

PRE-CONSULTATION ON THE DRAFT UK MARINE POLICY STATEMENT:

A paper for discussion

March 2010

Introduction

The UK Government, Scottish Government, Welsh Assembly Government and Northern Ireland Executive have a shared vision for '**clean, healthy, safe, productive and biologically diverse oceans and seas**'¹.

A key step in realising this vision will be the joint adoption of a Marine Policy Statement (MPS) for the United Kingdom. The MPS will set out the policies that will contribute to the achievement of sustainable development in the United Kingdom marine area. It will provide the framework for preparing marine plans and taking decisions that affect the marine environment.

This pre-consultation paper invites your views on proposals for the MPS and supporting outline Impact Assessment. It will form the basis for informal discussions with interested parties on the development of the draft MPS, prior to a formal consultation in summer 2010.

The pre-consultation is intended for engagement with interested parties and does not have any effect on existing regulatory, planning or consenting regimes at this stage.

The deadline for comments is 7 May 2010.

The Marine Policy Statement

The Marine Policy Statement (MPS) will be the first part of new systems of marine planning being introduced around the UK². It will provide the high level policy context within which Marine Plans will be developed, and set the direction for marine licensing and other relevant authorisation systems. The UK vision for the marine environment is for '**clean, healthy, safe, productive and biologically diverse oceans and seas**'. The UK high level marine objectives³ published in April 2009 set out the broad outcomes for the marine area in achieving this vision and reflect the

¹ *Safeguarding our Seas* report (2002)

http://www.defra.gov.uk/environment/marine/documents/marine_stewardship.pdf

² Marine and Coastal Access Act 2009; Marine (Scotland) Act 2010; and Northern Ireland Marine Bill

³ Our seas – a shared resource: High level marine objectives

<http://www.defra.gov.uk/environment/marine/documents/ourseas-2009update.pdf>

principles for sustainable development. The MPS will be informed by the high level objectives and play a key role in ensuring they are achieved.

The UK Administrations (UK Government, Scottish Government, Welsh Assembly Government and Northern Ireland Executive) are working towards joint adoption of the Marine Policy Statement, which will apply to all UK waters.

While the purpose of the MPS is to set out the policy framework for our seas at UK level, it will be the role of Marine Plans to set out how the MPS will be implemented in specific areas. Marine Plans will provide detailed policy and spatial guidance and ensure that individual decisions within a plan area make the appropriate contribution to UK, national and area specific policy objectives. Where needed, supporting guidance on the marine planning systems will be produced by the relevant Administration.

Structure of the Marine Policy Statement

This paper on the MPS is structured as follows:

- **Chapter 1** sets out the purpose and scope of the draft MPS, its place within the wider marine planning system and interaction with existing planning regimes;
- **Chapter 2** sets out the high-level policy context and objectives in relation to the sustainable development of the UK Marine Area. It covers the policy objectives for specific sectors and activities in the marine environment such as national security, energy infrastructure, and nature conservation. **We are not asking for comment on the content of these policy areas contained within the MPS since they reflect existing policies developed through separate consultation procedures.** However, we would welcome views on additional policy areas that might be included for clarity;
- **Chapter 3** High level considerations for marine plan authorities when developing plans and the general issues they should consider when identifying suitable locations for activities;
- **Chapter 4** provides more detailed guidance for those making decisions that may affect the marine environment, and highlights the considerations that may apply to specific activities and the pressures and impacts that they may generate.

Outline Impact Assessment

This pre-consultation paper also includes an outline Impact Assessment (IA). The outline IA sets out the need for a more strategic marine planning system to help UK Administrations achieve sustainable development in the marine area. It reflects the IA developed for the Marine and Coastal Access Act 2009 which made clear that the current framework of domestic and international legislation used to manage the UK seas is considered complex, making decision-making in the marine environment difficult.

The outline IA considers 2 options:

- **Option 1** provides information on the baseline (or 'do nothing') option and outlines what the impact would be of not adopting a MPS;
- **Option 2** considers the costs and benefits of introducing the MPS and having it as a document that sets out policy objectives that will contribute to sustainable development and provides a framework for preparing Marine Plans and taking decisions affecting the marine environment.

For each option, the impact on business, Government, the environment and others e.g. recreational users of the sea, environmental NGOs and other interested parties are taken into consideration. The outline costs and benefits of each option are considered for each of these categories. The UK Administrations' aim is that the MPS delivers benefits like clarity and transparency of decision making leading to more consistent decisions in the marine area. The outline IA suggests these aims will be realised.

Purpose of the pre-consultation process

The aim of the pre-consultation process is to seek a wide range of views and comments on the draft MPS. Our focus is on ensuring that the MPS will set the right framework for decision making in the marine environment, and the development of Marine Plans. We also want to explore and understand the benefits and any potential burdens introduced by the new processes. As the overarching policy framework for the marine planning systems it is important that we get the MPS right. The marine planning systems which are being implemented are new for the UK and we are taking a holistic and ecosystem based approach. As with anything new, consultation and engagement are key to ensuring that quality and robust processes are in place.

This is why we are publishing this paper for discussion and wish to work with all interested parties to help strengthen it before a final consultation and scrutiny by the UK Parliament and devolved legislatures.

Workshops and other events across the UK and within each Administration will be held in order to provide the opportunity for discussion of this paper⁴. We are planning formal consultation on the draft MPS in summer 2010. It will be accompanied by an Appraisal of Sustainability incorporating the requirements for a Strategic Environmental Assessment, Habitats Regulation Assessment and Equality Impact Assessment. We are aiming to publish the final version of the MPS in spring 2011.

Key questions on the Marine Policy Statement

In taking forward our discussions on this paper the UK Administrations will be focusing on the following questions:

- Does the document contain a clear statement of policy objectives applicable at the UK level for the marine environment? Are there any policy objectives that should be added, for clarity?
- Is any further information required at the UK level to support marine planning?
- Does Chapter 3 set out the key high-level considerations that need to be taken into account when developing marine plans? Are the most significant impacts and pressures identified?
- Does Chapter 4 set out the appropriate considerations for decision making for the marine area? Does it provide guidance on the factors to consider for specific activities in reaching decisions?
- Does the document provide an appropriate overarching framework for the development of marine plans and decision-making in the UK marine area?
- Is any additional information required at UK level?

⁴ A Statement of Public Participation (SPP) for the Marine Policy Statement was published in 2009. The SPP will be updated to reflect these new developments. The SPP is available at <http://www.defra.gov.uk/environment/marine/documents/legislation/ukpolicy-publicpart.pdf>

As part of the discussions on this paper we are also seeking views on the outline IA, specifically:

- For option 1 - What costs do you/your organisation incur in complying with existing systems? What benefits do you/your organisation enjoy under the current system?
- For option 2 - what benefits do you foresee from having a coherent policy framework provided by a MPS? Do you foresee any costs arising from having a MPS in place?

Feel free to contact us with your views and comments. Our contact details are:

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The deadline for comments is 7 May 2010.

Chapter 1

This chapter sets out the purpose and scope of the Marine Policy Statement, its place within the wider marine planning system and interaction with existing planning regimes.

Introduction

- 1.1 The Marine Policy Statement (MPS) sets out the policy objectives that will contribute to the achievement of sustainable development in the United Kingdom marine area⁵. Its intention is to provide the framework for preparing marine plans and taking decisions affecting the marine environment.
- 1.2 The UK administrations (UK Government, Scottish Government, Welsh Assembly Government and Northern Ireland Executive) are working towards joint adoption of the Marine Policy Statement (MPS). This will be a key step towards achieving the vision shared by the UK administrations of having '**clean, healthy, safe, productive and biologically diverse oceans and seas**'⁶.
- 1.3 The MPS will aim to:
 - Ensure that marine resources are used in a sustainable way;
 - Promote sustainable economic development;
 - Enable the UK's move towards a low-carbon economy, in order to mitigate the causes and adapt to the effects of climate change⁷ and ocean acidification;
 - Encourage a sustainable marine environment including protection of our most valuable marine habitats, species and most important heritage assets;
 - Recognise the societal benefits of the marine area.
- 1.4 The overarching approach is to:
 - Recognise that the demand for use of our seas will continue to increase;

⁵ The "UK marine area" includes the territorial seas and offshore area adjacent to the UK, as well as any area of sea designated as UK Exclusive Economic Zone (to at least 200 nautical miles or the edge of the continental shelf). It includes any area submerged by seawater at mean high water spring tide, as well as the tidal extent (at mean high water spring tide) of rivers, estuaries and creeks. See Marine and Coastal Act 2009- S42 (3) and (4).

⁶ *Safeguarding our Seas* report (2002)

http://www.defra.gov.uk/environment/marine/documents/marine_stewardship.pdf

⁷ UK Low Carbon Transition Plan:

http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx

- Manage competing demands on the marine area, taking an ecosystem based approach;
- Enable the co-existence of compatible activities wherever possible;
- Integrate with terrestrial planning.

New marine planning systems for the UK

1.5 Across the UK new systems of marine planning are being introduced through primary legislation⁸. The MPS will be the first part of these marine planning systems. It will provide the high level policy context within which national and regional Marine Plans will be developed, and set the direction for marine licensing and other relevant authorisation systems. It will inform the conditions attached to authorisations, and the enforcement action that will be taken to ensure compliance.

Marine Plans

1.6 When the MPS is adopted the Marine and Coastal Access Act (2009) will place a duty on marine plan authorities to seek to ensure that Marine Plans are prepared for all parts of regions where the MPS governs marine planning⁹. The marine plan authorities responsible for developing Marine Plans are the Secretary of State for the English inshore and offshore regions, Scottish Ministers for the Scottish offshore region¹⁰, Welsh Ministers for the Welsh inshore and offshore regions and the Department of the Environment in Northern Ireland for the Northern Ireland offshore region. The Scottish inshore and Northern Ireland inshore regions will be covered by respective Scottish and Northern Ireland legislation.

1.7 Marine Plans will set out how the MPS will be implemented in specific areas. They will provide detailed policy and spatial guidance for an area and ensure that decisions within a plan area contribute to delivery of UK, national and any area specific policy objectives¹¹.

1.8 The MPS will not provide specific guidance on every activity which will take place in, or otherwise affect, UK waters. The MPS will provide a framework for development of Marine Plans and for consistency in decision making where required. It will identify activities to which priority is expected to be given to in marine planning. It is recognised that a range of wider activities may take place, which will be reflected in Marine Plans and the relevant licensing systems. Each of the UK administrations will also continue

⁸ Marine and Coastal Access Act 2009; the Marine (Scotland) Act 2010; and the Northern Ireland Marine Bill

⁹ Marine and Coastal Access Act 2009:S 51(2)

¹⁰ Although planning for the offshore and inshore in Scotland has different legislative bases it is intended to bring these together in one document. Similarly in Northern Ireland it is expected that one Marine Plan will cover the inshore and offshore region. The Welsh Assembly Government will consult on the approach in Wales.

¹¹ In Scotland, a national Marine Plan will be developed which will be in accordance with the MPS and which Scottish regional plans must also comply with.

to exercise functions affecting the marine environment in accordance with the current devolution settlements.

- 1.9 The UK Administrations are committed to the coordination of marine and terrestrial planning across administrative boundaries¹². This includes planning for activities which extend across national or plan area boundaries. Coordination will also be needed with other Member States and countries sharing the same regional seas, including the Republic of Ireland with which the UK shares a land and sea boundary.

Scope of the MPS

- 1.10 The Marine and Coastal Access Act requires all public authorities taking authorisation or enforcement decisions¹³ that affect or might affect the UK marine area to do so *in accordance* with the MPS and Marine Plans unless relevant considerations indicate otherwise. Where the decision is not taken in accordance with the MPS and marine plans the public authority must state its reasons. Public authorities taking decisions which are not authorisation or enforcement decisions (for example decisions about what representations they should make as a consultee or about what action they should carry out themselves) must *have regard* to the MPS.

- 1.11 In many cases the terrestrial planning system and other consenting regimes already require those taking decisions which affect or might affect the marine environment to take account of the policies which will be integrated into the MPS when it is adopted. Further guidance on how these regimes will need to take account of the MPS as part of the marine planning system will be provided by each Administration if appropriate. More detailed guidance on decision making within a marine plan area will be included in Marine Plans.

Relationship with terrestrial planning regimes

- 1.12 The MPS and marine planning system will sit alongside existing planning regimes across the UK. These include terrestrial town and country planning and other legislation, guidance and development plans in each Administration. In England and Wales this includes the Infrastructure Planning Commission (IPC) regime for nationally significant infrastructure projects (NSIPs). In Scotland the second National Planning Framework¹⁴ under the Planning (Scotland) Act 2006 sets out a number of national development priorities to support the Scottish Government's central purpose of sustainable economic growth¹⁵. In Northern Ireland the Regional Development

¹² Joint Ministerial Statement on marine planning in the Solway Firth, and continuation of co-operation across the Severn and Dee estuaries

¹³ Except for decisions taken by the Infrastructure Planning Commission (IPC) granting development consent under the Planning Act 2008.

¹⁴ www.scotland.gov.uk/Publications/2008/12/12093953/0 - this includes references to national developments relating to ports and harbours and onshore and offshore (sub-sea) grid transmission capacity to realise and deliver renewable energy.

¹⁵ The Scottish Government's Economic Strategy can be found at <http://www.scotland.gov.uk/Publications/2007/11/12115041/0>

Strategy and Planning Policy Statements are the key planning documents which set the policy framework for terrestrial planning decisions.

- 1.13 In the marine area in England and Wales, the IPC determines consents for the larger renewable energy and port developments and other nationally significant infrastructure projects in coastal locations (such as electricity generating power stations) as defined by the Planning Act 2008. The policy framework for IPC decisions will be set by the National Policy Statements (NPS). In reaching its decisions the IPC must *have regard* to the Marine Policy Statement but subject to certain exceptions must decide in accordance with the relevant NPS.
- 1.14 Activities taking place on land and in the sea can have impacts on both terrestrial and marine environments. The coast and estuaries are highly valued environments, and socio-economic assets. The UK Administrations are committed to ensuring that coastal areas, and the activities taking place within them, are managed in an integrated and holistic way in line with the principles of Integrated Coastal Zone Management¹⁶.
- 1.15 Integration of marine and terrestrial planning will be achieved through:
- Consistency between marine and terrestrial policy documents and guidance: terrestrial planning policy and development plan documents already include policies addressing coastal and estuarine planning. Marine policy guidance and plans will seek to complement rather than replace these recognising that both systems may adapt and evolve over time. Liaison between respective responsible authorities for terrestrial and marine planning, including in plan development, implementation and review stages
 - Sharing the evidence base so as to achieve consistency in the data used in plan making and decisions.

Review process

- 1.16 The MPS will remain in place until it is withdrawn, amended or replaced. As set out in the Marine and Coastal Access Act 2009, it will be reviewed as and when the relevant policy authorities (the Secretary of State in conjunction with devolved authorities¹⁷) consider it necessary to do so.
- 1.17 When considering whether to review the MPS, the authorities will consider whether there has been a significant change in the evidence underpinning the policies set out in the MPS, whether relevant new policies have been introduced that need to be reflected in the MPS, and whether the policy objectives in the MPS need to be amended. This will be informed by monitoring and implementation of the marine planning systems.

¹⁶ The principles are set out in the Recommendation of the European Parliament and of the Council of 3 May 2002 concerning implementation of Integrated Coastal Zone Management in Europe. See

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:148:0024:0027:EN:PDF>

¹⁷ See S 44 (4) of the Marine and Coastal Access Act 2009 for details of the authorities

Appraisal of sustainability

1.18 The MPS will be subject to an Appraisal of Sustainability (AoS) incorporating the requirements for a Strategic Environmental Assessment and Habitats Regulation Assessment and Equality Impact Assessment. This is an iterative process between the MPS and the Appraisal of Sustainability. The AoS will be progressed as the MPS is developed and will be published alongside it for formal consultation.

Structure of the MPS

1.19 The proposed structure for the MPS is as follows:

- **Chapter 2** sets out the high-level policy context and objectives of the UK Government, Scottish Government, the Welsh Assembly Government and Northern Ireland Executive in relation to the sustainable development of the UK marine area;
- **Chapter 3** sets out high-level considerations for marine plan authorities when developing plans and the general issues they should consider when identifying suitable locations for activities;
- **Chapter 4** provides more detailed guidance for those making decisions that may affect the marine environment, and highlights the considerations that may apply to specific activities and the pressures and impacts that they may generate.

Chapter 2

This chapter sets out the high-level policy context and objectives of the UK Government, Scottish Government, Welsh Assembly Government and Northern Ireland Executive in relation to the sustainable development of the UK marine area.

2.1 The following sections set out the policy objectives the UK Administrations are seeking to achieve through the sustainable use of our marine resources. Detailed information and policy context is provided where relevant. Marine Plans, and where appropriate individual decisions, should align with and contribute to the delivery of these objectives.

UK vision for the marine environment

2.2 The UK vision for the marine environment is for ***'clean, healthy, safe, productive and biologically diverse oceans and seas'***. The UK high level marine objectives published in April 2009 set out the broad outcomes for the marine area in achieving this vision, and reflect the principles for sustainable development (see Figure 1). The MPS as the first step in the marine planning system will be informed by the high level marine objectives and play a key role in ensuring they are achieved

2.3 A significant range of activities can and do take place in our marine environment which contribute to this vision, and high level objectives. The MPS will set out the policy objectives that need to be interpreted within the particular context of each part of the UK. The role which different sectors will play in furthering economic development in each Administration will vary, and be reflected in Marine Plans.

2.4 Any proposed activity will need to be in line with the Marine Plan, relevant statutory decision making regimes and the principles of sustainable development. Marine planning will ensure that different and potentially competing activities are managed according to the principles of sustainable development. Consents on existing and emerging uses will be managed to promote compatibility and reduce conflict

Figure 1: The high level marine objectives

Achieving a sustainable marine economy

- Infrastructure is in place to support and promote safe, profitable and efficient marine businesses.
- The marine environment and its resources are used to maximise sustainable activity, prosperity and opportunities for all, now and in the future.
- Marine businesses are taking long-term strategic decisions and managing risks effectively. They are competitive and operating efficiently.
- Marine businesses are acting in a way which respects environmental limits and is socially responsible. This is rewarded in the marketplace.

Ensuring a strong, healthy and just society

- People appreciate the diversity of the marine environment, its seascapes, its natural and cultural heritage and its resources and act responsibly.
- The use of the marine environment is benefiting society as a whole, contributing to resilient and cohesive communities that can adapt to coastal erosion and flood risk, as well as contributing to physical and mental wellbeing.
- The coast, seas, oceans and their resources are safe to use.
- The marine environment plays an important role in mitigating climate change.
- There is equitable access for those who want to use and enjoy the coast, seas and their wide range of resources and assets and recognition that for some island and peripheral communities the sea plays a significant role in their community.
- Use of the marine environment will recognise, and integrate with, defence priorities, including the strengthening of international peace and stability and the defence of the UK and its interests.

Living within environmental limits

- Biodiversity is protected, conserved and where appropriate recovered and loss has been halted.
- Healthy marine and coastal habitats occur across their natural range and are able to support strong, biodiverse biological communities and the functioning of healthy, resilient and adaptable marine ecosystems.
- Our oceans support viable populations of representative, rare, vulnerable, and valued species.

Promoting good governance

- All those who have a stake in the marine environment have an input into associated decision-making.
- Marine, land and water management mechanisms are responsive and work effectively together, for example through integrated coastal zone management and river basin management plans.
- Marine management in the UK takes account of different management systems that are in place because of administrative, political or international boundaries.
- Marine businesses are subject to clear, timely, proportionate and, where appropriate, plan-led regulation.
- The use of the marine environment is spatially planned where appropriate and based on an ecosystems approach which takes account of climate change and recognises the protection and management needs of marine cultural heritage according to its significance.

Using sound science responsibly

- Our understanding of the marine environment continues to develop through new scientific and socio-economic research and data collection.
- Sound evidence and monitoring underpins effective marine management and policy development.
- The precautionary principle is applied consistently in accordance with the UK Government and devolved administrations' sustainable development policy.

Policy objectives by sector/activity

Marine Conservation

- 2.5 The marine environment is an extremely rich and varied habitat which supports a wide variety and abundance of living organisms. A healthy marine environment provides us with many valuable goods and services such as recycling nutrients, breaking down waste and capturing and fixing carbon. These processes are enhanced by both diversity of the organisms in our seas and their abundance. However, many of our habitats and species are subject to pressure from human activities. Some important habitats are shrinking, a number of commercial fish stocks are under pressure and biodiversity is in decline. The UK Administrations recognise the economic, social and intrinsic value of a healthy marine environment and are committed to halting the decline in biodiversity and the loss of habitats – this means a “no net loss” approach to biodiversity¹⁸. UK Administrations are also committed to allowing damaged ecosystems to recover in order to realise the benefits from the marine environment. This will be achieved through the integration of conservation considerations into marine planning and decision making.
- 2.6 The specific measures and considerations that need to be applied are generally laid down in legislation, but other voluntary measures also help deliver our aims. The UK has existing legal obligations under several pieces of EU legislation, including the Wild Birds and Habitats Directive and the Marine Strategy Framework Directive. These require a complete network of marine protected areas (Natura 2000 sites) to be put in place and the introduction of programmes of measures aimed at achieving good environmental status (GES) by 2020. Member States must determine GES using criteria to be determined by the EU during 2010. Member States must also determine targets and measures aimed at achieving GES. Targets must be set by 2012 with cost effective programmes of measures in place by 2016. Spatial measures that will contribute to MPA networks, including the OSPAR network, need to be defined by 2013. Marine planning will be a key tool for ensuring that the targets and measures to be determined by the UK can be implemented. In estuaries and coastal waters there are similar requirements under the Water Framework Directive for Member States to achieve Good Ecological Status/Potential by 2015.

¹⁸ The UK has agreed to co-ordinate policies and measures on the marine environment with other countries through international agreements, including the OSPAR Convention for the Protection of the Marine Environment of the North East Atlantic The OSPAR Commission’s Biological Diversity and Ecosystems Strategy has a broad focus and recognises that a mix of approaches is needed: (1) Ecological quality objectives are being developed to support the ecosystem approach to the management of human activities (2) Species and habitats measures: including a list of threatened and declining habitats and species and action for their protection (3) Marine protected areas: an ecologically coherent network of well-managed marine protected areas is being created. (4) Human activities: the human activities in the OSPAR maritime area which may adversely affect it are being assessed and programmes and measures to safeguard against such harm are being developed.

Marine Protected Areas (MPAs)

2.7 UK Administrations are also committed to delivering an ecologically coherent network of Marine Protected Areas (MPAs) by 2012 as part of a broad based approach to nature conservation. The MPA network will comprise existing MPAs as well as new sites. It will be made up of both national (in particular Marine Conservation Zones, Marine Protected Areas under Scottish legislation and Sites of Scientific Special Interest) and European designations such as Special Areas of Conservation (for habitats and species protected by EC legislation), and Special Protection Areas (for wild birds). This network of MPAs will be a key tool in contributing to achieving good environmental status, and particularly in ensuring biodiversity is protected, conserved and where appropriate recovered, and loss of biodiversity halted. It will also contribute to other measures of good environmental status. Marine planning will take account of MPAs, their conservation objectives, and the management arrangements associated with them.

Defence and National Security

2.8 The primary objective of the Ministry of Defence (MoD) is to provide security for the people of the UK and Overseas Territories. The marine and coastal environment is essential to MoD (including HM Armed Forces and the Royal Fleet Auxiliary) in maintaining the Operational Capability required to achieve this.

2.9 Marine activities should not prejudice the interest of defence and national security. In case of doubt the Ministry of Defence should be consulted. The participation of the Ministry of Defence in the development of marine plans will ensure the effective use of marine resources without negatively impacting on defence or national security.

Energy Infrastructure Development

2.10 The marine environment will continue to make a major contribution to the provision of the UK's energy supply and distribution. This includes supplies of the oil and gas which supply the major part of our energy needs today and a growing contribution from renewable energy in response to the challenges of tackling climate change and energy security. Contributing to securing the UK's energy objectives, while protecting the environment, will be a priority for marine planning.

2.11 The UK faces a significant challenge in achieving a secure, affordable low carbon energy supply. As part of our move to a low carbon economy the UK must meet a legally binding EU target for 15% of energy consumption to come from renewable sources by 2020. There are specific targets in different parts of the UK¹⁹. Much of this

¹⁹ The Scottish Government have committed to a 20% target for energy consumption to come from renewable sources with a commitment to have 50% of electricity consumption to be from renewable sources by 2020. In Northern Ireland the draft Strategic Energy Framework has proposed a 40% renewable electricity target by 2020. (The SEF will be published by spring 2010). In Wales the Welsh Assembly Government's Low Carbon Energy Statement (LCES) will propose to move Wales towards generating more renewable energy than it consumes (LCES will be published in spring 2010).

renewable energy will come from marine sources. In addition to mitigating the impacts of climate change, contributing to securing the UK's energy objectives will bring substantial socio-economic benefits such as employment and income opportunities, transferable technology and skills development.

- 2.12 The low-carbon energy industry is developing rapidly in response to strong government targets and funding. The UK has amongst the highest exploitable renewable energy resource in the world and the potential to become a global leader in renewable energy production. The offshore area also contains important natural assets for storing carbon dioxide. Increasing the generation of energy from low carbon sources will lessen the UK's dependence on fossil fuels and improve energy security by increasing the diversity of electricity supply.
- 2.13 The UK Administrations have undertaken a large number of studies to assess the environmental implications and spatial interactions of increasing renewable energy sources in UK waters. From these studies, it was concluded that there are no overriding environmental reasons to prevent the achievement of our current assessed plans for offshore wind and sub-sea grid development (together with oil and gas production, gas storage and carbon capture and storage) if mitigation measures are implemented to prevent, reduce and offset any significant adverse effects.
- 2.14 Marine Plans should identify areas where different renewable energy technologies will be encouraged. Measures should be taken to avoid and mitigate negative impacts in line with legislative requirements.

Offshore Oil and Gas Exploration and Production

- 2.15 A secure, sustainable and affordable supply of energy is of central importance to the economic and social well being of the UK. Offshore oil and gas is at present the largest source of UK energy supplies and satisfied about two thirds of primary energy demand in 2008 (97% of oil demand and 73% of gas demand). Although indigenous gas production is now in long-term decline oil and gas are expected to remain of central importance even as the country moves towards a low carbon economy and on 2009 projections indigenous production is expected to continue to satisfy about 40% of the UK's oil and gas demand in 2020. Oil and gas development is also an important source of employment and a significant contributor to tax revenue.
- 2.16 Obtaining the UK's hydrocarbon supplies from indigenous sources minimises dependence upon foreign imports and thus enhances our security of energy supply. Maximising the production of UK oil and gas is therefore a priority in the UK's energy supply strategy to ensure security of energy supply. Finding and developing oil and gas fields can take a number of years owing to the uncertainty over location, the reservoir characteristics and its potential productivity.

Offshore gas supply infrastructure and storage

- 2.17 The UK is highly dependent on natural gas, which is used in roughly equal quantities in domestic households (largely for space heating purposes), for electricity generation (generating over two fifths of electricity in 2008) and across a range of businesses.
- 2.18 Although the UK plans to reduce our reliance on fossil fuels, transition will take a significant time, and gas will continue to play an important part in the UK's fuel mix for years to come. The UK will remain heavily dependent on gas and is expected to rely on net imports to meet around 45% of its net gas demand in 2020. Consequently new gas infrastructure will be required.
- 2.19 The UK needs a diverse mix of gas storage and supply infrastructure (including strategic pipelines) to respond effectively to daily and seasonal changes in demand and to provide endurance capacity during a cold winter. Marine planning will need to ensure that these requirements are accommodated

Offshore wind

- 2.20 The UK has some of the best wind resources in the world and offshore wind will play an important and growing part in meeting our renewable energy and carbon emission targets and improving energy security by 2020, and afterwards towards 2050. Harnessing offshore wind is more technologically challenging and more expensive than harnessing onshore wind. However offshore wind has a larger potential due to a stronger and more consistent wind source at sea, leading to higher power outputs per turbine and greater generating capacity each year. As the most mature of the offshore renewable energy technologies, it has the potential to have the biggest impact in the medium-term on commercial scale output, security of energy supply and carbon emission reductions.

Tidal range, tidal stream and wave

- 2.21 Up to 20% of the UK's current energy demand potentially could be supplied by wave and tidal stream energy²⁰. There is potential to produce wave and tidal energy throughout the UK; for example in Scotland and in Wales in the waters off Pembrokeshire and Anglesey. It is anticipated that the amount of wave and tidal energy being generated will increase markedly by 2020. However the technology to enable wave and tidal generation is at an early stage of development. It is important for marine planning to support the identification of appropriate locations for such developments, alongside more established uses of marine space particularly because there is a considerable lead time for grid and infrastructure development and commercial arrays are expected by 2015. Demonstration deployments will carefully manage the potential environmental impacts in relation to the scale of risks and legislative requirements while recognising that not all uncertainties can be addressed in the early life of this technology.

²⁰ The Scottish Government has established a framework to promote the development of this sector, including a prize for successful development

Offshore Electricity Networks

- 2.22 The increase in offshore wind, wave and tidal generation will require the expansion, connection and reinforcement of the UK's electricity networks onshore and offshore. The UK Government has established a new offshore transmission regime to help ensure that the substantial investment required to connect offshore generation projects to the onshore grid are delivered in a cost effective manner, to maximise the benefit to consumers and renewable energy developers.
- 2.23 Timely development of the offshore electricity networks in all parts of the UK is also vital to help ensure the continued deployment of offshore renewable power generation. In addition new sub-sea cabling to reinforce certain sections of the onshore grid is a potential part of supporting the growth of renewable and low carbon generation.
- 2.24 To ensure that the offshore grid can be developed in a strategic and co-ordinated way and remain flexible enough to support links between parts of the UK and also links to Europe, National Grid in Great Britain is responsible for operating and co-ordinating both onshore and offshore grid connections as National Electricity System Operator (NETSO). NETSO²¹ published an initial Offshore Development Information Statement (ODIS) in December 2009 for consultation. The ODIS, which will be updated annually, presents potential scenarios and NETSO's best view of the development of the transmission network offshore to 2025, to help ensure it develops in a coordinated and informed manner.

Carbon Dioxide Capture and Storage

- 2.25 Fossil fuels will remain an important source of electricity generation for the foreseeable future. To comply with the UK's legally binding carbon reduction commitments virtually all fossil fuel generation will eventually need to be fitted with technology that captures carbon dioxide and permanently stores it deep underground. All fossil fuel power stations now have to be constructed Carbon Capture Ready (CCR) and new coal-fired power stations are required to demonstrate Carbon Capture and Storage (CCS) on at least part of their capacity from the outset. The expectation is that full retrofit of CCS to older stations will take place by 2025. This programme will generate considerable volumes of carbon dioxide to be permanently stored. The expectation is that storage will take place almost exclusively offshore, which in turn will require the necessary infrastructure to be installed to transport carbon dioxide from the mainland and inject it deep below the seabed.

Ports and shipping

- 2.26 Ports and shipping play an important role in the activities taking place within the marine environment. They are an essential part of the UK economy providing the major conduit for the country's imports and exports. Ports also provide key transport infrastructure between land and sea. Ports and shipping are both critical to the

²¹ In Northern Ireland SONI (System Operator for Northern Ireland) operates the electrical system

effective movement of cargo and people, both within the UK and in the context of the global economy.

- 2.27 In addition, ports are essential to support emerging industries such as renewable energy development and to mitigate the effects of climate change by facilitating the increased movement of freight by sea rather than road. Our ports, particularly in Scotland, provide infrastructure and facilities to support lifeline ferry services to island and remote communities. Their role is crucial not only in supporting the projected future growth of freight traffic but also supporting more fragile and remote communities. The need for further port development should be taken into consideration by those undertaking marine planning.
- 2.28 The operation of our ports and marinas is enabled through the creation, maintenance and development of channels for vessels. This requires dredging and the disposal of the dredged marine sediment. This needs to be facilitated and in line with the objective to prevent, reduce and eliminate where practicable pollution caused by disposal of dredging. Current safeguards have significantly improved the nature of the sediments around our coasts in terms of their chemical status due to reductions in the tonnage of contaminants which have been permitted to be disposed of at sea.
- 2.29 The impacts of any increased shipping activity will be considered in line with the principles of sustainable development. But increased competition for marine resources may affect the sea space available for the safe navigation of ships. Marine planning or decision making on an individual application having an impact on shipping activity should take account of the environmental, social and economic effects and be in compliance with international maritime law.

Marine aggregates

- 2.30 The UK has some of the best marine aggregate resources in the world. Marine sand and gravel makes a crucial contribution to meeting the nation's demand for construction aggregate materials, essential for the development of our built environment. They are particularly important in England: accounting for 38% of the total regional demand for sand and gravel in the South East (80% in London), 46% in the North East and 22% in the North West. South Wales is also highly dependent on marine-dredged sand which meets more than 80% of the demand²². In addition there are no alternative sources to marine aggregate for the maintenance of coastal defences required for climate change adaptation. Marine aggregates also support energy security and economic development through provision of fill for major coastal infrastructure projects, for example ports, renewable energy and nuclear energy projects. Gross added value from the sector has been estimated as £114m with the value of exports estimated at £56m^{23,24}. The extraction of marine dredged sand and

²² There is currently no aggregate extraction for construction in Scotland or Northern Ireland. Policies on aggregate extraction set out in this MPS do not apply to Scotland.

²³ Socio-economic indicators of marine-related activities in the UK economy, The Crown Estate (2008)

²⁴ Marine aggregate dredging 1998-2007 A Ten-Year Review, The Crown Estate/BMAPA (2009)

gravel should continue to the extent that this remains consistent with the principles of sustainable development and in line with the relevant guidance²⁵.

Telecommunications cabling

- 2.31 Submarine cables are part of the backbone of the world's information and international telecommunications infrastructure, which are both socially and economically crucial to the UK. Submarine telecommunication cables carry more than 95% of the world's international traffic including telephone, internet and data, as well as many services for the UK's local communities, major utilities and industries. The transatlantic cables landing in the United Kingdom carry more than 70% of Europe's internet traffic²⁶. At a conservative estimate submarine telecommunications cables contribute £2.9Bn towards GDP²⁷ which does not include the value of the data carried.
- 2.32 The installation and maintenance techniques used by operators to install submarine cables have been internationally recognised and classified as zero or very low impact. The importance of telecommunication cabling should be recognised in developing Marine Plans, and integrating across marine plan boundaries.

Fisheries

- 2.33 Fish is an important source of protein, can be part of a healthy diet and has a role in food security. The marine fisheries sector comprises all socio-economic activities related to the capture of wild marine organisms (fish and shellfish), and the subsequent handling and processing of catches. Shellfish and demersal fish species currently contribute around 40% each to the total catch value, with the remaining 20% comprising pelagic species such as mackerel and herring.
- 2.34 Fish stocks should be sustainable so that they can help maintain a prosperous, efficient, and integrated fishing industry and support often fragile rural communities. A reformed Common Fisheries Policy should contribute to the delivery of integrated management of our seas and be fully integrated into wider marine policy including marine nature conservation. A reformed Common Fisheries Policy will be key in delivering the aims of the Marine Strategy Framework Directive.
- 2.35 Commercial fishing is an important socio-economic activity in many coastal regions. The dependency of jobs on fishing can be as high as 20% or more in some coastal communities. These socio-economic factors, as well as potential environmental impacts, need to be taken into account when developing Marine Plans.

²⁵ For example Marine Minerals Guidance 1, ODPM (2002)

²⁶ UKCPC calculation of total UK cable capacity

²⁷ Pugh, D. Socio-economic indicators of marine-related activities in the UK economy. The Crown Estate, 2008. ISBN: 978-1-906410-01-8.

Aquaculture

- 2.36 Aquaculture is the process of farming or culturing aquatic organisms. Food security is a key objective of the UK Administrations and aquaculture also makes an important and growing contribution to this. All Administrations support and encourage the development of efficient, effective, competitive and sustainable aquaculture industries subject to suitable governance and safeguards²⁸.
- 2.37 The majority of marine aquaculture is currently related to salmon, sea trout and shellfish. The sector also includes the production of fry and sprat for aquaculture farms and the operation of marine worm farms to produce fish bait. The farming of seaweed as a food or fuel is a growing part of this sector including as a part of poly culture processes such as finfish production.
- 2.38 Marine aquaculture is particularly important to communities throughout the UK and in particular on the West and North coasts of Scotland and the Western and Northern Isles. Aquaculture operations are also viewed as a key focus for future development of a sustainable food source and as a possible source of employment for those in inshore fishing communities. These factors need to be taken into account when developing Marine Plans.

Waste water Treatment & Disposal

- 2.39 The objective shared by the UK Administrations is to contribute to sustainable development including the health and well being of the community and the protection of the environment by maintaining and developing a policy and regulatory system which provides modern, high quality water and sewerage services. The collection, treatment and disposal of waste water from housing, agriculture and industry, the effective drainage of storm water and runoff to the sea, and mitigating the effects of diffuse pollution are key. An important aim is ensuring that infrastructure is in place and maintained for necessary disposal activity to be carried out in compliance with EU legislative requirements²⁹. Sewerage infrastructure and drainage is also essential in providing for economic and social development, and for reducing the risk of flooding in urban areas³⁰. Marine planners should generally seek to support national priorities for growth, in particular where coastal or estuarine areas have been identified as suitable for new housing provisions and associated infrastructures adjacent to marine areas, balanced against any consequential impacts on the marine environment.

²⁸ The Scottish Government's current strategy for aquaculture: "A Fresh Start: The Renewed Strategic Framework for Scottish Aquaculture" can be found at :

<http://www.scotland.gov.uk/Publications/2008/08/06103512/0>

²⁹ This includes compliance with the requirements of the Urban Waste Water Treatment Directive, Water Framework Directive, Shellfish Waters Directive, Bathing Waters Directive and in due course the Marine Strategy Framework Directive

³⁰ Specific objectives for water and sewerage services are set out in Guidance issued to the industry for each price review or price control period and in the government's future water strategy for England, Future Water

Climate change adaptation

2.40 In marine planning and decision making consideration will need to be given to how the marine environment can adapt to the impacts of climate change. Understanding the impacts and the effects of climate change is a key element of knowing what to do to maintain a healthy environment. This will influence how we use and value our coasts and seas both now and in the future. Adapting to the impacts of climate change will also be a priority for land use planning on the coast and marine planning will need to be compatible with this. Gradual changes in the climate, increased incidence of extreme weather and rising sea levels will require suitable responses to reduce vulnerability and manage risk. This includes ensuring that inappropriate types of development are not permitted in areas most vulnerable to coastal change while also improving resilience of existing development to long-term climate change. The new marine planning system will provide an important tool for meeting the long term challenges posed by climate change.

Heritage

2.41 The historic environment of coastal and offshore zones represents a unique aspect of our cultural heritage. In addition to their inherent cultural value, many heritage assets³¹ also contribute to the delivery of significant socio-economic and environmental benefits, including sustaining tourism and supporting regeneration. However, they are finite and non-renewable and are subject to decay and the threat of destruction from both human and natural causes.

2.42 The view shared by the UK administrations is that heritage assets should be enjoyed for the quality of life they bring to this and future generations, and that they should be conserved through marine planning³² in a manner appropriate and proportionate to their importance. It is also our view that opportunities should be taken to contribute to our knowledge and understanding of our past by capturing evidence from the historic environment and making this publicly available, particularly if a heritage asset is to be lost.

Tourism and recreation

2.43 Many local seaside communities and businesses rely on the marine environment for their livelihoods and regeneration. Good access to the coastline, to attractive and well-maintained beaches, seashore and clean bathing water quality are an integral part of tourism and the sea can provide a variety of recreational opportunities including sailing, diving, sea angling and surfing as well as wildlife experiences. A well-managed and healthy marine environment is therefore essential to attract visitors to our coasts and this aspect should be encouraged and taken account of in marine planning.

³¹ Heritage assets include buildings, monuments, sites, or landscapes of historic, archaeological, architectural or artistic interest, whether designated or not.

³² Scotland also has provision to designate Historic Marine Protected Areas

Chapter 3

This chapter sets out high-level considerations for marine plan authorities when developing plans and the general issues they should consider when identifying suitable locations for activities. Further detail on the key benefits and adverse effects from specific activities can be found in Chapter 4.

- 3.1 The MPS and Marine Plans will form a new plan-led system for marine activities. This will provide for greater coherence in policy, and a forward-looking and proactive approach to the management of the marine environment and resources, and of activities and interactions.
- 3.2 Marine Plans will set out an area specific framework for decision making, providing spatial and more specific interpretation of the policy aims and objectives of the MPS as set out in Chapter 2, as well as local policies and priorities.
- 3.3 Marine Plans should reflect and address as far as possible all activities occurring in, and placing demands on, the marine environment. Marine Plans will be based on a sound evidence base, but the level of detail in terms of supporting evidence and required policy will vary between activities and areas. Evidence will be used to identify issues that need to be addressed in the plan, informing policy development and their spatial expression.
- 3.4 The spatial planning approach, including identifying areas of constraint and locations where different activities may be accommodated, will help to reduce real and potential conflicts. Marine Plans should ensure sustainable development of the marine area protecting and enhancing the environment and providing for continued and new uses and developments in appropriate locations. They should identify how potential impacts of activities will be managed.
- 3.5 Marine Plans will be developed and adopted in accordance with the relevant legislation. If appropriate an Administration will provide guidance on content and preparation of marine plans.

High level approach to marine planning

- 3.6 In developing Marine Plans the process needs to be:
 - Conducted in a manner that is consistent with statutory requirements under UK and EU legislation and our obligations under international law;
 - Conducted in a way that takes into account all of the relevant UK administrations' policy objectives affecting the marine area (as set out in Chapter 2); conducted in

a manner that takes account of other relevant projects, programmes, plans and national policies and guidance;

- Participative and informed by points raised by consultees and stakeholders;
- Streamlined where possible, making effective use of existing data;
- Forward looking including horizon scanning to anticipate possible future demands;
- Based on an ecosystem approach.

3.7 The marine plan authority will need to weigh the impacts of their proposals for the marine planning area. These may be identified as benefits, including the contribution that the proposals would make to policy objectives, or anticipated adverse effects. Decisions should be taken using a risk based approach recognising that there are considerable gaps in our knowledge about the marine environment and will need to allow for uncertainty.

3.8 The **benefits** arising from any activities are those which contribute to achieving the aims of sustainable development and to the policy objectives set out in chapter 2. Such benefits may be economic, social or environmental.

3.9 Chapter 4 outlines the differing social, economic and environmental benefits that specific activities and uses of the marine environment can bring. Activities in the marine area and associated activities on the coast provide substantial social and economic benefits and can have significant potential for economic growth. They provide opportunities for investment and generate tax revenues. They also provide opportunities for employment, including in long established industries such as fishing, marine transport and port related storage and processing and in new and developing industries such as renewable energy. This provides wider and longer term benefits for both national and local economies. The marine plan authority should take into account any social and economic effects of any development, including matters such as employment, equality, community cohesion and well-being.

3.10 **Adverse effects** may be economic, social and environmental and are discussed further in this chapter and in chapter 4. The precise nature of adverse effects will depend on a number of factors including the types of activity under consideration; the impact on the marine environment; nature conservation and the biodiversity of ecosystems; heritage assets; local economy; social effects; and compatibility with other activities.

3.11 When developing Marine Plans the marine plan authority must take into account both benefits and adverse effects, including multiple and cumulative impacts of developments and activities. The marine plan authority will undertake a Strategic Environmental Assessment (SEA) and Habitats Regulation Assessment (discussed below) alongside, and to inform, marine plans identifying potential benefits and adverse effects. Other potential sources of information to inform the planning process include;

- In written or oral representations made during consultation on the marine planning proposals;
- Through analysis of data and development of the plan's evidence base;
- Submissions proactively sought from stakeholders involved in the development of marine plans;
- In any relevant report for example resulting from periodic monitoring of an activity;
- Advice from relevant statutory advisors.

3.12 The marine plan authority should seek to accommodate multiple uses of the marine environment and consider the possibility of the co-existence of any potential marine use as the marine environment and technology evolves. In doing so the marine plan authority will also need to consider the potential cumulative impact of activities or the possible exclusion of beneficial activities through allowing the development of another activity within a Marine Plan and whether for example:

- The cumulative impact of activities, either by themselves over time or in conjunction with others, outweigh the benefits;
- A series of low impact activities would have a significant cumulative impact which outweighs the benefit;
- An activity may preclude the use of the same area/resource for another potentially beneficial activity.

3.13 Marine Plans are subject to assessments under the Directive on Strategic Environmental Assessment (SEA) (Directive 2001/42/EC). During the preparation of the plan, the marine plan authority must prepare an Environmental Report on the likely significant environmental effects, consult designated environmental bodies and the public, and take the report and the results of consultation into account. Requirements for monitoring the effects of implementing the plan must also be met.

3.14 An Assessment under the Habitats Directive (Directive 92/43) will be required for a Marine Plan if that plan may have a significant effect, either alone or in combination with other plans or projects, on a Natura site protected under the directive or the Offshore Marine Regulations or on any site beyond Natura sites to which the same protection is applied as a matter of policy. The assessment must be done in accordance with government circulars or guidance³³. Relevant nature conservation bodies should also be consulted for their advice.

³³ Government circular on Biodiversity and geological conservation – statutory obligations and impact within the planning system, Welsh Assembly Government Technical TAN 5, Nature Conservation and Planning (2009) <http://wales.gov.uk/topics/planning/policy/tans/tan5/?lang=en> Scottish Government guidance at <http://scotland.gov.uk/library3/nature/habd-00.asp> and NI Guidance at http://www.ni-environment.gov.uk/habitat_regs_guidance_notes.pdf

3.15 In developing Marine Plans in accordance with the Marine and Coastal Access Act 2009 these assessments will form part of an Appraisal of Sustainability which will be developed as an iterative process with the Marine Plan.

General issues

3.16 The following sections discuss the considerations which the marine plan authority should take into account when developing marine plans. They are the most significant issues that should be considered when developing Marine Plans. These issues and the information provided do not represent an exhaustive list of all possible effects; there may be other issues that will be relevant and will need to be considered for individual Marine Plans.

3.17 Many of the general considerations addressed below are devolved policies (for example coastal change and seascape). The aim in the MPS is to set out existing UK and EU requirements in relation to these important issues for marine planning while also recognising that each Administration has responsibility for any policies and processes which may go further.

Marine Ecology and Conservation

3.18 There are a wide range of legislative provisions (and other biodiversity obligations) at the international and national level affecting ecology and conservation issues that marine planning decisions need to take into account. These include the Marine Strategy Framework Directive, Water Framework Directive, Habitats Directive and Wild Birds Directive.

Issues for consideration

3.19 When developing Marine Plans the plan authorities will identify areas and features of importance for nature conservation. These should inform identification of policies and locations for marine activities and developments. Activities or developments that may result in unacceptable adverse impacts on biodiversity should be located or designed to avoid such impacts.

3.20 Marine plan authorities should be mindful that the UK strategy is to ensure:

- a halting, and if possible a reversal, of declines in priority habitats and species, with wild species and habitats as part of healthy, functioning ecosystems; and
- the general acceptance of biodiversity's essential role in enhancing the quality of life, with its conservation becoming a natural consideration in all relevant public, private and non-governmental decisions and policies.

3.21 These aims needs to be viewed in the context of the challenge of climate change: failure to address this challenge will result in significant impact on biodiversity. The

following paragraphs in this section recognise the need to protect the most important biodiversity and geological conservation interests. It is also recognised that the benefits of development may include benefits for biodiversity and geological conservation interests and that these benefits may outweigh potential adverse effects.

- 3.22 As a general principle, development should aim to avoid significant harm to biodiversity and geological conservation interests, including through location, mitigation and consideration of reasonable alternatives; where significant harm cannot be avoided, then appropriate compensation measures should be sought.
- 3.23 Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design for example incorporating use of shelter for juveniles alongside proposals for structures in the sea. When developing Marine Plans, marine plan authorities should maximise the opportunities for integrating policy outcomes.
- 3.24 The marine plan authority should ensure that wildlife species enjoying statutory protection or other species and habitats of principal importance for conservation are protected from the adverse effects of development, where appropriate.
- 3.25 Decisions should be taken on a proportionate basis. The marine plan authority should ensure that appropriate weight is attached to designated sites of international, national and local importance (see paragraphs 3.27 to 3.29 below); protected species; habitats and other species of principal importance for the conservation of biodiversity; and geological interests within the wider environment.
- 3.26 The marine plan authority should also take account of the commitment to develop an ecologically coherent network of marine protected areas and the protected feature(s) and conservation objectives of those areas. The marine plan authority should also take account of the marine strategy required by the Marine Strategy Framework Directive and aimed at achieving Good Environmental status when introduced and other international obligations for the marine environment including programmes of measures under the Water Framework Directive aimed at achieving Good Ecological Status for inland, transitional and coastal waters.

International Sites

- 3.27 The most important sites for biodiversity are those identified through European directives. The Conservation (Natural Habitats &c) Regulations 1994 and the Offshore Marine Conservation (Natural Habitats &c) Regulations 2007 provide statutory protection for these sites³⁴, but do not provide statutory protection for potential Special Protection Areas (pSPAs) before they have been classified as SPAs. For the purpose of considering development proposals affecting them, as a matter of policy, UK administrations wish pSPAs to be considered in the same way as if they had already

³⁴ Refer to footnote 33

been classified. Designated Ramsar sites should also receive the same protection as a matter of policy.

Marine Conservation Zones/Marine Protected Areas

3.28 Marine Conservation Zones (MCZs - and Marine Protected Areas (MPAs) in Scotland) are areas that have been designated for the purpose of conserving marine flora or fauna, marine habitats or types of marine habitats or features of geological or geomorphological interest. The protected feature or features and the conservation objectives for the site are stated in the designation order. Marine planning authorities should ensure that activities ideally contribute to but at least do not hinder achievement of the objectives of a designated site.

Sites of Special Scientific Interest (SSSIs)³⁵

3.29 A number of SSSIs extend into the marine environment, primarily the inter-tidal zone³⁶. The statutory protection afforded to SSSIs, and the procedures to be followed with regard to development proposals that may affect SSSIs are detailed in Wildlife and Countryside legislation.

Noise

3.30 Noise resulting from a proposed activity or development in the marine area or on the coast can have adverse effects on wildlife and biodiversity although knowledge of the extent of impacts is limited and there are few systematic monitoring programmes to verify adverse effects. However for many marine organisms, including most mammals and many fish, sound is important to communicate to local mates, to search for prey, to avoid predators and hazards, and for short-and long-range navigation. Man-made sound emitted to the marine environment can potentially affect marine organisms in various ways. It can mask biologically relevant signals; it can lead to a variety of behavioural reactions, hearing organs can be affected and sound can injure or even kill marine life. Man-made sound sources of primary concern with regard to disturbance of marine life are explosions, shipping, seismic surveys, offshore construction and offshore industrial activities (e.g dredging, drilling), sonar of various types and acoustic deterrent devices.

3.31 Noise effects on wildlife should be considered in accordance with the Marine ecology and conservation section. Excessive noise can also have wide ranging impacts on the quality of human life, health, and use and enjoyment of areas with high visual quality. Its impact therefore needs to be carefully considered and managed. It should be noted that for certain animals³⁷ deliberate disturbance³⁸ is prohibited and can only be carried

³⁵ In Northern Ireland, these sites are called Areas of Special Scientific Interest (ASSI)

³⁶ Other important sites include Areas of Outstanding Natural Beauty and National Parks

³⁷ Animals listed in Annex IV(a) to Habitats directive

³⁸ Disturbance includes in particular any disturbance that is likely to impair their ability to breed or reproduce or to rear or nurture their young, to hibernate or migrate or to affect significantly the local distribution or abundance of the species.

out in accordance with the terms of a licence and for one of the purposes in the Habitats directive.

Issues for consideration

3.32 In developing Marine Plans, marine plan authorities should take a strategic overview of man-made noise sources and assess for potential cumulative effects of noise across sensitive receptors in the marine area, balanced against potential socio-economic benefits. They should consider how effects of noise on wildlife can be mitigated and minimised, and any potential significant adverse effects on health can be avoided, as well as being mindful of guidance issued by relevant statutory conservation agencies..

Historic Environment

3.33 The historic environment includes all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged. Those elements of the historic environment that have significance due to their historic, archaeological, architectural or artistic interest are called 'heritage assets'.

3.34 Some heritage assets have a level of interest that justifies official designation, the purpose of which is to ensure that our most important heritage assets are protected and conserved for the benefit of this and future generations. In coastal areas designated heritage assets may include world heritage sites, protected wreck sites, conservation areas, listed buildings and scheduled monuments. In offshore areas, designated heritage assets may include protected wreck sites, scheduled monuments and historic marine protected areas (in Scotland only).

3.35 Many heritage assets are not designated but possess interest of equivalent significance³⁹. Others remain to be discovered as knowledge increases. The absence of designation may not necessarily indicate lower significance and the marine plan authority should base decisions on an understanding of the level of significance and how activities or development might affect them.

Issues for consideration

3.36 Marine activities have the potential to result in adverse effects on the historic environment including damage or destruction whether this is on the coast or at sea. In developing Marine Plans, marine plan authorities should seek to identify and assess the significance of any heritage asset that may be affected.

3.37 In considering the significance of any heritage assets, the marine plan authority should take into account the particular nature of the interest in the assets and the value they hold for this and future generations. This understanding should be used to avoid or

³⁹ *Significance* is the value of a heritage asset to this and future generations because of its heritage interests.

minimise conflict between conservation of that significance and any proposals for development.

- 3.38 The marine plan authority should not accept material harm to or removal of significance in relation to a heritage asset, unless it can be demonstrated that the material harm or removal of significance is outweighed by the wider social, economic and environmental benefits that will be delivered by any development.

Climate Change

- 3.39 Climate change is likely to mean that the UK will experience hotter drier summers and warmer wetter winters. There is a likelihood of increased, drought, heatwaves, changes in seasonal precipitation and intense rainfall events and other extreme events such as storms
- 3.40 For the UK's marine environment, climate change pressures could include changes in storm intensity, relative sea level rise, increased seawater temperatures, ocean acidification and changes in ocean circulation. Adaptation including of the marine environment is therefore necessary to deal with the potential impacts of these changes that are already in train. Sea level rise, increased flooding and erosion will lead to increased vulnerability of development and significant change in parts of the UK coast.
- 3.41 To support planning decisions, UK administrations produced a set of UK climate change projections and will be undertaking a UK Climate Change Risk Assessment by 2012 (to be updated every 5 years). The UK has also established the Marine Climate Change Impacts Partnership (MCCIP) which can provide advice to marine plan authorities.

Issues for consideration

- 3.42 When developing Marine Plans, marine plan authorities should make a systematic assessment of likely and potential impacts from climate change and their implications for location or timing of development and activities over the plan period. This includes:
- The need to ensure that the marine environment can adapt to the impacts of climate change by increasing its resilience and ability to adapt. This should take account of findings from the latest UK Climate Change Risk Assessment, relevant national adaptation programmes and the latest set of UK Climate Projections;
 - Building in sufficient flexibility to adapt to climate change impacts, for example by introducing appropriate criteria for selection or de-selection of protected marine areas, or safeguarding marine areas for future uses;
 - Promoting development/projects that take account of the impacts of climate change over their estimated lifetime, in particular taking account of risks such as increased storminess and sea level rise.

3.43 The marine plan authority will need to take into account the potential impacts of climate change (e.g. referring to the latest set of UK Climate Projections) and ensure they have identified any appropriate adaptation measures. This should be done in consultation with the relevant statutory agencies. If any adaptation measures give rise to consequential impacts such as on coastal change the authority should consider the impact of those in relation to the marine plan as a whole.

Coastal Change

3.44 Coastal change⁴⁰, through erosion and instability, is likely to be exacerbated by climate change, has implications for activities and development on the coast and is, therefore, a major consideration in ensuring that proposed new projects are resilient to climate change. Marine planners should support existing policies for coastal development under which development should be avoided in areas of highest vulnerability to and risk of coastal change unless the impacts upon it can be managed satisfactorily.

3.45 Activities on the coast may involve, for example, dredging, dredged material deposition, cooling water culvert construction, marine landing facility construction, land reclamation and flood and coastal protection measures which could result in direct effects on the coastline, seabed marine ecology, heritage assets and biodiversity.

3.46 Indirect changes to the coastline and seabed might also arise as a result of a hydrodynamic response to some of these direct changes. This could lead to localised or more widespread coastal erosion or accretion and changes to offshore features such as submerged banks and ridges.

Issues for consideration

3.47 When developing Marine Plans the marine plan authorities should liaise with terrestrial planning authorities drawing on Shoreline Management Plans and equivalent plans where available and any other relevant coastal policies⁴¹. Marine plan authorities should be satisfied that activities and developments will be resilient to flooding, taking account of climate change, throughout their operational life and any de-commissioning period. Marine plan authorities should not consider development which may affect areas at high risk and probability of coastal change unless the impacts upon it can be managed.

Impacts on air quality from emissions

3.48 Activities and developments in the marine and coastal area can have adverse effects on air quality at various stages. The construction, operation and decommissioning phases of projects can involve emissions to air which could lead to adverse impacts on human health, on protected species and habitats, or on the wider environment. Other

⁴⁰ *Coastal change* is defined as physical change to the shoreline ie erosion, coastal landslip, permanent inundation and coastal accretion

⁴¹ For example the Northern Ireland Executive's high level policy statement "Living with Rivers and the Sea"

key sources that impact air quality include emissions from shipping, oil and gas platforms at sea, oil and gas importing facilities, vehicle emissions as a result of increased coastal activity, and dust from construction. (Impacts on protected species and habitats are covered in the section on marine ecology and conservation).

Issues for consideration

3.49 When developing Marine Plans, marine planning authorities should be satisfied that air quality impacts have been taken into account. They should also liaise with terrestrial authorities to consider how air quality may be improved, particularly within, or adjacent to, coastal Air Quality Management Areas⁴² (AQMAs). In all cases the marine plan authority should take account of any relevant statutory air quality limits.

Impacts on Seascape

3.50 The visual effects of activities and developments in the marine and coastal area will vary on a case by case basis according to the type of activity, its location and its seascape setting. There is no agreed legal definition for seascape but in the context of this document, references to seascape should be taken as meaning landscapes with views of the coast or seas.

Issues for consideration

3.51 When developing Marine Plans, marine plan authorities should consider visual impacts and any areas that are particularly important for seascape, at a strategic level with terrestrial planning authorities as necessary.

3.52 In considering the impact of an activity or development on seascape, the marine plan authority should take into account existing character and quality, how highly it is valued and its capacity to accommodate change specific to any development.

3.53 For any development proposed within or relatively close to nationally designated areas⁴³ the marine plan authority should have regard to the specific statutory purposes of the designated areas.

Water Quality and Resources

3.54 Developments and other activities (eg dredging, waste water disposal) at the coast and at sea can have adverse effects on transitional waters⁴⁴, coastal waters and marine waters. During the construction, operation and decommissioning phases of developments, there can be increased demand for water, discharges to water and adverse ecological effects resulting from physical modifications to the water

⁴² see Part IV of the Environment Act 1995

⁴³ For example Areas of Outstanding Natural Beauty (AONBs) or National Parks

⁴⁴ As defined in the Water Framework Directive (2000/60/EC), transitional waters are 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.

environment. There may also be an increased risk of spills and leaks of pollutants to the water environment.

Issues for consideration

3.55 When developing Marine Plans marine plan authorities should ensure that they contribute to or align with delivery of the policies and objectives of any relevant River Basin Management Plan.

3.56 The marine plan authority should satisfy itself where relevant that any development has regard to the River Basin Management Plans and the requirements of the Water Framework Directive (including Article 4.7) and its daughter directives, including those on priority substances and groundwater. In due course there will be programmes of measures for Good Environmental Status under the Marine Strategy Framework Directive and the marine plan authority will also need to take account of these.

Chapter 4

This chapter provides more detailed guidance for those making decisions that may affect the marine environment, and highlights the considerations that may apply to specific activities and the pressures and impacts that they may generate. These will also apply when developing the detail of marine plans.

Considerations for specific proposals for activities or use

4.1 Decisions on activities in the marine area will be plan-led. This means that decisions will be made in accordance with the relevant marine policy documents⁴⁵ unless relevant considerations (e.g. advances in scientific knowledge) indicate otherwise. There are a number of principles that should be taken into account; specifically that decisions should:

- Be based on the detailed information and advice in the relevant marine policy documents in the respective administrations;
- Be conducted in a manner that meets statutory requirements under UK and EU legislation and is consistent with our obligations under international law;
- Be conducted in a way that takes into account all of the relevant UK administrations' policy objectives affecting the marine area (as set out in chapter 2);
- Be conducted in a manner that takes account of other relevant projects, programmes, plans and national policies and guidance⁴⁶;
- Be taken after appropriate liaison with terrestrial planning authorities and other regulators, and in consultation with statutory advisors when appropriate;
- Be streamlined where possible, making effective use of existing data;
- Be taken using a risk-based approach that allows for uncertainty, recognising the need to use sound science responsibly;
- Be sensitive to any potential impacts on sites of particular significance – including sites designated in relation to environmental protection or marine heritage assets, otherwise significant in terms of environmental concerns, or of particular socio-economic interest;
- Look to mitigate negative impacts where possible at various stages of development including appropriate conditions in line with legal obligations. Where alternative site selection or design could mitigate effects this should be considered where possible;
- Take account of potential impacts of climate change in individual applications to ensure that any appropriate adaptation measures have been identified.

⁴⁵ See S 62 of Marine and Coastal Access Act 2009

⁴⁶ For example relevant National Policy Statements in England and Wales

- 4.2 The decision maker should weigh the potential benefits and adverse effects of each proposal, drawing on different, identifiable lines of evidence to consider the different impacts from a proposal. The precise nature of the impact will depend on a number of factors, including the type of activity under consideration, the impact on the marine environment, nature conservation and biodiversity or ecosystems, heritage assets, local economy, social effects and compatibility with other activities. It will also be appropriate to take into account the general issues in chapter 3 where relevant.
- 4.3 When considering potential benefits and adverse effects the decision makers should also take into account any multiple and cumulative impacts of proposals with other projects and activities
- 4.4 The level of assessment undertaken should be proportionate to the scale and impact of a project as well as the sensitivity of the environment concerned and in accordance with the Environmental Impact Assessment (EIA) directive (85/337/EEC) where applicable⁴⁷. A Habitat Regulation Assessment under the Habitats Directive (Directive 92/43) may also be required in accordance with government circulars or guidance.

Issues for specific activities and uses

Defence and national security

- 4.5 Defence through the delivery of security for the UK and overseas territories contributes to the marine sector by providing survey data and surveillance and monitoring activities. It employs people throughout the UK in support of its operations in the marine environment including through HM naval bases and MOD ranges and coastal estate.
- 4.6 Defence recognises that there are risks to the marine environment through the activities undertaken to maintain Operational Capability. The MOD is committed to the protection of the natural environment. It will therefore seek to comply with all environmental legislation unless this limits essential Operational Capability. MoD has undertaken to minimise the impact of its activities on the environment and pays due regard to such impacts as part of its decision making process in line with the Secretary of State for Defence's statement on Safety, Health Environmental Protection and Sustainable Development in the MoD .
- 4.7 Defence activities that utilise the marine environment, directly or indirectly, in support of Operational Capability are diverse but can be broadly summarised as HM Naval

⁴⁷ An Environmental Impact Assessment under Directive 85/337/EEC as amended is required for all proposed marine projects of types listed in Annex I of the directive and for projects in Annex II which are likely to have significant environmental effects. The Directive requires applications for consent to be accompanied by information including the likely significant effects of the proposals, and of any alternatives considered, on the environment.

bases, maritime exercises, amphibious exercises, coastal training ranges and coastal and underwater test and evaluation ranges.

- 4.8 Non defence activities in the marine environment also have the potential to impact the MOD elsewhere.

Issues for consideration

- 4.9 Marine planners and decision makers should consider how developments could impact the maintenance of Operational Capability. Where they identify potential impacts on Defence activities the Ministry of Defence should be consulted.

Oil and Gas Exploration, Production, Infrastructure and Gas Storage

4.10 Oil and gas can only be produced where they are found, though current technology allows a degree of flexibility over the precise location of production facilities. As a generalisation offshore oil is generally found to the north of the UK's continental shelf and the main gas province is to the south. In general, these hydrocarbons are also found at some distance from coastal areas. Some parts of the UK's offshore area are well explored and understood. In all areas it is likely that there are new discoveries still to be made and these resources need to be accessed for energy security reasons and also to help maintain the UK's economic prosperity. However there are large areas of the continental shelf where there is effectively no potential for oil and gas production. Initial exploration for oil and gas is generally undertaken by seismic survey vessels. Continued access to areas of interest for exploration surveys is necessary but this exploration need not be a permanent barrier to other uses of the sea. If economically important quantities of hydrocarbons are found and drilling or offshore production facilities are located in the area, the exclusion footprint can be relatively small and may have limited impact on other resources and uses of the sea.

4.11 Offshore storage of gas, offshore unloading of gas and provision of gas import facilities are activities which are of increasing importance to our security of supply as indigenous gas supplies decline. A range of offshore infrastructure is required to increase the UK's storage capacity including:

- New import infrastructure, including conventional import pipelines, gas reception facilities and liquid natural gas (LNG) import facilities. These will be necessary to provide import capacity for the increasingly import dependent UK gas market;
- New subsea gas storage facilities and pipelines to allow the offshore uploading of LNG.

4.12 Although there is only one offshore gas storage facility currently in operation in the UK, there is likely to be increasing economic activity in sub-sea storage of gas reserves due to increasing levels of gas imports.

4.13 Looking ahead, the recovery of remaining oil and gas reserves will require additional investment, both in money and expertise. As the North Sea reserves mature, the UK

will become increasingly dependent on imported energy, though indigenous supplies could still meet around half of the UK's total annual gas demand. Around 500 installations are expected to be decommissioned over the next three decades.

Potential impacts

- 4.14 There are a number of socio-economic benefits from the sector including employment, taxes, export business and energy security. The majority of oil and gas fields on the UK Continental shelf are located in the North Sea and the largest region of related employment in the UK is in Scotland.
- 4.15 There are a number of environmental risks associated with oil and gas extraction, the most notable being the risk of oil spill, noise from exploration (e.g. seismic survey) and production, historical oil based cuttings piles, and inputs of exploration and production chemicals. Oil discharges in produced water have fallen and most oil spills are now of less than 1 tonne. Impacts from pipeline installation on habitats are spatially minor with temporally short-term noise and disturbance impacts. Use of existing storage features and infrastructure is likely to result in negligible additional impacts although the production of salt caverns may result in significant local impacts and interference with other users of the area.

Renewable Energy

- 4.16 Potential renewable energy resources include wind; wave; tidal stream (focussed inshore around headlands and in sounds) and tidal range. It should be recognised that potential benefits and adverse effects of these technologies will vary greatly, depending for example on their size, structure and geographical location.

Potential Impacts

- 4.17 Renewable energy offers the potential for significant broad-scale environmental benefits through mitigating greenhouse gas emissions from energy production. In addition there are a number of socio-economic benefits from the sector including employment, export business and energy security. As yet the potential for benefits such as introduction of artificial reef structures and fishing opportunities around wind farm sites have not been fully explored, but should be considered further in the context of marine planning and for individual developments
- 4.18 For marine fish and mammals one of the greatest potential adverse effects from marine renewable energy is from construction noise. Of greatest concern are behavioural effects caused by intermittent but prolonged (over several years) noise inputs that could disturb organisms from breeding and feeding grounds. Such effects could be generated over tens of kilometres and research is ongoing to try to better determine the nature and scale of such effects and the efficacy of mitigation measures. There are also potential socio economic impacts through displacement of fishing activity particularly on some smaller vessels which do not have capacity to shift activity to other fishing grounds.

- 4.19 Offshore wind turbines also have the potential to displace birds from key areas, form a barrier to migration or present a collision risk for birds. There are also concerns regarding indirect effects on birds through e.g. acoustic effects on prey species (fish) which may need to be considered.
- 4.20 Offshore wind turbines can have a variety of foundation designs (monopile, gravity base, jacket). These will interact with the seabed in different ways but will exert an effect on the hydrodynamics of the area and consequent sediment movement. This includes potential scouring of sediments around the bases which may be of both engineering and environmental significance. Research into the characteristics of scouring effects around traditional turbine technologies (monopoles) indicate that effects are generally localised. A similar level of understanding for the other foundation types is lacking.
- 4.21 Tidal and wave technology is in its early growth stages and as such there is some uncertainty around environmental impacts. It is thought that such impacts could include: alteration in seabed habitat area through hydrodynamic changes; noise disturbance; and collisions between devices and fish, diving birds or marine mammals although such collisions will tend to be device and site specific. Tidal barriers and barrages situated in estuaries can have severe impacts on fish but also impact other estuarine wildlife and habitats. They can alter the physical characteristics of the estuary, primarily upstream but also downstream of the structure. However not all of the impact of tidal and wave technologies upon the marine environment may be negative. Interference and displacement of other users (e.g. fishing and shipping) could result depending on where such devices are deployed. Mitigation methods for such impacts may be supported by detailed monitoring programmes and coordinated research initiatives, including post deployment of devices.

Offshore electricity networks

- 4.22 The UK has historically had a centralised electricity generation network relying on large-scale generation from conventional power stations, some clustered in specific parts of the country. However, the move to diversify the UK's electricity generation is involving a rapid increase in capacity of other forms of electricity generation, including renewable energy from sources including the wind, tides and waves.
- 4.23 These sources of generation are, and will be, mainly located in areas not traditionally associated with electricity generation, e.g. offshore, including remote parts of Scotland. The on-shore and offshore electricity transmission network therefore needs to be urgently upgraded and its capacity increased, to bring forward new electricity generation from offshore locations and to allow for this to be transmitted to areas of the country where there is greatest demand. New infrastructure such as a network of sub-sea cables will be required to connect offshore generation such as offshore wind to the

onshore grid, as well as potential stretches of sub-sea cabling to reinforce certain parts of the onshore network⁴⁸.

- 4.24 Electricity interconnections between parts of the UK and other European countries to allow for import and export of electricity will also become increasingly important to ensure that the UK continues to have a secure and stable network, particularly as the penetration of renewables rises.

Potential impacts

- 4.25 There are obvious socio-economic benefits from such an increase in network capacity, most notably the facilitation of marine renewable energy. There are also socio economic risks associated with such an increase as an increase in underwater cabling may affect activities such as dredging and fishing and impact other sea users including existing cable and pipeline operators.
- 4.26 An increase in underwater cables in the UK marine environment will cause environmental impacts that are mainly due to the physical disturbance involved with the placement of such cables together with their associated cable protection (e.g. rock armour, concrete mattresses) where cable burial is not feasible. It may also displace fishing activity. This is particularly the case where cables either run through, or have landfall within, any site designated as being of national or international nature conservation importance or other sensitive areas such as designated shell fisheries, spawning or nursery grounds for economically important fish species or marine archaeological sites.

Carbon Capture and Storage

- 4.27 Carbon Capture and Storage is a three step process which includes: capturing carbon dioxide from power plants and other industrial sources; transporting it, usually via pipelines (although shipping is also a possibility), to storage points; and storing it safely in deep (at least 800m) offshore geological sites such as saline formations or depleted oil and gas fields. By Directive 2009/31EC a person who intends to operate a geological site for the storage of carbon dioxide will require a permit issued in accordance with the requirements of the Directive. The purpose of the Directive is to ensure environmentally safe geological storage defined as the permanent containment of carbon dioxide in such a way as to prevent or, where prevention is not possible, eliminate as far as possible negative effects and any risk to the environment and human health.
- 4.28 While storage sites themselves will be well below the seabed, for storage to take place it will be necessary to install associated infrastructure such as pipelines and well-heads (though there are also possibilities to re-use existing infrastructure). Facilities for long term monitoring will also be required. There is likely to be preliminary exploration of storage sites with the first storage site intended to be operational from

⁴⁸ In Scotland, National Planning Framework 2 identifies electricity grid reinforcements (including sub-sea cables) as a National Development

2014. Initially, attention is likely to focus on depleted oil and gas fields but other structures such as saline aquifers could also be used.

Potential impacts

4.29 As indicated in chapter 2, the deployment of carbon capture and storage technologies will bring significant benefits for the UK in enabling fossil fuel energy generation to be part of the UK's low carbon, secure energy future. It also allows the UK to demonstrate leadership in deploying greenhouse gas emission mitigation techniques that will be vital in addressing the burgeoning energy requirements of developing economies that fossil fuels will supply. Removing carbon dioxide emissions from worldwide electricity generation will considerably reduce the potential for further acidification of the marine environment

4.30 It is possible that leakage of carbon dioxide from a storage site (or more likely from the injection process) could cause localised risks. Appropriate site selection and adherence to regulatory and international guidance will minimise risks significantly. Leakage of carbon dioxide could have some localised impact on benthic marine communities and could cause minor localised seawater acidification, although it is not envisaged that such impacts would be either widespread or long term, taking into account the dilution and buffering capacity of our oceans. Once injected into a formation, a number of trapping mechanisms will reduce the risks of carbon dioxide leakage. Remaining risks will be from failure of infrastructure (pipelines and well heads) though again impacts from such failures are unlikely to be significant.

Issues for consideration for energy infrastructure

4.31 When decision makers are examining and determining applications for energy infrastructure and marine planning authorities are developing marine plans they should take into account:

- The positive wider environmental benefits of low carbon electricity generation and carbon capture and storage as key technologies for reducing carbon dioxide emissions;
- The national level of need for energy infrastructure, as set out in the Overarching National Policy Statement for Energy (EN-1) which applies in England and Wales, the National Planning Framework which applies in Scotland and the Strategic Energy Framework⁴⁹ in Northern Ireland;
- The Government's policy objective to maximise economic development of the UK's oil and gas resources reflecting their importance to the UK's economic prosperity and security of energy supply;
- That geological features that form oil and gas fields or suitable sites for gas or carbon dioxide storage occur in relatively few locations and need first to be explored for and can then only be utilised where they are found;

⁴⁹ The Strategic Energy Framework (SEF) will be published in spring 2010.

- The Government's programme to support the development and deployment of Carbon Capture and Storage and in particular the need for suitable locations that provide for the permanent storage of carbon dioxide.

4.32 When developing Marine Plans marine plan authorities should identify how these will contribute to delivery of national targets and priorities, including legally binding commitments entered into under the Renewable Energy directive and our domestic binding target to reduce greenhouse gas emissions by 80% by 2050. This will include identifying preferred areas for development of different energy sources, generation and distribution infrastructure avoiding the most sensitive areas for biodiversity and considering carefully areas with competing and incompatible uses. Marine plan authorities will need to liaise, as appropriate, with terrestrial planning authorities to ensure the development of any necessary on-shore infrastructure. This will include, for example:

- Sub-stations, to support offshore electricity generation and connection to the national grid;
- New gas and electricity import infrastructure, both conventional import pipelines, gas reception facilities and liquid natural gas (LNG) import facilities;
- Appropriately developed and placed ports and harbours to support construction and maintenance as well as other infrastructure such as roads.

Shipping and Port Development

4.33 This section encompasses the transport of both freight and passengers by water. Water transport is supported by a diverse range of ancillary activities including shipbuilding and repair, the construction of ports and marinas and activities associated with navigation including dredging (dredging is covered separately below) and the production of charts.

Shipping

4.34 Shipping is an essential and valuable economic activity for the UK. There are significant movements of ships around the UK coast and into and out of UK ports serving the UK's economic interests. There are also significant levels of legitimate passing traffic, for example through the English Channel and other ships freely using the navigable seas adjacent to the UK.

Potential impacts

4.35 Environmental impacts can be through accidental pollution from ships in the course of navigation or lawful operations, pollution caused by unlawful operational discharges by ships (e.g. oil, garbage, sewage) or physical damage caused by groundings or collisions. Other pressures on the environment from shipping relate to introduction and spread of non-indigenous species (transported on ships' hulls or in ballast water) and noise.

Issues for consideration

4.36 When considering any potential increase of shipping activity the socio-economic benefits and environmental impacts should be taken into account. When planning or considering any application the decision maker should take into account and seek to minimise any negative impacts on shipping activity and navigation. In particular, international maritime law should be respected.

Port Development

4.37 Relevant national planning policy documents set out the level of need for larger scale port development⁵⁰. There may also be opportunities for smaller scale developments at existing ports which are designed to increase capacity locally. In some cases these will need to be considered by marine planning authorities, while others may not require development consent. Both types will need to be considered in marine planning. Where a port has worked with stakeholders to produce a Master Plan, this may provide marine plan authorities with a strategic view of the potential direction of future port development.

Potential Impacts

4.38 Positive impacts from port development include job creation, benefits to local fishermen as well as wider benefits to national, regional or local economies.

4.39 Adverse effects from the development of new ports are similar to those from any coastal development and will primarily result from the construction phase, although associated impacts such as increases in shipping traffic and dredging could cause impacts during the operational phase. The precise nature of the impacts will vary depending on the local conditions and nature conservation and other interests. However, as port developments are generally located in estuarine environments, particular note should be made of impacts that include: impacts to the local hydrodynamic and sedimentary regime; loss of intertidal habitats; disturbance of historical contamination during capital works; impacts on migratory and juvenile fish; impacts on important bird populations; impacts on heritage assets. (Further details are set out in the Ports NPS which applies in England and Wales)

4.40 In addition projects may be subject to the Environmental Permitting (EP) regime⁵¹, which also incorporates operational waste management requirements for certain activities.

⁵⁰ In England and Wales the National Policy Statement for Ports. In Scotland National Planning Frameworks 2 identifies a number of port and related proposals as National Developments. Projects such as Scotland's national renewable infrastructure plan also identify ports and infrastructure for supporting the development of marine renewable projects.

⁵¹ This regime does not apply in Scotland, where activities may be subject to the Pollution Prevention and Control regime

Issues for consideration

4.41 When decision makers are advising on or determining an application for an order granting development consent in relation to ports, or when marine plan authorities are developing marine plans, they should take into account the contribution that the development would make to the national, regional or more local need for the infrastructure, against anticipated adverse effects, including cumulative impacts. In considering the need for port developments in England and Wales reference should be made to interpretations of need as set out in the Ports NPS. In Scotland, reference should be made to the National Planning Framework which identifies known large-scale port developments.

Marine dredging and disposal (capital and maintenance dredging)

4.42 Since 1998, in compliance with its international obligations, the UK Administrations have – with some minor exceptions – only licensed the disposal at sea of capital and maintenance dredgings and small amounts of fish waste.

4.43 The amount of dredged material disposed of at sea each year from the UK has been relatively consistent since 1985, the variation in annual tonnage being most marked in the quantities of capital dredgings associated with port expansion and channel deepenings; the fluctuations in dredgings reflecting a combination of economics and weather.

Potential impacts

4.44 Dredging is an enabling activity which is essential to the functioning of ports and marinas and the social and economic benefits which derive from these. It can also allow specific construction activities to be taken forward.

4.45 Appropriately targeted disposal of dredged sediment can have an ancillary benefit in maintaining sedimentary systems and where the sediment is constituted appropriately, can have socio-economic benefit in providing material for alternative uses such as construction, beach nourishment or salt marsh restoration.

4.46 The primary environmental considerations include the potential risk to fish and other marine life from the release of sediments, chemical pollution and morphological changes including burial of seabed flora and fauna; hydrological effects; interference with other marine activities; increases in turbidity, increases in marine noise, possible adverse effects for designated nature conservation areas and potential destruction or destabilisation of known or unknown features of historic environmental interest. Removal of dredged material can also cause adverse impacts to the natural sedimentary systems.

4.47 Dredging can cause significant environmental and health concerns through exposure to contaminants in the dredging plume. These contaminants arise from diverse sources such as the legacy of industrial pollution (e.g. metals and poly chlorinated biphenyls) or historical and current use of antifoulants including tributyltin and heavy

metals and new contaminants which are now finding their way into the marine environment (e.g. poly brominated diphenyl ethers i.e. flame retardants).

Issues for consideration

- 4.48 In considering an application, a detailed evaluation of the potential adverse effects of any deposit on the marine ecosystem and others using the sea should be undertaken, having full regard to any accompanying environmental statement or additional data that may be requested in support of the application and international obligations under the OSPAR Convention 1992 and London Protocol 1996 and available guidance. Account should also be taken of the views expressed by other consultees before a decision is taken whether to grant approval.
- 4.49 Applications to dispose of wastes must demonstrate that appropriate consideration has been given to the internationally agreed hierarchy of waste management options for sea disposal. Wastes should not be accepted for disposal where appropriate opportunities exist to re-use, recycle or treat the waste without undue risks to either human health or the environment, or disproportionate costs. The decision maker should give appropriate consideration to alternative uses of the sediment.
- 4.50 The potential adverse effects on the marine environment, habitats and wildlife from dredging activity should be considered by decision makers. Particular recognition should be given to the implementation and use of the maintenance dredge protocol⁵² to minimise impacts on habitats and wildlife and help meet statutory obligations in relation to European Sites. There also needs to be compliance with requirements of the Water Framework directive.

Marine aggregates⁵³

- 4.51 There are significant off-shore marine aggregate resources. Given market flexibilities, marine aggregates (sand and gravel) are transported from the dredging areas where the resources are located for delivery to various markets in different regions, including aggregate wharves, beaches and ports.
- 4.52 Land-based construction aggregate resources are unevenly distributed and many regions are heavily dependent on supplies from other areas. Marine aggregates are ideally located to fill part of these regional deficits, contributing to diversity of supply and delivering high-quality aggregate into the centre of areas of high demand with minimum disruption. This is particularly the case in the South East of England and in London.

⁵² This does not apply in Scotland or Wales

⁵³ Not applicable to Scotland

Potential impacts

- 4.53 Marine aggregates help to reduce the disturbance to communities from emissions of road transportation from land sourced aggregate. Substantial volumes of marine aggregates are landed on wharves close to where it is needed in coastal conurbations and locally distributed by rail, water (through barges) and road. The industry provides socio-economic benefits including skilled, stable employment and the generation of income (through the construction industry supply chain).
- 4.54 Marine aggregates also have strategic benefit though their use for flood and coastal defence purposes and fill for major coastal infrastructure projects. There is no practicable alternative source for such uses.
- 4.55 Potential adverse impacts include changes to the hydrodynamic regime that may alter coastal processes; loss of seabed habitat; fisheries and secondary impacts to marine life and habitat associated with sediment plumes, disturbance of fish spawning, migration routes, nursery and overwintering areas and overspills from dredging vessels and potential changes to historical environmental features.

Issues for consideration

- 4.56 Marine plan authorities should as a minimum make provision within marine plans for a level of supply of marine sand and gravel that ensures that marine aggregates (along with other sources of aggregates) contribute to the overarching Government objective of securing an adequate and continuing supply to the UK for various uses. In doing so, marine plan authorities should consider the potential long-term requirement for marine-won sand and gravel, taking into account trends in construction activity, likely climate change adaptation strategies and major project development.
- 4.57 The assessment by the decision maker should be based on sustainability criteria and should take into account the existing sea bed within the plan area that is currently being dredged; offshore movements of aggregates; the importance of meeting regional and national needs, beach replenishment and contract fill; and the need to safeguard reserves for future extraction. It is UK policy that all applications for Dredging Permissions in previously un-dredged areas require an EIA.

Aquaculture

- 4.58 More than 99% of aquaculture related economic activity in the UK is related to finfish and shellfish although there is increasing culture of seaweed and marine worms (for fishing bait). The majority (99%) of existing UK marine based finfish aquaculture activity is located in Scotland, which is the largest producer of farmed salmon in the EU, and the second largest in the world, although is increasing in other areas of the UK. Shellfish production is evenly spread throughout the UK. Aquaculture within the UK is an expanding activity. Trends in the industry are closely tied in with changes in wild fisheries, the availability of investment, and site availability. More intensive types of aquaculture can use space and resources more efficiently if they are carefully

planned and managed. The overall future outlook is dependent on site availability and environmental carrying capacity.

Potential Impacts

- 4.59 The status of global fish stocks has been identified as 'very unfavourable' in a recent assessment of UK food security⁵⁴. Increased UK aquaculture production could help to contribute to increased food security and local production as a means of securing future supply in a way which is carbon efficient and fits local economies. Finfish aquaculture can alleviate fishing pressure on wild stocks, while providing additional nutrients for shellfish production when well sited. Mitigation of pollution of shellfish waters will help provide a sustainable base for development of the inshore aquaculture sector, as well as reducing public health risks. The health benefits of fish consumption remain clear, with the Government advising increased consumption in the UK population.
- 4.60 The potential adverse environmental impacts of aquaculture activity are diverse, mainly relate to finfish aquaculture and include: organic enrichment which may result in de-oxygenation of the water column and sediments and changes in the diversity of benthic invertebrates inorganic enrichment which may contribute to eutrophication, and cause changes in plankton communities and may contribute to Harmful Algae Blooms (HABs); genetic alteration of local populations from escapees or larvae from farms; increased occurrence and exchange of disease between farmed and wild fish; contamination from antiparasite drugs/ and heavy metals and increased marine litter. Aquaculture and associated infrastructure may also impact on the visual appearance and amenity value of coastal locations.

Issues for consideration

- 4.61 Decision makers should consider the benefits of encouraging the development of efficient, competitive, and sustainable aquaculture industries in line with the policies in chapter 2. Decision makers should ensure that proposed activity has minimal wider effect and should seek to embrace the significant opportunities for co-existence of aquaculture and other marine activities in developing marine plans
- 4.62 In developing Marine Plans marine plan authorities should take account of existing aquaculture activity in the area and seek information on possible future aquaculture operations in areas not previously used, assessing those areas' likely suitability.

Fisheries

- 4.63 The Common Fisheries Policy (CFP) provides the main policy framework for decisions concerning the management of fisheries. It provides for Member States to apply more restrictive measures to be introduced for those fisheries operating between 0-6 and 6-12 nautical miles. Decision makers must therefore have regard to the provisions of the CFP in relation to any plans or proposals affecting fisheries. The CFP is currently

⁵⁴ UK Food Security Assessment: Our Approach- August 2009

being reviewed with the aim of introducing a reformed CFP by 1 January 2013. In the UK Administrations' view the overall aim of reformed CFP should be to attain ecological sustainability through a CFP designed to optimise the wealth generation potential of marine fish resources.

- 4.64 As set out in chapter 2, commercial fishing is of socio economic importance in the UK and fish is an important source of high protein food. Managed sustainably, fisheries have the potential to provide employment, wealth and food security. The UK has a long history of fishing both inshore and off-shore which UK administrations wish to see continue.

Potential impacts

- 4.65 Fishing can provide socio-economic benefits including benefits for health and local economies. Wild caught fish provides a valuable source of protein. Fishing provides employment often in remote areas where alternative forms of employment are limited. It contributes to the social, cultural and historic make-up of many local coastal communities. Fishing ports can be of benefit to the tourist industry and also supply local hospitality, processing and other food supply industries with products.
- 4.66 Fishing activity is sensitive to changes in other sea uses. Marine developments have the potential to prevent, displace or encourage fishing activity. There are potential socio-economic impacts of displacement of fishing activity caused by other sea uses particularly if from well established fishing grounds.
- 4.67 Fishing can have negative environmental impacts. This can include threats to vulnerable or rare species and habitats as well as over-exploitation of commercial fish stocks. Such impacts can often be associated with particular gear types and the intensity of fishing activity. Interactions between fishing activity and marine developments and their consequent impacts on fish stocks and the environment are complex and need to be considered.

Issues for consideration

- 4.68 Decision-makers should have regard to the UK administrations' priorities for fisheries management in Chapter 2. They should also take into account the UK administrations wish to promote greater decentralisation of decision-making in fisheries management in order that measures reflect the needs and conditions of different fisheries.
- 4.69 Decision makers should consider the potential socio-economic impacts of other developments on fishing activity. This should have regard to the ability of vessels to relocate to other areas. They will also wish to consider the impacts on local communities of any reduction in fishing activity or redistribution of fishing effort as the result of a marine development. Wherever possible decision makers should seek to encourage opportunities for co-existence between fishing and other activities. Local fishing groups, such as Inshore Fisheries Groups in Scotland or Inshore Fisheries and Conservation Authorities in England, should be encouraged in marine planning.

Tourism and recreation

4.70 Leisure and recreation encompass a diverse range of activities that make use of the marine environment as described in Chapter 2.

Potential impacts

4.71 Environmental effects/impacts may include the removal of marine fauna and flora, physical or visual disturbance of wildlife, pollution from wastewater and litter. Socio-economic benefits include the positive benefits to local communities through increased visitors and tourism. Improving access may also attract more visitors.

Issues for consideration

4.72 The UK administrations' objective is to promote tourism through the visitor economy. Decision makers will therefore have to carefully weigh the socio economic factors associated with marine plans and environmental considerations before coming to decisions. An integral part of this will be to ensure that local tourism stakeholders and other sea users are fully engaged and consulted before any decisions are taken.

Summary: Intervention & Options

Department /Agency: Department for Environment, Food and Rural Affairs	Title: Impact Assessment of Marine Policy Statement	
Stage: Pre-consultation	Version: 1	Date: 5 February 2010
Related Publications: The Marine and Coastal Access Act (2009), Our Seas - a shared resource High Level Marine Objectives, "A Sea Change" A Marine Bill White Paper Consultation		

Available to view or download at: <http://www.defra.gov.uk/environment/marine/planning.htm>

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What is the problem under consideration? Why is government intervention necessary?

The UK marine environment can be regarded as an open access resource in which property rights are not well defined. This public good characteristic means that individuals do not have the economic incentive to operate in ways that conserve the marine environment and as a result the UK's marine resources are likely to face increasing pressures in years to come.

Government intervention is therefore necessary to introduce a marine planning system to provide strategic direction to the current fragmented framework of domestic and international legislation used to manage the UK seas, which is considered complex, and acts as a barrier to effective decision-making and the achievement of sustainable development in the marine environment.

What are the policy objectives and the intended effects?

To move towards a strategic approach helping us achieve our objectives for the marine environment, considering economic, social/cultural and environmental needs. To provide a framework for marine planning authorities when developing marine plans and guidance for decision making on specific proposals for activities or use in the marine area. This will lead to a more coherent approach to management of the marine environment providing clarity for marine planners and decision makers and transparency for users.

What policy options have been considered? Please justify any preferred option.

Two options are considered in this Impact Assessment:

- i) Option 1 looks at the scenario where no Marine Policy Statement is developed and we continue with the status quo.
- ii) Option 2 looks at the Marine Policy Statement as a document that sets out the high level policy context and the policy objectives that will contribute to achievement of sustainable development in the UK marine area and provides a framework for marine planning and decisions affecting the marine environment.

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?

The MPS will be reviewed as and when necessary. There will be a post implementation review of marine planning aspects of the Marine and Coastal Access Act after approximately five and ten years.

Ministerial Sign-off For pre-consultation Impact Assessment:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the chosen option.

Signed by the responsible Minister:

..... Date:

Summary: Analysis & Evidence

Summary: Analysis & Evidence			
Policy Option: 2	Description: Introduce a Marine Policy Statement (incremental costs and benefits over option 1 - baseline)		
COSTS	ANNUAL COSTS		<p>Description and scale of key monetised costs by 'main affected groups'</p> <p>There are no monetised costs to the industry or third sector arising from the production or use of the Marine Policy Statement (MPS). It is not expected that the MPS will impose additional requirements for industry ; it integrates existing UK Government and Devolved Administration policies for the UK marine area, and provides guidance for marine planning authorities and decision makers, plus greater transparency for users of the marine environment.</p> <p>Other key non-monetised costs by 'main affected groups'</p> <p>There are no non-monetised costs to the industry or third sector arising from the production and use of the Marine Policy Statement. Stakeholders and interested parties have been invited to participate in the development of the Marine Policy Statement. However, it has not been possible to quantify the costs associated with their participation in the process.</p>
	One-off (Transition)	Yrs	
	£ 0	20	
	Average Annual Cost (excluding one-off)		
	£ 0	Total Cost (PV)	
BENEFITS	ANNUAL BENEFITS		<p>Description and scale of key monetised benefits by 'main affected groups'</p> <p>All benefits are currently non-monetised.</p> <p>Other key non-monetised benefits by 'main affected groups'.</p> <p>Integrated nature of Marine Policy Statement provides greater clarity for marine industries and developers. Government, Industry and users will benefit from increased efficiency in the management and use of the marine area.</p>
	One-off	Yrs	
	0		
	Average Annual Benefit		
	0	Total Benefit (PV)	
Key Assumptions/Sensitivities/Risks			
Price Base Year	Time Period Years 20	Net Benefit Range (NPV) £ n/a	NET BENEFIT (NPV Best estimate) £ n/a

What is the geographic coverage of the policy/option?	UK marine area - includes the territorial seas and offshore area adjacent to the UK, as well as any area of sea designated as UK Exclusive Economic Zone (to 200 nautical miles, or the edge of the continental shelf)			
On what date will the policy be implemented?	Expected Spring			
Which organisation(s) will enforce the policy?	Marine Planning Authorities and other decision making Public Bodies			
What is the total annual cost of enforcement for these organisations?				
Does enforcement comply with Hampton principles?	Yes			
Will implementation go beyond minimum EU requirements?	Yes			
What is the value of the proposed offsetting measure per year?				
What is the value of changes in greenhouse gas emissions?				
Will the proposal have a significant impact on competition?	No			
Annual cost (£-£) per organisation (excluding one-off)	Micro	Small	Medium	Large
Are any of these organisations exempt?	No	No	No	No

Impact on Admin Burdens Baseline (2005 Prices)		(Increase - Decrease)	
Increase of	£ N/A	Decrease	£ N/A
Net		£ N/A	

Key:

Annual costs and benefits: Constant Prices

(Net) Present Value

Section 1: Introduction

- 1.1 This Impact Assessment (IA) sets out a UK-wide high level view of the costs and benefits of the options available in the preparation of a Marine Policy Statement (MPS). This is in line with UK administrations' commitments to incorporate impact assessments throughout the policy development process.
- 1.2 This IA has been produced as part of the 'discussion paper' for the period of informal consultation that is being undertaken to seek further stakeholder engagement in the development of the MPS.
- 1.3 The impacts are considered with regard to the effect on business, Government, other stakeholders and the environment. To a great extent the MPS will integrate policy that has been announced previously, policy that will have been subject to impact assessments already. As the MPS will not be introducing these policies, it is not appropriate to count the costs and benefits of such policies within this IA.
- 1.4 An Appraisal of Sustainability (incorporating a Strategic Environmental Assessment, Habitats Regulation Assessment and Equality Impact Assessment) is being undertaken. This will appraise the MPS to ensure sustainable development principles are incorporated. The outputs of the Appraisal of Sustainability are expected to feed into this IA as it is developed.
- 1.5 The evidence base is structured as follows:
 - Section 1: Introduction
 - Section 2: Background and Policy rationale
 - Section 3: Policy options
 - Section 4: Option 1 – The Baseline
 - Section 5: Option 2 – Marine Policy Statement

Section 2: Background and Policy rationale

- 2.1 The findings of a series of reviews and reports dating from the Marine Stewardship Report in 2002 and the “Seas of Change” Government response in 2003 suggested that a new approach to managing activities in the marine environment is needed. In particular, better integration and more effective management of conflicting pressures was thought to be a prerequisite for conservation and sustainable development. Better integrated management has been identified as a crucial aspect of delivering our vision of clean, healthy, safe, productive and biologically diverse oceans and seas.
- 2.2 Enacted on 12 November 2009, the Marine and Coastal Access Act 2009 has provided for a new system of marine planning that will clarify our marine objectives and priorities for the future, and direct decision-makers and users towards more efficient, sustainable use and protection of our marine resources. The first stage of this new system is a Marine Policy Statement for which provision is made in the Act. The UK Government and Devolved administrations are working on development and joint adoption of a Marine Policy Statement which will set out the policy objectives that will contribute to the achievement of sustainable development in the United Kingdom marine area and provide a clear and consistent framework for marine planning authorities when developing marine plans. It is also intended that the MPS should provide guidance to other decision makers who will make decisions on specific activities or uses of the marine area both when marine plans are in place and before then.
- 2.3 The MPS will build upon the High Level Marine Objectives. These were published in April 2009 in Our Seas – a shared resource: High Level Marine Objectives. These set out the outcomes the UK Government and Devolved Administrations are seeking which will contribute towards the achievement of sustainable development in the marine area and the wider context.
- 2.4 The MPS will be the framework under which marine plans are developed. These plans will set out how the MPS will be implemented in specific areas. Each marine plan will be subject to its own IA. The MPS will also set the direction for new marine licensing systems.
- 2.5 The Marine and Coastal Access Act 2009 gives the MPS, when adopted, a legal effect on decision-making by Public Authorities. This means that licensing (or other authorisation) of activities which affect or might affect the

marine area and enforcement of licensing conditions will be in accordance with the MPS, unless relevant considerations indicate otherwise.

Section 3: Policy options

3.1 There are two options being considered;

Option 1 provides information on the baseline (or 'do nothing') option and outlines what the impact would be of not adopting an MPS.

Option 2 considers the costs and benefits of introducing the MPS and having it as a document that sets out the policy objectives that will contribute to achievement of sustainable development in the UK marine area and provides a framework for marine planning and decisions affecting the marine environment.

Section 4: Option 1 - The Baseline (No Marine Policy Statement)

- 4.1 This section provides a view of retaining the existing management framework for marine planning. The current systems in place responsible for the use of marine resources and protection would stay as they are and the MPS would not be prepared. Organisations would continue to make decisions based on policy as it is currently articulated based on the current fragmented framework meaning that a consistent approach cannot be ensured, causing a barrier to effective decision-making and achievement of sustainable development in the marine environment.
- 4.2 The baseline sets out the scenario of not publishing an MPS. Since assurances about publication of the Statement were given during the passage of the Marine and Coastal Access Act 2009 this is not considered a viable option, but rather sets out the hypothetical baseline against which option 2 is assessed. By definition, continuing under the status quo would result in no additional costs or benefits. Under this option it is anticipated that there will continue to be increasing demands on marine resources including apparently incompatible demands from marine users in specific areas of the seas. These tensions will be resolved through existing arrangements, although at times the processes may be lengthy.

Impact on business

- 4.3 Developers in the marine area will continue to encounter a range of policies to which they will need to adhere. The uncertainty brought about by the current disjointed system causes delays in the processing of consents, licences and other applications and incurs cost to business.
- 4.4 Marine-related activities in the UK contribute 3-4% of Gross Domestic Product and directly employ nearly half a million people. Without effective strategic management arrangements brought about, in part, by the MPS there is a risk of being unprepared to deal with the new demands that expanding industries such as renewable energy generation, will represent.
- 4.5 The benefits of retaining the existing management framework for marine planning are ones of consistency and familiarity for those already using the system.

- 4.6 While the MPS would set the direction for marine licensing, its absence would not affect the provision in the Marine and Coastal Access Act for a simplification of current licensing systems. New arrangements for licensing are expected to give a more efficient, integrated and transparent system, leading to a reduced cost to business.

Impact on Government (central, devolved and local)

- 4.7 The UK Government and Devolved Administrations are committed to achieving sustainable development of the marine area. The MPS would be a key step towards achieving the UK Administrations vision of having 'clean, healthy, safe, productive and biologically diverse oceans and seas'. However, in a scenario where no MPS exists, there are policies in place to help achieve this. The High Level Marine Objectives, (based around the five sustainable development principles - <http://www.defra.gov.uk/environment/marine/documents/ourseas-2009update.pdf>) which were published in April 2009, will provide decision makers in the marine environment with a high level guidance to work with in order to help achieve sustainability in the marine area. Additionally, a variety of EC policies, legislation and conventions will contribute to better management and sustainable development of the marine environment including; the Marine Strategy Framework Directive requiring the UK to achieve 'Good Environmental Status' by 2020, the OSPAR convention and the Water Framework Directive, as well as other pieces of EU legislation which are relevant to the protection and conservation of habitats.
- 4.8 If an MPS was not adopted, Marine Plans could still be drawn up. The UK Government could produce Marine plans for England but they would be harder to produce without an overarching policy statement which sets a coherent picture of Government policy affecting the marine area. Welsh Assembly Government, Scottish Government and Northern Ireland Executive could produce Marine Plans without adopting the MPS. However their plans would be limited in scope as they could not include all activities in the marine area as the plans would not have any effect on functions that are retained by UK Government.
- 4.9 Where no MPS exists, Local Authorities who make decisions that affect the marine area will continue to need to take into account a number of disparate policies.

Impact on environment

- 4.10 In many areas the marine environment is becoming increasingly crowded with demands on space for development, to exploit resources, for recreation and nature conservation. At present the demands on marine

resources and the pressure on marine habitats and species are affecting the provision of ecosystem goods (food, etc.) and services in the marine environment, and consequently the human benefit derived from them is declining.

- 4.11 There is currently no strategic framework for policy in the marine area and management of UK seas can be ad hoc and reactive. The lack of overall strategic direction and planning can make it difficult to assess the cumulative impacts of activities on the marine environment.
- 4.12 Climate change is expected to significantly modify the environment. The effect of the thermal expansion of seawater and melting glaciers is causing average sea levels to rise around the world. Across the UK a range of effects are expected; from a dramatic rise in sea levels in the south of England to the potential for a negligible effect in Scotland where the land continues to rise following the last ice age. Rising sea levels greatly increases the potential of flooding and coastal erosion, leading to increased vulnerability of development and significant change on the UK coast. Increasing sea temperatures and changes to ocean circulation and seawater chemistry are also expected as a result of climate change. There is little doubt that the warming of the oceans will bring about changes such as the movement of fish species into more tolerable waters, this in turn may necessitate the movement of fishing fleets. Although the fishing industry will respond to the effects of climate change in a variety of ways, there is potential for greater competition and conflict in some areas and the creation of new opportunities in others. Climate change pressures could also affect the intensity of storms.
- 4.13 As with benefits identified for Government, it is expected that many of the environmental goals summarised in the MPS will already be articulated in other legislation, policies and conventions.

Impact on other stakeholders

- 4.14 Without a strategic framework as introduced by the MPS other users of the sea will continue to experience a complex system of legislation and regulation, as well as a lack of clarity as to the UK administrations' ambition and objectives in order to achieve sustainable seas.

Questions as part of pre- consultation

- What costs do you / your organisation incur in complying with the existing system? Are there areas where ambiguous or apparently conflicting policy results in specific costs?
- What benefits do you / your organisation enjoy under the current system?

Section 5: Option 2 - Marine Policy Statement

- 5.1 This section considers the MPS as a document that sets out the policy objectives that will contribute to the achievement of sustainable development in the UK marine area, provides a framework under which marine plans will be developed, and guidance for decisions affecting the marine environment
- 5.2 The complex system of legislation and regulation that helps us manage and protect our marine activities and protect marine nature and the marine environment has developed to address sectoral issues over many years and has a number of gaps and limitations. The MPS will go some way to resolve these inadequacies by introducing a strategic framework for the management of the marine area. All those working in the marine environment should benefit from this more joined up approach.

COSTS

Cost to business

- 5.3 With the integration of existing policies and the provision of guidance to marine planning authorities and decision makers in the marine area, the MPS will not introduce any further regulatory burden on those working in the marine environment, and so, no additional costs to business as a result of the MPS are expected.

Cost to Government (central, devolved and local)

- 5.4 The costs to UK Government and Devolved Administrations of producing the MPS are minimal. They include the resources needed to pull together existing marine policies, to identify issues and impacts that need to be considered for marine planning and decision making and the costs of consulting with stakeholders on the proposed statement. These activities count as 'business as usual' costs to Government and are not considered additional to the baseline.
- 5.5 As indicated at para 2.5, public authorities who make authorisation or enforcement decisions that affect or might affect the marine environment will need to do so in accordance with the MPS (and marine plans when available) unless relevant considerations indicate otherwise. Public authorities taking decisions which are not authorisation or enforcement

decisions must have regard to the MPS. There will be some new requirements for terrestrial planners to liaise with marine plan authorities but the degree of impact will vary between administration. Where appropriate each UK administration will issue guidance to authorities on how they should apply the MPS accompanied by an impact assessment⁵⁵

Cost to the environment

- 5.6 The MPS will integrate the policies for the marine area of all UK Administrations, and in doing so, is not expected to have any adverse effect on the environment

Cost to other stakeholders

- 5.7 The introduction of the Marine Policy Statement will not lead to any direct costs to other stakeholders.

BENEFITS

Benefit to business

- 5.8 The MPS will provide a clear and consistent framework for the development of marine plans and a guide for decisions affecting the marine area. It will provide businesses with a single source from which to be able to identify policy objectives and, where appropriate, to reflect this in applications for development consent accordingly. The integration of marine policies as provided by the MPS will enable the marine planning authorities to act as a 'one-stop-shop' for businesses with a link from the MPS through to licensing of individual developments in the marine area.
- 5.9 While UK Government and devolved administrations have worked together to agree policies and implement obligations, since devolution in 1999 there have been occasions where policies for different uses have been developed at different times and have been communicated separately. The MPS would provide developers and users with greater clarity and certainty about UK policy intentions, while recognising the differences between different parts of the UK.
- 5.10 There is increasing demand on marine space and resources, partly because of the expansion of some industries such as the transportation of goods by

⁵⁵ Through this pre-consultation process, and in the development of any guidance on the marine planning system, the UK administrations will explore any impact on Local Authorities and other affected public authorities. This engagement will inform any impact assessment

ship but also with newer developments such as offshore windfarms, the growth of aquaculture and marine leisure activities. With the increasing intensity of marine activities, it is recognised that conflicts will increasingly arise between different activities. Potential conflict between marine activities increases uncertainty for a wide variety of businesses operating in the marine area, including energy and leisure industries. The MPS will provide transparency to users regarding the high level approach that marine planning authorities will take in developing proposals for marine plans, setting out the importance of encouraging co-existence of uses and how impacts should be considered.

Benefit to Government (central, devolved and local)

- 5.11 An MPS that integrates existing policies in the marine area provides a clear, unambiguous and strong signal of the UK's intention to increase co-ordination, embed sustainability and give greater thought to the use of the UK marine environment. This MPS would draw together the UK administrations shared policies and objectives for the sustainable development of the UK marine area.
- 5.12 Licensing authorities and marine planning authorities will benefit from a shared evidence base, where appropriate, enabling them to achieve consistency in underpinning evidence and decision making. Licensing authorities will benefit from not having to weigh up the combined intent of many different national and local policies in coming to each decision they make.
- 5.13 The MPS will allow for a more focussed approach from the whole of the UK enabling a more efficient and strategic use of marine resources. It will also provide clarity across borders with all UK Administrations as well as advocating consistency and integration between marine and terrestrial planning.
- 5.14 Looking ahead, the MPS is expected to benefit marine planning authorities as it will provide a coherent framework for the development of marine plans. These more regionally specific plans will begin to be developed following the preparation of the MPS. The MPS and marine plans will provide a forward-looking and proactive approach to the management of the marine environment and resources. The MPS will help to ensure that activities that use the marine environment, and the management approaches addressing them, are operating consistently around the UK.

Benefit to the environment

- 5.15 Protection of the marine environment, now and in the future is a key element of marine policy. Whilst at present there are effective measures in place to consider the impacts of individual activities on marine resources and the environment as a whole, it is more difficult for progress to be monitored, and for targets to be applied to the combined effects of these activities.
- 5.16 The MPS will have the clear purpose of encouraging the sustainable development of the marine environment, including the protection of our most valuable marine habitats and species. It will identify the high level policy context and objectives of the UK administrations in relation to sustainable development. It will also provide the high-level considerations for marine planning authorities when developing marine plans. Given this, it would be expected that fewer unsustainable / damaging polluting activities will be approved.
- 5.17 The UK's seas comprise a dynamic environment with finite resources. The MPS will encourage the accommodation of multiple uses of the marine environment and allow for better co-existence of activities and use of resources, as the marine environment and technology evolves.
- 5.18 As mentioned in para 4.12 as part of the baseline option, climate change is expected to bring about significant environmental modification and we can expect increased conflict and competition in some areas as well as new opportunities in others. An MPS that integrates all relevant policies, acts as a high level framework for marine planning and decision making in the marine area may have a mitigating effect on this.

Benefit to other stakeholders

- 5.19 Other users of the marine area will benefit from greater clarity as to the ambition and objectives of the UK administrations for the policies that shape the use of our marine resources and how we will achieve sustainable seas. One of the aims of the MPS is to recognise the social benefits of the marine environment.

Questions as part of informal consultation

- What benefits do you foresee from having a coherent policy framework with an MPS in place?
- Do you foresee any costs arising from having a coherent policy framework with an MPS in place?

Specific Impact Tests: Checklist

Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.

Type of testing undertaken	<i>Results in Evidence Base?</i>	<i>Results annexed?</i>
Competition Assessment	Yes	Yes
Small Firms Impact Test	Yes	Yes
Legal Aid	Yes	Yes
Sustainable Development	No	Yes
Carbon Assessment	No	Yes
Other Environment	Yes	Yes
Health Impact Assessment	Yes	Yes
Race Equality	Yes	Yes
Disability Equality	Yes	Yes
Gender Equality	Yes	Yes
Human Rights	Yes	Yes
Rural Proofing	No	Yes

Annex 1: Specific Impact Tests

A: Competition Assessment

Since the MPS draws together and clarifies existing policies in the marine environment its additional impact on competition is anticipated to be minimal.

Where there is impact on competition this is expected to be positive by reducing the uncertainty to developers in the marine area; producing a more equitable situation both across and within different industry sectors; and reducing the net regulatory burden on businesses. Set up costs and current barriers to market entry for new or potential firms are expected to reduce as a result of increased transparency and the clear communication of the strategic plan for sustainable marine development, this will be beneficial to both new entrants and existing firms.

B: Small Firms Impact Test

Since the MPS draws together and clarifies existing policies in the marine environment its additional impact on small firms is anticipated to be minimal.

C: Legal Aid

Since the MPS draws together and clarifies existing policies in the marine environment its additional impact on legal aid is anticipated to be minimal.

D: Sustainable Development*

Marine planning will help the UK Government and Devolved Administrations achieve their sustainable development objectives. The Marine and Coastal Access Act 2009 makes it clear that the MPS should contribute to the sustainable development of the UK marine area. Overall sustainable development benefits will be generated from better use of the marine area brought about by the MPS.

E: Carbon Assessment*

As part of the wider proposals set out in the Marine and Coastal Access Act, the MPS will help the UK Government and Devolved Administrations meet targets to limit greenhouse gas emissions. The objective of managing the marine area in a more sustainable manner will help maintain the sea's crucial role in CO₂ absorption.

F: Other environment*

It is unlikely that there will be any other environmental or social impacts as a result of having an MPS compared to the baseline 'do nothing' option.

G: Health Impact Assessment*

We are confident that the MPS will not raise any negative health issues. It is not expected to affect health and well-being, or health equalities compared to the baseline 'do nothing' option.

H-J: Race, Disability and Gender Equality**

While it is thought that marine activities referred to in the MPS have the potential to result in benefits and costs upon coastal communities and groups of society which may have equalities target groups embedded within them, the MPS is guided by the High Level Marine Objectives which make specific provisions to ensure that decisions on marine activities benefit society as a whole and are made in the context of ensuring a strong healthy and just society. Therefore, this suggests that the MPS is unlikely to discriminate against any sections of society.

K: Human Rights

The MPS is not considered to present a breach of Convention rights. A detailed assessment of the impact of the Marine and Coastal Access Act (2009) and its provisions on human rights was undertaken through the development of the memorandum on the Act's compatibility with Convention rights which accompanied the Act (at Bill stage) upon introduction to Parliament.

L: Rural Proofing

The MPS applies to the UK marine area and activities that take place there mainly affecting the rights of the users of the marine area and the wider public interest of protecting the marine environment. However, there is some inevitable overlap between marine and land issues. Rural communities will benefit from increased certainty that will be generated for marine and coastal developers, and better management of marine and coastal resources.

*An Appraisal of Sustainability (AoS), which includes an assessment of impact relating to sustainability (including the topics listed within these specific impact tests) and a Strategic Environmental Assessment, is being undertaken.

**An Equalities Impact Assessment (EqIA) is being undertaken