gas per day (regulation 5(2ai)), the erection of any structure in connection to a development and pipelines over
800mm diameter and more that 40 kilometres long will be mandatory. For other projects, environmental assessment will be required where they are likely to give rise to “significant” environmental effects.

Assessments will normally be required where, for example, an exploration, appraisal or development well is within 40km of the coast or site designated under the EC Directive on birds and habitat protection, or within 20 kilometres of concentrations of bird of international importance. Assessment “may” be required where a project might have impacts on seabird or mammal communities or spawning grounds. Where the application is accompanied by an environmental statement, the Secretary of State must be satisfied before granting a consent or an authorisation that the representations of the environmental authorities have been consulted (regulation 5).

Provision is made for the granting of directions, subject to certain exceptions, that the submission of an environmental statement with an application for a consent or an authorisation is not required for projects not likely to have significant effects on the environment or where an environmental statement has already been submitted in respect of the project and the project has already been the subject of an assessment (regulation 6) (DTI, 1999b).
### Table 16 Key Legislation for Submarine cables and Pipelines
(Key Legislation in BOLD)

<table>
<thead>
<tr>
<th>UK Legislation</th>
<th>Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coast Protection Act 1949</td>
<td>Navigational consent for cables and pipelines under section 34. For pipelines which will lie between high and low water marks or across bays, estuaries etc, a separate application has to be made by the developer to the Marine Division of Defra. For offshore submarine pipelines, the consent for a works authorisation is made on behalf of the developer by the DTI</td>
</tr>
<tr>
<td>The Crown Estate Act 1961</td>
<td>Lease from Crown Estate Commissioners for cables and pipelines</td>
</tr>
<tr>
<td>Pipelines Act 1962</td>
<td>Section 1 - Pipeline authorisation. Specific requirement for all oil and gas pipelines</td>
</tr>
<tr>
<td>The Petroleum Act 1998</td>
<td>Section 14 - authorisation is required for the construction and/or use of a &quot;pipeline&quot; in controlled waters. Section 20 - Pipeline authorisation</td>
</tr>
<tr>
<td>Food and Environment Protection Act 1985</td>
<td>Section 5 - licence required to deposit non oil and gas pipelines in the sea e.g. sewage outfall pipelines.</td>
</tr>
<tr>
<td>Transport and Works Act Order 1992</td>
<td>Needed for the construction and laying of offshore submarine cables (particularly in relation to windfarms)</td>
</tr>
<tr>
<td>SI 1999/360 The Offshore Petroleum Production and Pipe-Lines (Assessment of Environmental Effects) Regulations 1999</td>
<td>Offshore oil and gas pipelines Applies to wells, field developments and pipelines in the United Kingdom Territorial Sea and on the United Kingdom Continental Shelf (UKCS). Regulations 3(1) Applies to tidal waters and parts of the sea adjacent to the United Kingdom from the low water mark up to the seaward limits of territorial waters and the seabed and subsoil under the territorial waters and the continental shelf.</td>
</tr>
<tr>
<td>Electricity and Pipeline Works (Assessment of Environmental Effects) Regulations 1990</td>
<td>Applicable to oil &amp; gas pipelines and power cables on land Amended by: The Electricity and Pipe-line Works (Assessment of Environmental Effects) (Amendment) Regulations 1996</td>
</tr>
</tbody>
</table>
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