The Welsh National Marine Plan

Initial draft

November 2015
Sections to be added later are indicated in [[double square brackets]]. Maps are indicative only.

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Introduction

Wales consists of around 32,000 km$^2$ of sea, as well as 21,000 km$^2$ of land fringed by 2,120 km of coastline. Our marine area is larger than our land area and comprises diverse and valuable natural resources that offer significant economic and social opportunities and which support our well-being and that of future generations.

Welsh seas are becoming increasingly crowded, leading to competing demands for space and use of our natural resources. We recognise the importance of our marine natural resources and that healthy, resilient marine ecosystems underpin our economy, health and well-being and are important for our culture. We are committed to managing our seas in a more integrated and planned way to ensure their long-term sustainability. This will mean doing things differently including introducing a forward-looking, proactive and spatial approach to the management of the marine area, its resources, and the activities that take place within it.

This document, the pre-consultation version of the Welsh National Marine Plan (WNMP), is a step towards the first marine plan for Wales and is referred to as "this plan" throughout. Its purpose is to guide the sustainable development of our marine area through the sustainable management of marine natural resources. It covers both Welsh inshore waters (out to 12 nautical miles) and offshore waters (beyond 12 nautical miles) in a single document. The landward extent of this plan is to high water. It applies to the exercise of both reserved and devolved functions within this area (Map 1). Unless otherwise stated, policies stated in this plan apply to both inshore and offshore waters.
Figure 1. Welsh National Marine Plan (WNMP) area
Introduction

The purpose and value of marine planning

Marine planning provides an overarching framework for managing Welsh seas, helping to ensure that marine natural resources are managed and used in a sustainable way and thereby contributing to Wales’ well-being of future generation goals. The High Level Marine Objectives (HLMOs) set out in the Marine Policy Statement (2011) have directly informed this plan. They align with the Welsh Government’s well-being goals and principles for sustainable development and also the direction provided in the EU Directive on Marine Spatial Planning 89/2014. Through an integrated and plan-led approach, marine planning will:

- support delivery of Wales’ well-being goals;
- promote sustainable development;
- enable Wales to move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects;
- ensure a sustainable marine environment which promotes the maintenance and recovery of biodiversity as part of healthy, functioning marine ecosystems and that protects marine habitats, species and our heritage assets; and
- contribute to the societal benefits of the marine area, including the sustainable use of marine resources to help to address local social and economic issues.

Whilst marine planning will make an important contribution to delivering our vision for our seas, it is only part of a wider picture. There is a wide range of important regulatory requirements already in place which relate to the marine environment. This plan seeks to provide direction on the future use of our seas where it can and to sign-post to existing requirements and practices as appropriate.

Vision and objectives

Our vision for the Welsh inshore and offshore marine area is:

By 2036, Welsh seas are clean, healthy, safe, productive and biologically diverse:

- Through an ecosystem based approach, our seas are healthy and resilient and support a sustainable and thriving economy.
- Through access to and enjoyment of the marine environment, health and wellbeing are improving.
- Blue growth is creating more jobs and wealth; and, is helping coastal communities become more resilient, prosperous and equitable with a vibrant culture.
- The Welsh marine area is making a strong contribution to energy security and climate change emissions targets through the responsible deployment of low carbon technologies.

Our vision is being achieved through an integrated, evidenced and plan-led approach that respects established uses and interests whilst securing the benefits from new opportunities, recognising the importance of ecosystem resilience, the value of biodiversity and the imperative to adapt to climate change.
The vision will be delivered through the plan objectives which are supported by general, cross-cutting policies and sector-specific objectives and policies. The high-level relationship of these objectives and wider policies and the wider policy context is shown in Figure 2.

Table 1 and Table 2 set out the plan objectives and highlight the relationship with the specific supporting objectives and policies in the general cross-cutting policy and sector policy sections. In contributing to the delivery of this plan’s objectives, decision-making authorities should consider how they contribute across all of these plan objectives and across Wales’ well-being goals (with respect to Welsh public bodies).
Figure 2. Policy context of the WNMP’s objectives and policies.

Introduction
### Welsh National Marine Plan (WNMP) Plan Objectives

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<td><strong>Plan objective 2:</strong> Support activities that create <strong>long term employment</strong> at all skill levels. Profitable and sustainable <strong>businesses</strong> are promoted within a thriving Welsh <strong>economy</strong>.</td>
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<td><strong>Plan objective 3:</strong> Maximise the opportunity to develop marine <strong>renewable energy resources</strong>, helping to achieve the United Kingdom’s energy security and carbon reduction objectives, whilst fully considering the requirements of other marine interests.</td>
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<td><strong>Plan objective 4:</strong> Provide space to support existing and facilitate future sustainable economic activity through managing multiple use, encouraging the co-existence of compatible activities, the mitigation of conflicts between users and, where possible, by reducing displacement of existing activities.</td>
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<td>Ensuring a strong, healthy and just society</td>
<td><strong>Plan objective 5:</strong> Reduce poverty and support the development of vibrant, more equitable, culturally distinct, sustainable and resilient <strong>communities</strong> thereby contributing to the well-being of future generations.</td>
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<td><strong>Plan objective 6:</strong> Ensure our coast and seas, and their resources, are <strong>safe to use</strong> and protect and promote is equitable <strong>access</strong> for those who want to use and enjoy them thereby improving the long term well-being of the people in Wales.</td>
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<td><strong>Plan objective 7:</strong> Promote stewardship and enjoyment of marine related <strong>heritage assets</strong>, nationally <strong>protected landscapes</strong> and support that decisions take account of the <strong>seascape character</strong> of the local area.</td>
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<td><strong>Plan objective 8:</strong> Encourage and promote action on <strong>climate change</strong> adaptation and mitigation</td>
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**Plan objective 9:** Support the achievement and maintenance of **Good Environmental Status (GEnS) and Good Ecological Status (GES).**

**Plan objective 10:** Marine Biodiversity is protected, conserved, restored and enhanced to halt and reverse its decline.

**Plan objective 11:** Marine Ecosystems are healthy and resilient to ensure they continue to provide **ecosystem goods and services** for the wellbeing of future generations.

**Plan objective 12:** Support **integrated decision-making** across the land sea-interface and the effective regulation and management of key activities and issues, both within the WNMP area and adjacent areas.

**Plan objective 13:** Provide a mechanism for the **unique characteristics** and **future opportunities** of the Welsh Marine Area to be better understood.

**Plan objective 14:** Engagement - Ensure that interested parties are meaningfully involved in marine planning implementation, including decision-making.

**Plan objective 15:** Ensure that the marine planning process is delivered in line with the principles contained within the **ecosystem approach.**

**Plan objective 16:** Contribute to the development of a shared **marine evidence base** to support marine planning, decision-making and our understanding; where information is made available in an open, coordinated, cost effective and timely manner.

**Plan objective 17:** Support a **risk-based, adaptive approach** to decision-making that involves assessment, deployment, monitoring and review and which uses sound evidence and reflects the **precautionary principle.**
Table 2. How this plan will deliver its objectives *(To be completed)*

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Introduction

Marine planning policy context

The Marine and Coastal Access Act 2009 (MCAA) provides the framework for marine planning in the UK. It provides for production of a Marine Policy Statement (MPS) for the UK and sets Welsh Ministers as the marine planning authority for Wales responsible for preparing a marine plan for both the inshore and offshore regions.

The MPS was jointly adopted by all UK administrations and published in 2011. It provides the high level policy context, within which this plan has been developed. It outlines the process of marine planning as being to:

- achieve integration between different objectives;
- recognise that the demand for use of our seas and the resulting pressures on them will continue to increase;
- manage competing demands on the marine area, taking an ecosystem-based approach;
- enable the co-existence of compatible activities wherever possible; and
- integrate with terrestrial planning.

The EU Directive for Maritime Spatial Planning 89/2014 (MSP Directive) provides a common framework for marine planning which aims to promote the sustainable development of marine areas. The Directive requires that Member States take relevant activities and uses in marine waters into account, and in doing so, shall:

- take into account land-sea interactions;
- take into account environmental, economic and social aspects, as well as safety aspects;
- aim to promote coherence between maritime spatial planning and the resulting plan(s) and other processes, such as integrated coastal management or equivalent formal or informal practices;
- ensure the involvement of stakeholders;
- organise the use of the best available data;
- ensure trans-boundary cooperation;
- promote cooperation with third countries.

The EU Framework Directive for maritime spatial planning (2014/89/EU; MSP Directive) requires Member States to develop their marine plans no later than 31 March 2021 and to review them at least every ten years. This plan has been prepared in accordance with, and gives consideration to the MSP Directive using the powers contained within MCAA.
Welsh policy context

The Welsh Government is one of the few administrations in the world to have a statutory duty in relation to sustainable development and it aims to lead by example.

The Well-Being of Future Generations (Wales) Act 2015 aims to improve the long-term social, economic, environmental and cultural well-being of Wales. It requires the public bodies listed in the Act to think about the long-term and to work better with people and communities and to take a more joined-up approach to work towards seven well-being goals (Figure 2). Public bodies should consider how they contribute across all of the well-being goals in undertaking their functions.

The requirements of the Act apply equally to the marine area for the public bodies listed in the Act and with respect to this plan in terms of the duty placed on Welsh Ministers. The vision set out in this plan reflects the well-being goals.

In addition, the Act puts in place a sustainable development principle to support public bodies meeting their duty under the Act. Accordingly, this plan:

- Looks to the long-term – by taking a 20 year view setting direction for the future use of our seas;
- Encourages early action to prevent problems occurring or getting worse;
- Takes an integrated approach by considering all uses of our seas and the way in which they interact with each other and with our marine natural resources;
- Encourages and promotes collaborative working, and
- Has been developed through engagement with interested parties as set out in the Statement of Public Participation.

Welsh Government has made a number of commitments to take forward a more integrated approach to the sustainable management of Wales’ natural resources – to which the ecosystem approach is central. This includes far reaching policy and legislative reforms such as the Environment (Wales) Bill. Through taking an ecosystem approach, this plan is consistent with those commitments.

The Planning (Wales) Act 2015 will reform land-use planning in Wales now and in the future, to create a world class planning system, delivering timely, fair and consistent decisions which will enhance the built, natural and historic environment. Following introduction of the Act in July 2015, reforms include the introduction of the National Development Framework (NDF) and regional Strategic Development Plans (SDPs) alongside existing Local Development Plans.

The Programme for Government, which is reviewed regularly, provides important up-to-date, context for this plan and for decisions relating to our marine area.

Marine planning responsibilities of the Welsh Ministers

The Welsh Ministers are responsible for most of the relevant policy areas in inshore waters, notably fisheries, tourism, renewable energy (smaller scale development and secondary consents), natural resource management, nature conservation, water quality and, importantly for joining up the land-sea interface, land-use planning.

However, this plan includes reference to policy areas in respect of which the UK Secretary of
State retains responsibility for and in accordance with the MCAA. This plan has been adopted with the agreement of the Secretary of State (Defra).

Currently non-devolved policy areas include large scale energy developments, offshore nature conservation, shipping, some ports, maritime safety and responsibility for meeting some EU legislative requirements.

This position may change in the future should the Silk Commission recommendations for further devolution of powers in Welsh waters be adopted.

**Developing the plan**

**Approach**

The marine planning process involves bringing together, collating, interpreting and sharing our evidence base and making sure that we use it to best support the sustainable development of our seas [see Evidence-based planning section].

The marine planning process as a whole will support the move towards integrated marine governance by bringing together a wide range of policy interests and stakeholders in relation to the management of our marine environment [see General policy - Promoting good governance section].

The MSP Directive 89/2014 provisions on plan development have been complied with. In particular the planning process (Figure 3) included:

- identifying the stakeholders at an early stage with an expertise or interest in the Welsh marine environment [see Engagement section] and from a wide variety of backgrounds;
- identifying the current and potential future users and uses of the marine environment, our evidence base and evidence needs [see Evidence-based planning section];
- scoping alternative approaches to the plan;
- setting the vision and plan objectives for our seas to guide development of plan content;
- assessing options;
- developing objectives and policies [see General cross-cutting policies and Sector policies sections];
- assessing their likely impact and refining policies following consultation [see Assessments section]; and
- planning how to monitor and evaluate the plan's impact [see Evaluation section].

The process is iterative; in accordance with the MCAA, future plans will be developed using experience and understanding gained from previous planning processes.
Ecosystem Approach

An ecosystem approach was taken in the development of this plan - this means putting the marine environment at the heart of the planning process to promote a healthy balance between business and community activity and environmental resilience in order to support sustainable development for present and future generations. The key advantages of taking an ecosystem approach are:

- Integration of ecological, economic and social considerations within a single framework helping to identify potential conflicts, interactions and trade-offs from the outset;
- Recognition that humans, with their cultural diversity, are an integral component of ecosystems, and should be involved in application of an ecosystem approach; and
- Emphasis on flexible and integrated methods, and adaptive management.

The ecosystem approach is a requirement of the MPS, the EU MSP Directive and there are strong links with the implementation of the Marine Strategy Framework Directive (MSFD).

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1 The MSFD defines the ecosystem approach to the management of human activities as an approach which ensures that the collective pressure of human activities is kept within the levels compatible with the achievement of good environmental status; that does not compromise the capacity of marine ecosystems to respond to
Welsh National Marine Plan

and Water Framework Directive (WFD), which also take an ecosystem-based approach to the management of human activities. It also relates to the Well-being of Future Generations (Wales) Act 2015 and underpins the strategic approach to management of natural resources. The Act’s principles of sustainable development resonate strongly with ecosystem approach principles and those of the Environment (Wales) Bill, for the sustainable management of natural resources:

1. Manage adaptively, by planning, monitoring and reviewing action;
2. Consider the appropriate spatial scale for action;
3. Promote and engage in collaboration and co-operation;
4. Take account of all relevant evidence and gather evidence in respect of uncertainties;
5. Take account of the benefits and intrinsic value of natural resources and ecosystems;
6. Take account of the short, medium and long term consequences of actions;
7. Take account of the resilience of ecosystems, in particular the following aspects as follows:
   • Diversity between and within ecosystems;
   • The connections between and within ecosystems;
   • The scale of ecosystems;
   • The condition of ecosystems;
   • The adaptability of ecosystems.

Marine planning includes a wide range of formal processes that positively support the implementation of many of the ecosystem approach principles as set out in the Convention on Biological Diversity (CBD)\(^2\). Annex 1 – Ecosystem approach outlines the slightly modified set of these principles that have been adapted to the marine planning process\(^3\) in order to demonstrate how the ecosystem approach has been taken into account in preparing this plan and how we aim to build upon the approach in the future.

Relevant structures and processes are already in place to implement many aspects of the ecosystem approach, but ongoing development and coordination of marine planning can continue to improve its delivery. As part of this, further work is needed to ensure its full implementation. The approach adopted allows for adaptive management which ensures refinement and further development as experience and knowledge increase, taking into account the availability of data and information.

The outputs from the MSFD and WFD implementation process provide a useful contribution to the implementation of the ecosystem approach alongside other social and economic information and will inform marine planning.

Robust tools are needed in order to predict and model future changes to the provision of ecosystem services and ecosystem health under varying management scenarios and levels of human pressure, and to systematically appraise the consequences of this for human welfare. These tools will be developed in conjunction with the ongoing development of other marine management tools, such as the use of Sustainability Appraisal. The use of these

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\(^{2}\)http://www.cbd.int/ecosystem/principles.shtml

tools should aim in future to incorporate a broad evidence base, covering social and economic considerations and support understanding and management of cumulative impacts. This should support the implementation of the ecosystem approach at a variety of scales.

**Engagement**

A wide range of people and organisations play an important role in, or have an interest in, the management of our seas. The Welsh Government is committed to effective and meaningful engagement to support both the development and implementation of plans and policies. We consider close partnership working, through a collaborative and inclusive approach, as essential to delivering and implementing marine planning for Wales [see Ecosystem Approach and General policy - Promoting good governance sections].

In accordance with the MCAA, we published a Statement of Public Participation (SPP) in 2014. This set out our intentions to engage with the public in developing this Plan. Welsh Government policy and the MSP Directive require Member States to involve all those with an interest at an early stage in the development of their plans.

We have engaged with a broad range of organisations and individuals with an interest in the marine environment, from industry, in our communities and across local and national government. We have shared the developing evidence base widely and provided opportunities for stakeholders to input into its development, in order to ensure its relevance and accuracy. This has proved crucial to the shaping of the Plan to date and our commitment to close working continues.

Further information and opportunities to participate in the management of our seas is available on the Welsh Government website.

**Evidence-based planning**

The MPS requires marine plans to be “based upon a sound evidence base, as far as possible” and the evidence base to be “developed from a wide range of sources including existing plans, the plan area community, science advisors, statutory and other advisors, industry and marine users”. The MSP Directive specifies the need for evidence-based decision-making in marine planning and requires member states to organise the use of the best available data and decide how to organise the sharing of information. As part of the marine planning process, the Welsh Government has worked with partner organisations to address these requirements in 3 ways:

1) **Strategic Scoping Exercise**

A Strategic Scoping Exercise (SSE) was undertaken in 2014 to identify the best currently available evidence on the state of Welsh seas, covering our marine natural resources and the use that we currently make of them. The SSE was informed by two main sources: Charting Progress 2 (2010), a comprehensive report of UK marine research and monitoring by the UK Marine Monitoring and Assessment community and the 2012 Initial Assessment of UK seas that forms part of the Marine Strategy Part One. The latter includes an economic and social analysis of the use of UK seas, the predominant pressures and impacts
associated with them and an assessment of the current and predicted status of the features in UK waters.

The evidence that the SSE collates, coupled with the relevant policy context, has been used to help identify key issues for marine planning in Wales and has shaped the policies set out in this plan.

The Wales Marine Evidence Report (the finalised output from the SSE process) is available on the Government website.

2) Marine Planning Portal

An online marine planning portal has been developed to make available the spatial marine evidence base of relevance to marine planning. Data from a variety of sources are brought together and presented in an accessible format and, with time, will include the policies set out in this plan to allow interested parties to understand the spatial nature of the policies alongside the relevant evidence base. The portal will play a key role in supporting implementation of this plan.

3) Evidence Strategy

The SSE identified a number of issues and potential evidence gaps of relevance to marine planning. With limited resources and a huge variety of activities planned or taking place, it is vital that we determine which evidence gaps we most need to address (our evidence priorities) and the best means to do so in a targeted and cost-efficient manner. To this end, the Welsh Government intends to establish a Welsh Marine Evidence Strategy to support the marine planning process. This strategy will set direction for the marine evidence activities of the Welsh Government and other organisations, and will drive collaboration. It will also guide and support the implementation of marine planning, ensuring the use of sound scientific evidence in marine management decisions [see General policy - Using sound science responsibly section].

The Welsh Marine Evidence Strategy plays an important role as part of the wider UK approach to understanding and managing our seas. Wales and England share marine research budgets and programmes, managed by Defra, and the publication of a Welsh Marine Evidence Strategy supports Wales’ development and influence as part of the wider marine evidence community. The SSE, the marine planning portal and the evidence strategy will be periodically reviewed and updated as marine planning in Wales develops to inform monitoring and evaluation of this plan.

Considering alternatives

In developing this plan we gave early consideration to a range of alternatives including the degree to which the policies should be prescriptive (given the available evidence), i.e. the extent to which policies should focus on hard and fast rules rather than more flexible guidelines. We also considered the merit of prioritising one particular outcome over another, for example whether the growth of one industry should take precedence over another. The Sustainability Appraisal undertaken alongside the development of this plan contains further information [see Assessments section].
Assessments

To ensure this plan achieves sustainable development we must understand the potential impacts of the plan on a wide range of aspects. To this end we have undertaken a Sustainability Appraisal (SA) which includes a Strategic Environmental Assessment (SEA) and other statutory and non-statutory assessments including the impact on the Welsh language, and equality considerations [see Annex 1 – Ecosystem approach and Annex 2 - Impact assessments sections].

Evaluation

Evaluation is an important step in the planning process. The MPS, MCAA and SEA Directive require that the implementation of marine plans, and plans generally with respect to the SEA Directive, should be monitored and reviewed to determine their impact.

Monitoring and review of marine plans are important for a number of reasons including:

- to ensure that activities within a marine plan area are managed in such a way that they contribute to the achievement of sustainable development, promote compatibility and reduce conflict;
- to ensure flexibility to anticipate, and accommodate, a range of future demands and needs, including new evidence, innovation and evolving technologies and techniques;
- to identify where amendments or additions should be made, including to spatial designations of activities;

Much marine monitoring and reporting already occurs across the UK - through Charting Progress and as required by other directives e.g. the Marine Strategy Part Two.

In developing this plan’s objectives and policies, we have considered how we will determine the impact of implementing the policies. Details are available in [see Assessments section].

The MCAA requires that marine plans be reviewed by the marine plan authority for so long as the marine plan is in effect. The review should include:

a) the physical, environmental, social, cultural and economic characteristics of the authority’s region and of the living resources which the region supports;
b) the purposes for which any part of the region is used;
c) the communications, energy and transport systems of the region;
d) any other considerations which may be expected to affect those matters.
e) any changes which could reasonably be expected to occur in relation to any such matter;
f) the effect that any such changes may have in relation to the sustainable development of the region, its natural resources, or the living resources dependent on the region.)

The marine plan authority must publish a report at least every 6 years (until 1st Jan 2030), on: (i) any marine plans it has prepared and adopted, (ii) its intentions for their amendment, and (iii) its intentions for the preparation and adoption of any further marine plans. The next report is due by [to be completed].

In addition, they must publish a report at least every 3 years on:

- a) the effects of the policies in the marine plan;
b) the effectiveness of those policies in securing that the objectives for which the marine plan was prepared and adopted are met;

c) the progress being made towards securing those objectives;

d) if an MPS governs marine planning for the marine plan authority’s region, the progress being made towards securing that the objectives for which the MPS was prepared and adopted are met in that region.

In accordance with the MCAA, any intentions to amend this plan will be subject to public consultation and opportunities to contribute to the revision set out in the SPP.

Using this plan

This plan, the first marine plan for Wales, represents the start of a process of shaping our seas. A strategic approach has been taken by providing high-level policy direction on the future use of our seas. As marine planning becomes more established, further iterations of the marine plan will provide a higher level of prescription as we move increasingly towards a plan-led system for managing our use of marine natural resources.

This plan should be used by public authorities to guide their decision making, by applicants to steer their licence applications and by other users of the marine environment to inform their understanding of the sustainable management of our seas and the role that government, industry and communities play in it.

Structure

This plan sets out:

- the vision and plan objectives for Welsh seas;
- the introductory context for marine planning;
- general cross-cutting policies in relation to topic areas; and
- chapter sections on the key sectors operating in the WNMP area.

We have used the HLMOs set out in the MPS [[see Marine planning policy context section]] to guide the development of this plan. The five HLMO ‘themes’ have been used to structure the [[General cross-cutting policies section]] and as a means of relating the [[Sector policies]] back to the [[strategic Vision and objectives]] for Welsh seas. The five HLMO themes are:

- Achieving a sustainable marine economy
- Ensuring a strong, healthy and just society
- Living within environmental limits
- Promoting good governance
- Using sound science responsibly

Maps are provided where appropriate, showing the current spatial range of features, activities or impacts, and / or indicating the spatial extent of policies. Maps are included in both the [[General cross-cutting policies section]] and [[Sector policies]] sections.

The Structure section sets out the approach used to structure the plan.
### Table 3. Plan terminology

| UK vision | The shared UK statement of the desired state of UK seas. |
| WNMP vision | Is the overarching statement about what will characterise the Welsh marine area at a given point in the future. |
| High Level Marine Objectives (HLMO) | The guiding (overarching) objectives for the marine area as a whole as set out in the Marine Policy Statement (MPS) 2011. The HLMO are applied as guiding objectives. |
| High Level Marine Objective (HLMO) themes | The five HLMO themes are broad groupings used to categorise issues and policies and provide the structure running through this Plan. The objectives are organised under these themes, and the general policies and sector policies are aligned to them. |
| Plan objectives | A clear statement of desired outcomes or observable behavioural changes that this plan is seeking to achieve in order to realise the Vision. They are (as far as practicable) specific, measurable, achievable, relevant and time-bound - “SMART”. They provide a framework within which policies are set out to deliver the Vision and HLMO objectives. |
| Sector objectives | These operate alongside the General objectives and are a sector specific clear statement of desired outcome. |
| General policies | These are the cross-cutting policies of a general nature that support the delivery of the plan objectives. |
| Sector policies | These operate alongside the general policies as sector specific policies that apply to decisions related to a particular activity and support the delivery of the plan objectives. |
| WNMP reporting criteria | These are how we will assess the effectiveness of the plan and include: |
| 1. | The extent to which progress is being made on securing the plan’s objectives. The main reporting focus will be on the plan objectives and not the general or sector objectives. |
| 2. | The effects of the policies in the marine plan and the effectiveness of those policies in securing the Plans objectives. This may need to be through a qualitative assessment. |

### Plan users

This plan should be used to guide decisions affecting the Welsh marine environment, in order to support its sustainable development. Specifically, the MCAA requires that a public authority must take any authorisation or enforcement decision in accordance with the appropriate marine policy documents (this plan and the MPS), unless relevant considerations indicate otherwise. The MCAA requires public authorities to have regard to this plan and to the MPS in making any decision which may affect the whole or any part of the UK marine area.

If a public authority makes any authorisation or enforcement decision which is not in
accordance with these documents, it must state its reasons.

The general cross-cutting and sector specific policies set out in this plan should be used by applicants and others users of the marine environment to share their plans and proposals. They should equally be used by decision making authorities to support assessment of proposed uses of the marine environment. For ease of reference, each specific plan policy has been given a code. For example, GEN1 = General crosscutting policy no.1.

Specific policies are supported by relevant context, policy justification and guidance and maps. **All text in the general cross-cutting and sector policies sections should be considered as planning policy.** However, the MCAA states that to any extent a policy stated in a marine plan conflicts with any other statement or information in the plan, that conflict must be resolved in favour of the policy. Unless otherwise stated, policies apply to both the inshore and offshore marine plan regions [[link map]].

**Individual policies in this plan must not be read or applied in isolation; all plan policies should be considered when developing proposals and making decisions and the plan should be applied as a whole.** The MPS must also be considered, alongside this plan, as well as other relevant legislation, policy or regulatory regimes relating to a particular development type or use of the marine environment. It is unlikely that a particular decision on a proposal will involve a single policy or all policies, instead it is likely that several plan policies will apply. Therefore, decisions taking account of this plan should conform with all relevant policies set out within it. For instance, policies for particular sectors should take account of those for economic, environmental and social considerations and vice-versa.

Public authorities working with applicants and others as necessary will determine which plan policies (and associated maps) apply to a particular decision.

This plan provides signposting to key relevant legislation but does not provide exhaustive information. Where policies refer to obligations such as legislation, it does not signify that the marine planning body has responsibility for its enforcement.

Further information is available in the supporting materials mentioned above (SSE, marine planning portal [see Evidence-based planning section], and on the Welsh Government website. Where appropriate, Natural Resource Wales (NRW) will also provide advice and guidance that will support implementation of this plan.

Advice should be sought from the appropriate decision making authority where necessary.
Table 4. Roles and responsibilities of key decision making authorities of relevance to marine planning *(To be completed)*

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Role / responsibilities</th>
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Integration with other planning regimes

The need to manage the land-sea interface arises from the increasing demands on the marine area. Decisions on land and in the marine area can have an effect over a considerable distance, whilst most activities in the marine environment also have an onshore component or implication. Marine planning must accommodate these complex inter-relationships.

The MSP Directive requires that the marine planning process takes account of land-sea interactions in order to promote coherence with other processes and promote the sustainable use of maritime space. This plan sits alongside and interacts with other planning regimes, including the terrestrial land use planning system as well as other planning and management process that relate to the coast and seas.

The terrestrial planning system continues to evolve. The Welsh Ministers will produce and keep up-to-date a National Development Framework (NDF), to replace the Wales Spatial Plan. The NDF will fulfil a number of roles, including setting out land use priorities at a national level. There will also be Strategic Development Plans, which will allow issues that cut across a number of local planning authorities to be considered and planned for in an integrated and comprehensive way. Local planning authorities have a statutory duty to prepare a Local Development Plan and keep it under review. Local planning authorities play a key role in the marine planning system and need to be fully involved throughout to integrate management of the sea and land at the coast.

This plan extends up to the level of mean high water spring tides whilst land-use planning boundaries generally extend to mean low water spring tides, this Plan therefore overlaps physically with terrestrial plans, helping to facilitate integration between land and sea. The MCAA ensures that marine plan authorities must take all reasonable steps to secure that the marine plan is compatible with plans in the land-use planning system^4. Whilst there is no reciprocal responsibility upon terrestrial planners to ensure compatibility between the development plan and the WNMP, they are required under the Marine Act to have regard to MPS and any relevant marine plan.

There is a requirement when preparing a marine plan to have regard to any other plan prepared by a public or local authority in connection with the management or use of the sea or coast, or of marine or coastal resources in the area in, adjoining or adjacent to the marine plan area^5. Examples of statutory plans drawn up by public bodies that are of relevance to this plan are:

- River Basin Management Plans (RBMPs) under the Water Framework Directive;
- AONB Management Plans;
- National Park Management Plans;
- Management schemes for European Marine Sites;
- Plans to ensure well-being under the Well-being of Future Generations (Wales) Act 2015.

There are also non-statutory plans and strategies drawn up by public authorities which may have relevance, notably:

- Shoreline Management Plans;

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^4 Paragraph 3 of Schedule 6 to the Marine and Coastal Access Act 2009.
^5 Paragraph 9(h) of Schedule 6 to the Marine and Coastal Access Act 2009.
Introduction

- Estuary Management Plans (e.g. Severn Estuary Management Plan);
- Coastal Habitat Management Plans;
- Heritage Coast Plans;
- Sector specific management plans (e.g. port authority plans);
- Coastal regeneration strategies.

Integration at the coast

As there is already much planning activity in the coastal zone, it is important that this plan contributes to more consistent and co-ordinated decision making, rather than making the process more complicated. Alignment between marine and terrestrial planning is therefore important and is being achieved through:

- consistency between marine and terrestrial policy documents and guidance, notably the evolving National Development Framework and Technical Advice Note (TAN) 14;
- liaison between respective planning authorities;
- sharing the evidence base and data so as to support consistency in plan making and decisions.

We have evaluated key statutory and non-statutory plans produced by public and local authorities of relevance this plan to identify which policies are of ‘marine relevance’ by virtue of their relationship to the policies in this plan and the MPS. Certain plans may be material considerations to which decision-makers must have regard. Other non-statutory documents do not carry the same weight, but are nonetheless important. The documents assessed include:

- Terrestrial development plans (adopted and emerging) for Welsh coastal Local Planning Authorities (LPAs) and for LPAs in England adjoining the WNMP area;
- Shoreline management Plans (4 affecting Wales; plus North Devon & Somerset SMP2);
- River basin management plans (3);
- National park (Snowdonia; Pembrokeshire) and AONB plans (Gower; Anglesey).

Figure [To follow] indicates the spatial jurisdiction of these plans along with local authority boundaries. The policies within these documents were evaluated according to:

- their explicit / implicit relevance to the marine/coastal environment;
- whether or not these promote/restrict coastal /marine sectors (policies were scaled according to the strength of their prescription);
- the spatial extent of the policies, where possible to evaluate.

An evaluation matrix was prepared for each plan, based on the criteria associated with this assessment framework. Full details of the methodology used and findings for all plans analysed can be found in [Annex to follow]. Table [To follow] indicates those plans that include provisions that relate to the sector policies within this plan and signposts local planning authorities to policies within this plan that are of relevance to their planning priorities.

As required by the Marine Policy Statement we are committed to managing coastal areas and the activities taking place within them, in an integrated and holistic way in line with the principles of ICZM. The requirement to take an ecosystem approach in marine planning...
supports this, given that both approaches recognise the inherently dynamic nature of ecosystems and promote a long-term, holistic, adaptive and flexible approach to sustainable natural resource management.

Table 5 illustrates how this plan has been developed in accordance with, and gives effect to, the principles of ICZM. It is intended to contribute to existing planning and management arrangements for the Welsh coast through specific policies (e.g. policy GOV-03 on integration with terrestrial planning and other plans) and through the mechanisms put in place by the planning process. However, marine planning is not the only mechanism to deliver ICZM and other plans and programmes in the coastal zone (e.g. RBMPs, SMPs etc.) contain policies that apply ICZM principles. Nevertheless, marine planning can lead this integration by providing the mechanism through which to strengthen co-ordination and liaison through partnership working to steer the course of plans towards convergence in objectives and approach.
<table>
<thead>
<tr>
<th>Marine planning process step</th>
<th>ICZM principles applied</th>
<th>Justification / evidence</th>
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</thead>
<tbody>
<tr>
<td>Plan area selection decision</td>
<td>2, 4</td>
<td>In planning for the Wales marine area as a whole, the WNMP will need to adopt a broad, holistic perspective as well as implementing an ecosystem approach. Marine plan boundaries overlap with terrestrial planning boundaries.</td>
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<tr>
<td>SPP and stakeholder engagement</td>
<td>5, 6, 8</td>
<td>Gives explicit means of stakeholder involvement in the planning process and for engaging with key audiences. Stakeholder engagement should be implemented throughout the planning process. ICZM requires active participation by local communities.</td>
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<tr>
<td>Identifying issues</td>
<td>1, 6, 8</td>
<td>This step involves gathering evidence from a range of stakeholders to help identify issues within marine planning. Evidence and data gathered through the requirements of the Strategic Scoping Exercise. Need to take account of potential future developments. Local knowledge may be helpful in identifying additional evidence needs.</td>
</tr>
<tr>
<td>Gathering evidence</td>
<td>2, 5, 6, 8</td>
<td>Evidence gathering will need to take into account the interdependence and disparity of natural systems and human activities with an impact on coastal areas and will need to involve all parties concerned. Evidence gathering will need to reflect local characteristics.</td>
</tr>
<tr>
<td>Vision and objectives</td>
<td>1, 2, 4, 5, 6, 8</td>
<td>Marine planning will provide the opportunity to manage coastal and marine activities in a sustainable manner taking into account economic, social and environmental considerations. The process depends on the clear definition of objectives, which in turn should be based on long-term perspectives and ultimately stem from political priorities. Need to be transparent about the objectives set and make sure there is a clear, predictable and stable decision making process.</td>
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<tr>
<td>Options development</td>
<td>1, 2, 4, 5, 6, 8</td>
<td>Plan options should be developed in conjunction with stakeholders and with consideration for all available information using an integrated approach. Outputs from IA and the SA can inform the development of plan options.</td>
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**Plan policy development**

<table>
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<tr>
<th>Policy development</th>
<th>1, 2, 3, 4, 5, 6, 7, 8</th>
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<tbody>
<tr>
<td>Policies are developed to support the delivery of marine plan objectives. In developing the policies, account is taken of existing legislation and obligations, as well as the need for policy integration and integrated planning and decision-making. Where competing activities or developments seek to use the same area, consideration will include how each proposal contributes to the plan vision and objectives and policies. We have provided different strength policies that address different sectors or issues where appropriate, but integration will also occur at the point of decision-making. This will require assessment of any accompanying information and any environmental, economic or social benefits and adverse effects. It is expected that over time greater detail will be incorporated within the policies as appropriate, as the evidence base grows.</td>
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**Representation period on draft plans**

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<th>Period</th>
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<tr>
<td>Public consultation on draft plans can be facilitated through the SPP in order to gather evidence and opinion from stakeholders. Draft plans will be accompanied by the SA Report. The SA will consider social and economic issues as well as the potential environmental impacts required by the Directive. This ensures coverage of a wide range of sustainability issues.</td>
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**Review plan proposals**

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<th>Period</th>
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<tr>
<td>Plan proposals should be reviewed with consideration for the responses gathered from the representation of the draft plans through the SPP.</td>
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**Independent investigation**

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<tr>
<td>Appropriate stakeholder engagement throughout the development process through the SPP and public consultation should help avoid the need for an independent investigation.</td>
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**Plan adopted and published**

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<tr>
<td>The plan may be amended in light of the results of an independent investigation. The MCAA requires the marine plan authority to publish a statement setting out any modifications or changes made to the marine plan as published for consultation, setting out the reasons for these changes. The modifications report summarises changes made and is accompanied by a record of all consultation comments received and their responses.</td>
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**Implement, monitor and review**

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<th>Period</th>
<th>3, 6</th>
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<tr>
<td>Welsh Government as the marine planning authority has a responsibility to monitor the marine plans and their effectiveness and report on and review the plans every 3 years. Monitoring is vital for testing the effectiveness of plan policies and informing decisions on requirements for changes to plan policies (adaptive management). Planners and stakeholders must be involved in the monitoring and review process in order to improve future plans.</td>
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Cross border considerations

Wales’ geographical location and the fact that our seas border those of other governments mean that cross border co-operation is essential.

We are working with other UK administrations to ensure that this plan operates smoothly and consistently across the administrative borders between Wales, England and Northern Ireland. This co-ordination extends to considering activities which extend across marine plan area boundaries, sharing information and best practice with other marine plan authorities and identifying opportunities to align plans for adjacent areas.

Although there is no legal responsibility for different administrations in the UK to plan jointly or at the same time in areas which cross a planning boundary, we have taken all reasonable steps to secure that this plan is compatible with any other related marine plan of neighbouring UK administrations. This is particularly important for the cross-border estuaries of the Dee and the Severn and more widely across the Irish Sea, where close working across plan boundaries in these areas will enable us to take account of the cumulative effects of activities at plan boundaries [[see policy GOV-04]]. Further details of our joint arrangements will be set out where appropriate.

We are co-ordinating marine planning at the regional scale with non-UK administrations where our marine plan boundary joins those of the Republic of Ireland and the Isle of Man. As such this Plan has been prepared in accordance with the MSP Directive, which requires co-ordination of plans at the regional sea scale and effective co-operation with neighbouring third countries. This includes sharing data and consultation with affected authorities in order to fully understand the potential effects of the Plan.

Working across boundaries in this way builds on the trans-boundary requirement of the Strategic Environmental Assessment (SEA) Directive (2001/42/EC), the Environmental Impact Assessment (EIA) Directive and the Espoo Convention (including the Marine Works (Environmental Impact Assessment) Regulations) and any relevant legislative requirements. The above requires EIAs to be extended across borders when a planned activity may cause significant adverse trans-boundary impacts e.g. consideration of the far-field effects of a major development such as barrage or lagoon construction on neighbouring marine plan areas.

Cross-border marine planning co-ordination will be supported by the developing shared marine evidence base being collected through a range of monitoring programmes under the UK Marine Monitoring and Assessment Strategy (UKMMAS) community and in relation to compliance with the MSFD.
**General cross-cutting policies**

**Introduction to general cross-cutting policies**

This plan aims to provide a clear, comprehensive framework for the sustainable development and sustainable use of the Welsh marine area to help ensure that society benefits from our wealth of marine natural resources. It seeks to provide greater clarity and certainty for those who wish to make use of Welsh seas by setting out how proposals relating to the Welsh marine area will be considered by decision makers including, in particular, consenting authorities. It does so by setting out general, cross-cutting, policies and context followed by sector-specific policies and context.

The general cross-cutting and sector-specific policies set out in this and the next chapter should be used by developers / users of the marine environment to shape their plans and proposals. They should equally be used by decision making authorities to support assessment of proposed uses of the marine environment. It is the responsibility of the developer / user to supply the information required for the decision making authorities to assess their proposal(s). Advice should also be sought from the appropriate decision-making authority.

Where policies refer to obligations such as current legislation, it does not signify that the marine planning body necessarily has responsibility for its enforcement.

The general cross-cutting policies provide clarity and consistency across this plan and contribute towards the overarching principle of sustainable development and sustainable use of our marine natural resources. The general cross-cutting policies are mainly organised around the MPS HLMO themes as follows:

- **Achieving a sustainable marine economy**
- **Strong, healthy and just society**
- **Living within environmental limits**
- **Promoting good governance**
- **Using sound science responsibly**

The general cross-cutting policies apply to all development and use of the marine environment and where appropriate, should be used in combination with the sector-specific policies. Unless otherwise stated, policies apply to both the inshore and offshore marine plan regions [[link to section with map]]. They do not replace commitments under international or domestic legislation. Specific legislation is highlighted in this and the next chapter; however the signposting is not exhaustive and development and use of the marine environment must be carried out in compliance with all relevant legislation and current Government policy.

All text in this section should be considered as planning policy. As well as informing the sustainable development and use of the marine environment, these policies should also inform the development and implementation of related plans, including but not limited to any neighbouring marine plans, land-use plans [[link]] and shoreline management plans.

The general cross-cutting policies should be interpreted as follows. These definitions also apply to the sector policies except where otherwise stated.

a) “Development and use of the marine environment” refers to all activities including existing and future activities and regulated and non-regulated activities.
b) “Decision making authorities” refer to a marine licensing authority, marine planning authority, local authority, funding body or other body responsible for making decisions that may affect the marine environment. Where a policy refers to decision making authorities, it signifies that it is particularly applicable to new proposals for regulated activities and therefore that planning and consenting authorities have a strong role to play in its implementation. The policy may nonetheless be used to guide existing regulated activities and/or existing and future non-regulated activities.

c) “Proposal” means an application for a regulated activity that may affect the marine area submitted to a marine or terrestrial decision making authority.

d) “Opportunities” may refer to measures, proposals or activities which occur in or may affect the marine environment.

e) Where a policy says “must” or “must comply with” it relates to obligatory measures required by current legislation; the proposed activity will not be consented unless these requirements are fulfilled.

f) Where a policy says “should” it relates to a preferred option in line with relevant guidance and best practice; the proposed activity may be more likely to be consented where the policy has been met.

g) Where a policy refers to “support” by or from a decision making authority, it refers to the fact that the authority will be expected to consider the proposal favourably where it has met the policy. It should not be interpreted to mean that the proposal will necessarily be consented. Equally, it does not imply any active or financial support from the authority.

h) Where a policy says “where appropriate”, it means that reasonable steps should be taken to apply the policy in a proportionate manner, except where other relevant considerations indicate otherwise.

i) “Where possible” means that a policy should be met wherever practicable but that the decision making authority should recognise that meeting a policy may not be possible in all cases and should apply discretion.

In addition, “plan user” is a broad term and means all of those who have an interest in the policies set out in this plan.

Where two or more policies are closely related they are presented alongside each other, with a shared justification (e.g., ENV-01, ENV-02 and ENV-03). This signals to the plan user that, although linked, the requirements in meeting the policies may differ.

In case of doubt, please seek further information and clarification from:

- Welsh Government on the meaning or application of any of the policy set out in this plan;
- The relevant decision making authority on application requirements and process including the information needed to satisfy their need to apply the policies set out in this plan.

The plans should be applied as a whole rather than any single policy in isolation. It is unlikely
that a particular decision on a proposal will involve a single policy or all policies, instead it is likely that several plan policies will apply. Therefore, decisions taking account of the marine plans should conform with all relevant policies set out within them.

### Overarching planning policy

**Policy GEN1:** There will be a presumption in favour of projects that contribute to the sustainable development of the marine area by delivering across all of Wales’ well-being goals.

Sustainable development is about improving the way that we can achieve our economic, social, environmental and cultural well-being. The [Well-being of Future Generations (Wales) Act 2015](https://www.gov.wales/en/laws/welsh-government/2015/09/welsh-government-welsh-language-act-2015/) defines sustainable development as the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals. The **sustainable development principle** requires public bodies to act in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

There are 5 things that Welsh public bodies need to think about to show that they have applied the sustainable development principle:

- **Long term:** The importance of balancing short-term needs with the need to safeguard the ability to also meet long-term needs.
- **Prevention:** How acting to prevent problems occurring or getting worse may help public bodies meet their objectives.
- **Integration:** Considering how the public body’s well-being objectives may impact upon each of the well-being goals, on their other objectives, or on the objectives of other public bodies.
- **Collaboration:** Acting in collaboration with any other person (or different parts of the body itself) that could help the body to meet its well-being objectives.
- **Involvement:** The importance of involving people with an interest in achieving the well-being goals, and ensuring that those people reflect the diversity of the area which the body serves.

All individuals and organisations are encouraged to contribute to the delivery and achievement of Wales’ well-being goals [see Figure 2](https://www.gov.wales/en/laws/welsh-government/2015/09/welsh-government-welsh-language-act-2015/) and to apply the sustainable development principle. Proposals for the development and use of the marine environment should provide the necessary information to support decision making authorities to comply with their sustainable development responsibilities under the Act.

The sustainable development and sustainable use of our marine natural resources can provide significant future benefits for both society and the environment. It is seen as making an important contribution to national economic growth including that of coastal communities at the local level. Welsh Government is committed to doing all it can to increase employment levels, improve the economy and tackle poverty for our people. There are many aspects of poverty which have strong links to the management of our natural resources. Welsh Government has identified three aspects: preventing poverty, helping people into work and mitigating the impacts of poverty; and these are reflected in this plan’s objectives and policies.
This overarching policy applies to all marine activities but is particularly relevant to the sectors that contribute towards economic growth through ‘blue growth’ within the marine plan area whilst ensuring that environmental and social aspects are fully considered by plan users. The policy will support economic growth and contribute to the Programme for Government priority (PfG) of increasing jobs and growth alongside the need to ensure the wellbeing of future generations by contributing across Wales’ wellbeing goals. This directly supports the objective in the revised Child Poverty Strategy (March 2015) on creating a stronger economy and labour market which supports the tackling poverty agenda and reduces in-work poverty in Wales.

The policy applies to all existing and established uses as well as emerging uses and should be applied equally across them subject to other relevant objectives and policies of this plan.

The presumption in favour of sustainable development and sustainable use of the marine environment assists in delivering an ecosystem approach / integrated natural resource management by ensuring that economic, social and environmental aspects are considered together by plan users. Natural resource management will be key to the long-term viability of our communities through its potential to tackle poverty and drive regeneration.
General policy - Achieving a sustainable marine economy

This section describes general, cross-cutting policy in relation to the economy.

**Sustainable growth**

The policies in this section will support delivery of the following plan objectives:

**Plan objective 1:** Ensure the **sustainable development** of economically productive activities taking account of the cumulative effects of other activities.

**Plan objective 2:** Support activities that **create long term employment** at all skill levels. Profitable and sustainable **businesses** are promoted within a thriving Welsh **economy**.

**Plan objective 3:** Maximise the opportunity to develop marine **renewable energy resources**, helping to achieve the United Kingdom’s energy security and carbon reduction objectives, whilst fully considering the requirements of other marine interests.

**Plan objective 4:** Provide space to support existing and facilitate future sustainable economic activity through **managing multiple use**, encouraging the co-existence of compatible activities, the mitigation of conflicts between users and, where possible, by reducing displacement of existing activities.

**Plan objective 13:** Provide a mechanism for the **unique characteristics** and **future opportunities** of the Welsh Marine Area to be better understood.

**Background**

Welsh seas provide a wide range of natural resources, goods and services that benefit society and support a thriving marine economy. From single employee businesses to large multinational companies, the marine environment in Wales is host to a diverse range of activities across a number of economic sectors. The Gross Value Added (GVA) generated by the marine sector in 2012 was around £674 million, representing around 1.3% of total GVA in Wales\(^6\). Currently the biggest contributors to the economy include the Oil and Gas and Marine Transport sub-sectors. Our use of marine natural resources and space is growing quickly in some sectors and offers further growth potential, most notably in the marine energy sector.

The Well-being of Future Generations (Wales) Act 2015 requires us to take a long term and balanced view of the consequences of our decisions, including economic prosperity. The Welsh Government recognises the economic potential of our seas and the role it can play in supporting the sustainable creation of jobs and income thereby contributing to the well-being of current and future generations. Increasing the prosperity and wellbeing of the people in Wales by creating jobs and accelerating growth in the economy are key priorities for Welsh Government.

The UK Marine Policy Statement has a presumption in favour of sustainable development and a HLMO theme to achieve a Sustainable Marine Economy, including the following:

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\(^6\) Source: Annual Business Inquiry, Regional Accounts (Office for National Statistics). This included Minerals (25), Fish (29), Marine Transport (246), Oil and Gas (372), Inland (1).
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- 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, and
- marine businesses are acting in a way which respects environmental limits and is socially responsible.

There is a clear need to maintain and grow the local and national economies through activities, including marine activities that provide jobs and income for local people and lead to the production of goods and services that add value locally, nationally and internationally. The UK National Planning Policy Framework supports the use of sustainable economic development in conjunction with social and environmental consideration. Welsh Government’s Programme for Government commits to investing in infrastructure, innovation and improving the business environment, including in relation to the marine economy.

Welsh Government will use all of the levers at our disposal to further develop an economy that is confident, outward looking and balanced, with exports and inward investment generating wealth and a thriving private sector providing stable, high quality employment. We are working with the business community to help businesses thrive, in order to support the development on the marine economy and the creation of jobs, and encourage wider investment in our marine environment and economy, leading to a growing marine related GVA contribution to the economy.

Any business seeking Welsh Government support is expected to sign up to our principles of corporate social responsibility, with a commitment to sustainable development, training and good employment practice. The Welsh Government is also developing close links with anchor companies and further and higher educational institutions.

At the same time, there are wider factors influencing the performance of the economy such as fluctuations in exchange rates, the state of the global economy and the monetary and fiscal policy set by the UK Government. These are not issues solely for the Welsh Government and will require the domestic and international business community and other delivery bodies to work together.

The EU has published a long-term strategy to support sustainable growth in the marine area (“Blue Growth”, http://ec.europa.eu/maritimeaffairs/policy/blue_growth/). It identifies five sectors with the greatest potential for growth that it seeks to develop: aquaculture, marine renewable energy, marine mineral mining, marine biotechnology and marine and coastal tourism. It seeks to increase knowledge and security in the marine economy, and identifies the role of marine planning in sustainable management of activities at sea.

This plan supports opportunities for multiple economic benefits at a community and national level, including economic growth and recovery, skills development, employment, and maintaining or increasing population levels.

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7 An anchor company is a company which is a global or international organisation and has Welsh headquarters or significant corporate presence in Wales.
In the Welsh marine area, the available evidence suggests that there is particular opportunity for growth in the ports and shipping, marine renewable energy, tourism and leisure and aquaculture sectors. The SSE (link) provides the evidence base for decisions on how best to support sustainable economic development in the Welsh plan area. [Further detail of the review to be provided]

This plan also supports sustainable economic activity [[see GEN1]] through the identification of key risks and issues for our natural resources and therefore to the marine economy, for example non-native species and litter [see General policy - Living within environmental limits section]. This plan also supports users [see Plan users section] to make stronger applications for development that are aligned to policy, leading to their activities becoming economically beneficial sooner. [see Table 4]

**Policies**

The overarching planning policy GEN1 provides the basis for securing sustainable economic growth through the sustainable use of our seas.

**Policy ECON-01: Decision making authorities should support economically productive activities where possible.**

Use of the marine environment should be managed in order to optimise the potential economic benefit to the people and businesses of Wales, while supporting social and environmental objectives including the well-being of future generations. This requires an understanding of current and potential future activities. It means considering not only the direct economic productivity of an activity or proposal, but also the greater contribution to the economy in terms of direct and indirect, positive and negative effects on other businesses, activities and goods and services that may significantly impact on Gross Value Added. These include competitors, and supportive and secondary industries throughout the supply chain, including retail and service industries, public and private sector. In addition, consideration should be given to the potential consequences of an activity not occurring.

Development and use of the marine environment should be particularly supported where it leads to benefits for the local communities [see Coastal communities section]. Potential impacts of an activity should be considered over long-term scales, in accordance with the principles of the Well-being of Future Generations (Wales) Act 2015 [see Welsh policy context section], including the potential influence of and in relation to climate change [see Climate change section].

Where possible, decision makers should encourage multiple use in areas of sea to maximising the potential GVA of an area (e.g. by considering alternative designs or through licensing decisions and conditions) [see Sustainable co-existence section].

Marine planners, investors, developers and other decision makers can all play a role in supporting a thriving and sustainable Welsh marine economy. Open knowledge and information exchange can act as a driver for innovation and economic growth. To aid this, decision makers should seek to make data and information openly available where possible [see General policy - Using sound science responsibly section].

In order to support economically productive activities, terrestrial and marine planning systems must be closely coordinated to facilitate opportunities, promote mutual benefits and avoid conflicts [see Integration at the coast and General policy - Promoting good governance
Appropriate development can also support wider plan objectives including energy security and carbon reduction, as well as catalysing further economic opportunities. For example it can drive the development of associated infrastructure and increase access to the marine environment, such as through port development, roads and telecommunications, which may facilitate the development of otherwise unrelated industries. Consideration should be given to the opportunities to support a wide range of activities. A greater diversity and balance of industries operating in Welsh waters can increase economic security.

In order to make best use of the potential of our seas for economic growth, decision makers should consider the relative benefits of supporting one activity over another and should consider alternative options, making best use of existing good practice and best available evidence, supporting research and development as appropriate to fill gaps in knowledge.

**Policy ECON-02: Decision making authorities should, where appropriate, support opportunities to protect and create employment at all skill levels and contribute to sustainable economic growth.**

**Policy ECON-03: Decision making authorities should, where appropriate, support opportunities to provide skills development and diversification that will contribute to economic growth.**

Development and use of the marine environment has the potential to increase the prosperity and well-being of Welsh people through long-term employment. Decision makers should support proposals that provide or promote such opportunities, including development of marine-related skills, in particular where they relate to the creation of marine jobs and where they will benefit the communities adjacent to the plan area [see Coastal communities section]. Where possible, marine developments should take place in or near to areas that can best benefit from that activity. This could mean that the physical infrastructure or skilled workforce is available or potentially available for an activity. Alternatively it could mean in areas that would most benefit from an influx of training and employment opportunities. Skill creation and diversification can increase the resilience of communities to fluctuations in demand in certain industries. The skill levels and diversity, and employment needs of the local community vary widely across Wales. Local development plans and other spatially expressed policy may be used in conjunction with this plan to highlight particular opportunities for development considered to be appropriate in a particular location.

In order to attract new business and make Wales’ economy more competitive, the Welsh Government have designated 7 Enterprise Zones across Wales, located at Anglesey, Central Cardiff, Deeside, Ebbw Vale, Haven Waterway, Snowdonia and St Athan Cardiff Airport [see Figure 4]. These are geographical areas that support business infrastructure and offer compelling incentives to create new jobs and encourage sustainable growth, including access to finance and advice on funding, innovation, training and international trade. The Enterprise Zones are driven predominantly by private sector-led chairs and boards, to ensure that the support and delivery is flexible and responsive to business needs.
The Welsh Government will continue to work with partners across industry and local and central Government so that businesses are supported and contribute to the health and well-being of our communities, making best use of available resources.

Certain key business sectors have been identified as priorities on the basis of their current and potential future contributions to the Welsh economy and the well-being of people in Wales. They are: Energy and Environment; Construction; Advanced Materials and Manufacturing; Creative Industries; Financial and Professional Services; Food and Farming; ICT; Life Sciences; and Tourism. For further details, see individual sector policy chapters [[see link to tourism, energy, other sections]].

Decision makers should particularly support specific industries and activities where they are relevant to the marine area and have been identified as having high potential for economic growth in the Welsh plan area.

**Sustainable co-existence**

The policies in this section will support delivery of the following plan objective:

**Plan objective 4:** Provide space to support existing and facilitate future sustainable economic activity through **managing multiple use**, encouraging the co-existence of compatible activities, the mitigation of conflicts between users and, where possible, by reducing displacement of existing activities.
Background

Co-existence is where multiple developments, activities or uses can exist alongside or close to each other in the same place and/or at the same time. Co-existence is already common in the marine environment, especially in relation to transient activities, i.e. those that are not fixed or permanent, such as fisheries, navigation and tourism and recreation activities. Co-location is a subset of co-existence and is where multiple developments (often structures), activities or uses co-exist in the same place by sharing the same footprint or area (MMO 2013). Footprint can include the physical location of both developments and activities, e.g. tidal lagoons are potentially spatially compatible with certain types of aquaculture.

Co-existence is a cornerstone of marine planning, is identified by the MSP Directive and assists in the delivery of the High Level Marine Objectives. As development and use of the marine environment continues to increase, there will be increased competition for space and greater interaction between activities. Embodying co-existence within this plan provides a sound basis for managing multiple use in order to optimise the value and use of Welsh seas.

Promoting co-existence helps to provide a clear and coherent framework to develop policy to maximise the sustainable use of the marine area to bring economic benefits to Wales; provide greater clarity and certainty to users and potential users of our seas; focus on understanding and securing opportunities by optimising the use of marine natural resources; promote the efficient use of marine natural resources and space and understand and manage cumulative pressures from human activities upon natural resources.

The Maritime Spatial Planning Directive states that the main purpose of marine spatial planning is to promote sustainable development and identify current and future utilisation of marine space for different sea uses and to manage potential conflict. The objectives of the Directive include the promotion of coexistence of relevant activities and uses. A key principle for marine plans outlined in the UK's Marine Policy Statement is to promote compatibility and reduce conflict.

This plan encourages development of proposals which bring together differing but compatible activities to make the best possible use of marine space and natural resources over time.

Policies

Policy ECON-04: Decision making authorities should, where possible, support proposals that enable or facilitate coexistence with other sectors and activities to optimise the value and use of the marine area.

Proposals that facilitate coexistence could include various opportunities. For example, certain infrastructure projects could offer significant amenity and leisure opportunities for local communities and/or coastal tourism. Alternatively, there could be scope for realising development and expansion of aquaculture by co-locating businesses within offshore wind farms or within tidal lagoons.

Proposals should set out how potential opportunities for co-existence have been assessed. Proposals should set out how realising any opportunities for co-existence optimise the value and use of the plan area, including the environmental, social and/or economic benefits.

A key principle of the Marine Policy Statement is to promote compatibility and reduce conflict (including environmental, social and economic considerations) in order to manage the use of
space within the marine environment in an efficient and effective manner. Proposals should demonstrate the extent to which they will co-exist with other activities and how this will be achieved.

Where a proposed activity is considered incompatible with other activities, further consideration may be needed. Factors to be considered would be the priorities for development, the specific nature of any constraints, the possible cumulative effects and any scope for amending the proposal. Consultation with potentially affected sectors on such proposals should be thorough. Decision making and consenting processes enable consideration of compatibility with other policies and the objectives of this plan.

This evaluation of options for co-existence in any new proposals will assist decision-makers to reduce current and potential conflict, maximise compatibility between marine activities and encourage co-existence of multiple uses. Consideration should also be given to the co-existence of activities and developments in adjacent marine planning areas [Policy reference to be inserted] to optimise the value and use of the marine area.

The encouragement of co-existence between sectors applies when using existing infrastructure as a basis for a new activity, or by taking advantage of opportunities now and in the future as technology advances. Decision makers will need to consider the longer term future impact on the sustainable use of marine space and natural resources.

Wales’ Marine Protected Areas are functioning marine areas that already support a variety of different uses including shipping, energy, fisheries and recreational activities. Some activities and developments may need managing and/or regulating, however many marine and coastal activities coexist with the conservation of habitats and species.

Where conflict over space or resource exists or arises, initiatives between sectors are encouraged to resolve conflict and take account of existing agreements and good practice wherever possible.

There are certain areas of Welsh waters where there are higher levels of activity, for example, the Severn Estuary, Milford Haven and the Dee Estuary. There is a particularly high density of shipping and port activities around Milford Haven, aggregate extraction is concentrated in key areas off south Wales and there is a growth in offshore wind farm development off the north Wales coast, as well as the significant potential for using renewable energy capture in areas where there is a suitable tidal resource. Other sectors are more widespread, for example, fisheries, tourism and recreation. Managing the possibilities for co-existence, including activities in the same area, but vertically, laterally or temporally separated, is particularly relevant in these busier areas.

Early consultation with stakeholders and integration with the various planning authorities and decision makers is required to facilitate the realisation of opportunities for co-existence [see Integration with other planning regimes section]. This will include establishing ways of working to ensure that the requirements of the appropriate marine planning and licensing systems are fully considered in the decision making process [see General policy - Promoting good governance section].
General policy - Ensuring a strong, healthy and just society

This section describes general, cross-cutting policy in relation to society.

Safe seas

The ‘safe seas’ policies will support delivery of the following plan objective:

**Plan objective 6**: Ensure our coast and seas, and their resources, are **safe to use** and there is equitable **access** for those who want to use and enjoy them thereby improving the long term well-being of the people in Wales.

**Background**

For our seas to contribute towards a strong, healthy and just society, they must be safe to use. This means that users feel secure and confident in using the marine environment, because associated dangers such as from pollution, litter or navigation hazards are reduced and eliminated where possible. It also means that where dangers cannot be eliminated, people are educated to avoid them or systems are in place to help people to overcome them.

The Maritime and Coastguard Agency (MCA) works to prevent loss of life on the coast and at sea. They produce marine legislation and guidance on maritime matters and provide certification to seafarers. In addition, the MCA provides a Search and Rescue service through HM Coastguard, in conjunction with the Royal National Lifeboat Institution (including Lifeguards) and other independent charities. The RYA sets and maintains an international standard for recreational boat training provides boaters with key safety information and is given responsibility for issuing commercial qualifications for those working small commercial vessels by the British Government through the MCA.

The Health and Safety Executive (HSE) lead on marine health and safety issues and local authorities enforce aspects of the Health and Safety at Work Act in relation to leisure and recreational activities.

**Policies**

**Policy SOC-01**: Development and use of the marine environment must make safety for all sea users a primary consideration.

Legislation, regulations and guidance relevant to safety can be identified through the MCA and must be adhered to at all times. The appropriate agency or decision making authority with responsibility for safety should be consulted at the earliest possible stage. When considering potential conflicts between activities, decision makers must take account of safety considerations, particularly unavoidable risks such as those associated with the use of Ministry of Defence firing ranges.

This plan, and uses and developments allowed under it, should not impede the activities of those dealing with marine emergencies or inhibit or unknowingly alter an emergency response plan.
Policy SOC-02: Proposals for the development and use of the marine environment must take all reasonable steps to minimise the risk of marine pollution incidents.

Plan users must comply with the relevant regional, national and international regulation, legislation and guidance to ensure that the risk of marine pollution is minimised. The International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) addresses the management of risks associated with pollution from ships. The UK National Contingency Plan (NCP) for marine pollution from shipping and offshore installations sets out roles and responsibilities for responding to marine pollution incidents.

Safety as considered by this section includes non-diffuse, point sources of pollution such as oil or chemical spills. The issue of water quality is dealt with within the [General policy - Living within environmental limits] section of this plan.

Coastal communities

The coastal communities policies will support the delivery of the following plan objectives:

Plan objective 2: Support activities that create long term employment at all skill levels. Profitable and sustainable businesses are promoted within a thriving Welsh economy.

Plan objective 5: Reduce poverty and support the development of vibrant, more equitable, culturally distinct, sustainable and resilient communities thereby contributing to the well-being of future generations.

Plan objective 6: Ensure our coast and seas, and their resources, are safe to use and there is equitable access for those who want to use and enjoy them thereby improving the long term well-being of the people in Wales.

Background

Our seas are an intrinsic part of our history, economy and way of life. Over 60% of the population of Wales lives and works on the coast, with all of the major cities and many important towns also located there. For the coastal communities of Wales, particularly those far from major cities, the sea and its associated activities play a significant role in people’s well-being through providing jobs, opportunity for recreational activities and supporting cultural diversity and a sense of heritage. In addition, Welsh seas provide a range of important ecosystem goods and services such as supporting air and water quality [see General policy - Living within environmental limits section] and climate change adaptation [see Climate change section]. However many coastal communities have the opportunity to derive even greater benefit from our seas whilst at the same time adapting to challenges such as increased risk of flooding [see Coastal change and flooding section] or changes in leisure time and where they chose to live. (demographics?)

Our coastal environments have the potential to be among the most attractive in Europe for living, working and visiting, where people live longer, healthier lives in well-designed, connected and sustainable places with good access to amenities and services. In such communities, people value, protect and enhance the built and natural environment for the well-being of current and of future generations.

The MPS recognises that the sea may play a significant role in coastal communities and its
HMLO theme of “ensuring a strong, healthy and just society” seeks to ensure that the use of the marine environment benefits society as a whole, contributing to resilient and cohesive communities, including contributing to physical and mental wellbeing.

The concept of ‘wellbeing’, as core to the Well-Being of Future Generations (Wales) Act 2015 [see Welsh policy context section] encompasses social, economic, environmental and cultural well-being. The act seeks to support delivery of sustainable development and, specifically highlights through the well-being goals the ambition for a Wales of cohesive communities that are attractive, viable, safe and well-connected and with a vibrant culture meaning a society that promotes and protects culture, heritage and the Welsh language and which encourages people to participate in the arts, and sport and recreation. The Tackling Poverty Action Plan (2012 - 2016) recognises the importance of improving physical and mental health whilst tackling health inequalities.

Sustainable development of the marine and coastal environment can contribute significantly to the wellbeing of coastal communities by promoting economic growth, improving access and facilities and by protecting and enhancing biodiversity, seascape and landscape features and cultural heritage, all of which contribute to ‘sense of place’ [see Seascapes and character]. This plan seeks to support coastal communities through focussing on opportunities to co-produce approaches that will gain maximum social benefit from the opportunities afforded by the marine environment.

**Policies**

**Policy SOC-03:** Decision making authorities should ensure that, where possible, proposals maintain or enhance access to the marine environment.

The MPS HLMO of ensuring a strong, healthy and just society includes the objective that ‘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’. Access to the marine plan area is crucial for both enjoyment and economic use of the marine environment, including through recreation and tourism, and therefore contributes to both sustainable development and health and wellbeing. Particularly, accessing coastal environments can have a significant impact on supporting people living in poverty to improve their mental and physical health. It can provide opportunities for low-income households, particularly children and young people, to experience their natural surroundings and learn from it. Decision making authorities should support access to the marine environment where possible, while considering the risks and potential negative impacts of access such as disturbance to wildlife, conflicts between activities and safety considerations. Where access to a specific location is lost, for example through coastal change [see Coastal change and flooding section] or new high-priority development, decision making authorities should seek to re-establish access with minimal disruption to the public.

**Policy SOC-04:** Decision making authorities should ensure that proposals consider the cultural identity and wellbeing of coastal communities at a local scale and provide social and economic benefits for those communities where possible.

Development and use of the marine environment has the potential to affect the socio-economic future of coastal communities and decision makers should ensure that
opportunities to contribute positively to future well-being of coastal communities are taken.

When considering the introduction or expansion of activities in an area, decision makers should take into account the significance of potential development on all relevant current features of the area including cultural heritage, seascape and environmental quality. Coastal communities often derive significant social and economic benefit from their heritage and a “sense of place”. For example, the tourism sector is very important to the Welsh economy and is heavily dependent on maintaining a high quality environment, which includes maintaining our biodiversity and seascapes [see Marine biodiversity and Seascapes and character sections]. Other sector activities, such as fishing, also contribute to a community’s heritage and “sense of place”.

The communities around our coast are diverse and a successful policy approach in one area may be inappropriate in another. The right development in the right place may aid adaptation or provide a regenerative boost, but equally it could have a negative impact upon the intrinsic environmental characteristics and qualities on which the prosperity and well-being of the community depends. It is therefore important that decision makers take a spatial approach to decisions affecting the development and use of the marine environment, and consider available evidence at a local scale. This will be especially important where a traditional coastal community has successfully and sustainably adapted itself to its unique or challenging setting.

Characterisation may be an aid to this process. Welsh Government has undertaken typological studies (OCSI 2014) and identified National Marine Character Areas that described local seascape character [see Seascapes and character section]. These characterisations may help to identify, preserve and enhance local identity.

Decision making authorities should consider National and local planning policy and objectives, such as Planning Policy Wales, and Local Development Plans, and work with terrestrial colleagues, to ensure that marine development supports and enhances the cultural identity and well-being of coastal communities. The evidence base developed through the development planning process (NDF, SDP, LDP) should be used to inform decision makers to strike the balance between different social, economic and environmental objectives.

Terrestrial planning can also provide important local context about coastal communities and the character of the coastal hinterland. Integration of terrestrial and marine planning is therefore a key planning approach that identifies the unique characteristics of a particular area and seeks to maximise the socio-economic benefits to the local community of the appropriate nature and scale, whilst minimising any adverse effects.

Effective engagement with local communities is critical to identify local social and cultural characteristics and maximise opportunities and potential benefits for the communities. Decision makers should involve local communities throughout decision making processes, in accordance with the ecosystem (based) approach [see Ecosystem Approach section]. This may be particularly important in remote areas where cultural identities and a “sense of place” tend to be stronger. The marine characterisation assessments [see Seascapes and character section] may be an appropriate basis for engaging with local communities and planning authorities in a structured way. As part of this process, decision makers must also consider the potential impact of their decisions on the
Welsh language locally [see also below and Assessments section and [[relevant WG webpage]].

Areas of child poverty tend to coincide with poor air quality and excessive noise and this should be taken into consideration by decision makers. Climate change can have a disproportionate effect on those most vulnerable, as those who contribute least to the problem through emissions, are ones who may be most affected by climate impacts. The revised Child Poverty Strategy recognises the need for local environmental policies to support the tackling poverty agenda and in turn making areas more resilient.

A careful balance needs to be struck between the development of an area and the protection of the characteristics that contribute to “sense of place” to ensure that the planning system as a whole provides net benefits for coastal communities. Local information derived from typological studies and community engagement should be taken in the context of the wider evidence base to identify which activities fit best with which communities in which areas.

Policy SOC-05: Decision making authorities should support opportunities to use, promote and develop the Welsh language where possible.

Accessible knowledge and information about our rich cultural history, literature and communities can act as a driver for innovation, education and economic growth as well as contributing to the future well-being of our communities.

Consideration should be given to the opportunities to support the Welsh language in a wide range of activities, including for businesses and leisure. Developers and users of the marine environment should seek to identify opportunities to promote the Welsh language and to facilitate its use in their sector and beyond. Developers and users should also seek to ensure that development supports the sustainability of Welsh-speaking communities. Equally, decision making authorities should facilitate participation in decision making through the medium of Welsh. This would include being proactive about using Welsh for informal and formal meetings, in signage and in key materials such as guidance, instructions and applications processes, making best use of existing good practice.

Developments that are funded or contracted by the Welsh Government will be subject to the requirements of the new Welsh Language Standards from March 2016 in terms of activities and services provided on its behalf. The impacts of Welsh Government funding decisions on the Welsh language will also be considered in line with the requirements of the policy making Standards, in terms of the effects on opportunities to use the Welsh language and on treating the Welsh language no less favourably than the English language.
Coastal Typologies in Wales

**Figure 5. Coastal typologies**

<table>
<thead>
<tr>
<th>TYPOLOGY CATEGORY</th>
<th>DESCRIPTOR*</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Coastal retreats</td>
</tr>
<tr>
<td>A2</td>
<td>Coastal retreats</td>
</tr>
<tr>
<td>A3</td>
<td>Coastal retreats</td>
</tr>
<tr>
<td>B1</td>
<td>Coastal challenges</td>
</tr>
<tr>
<td>B2</td>
<td>Coastal challenges</td>
</tr>
<tr>
<td>B3</td>
<td>Coastal challenges</td>
</tr>
<tr>
<td>C</td>
<td>Cosmopolitan coast</td>
</tr>
<tr>
<td>D1</td>
<td>Coastal fringe</td>
</tr>
<tr>
<td>D2</td>
<td>Coastal fringe</td>
</tr>
</tbody>
</table>

*refer to the report text for full key definitions
Heritage

The ‘heritage’ policies will support delivery of the following plan objective:

**Plan objective 7:** Promote stewardship and enjoyment of marine related heritage assets, nationally protected landscapes and support that decisions take account of the seascape character of the local area.

**Background**

The historic environment is central to Wales’s culture and its character contributes to our sense of place, cultural identity and heritage.

Thousands of years of trade, exploration, defence, industry and leisure have created a rich and varied historical environment in Welsh waters and along our coast that includes medieval castles, Victorian fortifications, small fishing harbours, industrial ports and 19th century seaside resorts. The sea is an essential part of the character of many conservation areas, including Areas of Outstanding Natural Beauty (AONBs) and National Parks, and the setting of numerous Listed Buildings and Scheduled Ancient Monuments.

Our underwater heritage is equally rich. Whilst shipwrecks capture the imagination, just as extraordinary are our submerged and intertidal landscapes, dating back thousands of years. Innovative seabed mapping has only just begun to highlight the potential for submerged landscapes to yield further remarkable archaeology.

In addition to its cultural value, the historic environment can also drive economic growth, attracting tourism and providing enjoyable places in which to live and work.

It is vital that the historic environment is appreciated, protected and made accessible for present and future generations. Historic assets of national significance are protected through designation such as scheduled ancient monuments, protected wreck sites and listed buildings and conservation areas. There are also relevant non-statutory designations which are material considerations in the terrestrial planning system such as World Heritage Sites and Registered landscapes and parks and gardens of outstanding or special historic interest. Cadw is the Welsh Government historic environment service working for an accessible and well-protected historic environment for Wales, and can provide advice on development and use of the marine environment in relation to heritage assets.

**Policies**

**Policy SOC-06:** Decision making authorities should support opportunities to better understand the significance of historic assets, the cultural benefits they provide and the issues that affect them.

Understanding the significance of historic assets is key to informing decisions about future management and whether protection (up to, and including, designation) is appropriate under law and policy. Any opportunities to better understand the significance of historic assets should be encouraged and promoted. This aligns with Cadw’s Conservation Principles and Welsh Government’s approach to the sustainable management of the historic environment in Wales. Plan users should refer to Cadw’s guidance on evaluating and describing the significance of historic assets.

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8 Cadw: 2011: Conservation Principles for the sustainable management of the historic environment in Wales
Policy SOC-07: Decision making authorities should ensure that proposals demonstrate how potential impacts on historic assets and their settings have been taken into consideration at an early stage of development and should in order of preference:

a) avoid adverse impacts on historic assets and their settings
b) minimise them where they cannot be avoided
c) mitigate them where they cannot be minimised
d) present the case for proceeding where (a-c) are not possible

Development and use of the marine environment can affect historic assets both directly and indirectly, including: loss of, or damage to, historic material; alteration to the setting of historic assets which can positively or negatively affect the ability to understand and appreciate it; burial or exposure (for example, due to changing patterns of sediment movement)

Decision makers must be satisfied that:

a) The applicant has adequately investigated and evaluated the significance of both designated and non-designated historic assets which may be impacted by development and use of the marine environment; and
b) The applicant has taken measures to avoid, minimise or mitigate the impact upon historic assets and their setting in a manner that is proportional to their significance.

Where possible, designated assets, or sites of equivalent importance, should be preserved in-situ within an appropriate setting. Substantial loss or harm to designated assets or sites of equivalent importance or their settings should only permitted if this is necessary to deliver social, economic or environmental benefits that demonstrably outweigh the harm or loss.

The absence of designated historic assets should not be taken to imply that non-designated historic assets are automatically of lesser significance. Given the logistical difficulties and resource-intensive nature of working underwater the significance of many marine historic assets is yet to be established. Nevertheless, all such assets, and their settings, should be a consideration in decision-making.

Policy SOC-08: Decision making authorities should, where appropriate, support opportunities to maintain or enhance public access to the historic environment; restrictions on public access to existing historic sites should be avoided.

Historic assets are enjoyed for the quality of life they bring to this and future generations. The historic environment is also a motivating factor in tourism and day-visits to Wales\(^9\) and can therefore provide additional economic benefits. Where appropriate, additional public access and interpretation, represents a substantial opportunity for growth as well as encouraging responsible stewardship.

To avoid adverse impacts (including temporary and cumulative impacts) the provision of new access needs to consider the appropriateness of the setting and potential impacts on heritage assets. This will seek to ensure that areas with historical designations or other sensitive areas are not compromised in order to provide public access. An assumption made is that as part of any consideration relating to access, provision for safety will be made as guided by prevailing standards.

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\(^9\) Ecotech: 2010: Valuing the Welsh Historic Environment; economic impact technical report
Reference to access in the policy refers to physical access. However, opportunities to also enhance remote / intellectual access could also be pursued through publications and web-based interpretation and other remote means.

Figure 6. Protected coastal landscape and heritage features
Welsh National Marine Plan

Seascapes and character

The seascapes policies will support delivery of the following plan objective(s):

**Plan objective 7:** Promote stewardship and enjoyment of marine related heritage assets, nationally protected landscapes and support that decisions take account of the seascape character of the local area

**Plan objective 13:** Provide a mechanism for the unique characteristics and future opportunities of the Welsh Marine Area to be better understood.

Background

Wales has a varied and attractive coastline with seascapes that have been influenced by and support a wide range of activities and uses. The strong sense of place and unique character that is typical of our coastal environment makes an important contribution to our national health and wellbeing. A key reason why individuals and businesses would wish to locate to our coastal areas is because of the high quality of life such places can promote notably for tourism and recreation.

There is no legal definition for seascape in the UK. The European Landscape Convention (ELC) defines landscape as “an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors”. In the context of this plan, references to seascape should be taken as meaning “landscapes with views of the coast or seas, and coasts and the adjacent marine environment with cultural, historical and archaeological links with each other”, as defined by the MPS.

We recognise that it is important to continue to work with others, including Natural Resources Wales, Local Planning Authorities (LPAs), Non-governmental Organisations (NGOs) and coastal communities to promote partnership working, projects and co-production activity in order to:

- achieve a better understanding of the changing nature of our seascapes including how they are valued and the benefits that we derive from them;
- improve perceptions of coastal Wales - towards it being more widely recognised as an attractive, vibrant and prosperous place to live, work and visit;
- ensure that the special qualities and typical characteristics of seascapes and their potential as a key economic asset are recognised and enjoyed by more people;
- understand future opportunities for seascapes to provide benefits for future generations, including through opportunities for their enhancement;
- further embed the concept of seascapes within national and local policies, plans and programmes, notably in coastal LDPs and Natural Resource Management Plans.

Policies

Developments, activities and management measures have the potential to change the character and visual resources of an area. The MPS states that ‘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. Landscape Character Assessment methodology may
be an aid to this process’.

All seascapes are of value and should be part of decision-making in relation to proposed development or plan-making where there is the potential to significantly change the seascape of an area.

Policy SOC-09: Decision making authorities should ensure that proposals demonstrate how potential impacts on seascapes have been taken into consideration at an early stage of development and should in order of preference:
   a) avoid adverse impacts on seascapes;
   b) minimise them where they cannot be avoided;
   c) mitigate them where they cannot be minimised;
   d) present the case for proceeding where (a-c) are not possible.

Seascapes should be considered from the outset of any proposal that has the potential to affect seascape character. It is in the early stages of a project or in developing plan options that mitigating adverse seascape impact is most effective. Appropriate siting and consideration of alternatives should be the first priority in any approach to mitigation of potential impacts.

Seascape concerns in themselves need not be a barrier to sensitively sited and designed development and considering seascapes at an early stage should be seen as an approach that can be helpful to identify more widely acceptable solutions and to help steer the right development to the right place.

Marine Characterisation (see box on MCAs) is a valuable method of identifying and understanding seascapes and their value. NRW can provide evidence and advice guidance and advice on seascape character, including qualities, sensitivity and capacity to accommodate change. Where appropriate NRW will also produce guidance and provide advice on good practice on locational design. Other guidance may also be available. Where such guidance exists it should be taken into account to inform the development design and plan-making process.

As part of land-use planning, local authorities should define the coastal zone and should consider the character and visual resource as part of the planning process for the coastal zone.

In considering a proposed development, decision makers must be satisfied that:
   a) The applicant has adequately investigated and evaluated the significance of both designated and non-designated seascapes which may be impacted by the proposed use of the marine environment; and
   b) The user has taken appropriate measures to avoid, minimise or mitigate the impact upon seascapes in a manner that is proportional to their significance.

Decision makers in taking relevant decisions must have regard to the statutory purposes of National Parks and Areas of Outstanding Natural Beauty in coastal areas including their plans, policies and the special qualities being protected and, likewise, areas on the non-statutory Register of Landscapes, Parks and Gardens in Wales.

Any relevant guidance including management plans for National Parks and Areas of Outstanding Natural Beauty (AONB) should inform decisions. Proposed development
adjacent to or visible from designated areas or areas of undeveloped coast should be considered carefully, in support of the direction provided by PPW. Likewise, proposed development in areas with a high degree of land-sea intervisibility will need careful consideration.

Seascapes serve an important role in terms of both local and visitor perceptions of an area and form a key part of the unique selling point of coastal areas that support our coastal communities. Involving local communities and other stakeholders in both the development of proposals and, where appropriate, in making a decision, is therefore critical in order to understand the range of perceptions about who values what, where and why.

Developments in the inshore planning area are increasingly likely to change the character around the Welsh coastline, in particular new nearshore renewable energy infrastructure. Such changes are already happening. Over the lifetime of this plan there is likely to be ongoing change to the seascape character of Wales, resulting most prominently from further marine renewable infrastructure, particularly off the North Wales and South Wales coasts. These changes are an inevitable result of our aspirations to derive greater benefits from our seas for current and future generations. Welsh Government recognises the importance of seascape to wellbeing and aims to minimise adverse impacts and maximise positive impacts on seascape where possible [see Coastal communities section].

In some areas, accepting change to character and views may be most appropriate where new or enhanced seascape benefits arise too. In other areas there may be a greater public interest role in conserving natural or historic character and associated special qualities such as ‘wildness’, ‘remoteness’ and ‘heritage’, where certain developments may not be appropriate.

The NPS for energy [[ref EN-3]] makes clear that consent for a development should not be refused solely on the ground of an adverse effect on the seascape or visual amenity unless:

- it considers that an alternative layout within the identified site could be reasonably proposed which would minimise any harm, taking into account other constraints that the applicant has faced such as ecological effects, while maintaining safety or economic viability of the application or
- taking account of the sensitivity of the receptors as set out in EN-1, ie where the harmful effects are considered to outweigh the benefits of the proposed scheme]
Marine Character Areas

Seascapes play an important role in planning, acting as an integrating, spatially relevant concept when considering the links between people and place, interactions between land and sea, and at different scales and timeframes. They provide the broader land-use/sea-use setting required to link our traditional site-based and sector-based activities, to reflect many natural and cultural benefits as part of an ecosystem approach.

‘Character’ is the central organising concept through which we recognise seascapes. It comprises aspects related to the physical characteristics of coast and sea plus a range of cultural and perceptual responses to the seascape, including, in particular, visual aspects. Influences from terrestrial landscapes in coastal areas are considered as well as the actual marine area covered by this plan. Influences under-water that affect perceived character (and activities) above the water are also relevant.

A suite of National Marine Character Areas have been identified, which reflect the unique combinations of natural, cultural and perceptual influences in different areas. The map covers the in-shore plan area, where the greatest interaction and complexity between land and sea is evident. This is not to say that in some cases seascape is not an important consideration beyond 12nm.

The Marine Character Area forms a useful basis within which to structure further engagement with coastal communities and stakeholders to provide more detailed information to inform both marine planning, coastal terrestrial planning and decision-making. In some parts of Wales, coastal terrestrial planning authorities have commissioned more detailed, local-scale studies that additionally consider seascape sensitivity, cultural benefits and forces for change.

With time, future studies may add to this understanding, to provide a richer evidence base on which developers, planners and managers can draw.

The National Marine Character Areas are mapped at a similar scale to the National Landscape Character Areas for Wales, which in turn relate to the adjacent Marine Character Areas and National (Landscape) Character Areas (NCAs) in England, collectively providing land-sea and cross border coherence in approach.
Figure 7. Marine Character Areas
Coastal change and flooding

The ‘coastal change’ policies will support delivery of the following plan objectives:

**Plan objective 8:** Encourage and promote action on **climate change** adaptation and mitigation

**Plan objective 11:** **Marine Ecosystems** are healthy and resilient to ensure they continue to provide **ecosystem goods and services** for the wellbeing of future generations.

**Background**

Coastal change consists of physical changes to the shoreline, for example erosion, coastal landslip, permanent inundation and shoreline accretion.

Coastal erosion is occurring along 23% of the Welsh coastline and presents challenges in locations where it threatens communities and infrastructure. The coast is inherently dynamic and subject to change, with overall rates of erosion occurring gradually over relatively long periods of time. However erosion can happen in spasmodic sudden events such as the cliff fall at Porthkerry in the Vale of Glamorgan in 2011. Significant change can also occur as a result of storm activity, as experienced during the **winter storms of 2013/14**. Coastal flooding occurs when inundation of land takes place due to any combination of high tides, stormy weather, wave action and storm surge. With sea levels forecast to rise due to climate change, low lying land that currently drains naturally at low tide is likely to be flooded for longer periods or become permanently submerged. Climate change [see Climate change section] is expected to contribute towards greater rates of coastal change over the coming decades. Expected sea level rise and increased extreme weather is likely to result in an increased risk of flooding and coastal erosion.

Coastal erosion and flooding can directly affect human and economic activity. They can change coastal landscapes, weaken sea defences, put coastal buildings (including built heritage), the infrastructure network (including ports, marinas, roads, rail and energy) and people at risk. Coastal flood risk is a particularly important national issue. Around **208,000** properties in Wales are at risk of flooding from rivers or the sea and much of the large scale flood risk is characterised as low likelihood, in part as a result of the investment made in coastal defence but of high consequence which brings with it complex management challenges.

Coastal change and flooding can also significantly impact our natural resources. Much of our marine environment is designated for its environmental significance [[link to map of designated areas]] and changes to vulnerable coastal habitats such as salt marshes, sand dunes and foreshores may have consequences for biodiversity and the future provision of other ecosystem services, such as cultural services that help support the coastal tourism industry. Climate change may also result in increased storminess, less suitable conditions and increased damage to coastal facilities [see Climate change section].

Coastal management in the broad sense can be designed to create habitats and enable adaptation. However, historically the traditional approaches to managing the risks of coastal change and flooding have been centred on the principles of defence. An estimated 415 km of man-made sea defence structures exist to protect our coastal communities and to protect over £8 billion of coastal assets in Wales. As communities have developed, so too has a significant network of flood defences, coastal protection and drainage infrastructure which...
help to reduce the risks faced. Although these arrangements have generally worked well in the past, and are still working in most parts of Wales, the effects of climate change mean that the pressure on our existing infrastructure will increase significantly. It is unsustainable and unaffordable to build increasingly large defence structures and no matter how large the defence structure, there is always a risk that it will be breached or over-topped. Therefore, there will always be a residual risk that defence alone cannot address. Coastal defence projects can also change the coastal environment through changes in geomorphology and coastal squeeze can result in habitat degradation and loss. For instance, in areas where there are fixed (hard) coastal defences, habitat adaptation and movement may be restricted as sea levels rise. This could result in a permanent loss of these areas/habitats and the associated ecosystem goods and services they provide.

In recognition of these issues, the Welsh Government has led a move from a system based on these traditional approaches to one focused around the principles of risk management. This approach is underpinned by the Flood and Water Management Act 2010, and the first steps to addressing this include the publication of Welsh Government’s National Strategy for Flood and Coastal Erosion Risk Management in 2011 and the introduction of flood risk management plans under the Floods Directive in 2014 (ref).

This strategy has been accompanied by the development of national coastal erosion and flood risk maps and the adoption of Shoreline Management Plans (SMP). The aim of the SMPs is to secure a more sustainable, longer-term shoreline management approach, which is more resilient to climate change, particularly sea-level rise. The non-statutory plans provide important context for decision making on the coast by setting out preferred policies for how the coast should be managed (Hold the Line, No Active Intervention, Managed Realignment, Advance the Line) over three epochs: 0-20 years, 20-50 years and 50-100 years.

The Welsh Government have also issued policies in relation to development and flood risk. Planning Policy Wales (PPW) 2002 and Technical Advice Notes (TAN) 14 (1998) and 15 (2004) set out planning policy and technical guidance in relation to development and flood risk. They provide a framework within which risks arising from both river and coastal flooding, and from additional run-off from development in any location, can be assessed. The general approach of PPW, supported by the TAN, is to avoid inappropriate development in the floodplain, including the coast, and advise caution in respect of new development in areas at risk of flooding by setting out a precautionary framework to guide planning decisions.

Planning ahead to prepare for flooding or coastal erosion is also integral to the effective management of flooding incidents. In light of the Winter 2013/14 floods, Welsh Government commissioned a review which identified 47 recommendations to improve Wales’ resilience to coastal flooding. The subsequent report, the Coastal Review Delivery Plan10, sets out how they could be progressed. The focus for joint-agency emergency planning in Wales is through the four Local Resilience Fora (LRF) which work together to ensure emergency plans are in place to deal with flooding and erosion incidents.

The integration of marine and terrestrial planning and decision making is key in addressing the issues associated with coastal change and flooding [see Integration with other planning regimes section].

Policies

Policy SOC-10: Decision making authorities should ensure that proposals are resilient to coastal change and flooding over the lifetime of the proposed development or use of the marine environment.

Proposals for development and use of the marine environment should, where appropriate, include an assessment of the risk of coastal change and flooding over the lifetime of the project. If necessary, they should also include measures to reduce that risk and increase resilience, in particular to predicted coastal change and flooding.

With respect to flooding, plan users should take account of the Welsh Government's flood risk policy within PPW and should refer to TAN 15 for guidance on development and flood risk. Plan users should consult NRW for information and technical advice on flood risk and may be required to undertake a Flood Consequence Assessment for developments in high risk areas. Where available, flood maps from WG\footnote{11}{http://data.wales.gov.uk/apps/floodmapping/} or NRW\footnote{12}{http://watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?topic=floodmap#x=357683&y=355134&scale=2} should be used to identify the level of flood risk in coastal areas, with TAN 15 Development Advice Maps\footnote{13}{http://data.wales.gov.uk/apps/floodmapping/} providing a trigger for further assessment.

Plan users should take into consideration policies within SMPs which provide important context for decision making on the coast by setting out preferred policies for how the coast should be managed.

Coastal development should preferably be sited in areas less vulnerable to flooding and erosion, although there may be exceptions if a specific location is essential for operational reasons or infrastructure cannot be located elsewhere. As set out in PPW, the undeveloped coastline is unlikely to be considered appropriate for new development, neither is development that requires extensive engineering or defences to make it safe.

In line with SMP policy, proposals to develop areas at risk of flooding / erosion and with a ‘no active intervention’ or ‘managed alignment’ policy in the SMP for any epoch relevant to the lifetime of the development should not be permitted. Equally, areas at high risk from flooding should not be developed (TAN 15).

Policy SOC-11: Development and use of the marine environment should not have a significant adverse impact upon coastal processes or the risk of coastal change and flooding.

Decision makers should ensure that development and use of the marine environment does not have significant adverse impact upon coastal processes [see Good Environmental Status section, GEnvS7] and does not result in an increased risk of coastal change and flooding. Decision makers should take account of relevant plans and policies, including PPW, TANs 14 and 15 and SMPs.

Policy SOC-12: Decision making authorities should ensure that, where possible, flood and coastal erosion risk management solutions align with the relevant Shoreline Management Plan policy.

Decision makers should ensure that where possible, flood risk management and coastal protection solutions comply with the relevant SMP policy. As far as practicable, decision makers should encourage solutions that work with natural processes and enable habitat creation opportunities. Opportunities for biodiversity gain through recovery or enhancement should be encouraged [see General policy - Living within environmental limits section] as should opportunities to enhance local seascapes and landscapes.

If and where more traditional engineered solutions are required, in line with the SMP, proposals should consider the risks associated with climate change using the most up to date scientific evidence. Decision makers should also be satisfied that proposed interventions do not cause adverse impacts on the risk of coastal erosion or increase or exacerbate flood risk at other locations.

Where compliance with SMP policy is not possible, and where there is potential to affect a Natura 2000 site, the Habitats Regulation Assessment of the project or scheme will need to examine the potential effects of coastal squeeze on habitat loss. If adverse effects are identified, the project/scheme will also need to demonstrate no alternatives, imperative reasons of over-riding public interest and identify appropriate compensation.

Conversely, projects or schemes which comply with SMP policy will be able to refer to the plan level HRA, test of alternatives, overriding public interest test and the National Habitat Creation Programme for delivery of compensation.

Management of flood risk and erosion are the responsibility of NRW, Local Authorities and land owners. Consultation with these authorities on matters relating to coastal change and flooding should be carried out at the earliest possible opportunity.

Policy SOC-13: Decision making authorities should support opportunities to minimise the risk of coastal change and flooding.

Measures associated with development and use of the marine environment that reduce the risk of coastal change should be encouraged. Measures that work with natural processes, assist in adapting to climate change and improve resilience of ecosystems and coastal communities should be supported by decision makers.

Climate change

The ‘climate change’ policies will support delivery of the following plan objective:

Plan objective 8: Encourage and promote action on climate change adaptation and mitigation.

Background

The scientific case that the climate is changing and that human activity is playing a significant role is clear. Climate change will pose a series of challenges to our marine environment and the communities and businesses that rely on them. Likely impacts include sea level rise, increased flood risk and changes to biodiversity and ecosystems, as well as
associated impacts on health and wellbeing.

The Intergovernmental Panel on Climate Change (IPCC) 5th Synthesis Report (2014) states that we cannot now stop climate change even if we manage to reduce our emissions. Our greenhouse gas emissions from now onwards will strongly determine the scale of the challenges we face.

There are two key ways to take action on climate change – mitigation and adaptation. Mitigation aims to slow the rate of change and lessen its impacts by reducing the emissions of greenhouse gases (or enhance the sinks that can absorb the gases). Adaptation helps protect against the impact of climate change by taking appropriate action to prevent or minimise the damage to socio-economic and natural systems. It also involves identifying and taking advantage of opportunities that may arise from climate change. The key message is that the future costs and risks of inaction far outweigh the costs of taking action now. Furthermore, delaying action on the negative impacts of climate change will only make it more expensive and difficult to overcome in the future.

The Welsh Government has a long term commitment to taking action on climate change. The Welsh Climate Change Strategy (2010) identifies two headline targets for emissions reductions: 1) 3% annually in devolved areas, 2) 40% overall by 2020. The Well-being of Future Generations (Wales) Act (2015) identifies the need to act on the causes and adapt to the consequences of climate change, as well as ensuring that Wales is globally responsible in its actions. The Environment (Wales) Bill includes a statutory commitment to carbon budgeting to set a clear pathway for decarbonisation. Our legally-binding target of at least an 80% reduction by 2050 is in line with wider UK and EU obligations.

The UK Climate Change Risk Assessment (CCRA) presents an assessment of the potential risks and opportunities arising from climate change for the rest of this century and is led by the UK Climate Change Committee’s Adaptation Sub Committee. The first CCRA, delivered in 2012, is a key component of the Welsh Government’s evidence base and is being used to help inform Welsh Government’s Sectoral Adaptation Plans (SAPs) and Future Trends Reports. It may be of particular relevance to the Tourism and Recreation sectors, because climate change may result in longer, warmer summers.

Policies

Policy SOC-14: Proposals for the development and use of the marine environment should, in order of preference:

a) avoid the emission of greenhouse gases
b) minimise them where they cannot be avoided
c) mitigate them where they cannot be minimised
d) in the case of regulated activities, present the case for proceeding where (a-c) are not possible.

The emission of greenhouse gases should be minimised wherever possible and particularly in the context of larger scale developments and infrastructure projects. Plan users should consider emissions directly related to the activity proposed (including greenhouse gases associated with construction and operation) and indirectly related to the activity proposed (for example, increased journey length for vessels arising from the development). Minimisation measures may include increasing energy efficiency and utilising low carbon
technologies such as renewable energy sources.

**Policy SOC-15**: Decision making authorities should ensure that proposals have regard for the impacts of climate change and, where appropriate, provide adequate adaptation measures.

Where appropriate, plan users should consult the most up to date scientific evidence on the predicted extent of climate change to assess the impact of climate change upon proposed development and use of the marine environment. Where necessary, decision makers should be satisfied that adequate risk management or contingency plans are in place to increase the resilience of developments to climate change. Plan users should consider the possible impact of proposed climate change adaptation measures upon measures taken elsewhere and should demonstrate how elements of good practice adaptation to climate change have been integrated within plans or proposals. The Welsh Government’s Sectoral Adaptation Plans should be taken account of where appropriate.

Plan users should also have consideration for the possible opportunities emerging as a result of climate change, as identified by the UK Climate Change Risk Assessment (CCRA).

**Policy SOC-16**: Decision making authorities should support opportunities that contribute towards climate change adaptation and/or mitigation.

Proposals involving measures to contribute towards climate change mitigation and adaptation should be encouraged and promoted.

Climate change mitigation measures could include reducing greenhouse gas emissions through increased energy efficiency and the use of low carbon technology. Adaptation measures could include those that increase the resilience of ecosystems, communities and economic activity to the impacts of climate change. Shoreline Management Plans consider, over the short, medium and long term, how best to manage the coast, including coastal adaptation, in the light of predicted sea-level rise and other constraints. Whilst the plans are non-statutory, they are a key tool in guiding adaptation decisions.
Potential Changes to Sea Surface Temperature (2070-2099)
for Welsh waters based on a medium emissions scenario

Figure 8. Potential changes to sea surface temperatures
General policy - Living within environmental limits

Introduction
The seas around Wales support a rich and diverse marine environment. The variety of habitats and species are of importance locally, nationally and internationally. They provide significant benefits to society including, jobs, tourism, food and a resource for recreation and relaxation. Our seas are an important asset to us, which is why the Welsh Government is committed to ensuring our seas are clean, healthy, safe, productive and biologically diverse now and for future generations.

It is important that our seas are protected, effectively managed and sustainably used to ensure that we can continue to enjoy and benefit from them in the future. This chapter provides a framework for the sustainable use of our marine resources whilst ensuring that the health of our marine environment is maintained with marine ecosystems that are healthy and resilient to human induced change.

As part of our commitment to clean, healthy, safe, productive and biologically diverse seas the Welsh Government has along with the UK Government and other UK Administrations signed-up to a number of national and international commitments [[Annex X]] that relate to the marine environment.
Figure 9. Bathymetry of the WNMP area

General policies
The policies in this section will support delivery of the following plan objectives:

**Plan objective 9:** Support the achievement and maintenance of **Good Environmental Status (GEnvS)** and **Good Ecological Status (GES)**.

**Plan objective 10:** **Marine Biodiversity** is protected, conserved, restored and enhanced to halt and reverse its decline.

**Plan objective 11:** **Marine Ecosystems** are healthy and resilient to ensure they continue to provide **ecosystem goods and services** for the wellbeing of future generations.

The policies in this section relate to Welsh inshore waters [see Figure 1]. This position may change in the future should the Silk Commission recommendations for further devolution of powers in Welsh waters be adopted.

### Good Environmental Status

The Marine Strategy Framework Directive (MSFD) requires EU Member States to put in place measures to achieve or maintain GEnvS for our seas by 2020. GEnvS involves protecting the marine environment, preventing its deterioration and restoring it where practical, while using marine resources sustainably.

To deliver the MSFD the UK has developed a Marine Strategy which is being implemented in three stages:

1. **Marine Strategy Part 1**: An assessment of the current state of UK seas, a detailed description of what GEnvS means and associated targets and indicators (published in 2012);
2. **Marine Strategy Part 2**: Establishment of monitoring programmes to measure progress toward GEnvS (completed in 2014);

The Directive requires Member States to implement an ecosystem-based approach to the management of human activities to achieve GEnvS. The Directive sets out 11 descriptors that represent important aspects of ecosystem structure and function (see Table 6). In conjunction with neighbouring countries, specific targets and indicators have been set for each descriptor. These targets and indicators will be used to assess progress towards GEnvS.

The Marine Strategy Part 3 sets out measures to maintain or achieve GEnvS by 2020. Existing international, European and national legislation, including the Water Framework Directive (WFD), the Birds and Habitats Directives, the newly reformed Common Fisheries Policy (CFP) play a key role in delivering GEnvS.
Table 6. Good Environmental Status (GEnvS) descriptors

| GEnvS 1 | Biological diversity is maintained and recovered where appropriate. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions. |
| GEnvS 2 | Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems. |
| GEnvS 3 | Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock. |
| GEnvS 4 | All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity. |
| GEnvS 5 | Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algal blooms and oxygen deficiency in bottom waters. |
| GEnvS 6 | Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected. |
| GEnvS 7 | Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems. |
| GEnvS 8 | Concentrations of contaminants are at a levels not giving rise to pollution effects. |
| GEnvS 9 | Contaminants in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards. |
| GEnvS 10 | Properties and quantities of marine litter do not cause harm to the coastal and marine environment. |
| GEnvS 11 | Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment. |

The development of marine plans (including this plan) is identified as a ‘generic measure’ in the UK Government’s draft Programme of Measures that should aid in achieving or maintaining GEnvS for multiple descriptors. It is anticipated that this marine plan will be used to highlight the need for decision makers to take account of impacts to any MSFD Descriptors. Marine plans may also contribute to GES by highlighting relevant issues to be addressed by future policies. Throughout the plan we have referenced these descriptors (using the GEnvS reference above) where sections or plan objectives are particularly relevant to the delivery of GEnvS. Table [to be completed] shows which policies contributes to each descriptor as outlined above.
Marine biodiversity

The policies in this section will support delivery of the following plan objectives:

**Plan Objective 10: Marine Biodiversity** is protected, conserved, restored and enhanced to halt and reverse its decline.

**Plan Objective 11: Marine Ecosystems** are healthy and resilient to ensure they continue to provide **ecosystem goods and services** for the wellbeing of future generations.

Biodiversity is the variety of life found on earth. It includes all species of plants and animals, their abundance and genetic diversity. Biodiversity supports the functioning and resilience of our ecosystems.

It is widely recognised that our biodiversity is in decline and under pressure from a range of influences such as climate change, unsustainable human activities and the introduction of non-native species. By adopting the principles of the **Convention on Biological Diversity** and implementing the MSFD, the **Future Generations (Wales) Act** and **The Nature Recovery Plan for Wales** we are committed to reversing the decline of biodiversity in Wales.

By finding new and innovative ways to restore and enhance biodiversity we will also build the resilience of our ecosystems and the benefits they provide to society.

Marine biodiversity has its own intrinsic value; it contributes to society’s wellbeing, sense of place and cultural identity. It provides essential ecosystem services such as a healthy food source, protection against natural disasters and the regulation of our climate. Our economic wealth benefits from marine biodiversity through recreation and job creation in sectors ranging from tourism to biotechnology.

Wales is situated at the boundary of three oceanic climate zones (North-east Atlantic, Arctic Boreal, Lusitanian) which provides the foundation for the rich marine life in our seas. The diversity of our habitats support a wide range of animals including seals, dolphins, sharks, jellyfish, lobsters and seabirds. This variety of life is of importance locally, nationally and internationally.

Our seas are a valuable asset and so it is important that they are protected, effectively managed and sustainably used now and for future generations to ensure we continue to receive, or increase, the ecosystem goods and services that they provide.

**Conservation of marine habitats and species**

In recognition of the diversity of habitats and species that our seas support, our seas are afforded protection under national and European legislation.

At a European level, the Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) and the Birds Directive (Directive 2009/147/EC on the Conservation of Wild Birds) have been transposed in to UK law through the **Wildlife and Countryside Act 1981** (as amended) and the **Conservation of Habitats and Species Regulations 2010** (as amended).

For UK offshore waters (i.e. from 12nm out to 200nm or to the limit of the UK Continental Shelf Designated Area), the Birds Directive and the Habitats Directive are transposed into
UK law by the Offshore Marine Conservation (Natural Habitats & c.) Regulations 2007 (as amended).

At a national level protection is provided through the Wildlife and Countryside Act 1981 (as amended) and the Natural Environment and Rural Communities (NERC) Act 2006, which creates a duty to have regard to conserving biodiversity supported by a list of priority habitats and species of principal importance in Wales (the Section 42 List). If enacted, the Environment (Wales) Bill, will enhance the current NERC duties and will require all public authorities to seek to maintain and enhance biodiversity, make biodiversity an integral part of decision making and report on the actions they are taking to improve biodiversity and promote ecosystem resilience.

Collectively, our legislation creates a system which provides for the conservation and protection of wild birds, specific marine species and for the creation and management of a coherent network of protected areas that support important populations and habitats of interest.

**Marine Protected Areas**

We already make a significant contribution towards the protection of biodiversity and the wider marine environment through our network of 128 Marine Protected Areas (MPAs) that cover approximately 75% of our coastline and 35% of our sea area.

In Wales, our MPAs are (see Figure 10 to be added):

- Special Areas of Conservation;
- Special Protection Areas;
- Marine Conservation Zones;
- Sites of Special Scientific Interest;
- Ramsar sites that have marine components.

MPAs are fundamental to the conservation of marine biodiversity, ensuring our marine ecosystems remain healthy, sufficiently connected as habitats and species are interlinked, and resilient against change. A well designed and well managed network of MPAs can provide greater benefits to biodiversity than individual unrelated sites, which is why we are committed to delivering an ecologically coherent well managed network of MPAs that represent a diverse range of habitats and species.

When taken together our network contributes to UK and international networks of MPAs. By assessing the contribution our MPAs make to the wider network we are able to identify if we need any further measures to secure coherence of our network. To maintain coherence a proportionate but effective approach to protection and management is required.

An ecologically coherent well managed network of MPAs will make a substantial contribution towards achieving Good Environmental Status of our seas as required by the MSFD.

**Protected marine species**

A list of European species that require strict protection can be found at Annex IV of the Habitats Directive. The Conservation of Habitats and Species Regulations 2010 make it an offence to deliberately kill, injure, capture or disturb the European Protected Species (EPS),
listed in Annex IV.

The Wildlife and Countryside Act 1981 (as amended) makes it an offence (subject to exceptions) to intentionally kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. The Act also prohibits certain methods of killing, injuring, or taking wild animals.

A list of species of principal importance to Wales can be found at Section 42 of NERC. The Act requires public authorities to have regard to conserving biodiversity when undertaking their responsibilities.

**Policies**

**Development in the marine environment**

**Policy ENV-01:** Proposals for the marine environment should demonstrate how they contribute to the protection, restoration and enhancement of biodiversity, marine ecosystems and geodiversity (GEnvS 1).

**Policy ENV-02:** Proposals for the marine environment must demonstrate how they:

a) Avoid damage to individual MPAs and safeguard the coherence of the MPA network as a whole,

b) Avoid damage to habitats and species of principal importance to Wales, and
c) demonstrate how proposals have incorporated opportunities to enhance MPA features and habitats and species of importance to Wales (GEnvS 1).

**Policy ENV-03:** Proposals for the marine environment should demonstrate how they contribute to the safeguarding of European Protected Species (EPS) against potential impacts, and where possible, consider how proposals enhance the conservation of EPS (GEnvS 1).

Marine ecosystems and the habitats and species they support rely on the health of the marine environment to ensure they are resilient against change and impacts. This does not preclude development and so we expect development proposals to demonstrate how they are compatible with the policies set out above.

When developing proposals for the marine environment it is important they are compatible with duties to protect the integrity of designated sites and maintain coherence of the network of MPAs in UK seas.

Proposals should consider the potential impacts on habitats and species protected by the MPA network, species afforded specific protection and those of principal importance to Wales. A list of protected habitats and species in Welsh seas can be found at [[Annex XX]]. The Marine Planning Portal also provides information on the spatial distribution of MPAs, habitats and species.

We encourage developers and users of the marine environment to consider opportunities to restore and/or enhance biodiversity and marine ecosystems as part of their proposals. For example, proposals that include marine habitat improvements enhance local ecosystem services and provide multiple benefits. This approach could provide single or combined benefits in areas such as tourism through opportunities for diving or wildlife watching,
fisheries by increasing fish production or flood protection by dissipating wave action.

Assessments of proposals within the marine environment and their opportunity to provide biodiversity benefits should be proportionate to the level of risk or impact that the proposal may have on the marine environment. Developers could for example consider innovative project designs and alternative building techniques that are compatible for use in the marine environment when developing proposals.

Developers and sea users should engage with NRW at an early stage to discuss the added biodiversity and wider ecosystem benefits proposals can provide. This would also provide an opportunity to informally discuss what level of assessment may be required to inform plan and project Environmental Impact Assessments (EIA) and Habitats Regulation Assessments (HRA), as necessary.

Subject to the nature, scale, location and sensitivity of the habitats and species, it may be necessary for decision makers to undertake a Habitats Regulation Assessment (HRA). HRAs require competent authorities (a body that has the power to undertake or give consent/permission/authorisations) to carry out an assessment of the proposal to determine whether the proposal is likely to have a significant effect on a designated site (i.e. whether it could affect the habitats and species for which the site has been designated to protect) either alone or in-combination with other plans and projects.

If it cannot be concluded that there will be no adverse effect on the site, either alone or in-combination, an Appropriate Assessment must be undertaken by the decision maker to consider the implications for the site and its specific conservation objectives. A proposal can only proceed after the decision maker has determined that the proposal will not adversely affect the site. Approval may include appropriate mitigation measures to ensure the integrity of the designated site is preserved.

The Conservation of Habitats and Species Regulations 2010 does allow for decision makers to approve proposals which will adversely affect the integrity of a designated site if the decision maker is satisfied that:

a) there are no alternative solutions to the objective of the proposal, and
b) there are imperative reasons of overriding public interest (IROPI, which may, in some cases be of a social or economic nature). In all cases compensatory measures must be secured to ensure the overall coherence of the network is maintained.

In accordance with the Conservation of Habitats and Species Regulations 2010, decision making authorities must notify the Welsh Ministers if they are minded to apply IROPI. The Welsh Ministers, as the Appropriate Authority, must ensure that any necessary compensatory measures are secured to ensure the overall coherence of the MPA network. Decision makers should therefore engage with the Welsh Government at an early stage if IROPI is likely to be applied.

Proposals for the marine environment must also take into account the sensitivities of protected species. Some species are considered rare, vulnerable or are threatened with extinction so it is imperative that assessments consider the likelihood of deliberately capturing, injuring, killing or disturbing a European Protected Species (EPS). If there is a risk to EPS that cannot be removed or significantly reduced by mitigation measures, then a European Protected Species Licence will need to be obtained from NRW under the Conservation of Habitats and Species Regulations 2010.
A licence may only be granted where the following can be demonstrated:

a) it is for the purpose of preserving public health or public safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
b) there is no satisfactory alternative;
c) the development would not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in its natural range.

Decision makers, and all public authorities, giving consent for or proposing activities in the marine environment must have regard to the NERC Act 2006 and where possible, ensure proposals protect, recover and enhance the variety of species and habitats on the Section 42 List.

Geodiversity

Geodiversity is the variety of rocks, fossils, minerals, natural processes, landforms and soils that underlie and determine the character of our landscape and environment. It underpins the provision of many ecosystem services by providing physical features that influence the functioning of the ecosystem. Sites of geodiversity interest are designated to protect features such as sediments, rocks, fossils and features of the landscape that make a special contribution to our understanding and appreciation of Earth science and the geological history of Wales. The sites identified as being important for conservation are generally protected as SSSIs or MCZs.

Development and use of the marine environment must comply with the legal requirements to protect designated geodiversity features as required by Policy GEN X.X. Plan users should consider opportunities to protect geodiversity features and prevent deterioration where appropriate. Where geodiversity features are qualifying or protected features of designated sites, development and use of the marine environment must be managed accordingly under the relevant legislation.

Supporting the management of Marine Protected Areas

**Policy ENV-04:** Proposals should be compatible with measures to manage our MPAs, and where possible, demonstrate how they help deliver actions identified in the Thematic Action Plans and Prioritised Improvement Plans (GEnvS 1).

We are working with marine partners to deliver management measures that improve the condition of our MPAs. By achieving and maintaining good condition of our sites we will deliver on our commitments to protect, restore and enhance marine biodiversity and ensure our ecosystems are healthy. Under the European Union LIFE Natura 2000 programme strategic action plans (listed below) are being developed, led by NRW, to support the management of our MPA network. A database is also under development where the action plans will be hosted and managed.

Developers, sea users and decision makers should have regard to these action plans once implemented, and seek advice from NRW at an early stage to ensure actions to conserve, restore and enhance biodiversity within their responsibility are delivered and proposals do...
not conflict with them:

- **Thematic Action Plans** - produced for each of the main issues that affect Natura 2000 site across Wales to focus on actions which will be delivered at regional, national or even international level rather than at a site level.

- **Prioritised Improvement Plans (PiPs)** – created for each Natura 2000 site in Wales. The PiPs highlight the priority issues and actions required at a site level, as well as itemising costs for activities and funding sources.
Designated Marine Protected Areas

Figure 10. Marine Protected Areas
Targeted restoration of marine biodiversity

Policy ENV-05: When developing proposals, early engagement with NRW by developers and sea users is encouraged to understand the opportunities for enhancing ecosystem goods and services to build the resilience of ecosystems (GEnvS 1, 3, 4, 6, 7).

We are committed to restoring and enhancing biodiversity in the marine environment and this will require more targeted action. We want to work with interested parties, in particular those who work in the marine environment, to identify and develop proposals to restore and enhance nationally important habitats and species. As part of this work key consideration will be the ecosystem benefits a particular proposal could provide and the opportunities identified to secure alternative funding. For example, a project to establish seagrass (Zostera sp.) meadows in the correct location could provide:

- Erosion control - seagrass meadows slow currents and reduce wave forces by trapping sediments, preventing sediments from shifting or becoming re-suspended, thereby helping to reduce the erosion on our shorelines. This could offer protection to waterfront properties, beaches and transport infrastructure.
- Carbon sinks - Carbon sinks help to combat climate change by absorbing large quantities of greenhouse gases/carbon dioxide and storing it in their roots and soils.
- Improved fishery stocks - many species use seagrass meadows for at least part of their life cycle for food, habitat (often as a nursery for juveniles), or spawning grounds.
- Healthy and diverse seas - through the wider benefits that seagrass provide they help to maintain biodiversity thereby creating healthy and diverse seas.

Invasive non-native species

Invasive non-native species (INNS, also known as alien, non-indigenous or exotic) are species or subspecies that occur outside their natural range and threaten native biodiversity, human health or economic activity.

The Great Britain (GB) Non-Native Species Strategy 2015, states that there are nearly 2,000 non-native species established in GB. Most of these are terrestrial but some can be found in the marine and freshwater environments (approximately 80 in each). The number of new arrivals is increasing with 10-12 new non-native species becoming established every year across Europe.

The majority of INNS pose little or no risk. However, some do and cause significant adverse impacts to biodiversity, our wider environment and economy. The current cost of INNS in GB is at least £1.7 billion per year, with the majority of cost being borne by the agriculture and horticulture sector. However, other sectors are also affected such as aquaculture, construction, transport, recreation and utilities.

The impacts caused by INNS to our biodiversity and the health of our marine environment can result from the disrupting of our native habitats and ecosystems, preying on, or out-competing native species, spreading disease and interfering with the genetic integrity of native species. For example, slipper limpets (Crepidula fornicate) have the ability to smother slow growing maerl beds and change the sea bed habitat making it muddy.
The approach taken towards tackling INNS in Wales is consistent with our requirements under the CBD. Preventing the introduction of INNS followed by early detection and rapid response is our preferred approach in the marine environment as eradication is not always possible.

In Wales we have a number of drivers to help control the spread and reduce the risk of introduction of INNS:

- The Water Framework Directive (GEnvS 2)
- Convention on Biological Diversity
- Regulation EC 1143/2014 on the Prevention and Management of the Introduction and Spread of Invasive Alien Species
- The Alien and Locally Absent Species in Aquaculture (England and Wales) Regulations 2011
- The Wildlife and Countryside Act 1981

**Policies**

**Policy ENV-06:** All Proposals for the marine environment must comply with Thematic Actions Plans and include biosecurity measures to reduce the risk of spread and/or the introduction of Invasive Non-native Species (GEnvS 2).

When developing and considering proposals for the marine environment biosecurity measures should be applied to control the risk of spread and reduce the risk of introduction of INNS into Welsh waters to assist with legal obligations.

Developers, sea users and decision makers should also have regard to the Thematic Actions Plans and the Marine Invasive Non-native Species Action Plan for Wales when developing and considering proposals.

The **Marine Pathways project**, established under the MSFD Programme of Measures (GEnvS 2), identified the main activities that contribute to the introduction of marine non-native species as maritime transport (commercial and recreational), aquaculture and infrastructure developments. Proposals for the marine environment must follow best practice guidance on minimising the risk posed by invasive non-native species.

In 2006 the Non-Native Species Secretariat (NNSS) was established to coordinate our approach to invasive non-native species in Great Britain. The Secretariat’s website ([http://www.nonnativespecies.org/home/index.cfm](http://www.nonnativespecies.org/home/index.cfm)) provides useful information to decision makers and users of the marine environment by raising awareness of INNS, providing a list of INNS in our waters and the risk assessments that have been carried out for certain species.

Of particular importance to proposals in the marine environment will be the marine component of the **Check, Clean, Dry** campaign, details of which can be found on the NNSS website. This campaign seeks to prevent the accidental transfer of non-native species for anyone visiting/working in/near water. Although the campaign is mainly focused on individual users, the campaign provides developers with useful practical guidance.
Marine litter

The introduction of litter into the marine environment is covered by GEnvS 10. Any persistent, manufactured or processed solid material discarded, disposed of, abandoned or lost in the marine and coastal environment can be defined as marine litter. Most marine litter consists of material that degrades slowly, if at all, so a continuous input of large quantities of these items results in a gradual build-up in the environment. Whilst sources of litter are difficult to trace, most found in UK waters comes from land-based sources rather than from shipping or other maritime activities. Plastics are the main type of litter found both on Welsh beaches and offshore, including increasing quantities of microscopic pieces of plastics resulting from degradation of larger pieces of plastic.

Marine litter is a global environmental problem. It poses a threat to ecosystems through direct damage to wildlife from entanglement, entrapment and ingestion. Marine litter can also damage coastal habitats and the seabed. It also has potentially significant economic effects through impacting tourism, resulting in clean-up costs and costs to fishermen through lost catch and snagged nets. It can also pose a hazard to seafarers through fouling of propellers. The presence of medical and sanitary waste and broken glass constitute a potential risk to human health.

Avoiding littering and inappropriate disposal of waste is the best way to reduce the amount of litter entering the marine environment. Behaviour change to stop littering at source on land and sea is vital, being the most effective and efficient way of addressing the problem as set out in Welsh Government’s overarching waste strategy document Towards Zero Waste.

Welsh Government is committed to reducing visible litter items on the coastline and to implement the measures set out within the MSFD UK proposed PoMs for Marine Litter (GEnvS 10).

Policy ENV-07: Development and use of the marine environment must, in order of preference:

- avoid the introduction of litter into the marine plan area, and
- minimise the risk where it cannot be avoided (GEnvS 10).

Users of the marine environment should avoid the introduction of litter into the marine and coastal environment and activities outside of the regulatory regime that help reduce marine litter should be supported by decision making authorities. Where appropriate, measures should be taken to address the introduction and removal of litter in the plan area. Proposals for certain developments should demonstrate that appropriate measures are incorporated to minimise the risk of litter entering the marine environment during the construction phase. Efforts to co-ordinate removal of litter should be encouraged.

The challenges of identifying a litter source is discussed in the MPS. For proposed and current measures, reference should also be made to targets and indicators to address GEnvS 10 ‘Properties and quantities of marine litter do not cause harm to the coastal and marine environment’. Litter originating from marine activities is also addressed via EC Port Reception Facilities Directive, the Merchant Shipping and Fishing Vessels (Port Waste Reception Facilities) Regulations 2003 (amended 2009) and the International Convention for the Prevention of Pollution from Ships. Litter originating from the land is addressed through the Environmental Protection Act 1990, the Clean Neighbourhoods and Environment Act.
and waste regulations including the single use carrier bags charge regulations in Wales (2010). Furthermore, all local authorities are also under a statutory obligation to keep their relevant land (including beaches above mean high water springs) clear of litter and refuse.

Energy including underwater noise

The introduction of energy into the marine environment is covered by GEnvS 11. Although energy is a natural process, it does not always have a positive effect on other natural processes. Human activities can take a disproportional amount of energy out of a system or add to it. This can have a negative impact on the marine environment and can change the nature of physical systems. The introduction of energy can be in the form of introduction of light, electricity, heat, noise, electromagnetic radiation, radio waves or vibrations. Building the foundations of an offshore platform using pile driving for instance is the source of a lot of energy releases, whether in the form of noise or vibrations. Heat can also be an issue in the case of cooling water systems [see Surface water runoff and wastewater management section] and electromagnetic radiation can be expected in the case of activities related to electricity. However, the strongest effects from these activities on the marine environment are generally caused by underwater noise.

Noise resulting from a proposed activity or development in the marine and coastal environment can have adverse effects on species. It has the potential to mask biologically relevant signals, can lead to a variety of behavioural reactions, affect hearing organs, and injure or even kill marine life. Sources of concern are marine related noise as a result of: explosions; shipping; seismic surveys; offshore construction and offshore industrial activities, e.g. dredging, drilling and piling; sonar of various types; and acoustic deterrent devices (MSFD Initial Assessment). Noise can also have a negative effect on human beings by impacting health and use and enjoyment of areas.

Policy ENV-08: Decision making authorities must ensure that, where appropriate, proposals consider man-made noise impacts on the marine environment and, in order of preference:

a) avoid adverse impacts
b) minimise adverse impacts where they cannot be avoided
c) mitigate adverse impacts where they cannot be minimised
d) present the case for proceeding where (a-c) are not possible (GEnvS 11).

The UK Marine Policy Statement requires marine plan authorities to take a strategic overview of man-made noise sources and assess the potential cumulative effects of noise and vibration across sensitive receptors in the marine area.

Plan users must ensure that the possible man-made noise impacts are fully taken into account as part of a proposal for development or use of the marine environment.

Where it is required by the decision-making authority, noise impact assessments will be expected to follow best practice guidance where available and include details on the type, level and duration of noise expected to be generated throughout all stages of the

development; the effects on noise sensitive species (including the cumulative impact). Where evidence is available, assessments must demonstrate that there are no adverse effects upon protected noise sensitive species. NRW can provide advice on protected species that may be sensitive to noise. If necessary, they should set out noise avoidance, minimisation or mitigation measures to manage the impact of man-made noise.

Assessment should take into account impacts within the appropriate Marine Mammal Management Units (MMMUs) identified by the UK Statutory Nature Conservation Bodies. Where appropriate, plan users should refer to the JNCC guidelines for minimising the risk of injury to marine mammals from seismic activities, piling and explosive use. The application of these guidelines is frequently set as a licence condition. Developers and plan users must also consider whether the level of surface or underwater noise has the potential to affect a European Protected Species (EPS) and whether an EPS Licence may be required to reflect disturbance and injury impacts.

GEnvS 11 under the MSFD requires that loud, low and mid frequency impulsive sounds and continuous low frequency sounds introduced into the marine environment through human activities do not have adverse effects on marine ecosystems. In particular, it requires that human activities potentially introducing loud, low and mid frequency impulsive sounds into the marine environment are managed to the extent that no significant long term adverse effects are incurred at the population level or specifically to vulnerable/threatened species and key functional groups.

The UK initial assessment for the MSFD indicated that it was not possible to provide an assessment of underwater noise and its impacts, nor to provide a relevant baseline. In accordance with the MSFD Monitoring Programme for Underwater Noise (GEnvS11), UK Administrations are establishing a noise registry for impulsive sounds such as those generated during piling and seismic survey. The noise registry will record in space and time noise-generating activities in order to determine whether these could potentially compromise the achievement of GES. Information collected through the registry will further improve our understanding of underwater noise and how it can best be managed.

Decision making authorities should ensure that where appropriate, the consenting process requires developers to record impulsive noise-generating activities within the marine noise registry in compliance with proposed measures in relation to GEnvS 11. Where submissions are not a condition of a consent, developers are encouraged to voluntarily submit information to the noise registry.

**Water quality**

Water quality is central to the resilience of marine ecosystems and our well-being. Development and use of the marine area has the potential to affect water quality. Undesirable changes in water quality have the potential to negatively affect the benefits that we receive from the marine ecosystem including opportunities for recreation, tourism or fisheries. There are a number of existing measures to support improvements to bathing water quality through the WFD, the MSFD (GEnvS 5, 8) and Bathing Water Directive, that should be taken account of in relation to their impact on tourism and recreation by decision-makers in assessing proposals [see Tourism and recreation section].

The WFD and the MSFD provide for the sustainable management of the water environment
in Wales. In coastal waters, the MSFD is only intended to apply to those aspects of GES which are not already covered by the WFD.

The WFD establishes a framework for the management and protection of Europe’s water resources. It applies to all surface and ground waters including rivers, lakes, lagoons, estuaries and coastal waters out to one nautical mile from the baseline and 12nm for chemical status. Waters are divided into management units called “water bodies”. The aim of the WFD is to maintain and improve where necessary the chemical and ecological status (or potential) of water bodies to achieve “good status/potential” by 2015. Where this is not possible, and subject to criteria set out in the Directive, the aim is to achieve at least “good status/potential” by 2021 or 2027. NRW monitor progress against WFD objectives through the implementation of River Basin Management Plans (RBMPs). In Wales, WFD water bodies are divided into three river basin districts:

- The Dee;
- Western Wales; and
- The Severn.

RBMPs are the mechanism by which the WFD is implemented. They provide a framework for managing all aspects of the water environment, including bathing waters and shellfish waters, areas designated as eutrophic and Natura 2000 sites. Compliance with RBMPs is important in managing pressures, maintaining and improving water quality. Consideration should be given to the objectives of the water bodies potentially affected by development and any potential deterioration in the status of the water body. This includes potential effects to water quality, hydromorphology and biological elements.

Any activity which may have the potential to impact upon WFD by causing a deterioration in status or by preventing a water body achieving its objectives, requires a full WFD Compliance Assessment. If this potential for deterioration is unavoidable, plan users must ensure they are not in breach of the Directive by failing to properly justify instances where an activity may affect good status/potential or cause deterioration, as specified in Article 4.7 of the Directive. The WFD also requires that any activity is consistent with other European environmental legislation and ensures at least the same level of protection is guaranteed as the existing European Community legislation.

Air quality

Development and use of the marine plan area can have adverse effects on air quality. Sources of air pollution include emissions, including particulate matter and gases, from shipping and fishing vessels and dust from construction activities. Air pollution can have a detrimental effect on people's well-being, biodiversity and can contribute to climate change.

The MPS states that: ‘when developing marine plans, marine plan authorities should be satisfied that air quality impacts have been taken into account’. It also recommends that the marine plan authority liaises with terrestrial authorities, particularly relation to Air Quality Management Areas’.

The UK Air Quality Strategy sets out and regulates UK wide objectives and policy options for improving air quality that will bring health and social benefits. Local authorities are responsible for reviewing and assessing air quality to check if they meet UK wide objectives.
If these objectives are not met, Air Quality Management Areas (AQMAs) must be declared and an action plan developed to show how standards will be met.

A detailed monitoring infrastructure is present throughout Wales to enable valid assessments to take place, which is operated and maintained by Local Authorities. Several Local Authorities have declared AQMAs with 2 pollutants being responsible for this (although the levels of others are constantly monitored). These are nitrogen dioxide and particles (dust) under 10 microns (PM10).

The control of Nitrogen Oxides (NOx) emissions from ships through the Merchant Shipping (Prevention of Air Pollution from Ships) Regulations 2008 (as amended) is primarily designed to improve air quality by requiring engines installed on a ship to meet the specified NOx emission standard. However, it is also identified in the MSFD proposed PoMs as a measure that will also contribute to the reduction of NOx inputs and human-induced eutrophication of marine waters (GEnvS 5). The organisation responsible for implementation of these regulations is the Department for Transport.

Policy ENV-09: Development and use of the marine environment must not result in a breach of statutory air quality limits and should, in order of preference:
   a) avoid adverse impacts on air quality;
   b) minimise adverse impacts where they cannot be avoided;
   c) mitigate adverse impacts where they cannot be minimised;
   d) present the case for proceeding where (a-c) are not possible (GEnvS 5).

Where development and use of the marine environment may result in increased emissions to air, including particulate matter and gasses, proposals should demonstrate that air quality impacts and limits have been considered. Plan users should where appropriate, ensure that impacts on relevant statutory air quality limits have been taken into account and mitigation measures adopted, if necessary, to allow an activity to proceed within these limits.

Where proposals are located within or adjacent to an Air Quality Management Area (AQMQ), proposals should seek to be consistent with the relevant AQMA action plan. Plan users should. Liaison with the relevant local authority to ensure statutory limits are not exceeded and consistency with AQMA action plans.

Proposals also need to be assessed against potential impacts on sensitive ecological receptors. The 1995 Environment Act requires NRW to consider nature conservation as part of their regulatory role. This includes assessing the aerial impact of pollutants on nature conservation sites. This involves a staged screening process based on best available information to assess the impacts of installations. The first step is to check whether there are any conservation sites within specified distances from the installation. The predicted process contribution and predicted environmental concentration resulting from regulated installations are then compared with thresholds expressed as percentages of Air Quality Standards, critical levels and critical loads.

The Conservation of Habitats and Species Regulations 2010 require NRW to screen any application for a permit for potential effects on the ecological integrity of a European site both alone and in combination with other relevant sources. Furthermore, the Wildlife and Countryside Act 1981 and the Countryside and Rights of Way Act 2000 require NRW to assess any permit application for an installation that is likely to damage a SSSI site.
Environmental Impact Assessment and Strategic Environmental Assessment

Environmental Impact Assessment (EIA) is a process for identifying the environmental effects (positive and negative) of certain proposed developments. All marine structures have the potential to have an impact on the marine environment and our ability to achieve GES, for example by altering hydrographic conditions (GEnvS 7) or by having adverse effects on seafloor integrity (GEnvS 6). Our approach is to achieve GES by ensuring man-made changes to marine physical characteristics do not lead to significant long-term impacts on the marine environment, whilst taking natural variability into account.

The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended), transpose the European EIA Directive (Directive on the assessment of the effects of certain public and private projects on the environment), which set out the range of developments covered by the Directive and the procedure for carrying out EIA before determination of a licence application can be determined. EIA aims to prevent, reduce or offset the significant adverse environmental effects of development proposals, and enhance positive ones. The legal requirements ensure that consenting decisions are made considering the environmental effects and with engagement from statutory bodies, local and national groups and the public. Where separate assessments are required to address terrestrial and marine components of a proposal, regulators should agree a single lead authority for co-ordinating these requirements wherever possible and co-ordinate communications and engagement as far as practicable.

GEnvS 7 is concerned only with those proposals that have the potential to have an effect at a regional or subregional scale, such as a major barrage. It is not anticipated that the scale and nature of current developments (e.g. navigation dredging, aggregate extraction, offshore wind farms, port and harbours) will cumulatively influence achievement of GES. However, projects of this size already require an EIA which would necessitate that any impacts to hydrographical conditions be taken into account. The marine licensing system already ensures that any marine or coastal developments large enough to have the potential to alter hydrographical conditions relevant to this Descriptor are identified and potential impacts are monitored and, where relevant, mitigated.

Larger projects require an ES or EIA in order to identify, minimise and mitigate potential adverse effects on seafloor integrity (GEnvS 6). Those conducting activities such as aggregates extraction should aim to minimise the area of seabed used for dredging as well as leaving the seabed in a similar condition post extraction [see Aggregates section]. Benthic habitats and species need to be considered within the relevant EIA, where this is required. This includes: all habitats and species listed in Annex I; SSSI, UK or local Biodiversity Action Plan (BAP) designations; and the OSPAR list of threatened and/or declining species and habitats.

Strategic Environmental Assessment (SEA) is the appraisal of the likely significant environmental effects of plans and programmes and their modifications or revocation, including, where appropriate, policies and strategies, before they are approved or adopted by public bodies. The requirement to undertake SEA stems from Directive 2001/42/EC ‘on the assessment of the effects of certain plans and programmes on the environment’, which came into effect in Member States on 21st July 2004, it is transposed through the Environmental Assessment of Plans and Programmes Regulations 2004. The stated
objectives of the Directive are:

- To provide for a high level of protection for the environment
- To contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.

**Policy ENV-10: Development and use of the marine environment must comply with the Environmental Impact Assessment and Strategic Environmental Assessment Directives.**

Plan users must ensure that development and use of the marine environment are compliant with the requirements of both the SEA Directive and EIA Directive. Plan users should note that Conformity with this legislation does not negate a need for Habitats Regulations Assessment and related Appropriate Assessment in accordance with the Habitats Directive and Birds Directive where required. A WFD and/or MSFD compliance assessment may also be required.

**Cumulative effects**

Cumulative impacts are those that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project and can be environmental, economic or social in nature. The MPS includes the requirement for Marine Plan Authorities, decision-makers and marine plans to consider the cumulative effects of development and use of the marine environment upon ecosystems. Cumulative effects could arise from single or multiple environmental responses to single or multiple pressures from single or multiple activities.

**Policy ENV-11: Decision making authorities must ensure that proposals assess the potential positive and adverse cumulative effects on the marine plan area and adjacent areas and, in order of preference:**

- avoid adverse impacts;
- minimise adverse impacts where they cannot be avoided;
- mitigate adverse impacts where they cannot be minimised;
- present the case for proceeding where (a-c) are not possible.

Decision-making authorities should not consider the effects of individual developments in isolation. They should take into account any multiple and cumulative effects of proposals, including those associated with other projects and activities. The requirement to assess cumulative effects is set out in European legislation, including the Environmental Impact Assessment Directive, Habitats Directive, Marine Strategy Framework Directive and Maritime Spatial Planning Directive. The term “cumulative” is equally applicable to the terms “in combination” and “collective” as used in legislation (e.g. EIA Directive, Habitats Directive, MSFD, and Maritime Spatial Planning Directive).

Plan users should note that it is not necessarily only large projects that have significant effects on the environment. Interaction between two or more activities/developments or any associated pressures/effect has the potential to change or increase the nature and scale of effect(s) that alone may have little or no effect. The assessment of cumulative effects may
be appropriate even if a project is small but is reasonably expected to contribute to cumulative effect of existing or proposed activity. However, the level of assessment undertaken for any project should be proportionate to the expected scale and impact of the project as well as the sensitivity of the environment or social or economic effect concerned.

It is also important to note that given the highly mobile, wide ranging nature of many marine fish, mammal and seabird species, and the wide geographical area over which certain ecological and physical processes operate, activities and developments located some distance away may have the potential to interact with the proposed development.

Where guidance is available applicants should take it into account in developing proposals and if necessary consult the decision-maker on the scale and nature of any CEA required to support the particular project proposal.

Mitigation may be required depending on the significance of impacts. This should be evaluated in terms of whether there are any potential impacts on the sustainability of the coastal and marine environment, or social wellbeing. Close working across plan boundaries should exist to allow for cumulative effects of activities in plan boundary areas to be considered.

The marine planning portal may be used to support the assessment of cumulative effects. The portal makes available previously licensed activity (that were granted a marine licence) and can therefore support assessment of potential cumulative effects. It is anticipated that as our understanding of hydrographical impacts improves, marine plans will provide insight into where best to conduct certain activities, particularly regarding cumulative effects.
General policy - Promoting good governance

Introduction
This section describes general policy relating to the process of decision making and the process by which decisions are implemented. As such it applies to all formal and informal actors involved in decision-making and implementing the decisions made, at all tiers of administration and at all appropriate scales, and the structures that have been set in place to arrive at and implement the decision. Welsh Government will have regard to these policies in carrying out its marine planning functions as well as other actors involved in decision-making.

The policy in this section relates to the following strategic plan objectives:

**Plan objective 12:** To support integrated decision-making across the land sea-interface and the effective regulation and management of key activities and issues, both within the WNMP area and adjacent areas.

**Plan objective 14:** Engagement - Ensure that interested parties are meaningfully involved in marine planning implementation, including decision-making.

**Plan objective 16:** Ensure that the marine planning process is delivered in line with the ecosystem approach.

Good governance is about ensuring the right processes for making and implementing decisions. Good governance of marine planning is important for several reasons - it provides accountability, transparency and participatory decision-making, as well as ensuring that decisions are responsive, effective, efficient and consistent with relevant legislation. It not only improves the confidence that decision-makers and stakeholders have in planning but importantly provides an ethical basis for governance, leading to better decisions.

With respect to promoting good governance, the HLMOs within the MPS require:

- 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.

Stakeholder engagement

**Policy GOV-01:** Decision making authorities must ensure that early and effective engagement is undertaken with a full range of appropriate stakeholders to inform
planning and decision making.

Good governance is based on recognition of the interests of all stakeholders and inclusion of their interests wherever possible. Marine planning provides opportunities for stakeholders to be involved at both the strategic plan making stage [see Engagement section] and in relation to decision-making once the marine plan has been adopted.

Early and effective stakeholder participation is a fundamental aspect of the ecosystem approach and a requirement of the Aarhus convention which provides for a right to participate in environmental decision-making. Specifically in relation to marine planning, the maritime spatial planning directive requires public participation in the development of a marine plan. The MCAA makes provision for public engagement in developing marine plans and requires the publication of a SPP to facilitate this [see Engagement section]. In accordance with the MCAA, a stakeholder in the marine planning process is any person likely to be interested in, or affected by policies included in this plan including members of the general public.

Decision-makers and developers using this plan also need to ensure that public participation is effective in the process of taking their decisions. Stakeholder engagement should be proactive, proportionate and meaningful and should be undertaken as early as possible in planning and consenting processes. Relevant roles, responsibilities and opportunity for participation should be clearly defined by decision-makers at the beginning of any potentially significant decision-making process. This could involve, for example, setting out the ‘entry points’ for stakeholders, the relevant timings and making available the information required to facilitate engagement. The information made available should be accessible and comprehensible to the general public. Wherever possible, applications for marine and terrestrial components of a development will be publicised together during the consenting process [see Using this plan section].

Statutory consultees involved in the planning process also have a vital role to play in ensuring that the system works efficiently.

Marine planning should not operate in isolation from other areas of public policy. Where appropriate, stakeholder engagement should link to and integrate with other processes for related policy areas. Planners, policy makers and decision-making authorities should seek to avoid ‘stakeholder fatigue’ by where possible aligning stakeholder engagement processes.

**Decision making**

**Policy GOV-02:** Authorisation and enforcement decisions will be made in accordance with this plan unless relevant considerations indicate otherwise. All interests should be treated in a fair, proportionate and transparent manner.

We are committed to a marine plan-led system which provides the framework for consistent decision-making in the marine environment. Transparency and accountability are fundamental to ensuring that all interests are properly represented and that the marine planning system operates in the long-term democratic public interest. Decisions will be made in a manner that affords a high level of confidence by ensuring openness, fairness, impartiality and efficiency of the process. Marine planning may not satisfy all interests all of
the time.

Those adversely affected by or concerned by a planning decision should have a fair opportunity to challenge it and have confidence that appropriate action will be taken where legal requirements are not upheld.

Interested parties should understand the opportunity to appeal a consent or enforcement decision. Where appropriate, clear guidance will be made available that sets out how, when and why an appeal can be made.

Integration with terrestrial plans

Policy GOV-03: Decision making authorities should take all reasonable steps to ensure that terrestrial and marine planning are integrated where appropriate.

This policy aims to achieve integration of marine planning with other planning and associated regulation and management that affects the use of Wales' marine area and its natural resources. It promotes co-operation between the land-based and marine planning systems to support sustainable development in line with the principles of Integrated Coastal Zone Management (ICZM) and relates to the requirements of the Maritime Spatial Planning Directive (see Marine planning policy context section), the aims of the MPS and the relevant requirements of the MCAA.

Activities on land can have direct impact on the sea and vice versa. Both terrestrial and marine planning systems therefore need to recognise key activities that fall outside of their respective remits but which are significantly affected by the plans they each may make. As this marine plan will extend up to the level of MHW spring tides while local authority boundaries generally extend to MLW springtides, the marine plan will physically overlap with terrestrial plans. This is particularly significant in tidal rivers. The overlap ensures that marine and land planning will address the whole of the marine and terrestrial environments respectively, and not be restricted by an artificial boundary at the coast. Indeed the geographic overlap between marine and existing terrestrial plans should encourage different organisations to work effectively together and strive to ensure that sensible harmonisation of plans is achieved.

There is no distinction made in the MCAA between public authorities that have a coastal or tidal watercourse area of responsibility and those who do not. S58(1) of the MCAA requires that "A public authority must take any authorisation or enforcement decision in accordance with the appropriate marine policy documents, unless relevant considerations indicate otherwise". Even local authorities not immediately adjacent to the coast can affect and be affected by the marine area (e.g. developments on land can affect rivers which eventually discharge into the sea). These public authorities therefore need to be aware of the Marine Policy Statement, the requirements of S.58 of the MCAA and this plan.

It is important to promote integration between marine and statutory land use plans in the provision of adequate infrastructure, especially where that infrastructure will predominantly support activity in the other environment. Nearly all activities undertaken in the marine area

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15 An authorisation or decision is further defined under S58(3) of the Marine and Coastal Access Act. If a public authority takes an authorisation or enforcement decision otherwise than in accordance with the appropriate marine policy documents, the public authority must state its reasons.
need land-based infrastructure. Without it, our ability to benefit from our marine natural resources may be constrained, to the detriment of the economy and the coastal communities who derive benefits from them.

The MCAA ensures that Welsh Ministers (as the Marine Planning Authority) must take all reasonable steps to secure that marine plans are compatible with the development plans in the land-use planning system [see Integration at the coast section]. The Planning (Wales) Act 2015 requires that Welsh Ministers, in developing the National Development Framework for Wales, must explain how, in preparing the Framework, they have taken into account relevant policies set out in this marine plan. Furthermore, one of the tests of soundness for Local Development Plans requires that they have regard to other relevant plans, policies and strategies relating to the area, or adjoining areas. Both planning systems should aim to promote coherence through complementary sign-posting and sharing evidence.

Marine planning-related decisions should be taken after appropriate liaison with terrestrial decision-making authorities and other regulators, and in consultation with statutory advisors and other bodies as appropriate. Decisions should consider relevant factors, determined through consultation with terrestrial planning authorities. The potential positive and negative impacts on both the marine and terrestrial environments of development proposals should be assessed in a collective and cumulative manner (see general policy re cumulative).

Proposals in the marine area that would significantly compromise the delivery of the objectives of terrestrial development plans are unlikely to be approved. Public authorities should also take into account proposals on land that have potential impacts on delivery of marine plan objectives.

Marine planning decisions should also take account of other relevant statutory and non-statutory plans, projects, programmes, and national policies and guidance prepared by public authorities where it is appropriate to do so. Examples include, but are not restricted to, shoreline management plans, river basin management plans and flood risk management plans. The SA undertaken for this plan identified the relevant plans at the time of development.

Cross-border considerations

Policy GOV-04: Decision making authorities should take all reasonable steps to ensure that decision making in relation to cross-border proposals and their potential impacts is consistent across marine plan boundaries.

Ecosystems and patterns of human use cut across marine and terrestrial boundaries, administrative borders and territorial waters. The MCAA and MPS make clear the commitment from each administration to work together to ensure compatibility between plans. This is particularly important in areas that are complex to manage, such as the cross-border estuaries of the Dee and the Severn and the Irish Sea. Close working across plan boundaries in these areas will enable planning and regulatory authorities to take account of the cumulative effects of current and proposed development and use of the marine area across plan boundaries.

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16 Additional obligations may be placed on regulatory and other public authorities with the requirement to consider the Planning (Wales) Act in formulating the WNMP and any decisions based upon it.
In the case of planning decisions that are likely to affect adjacent or adjoining marine plan areas of a neighbouring administration, or affect in any way the functions for which another marine plan authority is responsible, all reasonable steps will be taken to encourage coherence of plan policies to ensure consistency and compatibility in decision-making\textsuperscript{17}. Any differences in approach should be with the intention of delivering intended outcomes and must be aware of, and look to avoid, unintended outcomes.

Through the submission of information in support of applications, proposals will be expected to provide evidence of efforts undertaken to ensure compatibility and integration across the different administrations, particularly with respect to trans-boundary applications where developers will be expected to demonstrate that their application is in accordance with all plans under which their proposal is being considered. It is the responsibility of the decision-maker to notify the relevant public authority of any neighbouring administration that it considers to be significantly affected by a proposal. Further details of our joint working arrangements will be set out where appropriate.

**Natural resource management**

**Policy GOV-05: Decisions in relation to the use of marine natural resources should be made in accordance with sustainable development principles and have regard to the National Natural Resources Policy and any relevant area statements produced by Natural Resources Wales.**

The Environment (Wales) Bill, along with the Wellbeing of Future Generations (Wales) Act and the Planning (Wales) Act, places sustainable development at the heart of strategic decision making across Wales.

The Environment (Wales) Bill sets out the principles by which the sustainable management of natural resources is to be delivered (Table 7).

The National Natural Resource Policy (NNRP), produced by Welsh Ministers as part of the Environment Bill framework, will set out the priorities and opportunities for the sustainable management of natural resources as a whole, across the land and sea at a national level. It will set the high-level direction of travel including where the sustainable management of Wales’ natural resources can help to optimise economic, social and environmental benefits for now and the long term, as well as the actions that the Welsh Ministers will take in relation to climate change. Area statements produced by NRW will provide an essential evidence base to identify the risks, opportunities and priorities to implement the national priorities and opportunities at a local level.

The NNRP will point to the WNMP as the means of sustainably managing our marine resources, reflecting the context of an integrated approach for Wales’ marine area.

In developing area statements, NRW will set out the priorities, risks and opportunities to implement the national priorities and opportunities at a local level state and state how NRW proposes to address them. Before publishing an area statement, NRW must consider whether another plan, strategy or similar document should be incorporated into an area.

\textsuperscript{17} Part 3 of the Marine Works (Environmental Impact Assessment) Regulations 2007 (2007 No.1518) require that the appropriate authority must supply details of a project, including a copy of the environmental statement, to any neighbouring state that it considers is significantly affected by the application.
statement, or whether the area statement should be incorporated into another plan, strategy or similar document. For any area which impacts on the coastal zone and in particular, for the intertidal area, this means that NRW will ensure integration with the policies set out within this plan. For instance, area statements that include the coastal zone will need to take account of WNMP policies for managing the land-sea interface (ICZM). In doing so, area statements recognise that activities on land can have direct impact on the sea and vice versa (e.g. developments on land can affect rivers which eventually discharge into the sea).

Table 7. NRM sustainable management principles

<table>
<thead>
<tr>
<th>Building resilience</th>
<th>A resilient ecosystem is one that is healthy and functions in a way that is able to address pressures and demands placed on it, and is able to deliver benefits over the long term to meet current social, economic and environmental needs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing for multiple benefits</td>
<td>Our ecosystems provide us with a wide range of services and benefits. We need to take all of these into account when we make decisions about how we use them, so that they provide multiple benefits for the long term. This includes taking into account their intrinsic value.</td>
</tr>
<tr>
<td>Adaptive management</td>
<td>Ecosystem processes and functions are complex and variable, and our approach will be adaptive with a focus on active learning derived from monitoring and outcomes and taking into account the time lags and feedback times for ecosystems to respond to interventions. It is about ‘learning by doing’.</td>
</tr>
<tr>
<td>Long term</td>
<td>It is also important to take account of the short, medium and long term consequences of actions.</td>
</tr>
<tr>
<td>Evidence</td>
<td>This means gathering information and considering all the social, economic and environmental evidence (including evidence in respect of uncertainties) from a wide range of experts and stakeholders at the local, regional and national level as appropriate, both to identify priorities and opportunities for their management and also in delivering the management actions.</td>
</tr>
<tr>
<td>Collaboration and co-operation</td>
<td>It is about having a two way communication across local, regional, national and international levels and being interconnected between policy, process and people to break down silo ways of working. This approach supports the development and implementation of the new, innovative solutions that are needed.</td>
</tr>
<tr>
<td>Working at the right scale</td>
<td>An ecosystem is a functioning unit that can operate at any scale depending on the problem or issue being addressed.</td>
</tr>
</tbody>
</table>

General cross-cutting sector policies

Policy GOV-06: Decision making authorities should ensure that, where appropriate, proposals and activities comply with relevant good practice to minimise adverse impact on the environment and other users.

Good practice guidance and codes of conduct support users of the marine environment to conduct their activities in a manner that is safe, efficient and minimises adverse impact of the environment and other users.

Good practice is continually evolving. It is therefore beyond the scope of this plan to present...
Welsh National Marine Plan

a comprehensive and complete list of relevant good practice guidance for any given sector, or for use of the marine environment in general. The applicant should ensure they consider available relevant good practice and set out opportunities to apply it as part of an application.

Relevant sector-specific good practice may be found:

- Listed in the sector chapter of this plan;
- By contacting the relevant regulator (listed where possible in the relevant sector chapter); and
- By contacting the marine planning authority for advice.

Policy GOV-07: Decision making authorities should consider the potential impacts of proposals on other sectors and should, where appropriate, ensure that proposals demonstrate that they will, in order of preference:

a) avoid adverse impacts on existing and, where relevant, planned activities of other sectors;
b) minimise them where they cannot be avoided;
c) mitigate them where they cannot be minimised;
d) present the case for proceeding where (a-c) are not possible.

Welsh seas are becoming increasingly busy, leading to increasing demands for space and resources. The developments or activities of one user of the marine environment may have adverse impacts on another user’s current or potential future activities. The impact may be within the same sector, or on another sector, such as when the construction and operation of wind turbines displaces fishing vessels. This policy acts to safeguard the activities of one sector from adverse impacts by another.

Effective sustainable development therefore requires good management of multiple activities [see Sustainable co-existence section]. New developments and activities should take into account the presence, intensity and scope for relocation of other activities in, or that will be affected by, the proposed development area as well as the direct and indirect implications of any likely associated displacement of other activities (eg potentially greater environmental impact if ships have to take a longer route so use more fuel; or potentially greater economic impact if fishing vessels have to fish a less productive area). Proposals should demonstrate how applicants have sought to, in order of preference, avoid, minimise or mitigate adverse impacts on other users. These considerations should include knock-on problems in other areas. For example, displacing fishing vessels from one area may increase fishing pressure in another with subsequent impacts on fish stocks. Wider geographical impacts must also be considered, given the connected nature of the marine environment. Disturbance to the marine habitats or species in one area may have consequences in distant areas, eg damage to spawning area of commercial fish species may disrupt fishing hundreds or even thousands of miles away. Applicants should also consider visual impacts on seascape [see Seascapes and character section]. Where appropriate, applicants should also consider the impacts of their development or activity or planned or likely future uses of the marine environment. Finally, applicants should seek to identify and take advantage of opportunities for positive impacts on other activities where appropriate.

Where (a)-(c) are not possible, the requirement under (d) is to provide information, proportionate to the proposal, for consideration by the relevant public authority. The proposal must set out the case for proceeding by clearly demonstrating that it is in the public interest.
and that the benefits of the proposal outweigh the adverse effects on a particular/other sector(s) in terms of its contribution to achieving sustainable development. In determining the proposal, the public authority will take account of a range of relevant considerations including compliance with legislation, regulations and potential impacts highlighted in project level assessments as appropriate. The ultimate responsibility for determining what is reasonably required by way of this action lies with the relevant public authority and it does not indicate that approval of the proposal will follow by default.

This policy is relevant to all sectors including non-regulated activities. It supports and complements sector-specific safeguarding policies and guidance which are provided in each sector chapter, and which give further details about sector-specific considerations and when it is relevant to consider planned/future uses too. These sector-specific safeguarding policies are summarised in [Table 10].
General policy - Using sound science responsibly

Introduction

Evidence is information used to support decisions. Effective marine management therefore requires sound evidence and monitoring. Evidence covers a range of sciences including economics, social research, operational research, statistics, natural science, engineering and geography. It includes research and development, monitoring and surveillance, and secondary analysis and synthesis.

The policies in this section will support delivery of the following plan objectives:

**Plan objective 16:** Contribute to the development of a shared marine evidence base to support marine planning, decision-making and our understanding; where information is made available in an open, coordinated, cost effective and timely manner.

**Plan objective 17:** Support a risk based approach to decision-making that involves assessment, deployment, monitoring and review and which uses sound evidence and reflects the precautionary principle.

Background

To make effective decisions regarding marine management, we need to understand the distribution and status of our marine natural resources, the use that people make of them and opportunities for potential future use. Welsh Government has worked closely with a wide range of partners through the marine planning process to better understand these needs [see Engagement and Evidence-based planning sections] and has launched a web portal to collect data relevant to marine planning. We have considered the full range of ecosystems in the plan area as well as the types, levels, pressures and impacts of human activities that are currently undertaken or predicted to occur in the future.

The following HLMO’s are set out in the MPS under ‘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.

Sound science is at the heart of good decision-making and supports good governance. Current limitations may not impede planning, although there is a need to strengthen the evidence underpinning decision making in the marine environment and to collect further high quality empirical evidence to steer policy and to ensure quality decision making.

**Policy SCI-01:** Decision making in relation to the development and use of the marine environment must, as far as possible, be based on sound scientific and socio-economic evidence.

Ensuring the responsible use of sound science is the responsibility of all stakeholders with...
an interest in the marine environment. This is recognised in the MSP Directive which requires that Member States make use of the best available data and information by encouraging the relevant stakeholders to share information and by making use of existing instruments and tools for data collection, such as those developed in the context of the INSPIRE Directive (2007/2/EC). Evidence should be used from a full range of sources enabling fuller identification of activities, pressures and impacts in the marine environment, including cumulative effects [see General policy - Living within environmental limits].

Policy and management decisions should be underpinned by evidence that is of appropriate quality and relevance to adequately inform decisions; it should be relevant to the activity to be undertaken, the spatial scale and location, and the local people and communities.

This plan is based on best available evidence as required by the MCAA [see Evidence-based planning section] and will be updated as necessary in line with the requirements of the MCAA. The MPS calls for marine plans to be developed using a risk-based approach when evidence is limited. In addition, the MSP Directive states that an ecosystem-based approach should be applied in a way that builds on existing knowledge and experience, allowing for adaptive management which ensures refinement and further development as experience and knowledge increase, taking into account the availability of data and information to implement that approach [see Ecosystem Approach].

An adaptive management approach accepts that, although knowledge of complex systems is always likely to be incomplete, as knowledge of the managed system accumulates uncertainty can be reduced and targets can be refined (see policy SCI-04). However, this is dependent on well-funded and consistent monitoring programmes. These will need to provide information about the outcomes of decisions and potential new risks involved in the interaction of changing social, economic and ecological conditions (see policy SCI-03).

Science should be communicated to decision makers and users of marine environment in a clear and unambiguous manner, in a language comprehensible to the target audience. The levels of confidence in the data being used should also be reported. Careful presentation of evidence enables the uncertainties and levels of confidence associated with it to be recognised so that evidence gaps or other limitations can be taken into account. Poor, incomplete or uncertain data should be clearly presented as such to avoid hindering the ability of users to exercise effective choice.

Policy SCI-02: Decision making authorities should apply the precautionary principle consistently, within a risk-based approach, in accordance with Welsh and UK Government policy.

The MSP Directive requires member states to take into account the precautionary principle and the principle that preventive action should be taken, as laid down in Article 191(2) of the Treaty on the Functioning of the European Union. As well as inclusion in the HLMOs, the MPS requires that a precautionary and risk-based approach, in accordance with the sustainable development policies of the UK Administrations, should be taken in terms of understanding emerging evidence on coastal processes.

The precautionary principle is a strategy to cope with possible risks where scientific understanding is yet incomplete. It is one of the guiding principles of the OSPAR Convention, which states that preventive measures are to be taken when there are reasonable grounds for concern that human activities may bring about hazards to human
health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a causal relationship. A lack of full scientific evidence must not postpone action to protect the marine environment; neither should a lack of full scientific evidence unnecessarily impact upon social and economic objectives. The principle anticipates that delaying action would in the longer term prove more costly to society and nature and would compromise the needs of future generations.

Where there is a lack of evidence and the impacts of a potential management approach are unclear, a risk based approach should provide the mechanism to enable appropriate decisions to be taken, applying the appropriate level of precaution. The level of precaution applied should be proportionate, based on risk, and reflecting ability to respond to undesirable impacts through adaptive management approaches. It should be determined by the identification of potentially adverse effects, an evaluation of the scientific data available, and the extent of scientific uncertainty. Higher levels of precaution may be appropriate in certain instances, for example, in relation to protected habitats and species.

**Policy SCI-03: Decision making authorities should ensure that reasonable effort is applied to fill evidence gaps.**

In some instances insufficient evidence will be available to inform a decision on the development or use of the marine environment. In such cases, whilst decisions may still be made according to the precautionary principle as part of a risk-based approach, reasonable efforts should be made to improve the evidence base and provide a more robust basis for the evaluation of policy decisions and future management decisions. This is in accordance with the MPS. Developers will be expected to provide the evidence necessary to inform a decision around their application. The decision-making authority is responsible for determining what constitutes a reasonable effort in terms of addressing data gaps and more strategic evidence needs.

The evidence gaps should be addressed in accordance with the priorities set out in the Welsh Marine Evidence Strategy. Principles include careful identification of the evidence need and that all evidence activities undertaken should be measured, proportionate and targeted. In some cases, evidence gaps may be addressed, and value for money improved, through effective knowledge exchange involving transparency of approach to evidence collection and analysis, and effective reuse of data, maximising the value of available evidence.

The development of the marine evidence base will be integrated with the Wales Coastal Monitoring Centre (WCMC), a Welsh Government funded initiative designed to inform the Flood and Coastal Erosion Risk Management (FCERM) process in Wales. The WCMC has the responsibility, in collaboration with other operating Authorities, to develop a strategic approach to coastal monitoring, and to deliver the evidence base required to move towards a risk based management model. There is likely to be some overlap in terms of data collection activities and there are likely to be efficiencies in terms of data collation, management and sharing; analysis, interpretation and reporting.

**Policy SCI-04: Decision making authorities should consider the principle of deploy and monitor where insufficient evidence is available to determine likely impact of a new activity or technology but the best available evidence or expert advice suggests**
that the potential impact is manageable as part of an adaptive process.

Our ability to make effective management decisions is limited by the available evidence and our understanding of the marine environment continues to develop through new scientific and socio-economic research and data collection. Furthermore, change is inevitable within dynamic and complex ecosystems, and future technologies may alter human pressures on the environment, so the effectiveness of a given policy or management approach may change over time.

This policy complements policy SCI-02, which establishes a precautionary and risk-based approach, in accordance with the sustainable development policies of the UK Administrations, in terms of understanding emerging evidence.

In the absence of a full understanding of the potential impacts of management decisions, it is appropriate to carefully monitor the system and the impact of changes and modify management approaches, in line with the risk-based approach and in response to our evolving understanding. The licence conditions may be amended if monitoring demonstrates an unacceptable impact. A flexible approach to monitoring and review are needed to accommodate a range of future demands and scenarios including new evidence, innovation and evolving technologies and techniques.

In many cases, where there is insufficient evidence to determine likely impact of new activities and technologies, it will be appropriate to learn by doing. This principle is known as “deploy and monitor” (D&M). In these cases decision makers should consider opportunities to facilitate the use of the marine area by consenting activities on a small scale to enable their assessment prior to widespread introduction. Consenting decisions may include appropriate monitoring and feedback mechanisms to prevent unacceptable impacts. Key impact pathways of concern should be identified and methods to measure damage established as well as, where appropriate, thresholds of acceptable harm and methods to prevent further harm once those thresholds are reached.

Where D&M is being applied it is critical that:

- early warning triggers are identified to prevent damage from exceeding acceptable levels;
- that it is possible to detect through monitoring when these triggers are reached; and
- that adaptive management measures are agreed in advance to prevent damage from exceeding acceptable levels.

Adaptive management, as required by the MSP Directive and ICZM principles, is a means of continuously (iteratively) modifying management activities in response to experience. It entails planned experimentation, implementation of management measures, monitoring, reviewing and feeding back into future management decisions, having due regard to land-sea interactions and best available knowledge. It ensures refinement and further development as experience and knowledge increase.

The complex nature of policies and operations in the marine environment makes it difficult to identify whether initiatives are being implemented as intended and having impact. As such, good quality policy and plan evaluation is important to assess whether an initiative has been implemented as expected and what actions might be taken to make it work even better; and to robustly attribute cause and effect to determine the impact of our policies. As well as
Welsh National Marine Plan

helping to achieve accountability, it provides the information required to make iterative improvements to policies and plans.

In the 2014 shared Welsh Government and Defra Network Evidence Strategy, Welsh Government endorsed the recommendation of effective policy, regulatory and operations evaluation. The strategy aimed to meet this challenge by working in partnership with other government departments and academic organisations to build both internal and external evaluation capability and capacity, whilst identifying and promoting best practice in complex evaluation methodology [see Evaluation section].
Sector policies

Introduction to sector policies

Guide to sector chapters

The Welsh seas host a diverse range of activities which this plan has grouped into the sectors in accordance with the MPS: aggregates; aquaculture; defence; dredging and disposal; energy (oil and gas, including carbon capture and storage); energy (low carbon); fisheries; recreation and tourism; subsea cabling; transport (ports and shipping); surface water management and waste water treatment and disposal.

This section of the plan outlines how marine sectors use our seas, and our objectives and policies for their future development. The objectives may be achieved in the life of this plan but may also set the longer-term direction for the sustainable development and use of Wales’ marine environment.

Marine planning sector-specific policies are set out that support the sector objectives. Taken with the general cross-cutting policies [see General cross-cutting policies] of this plan, the sector policies contribute to the delivery of the plan objectives and overall plan vision [see Vision and objectives section] for the marine area.

The degree of policy prescription reflects this plans objectives, the specific objectives and priorities of the Welsh Government for each sector, the available evidence base, the relative maturity of the sector and feedback from stakeholders.

Unless stated otherwise, each policy applies to all activities associated with the relevant sector.

Each sector is supported by one or more “safeguarding” policies”, which expand on the general safeguarding policy GOV-07 and seek to ensure that current and potential future activities of that sector are taken into account by other sectors when making proposals. These safeguarding policies apply to ALL sectors. For ease of reference, they are presented together in Table 10. This section should be used to identify potential impacts of proposals on other users. Table 9 provides a high-level indication of the likely degree of sector – sector interactions.

The purpose of this plan is to provide an integrated set of objectives and policies that contribute to the sustainable development and use of Wales’ marine environment and as such none of the objectives and policies should be taken in isolation. Policies for each sector must not be read in isolation. All policies should be read in conjunction with the general cross-cutting policies [see General cross-cutting policies section] and also with all other relevant sector policies.

Structure for each sector chapter

The objectives, policies and supporting information for each sector are presented under the following sub-sections:
Context

This sub-section provides a brief introduction and context to the sector and its governance. Further detail on each sector is provided in the SSE.

Sector objectives

The sector objectives are specific to the sector and describe the desired future state for that sector. Symbols are provided which link the sector objective with the High Level Marine Objectives (HLMO) [see The purpose and value of marine planning section], which in turn link to the plan objectives [see Figure 2 and Table 1]. The order in which the HLMO symbols are displayed do not indicate the relative contribution of that sector objective to meeting the relevant plan strategic objective.

Key: HLMO symbols

- Achieving a sustainable marine economy
- Ensuring a strong and just society
- Living within environmental limits
- Promoting good governance
- Using sound science responsibly

Sector policies

This sub-section sets out the:

• specific sector policies;
• supporting policy rationale and guidance; and
• relationship of the sector policies to this plan’s general cross-cutting policies and general sector policies.

It is important to note that where a policy indicates an intention to develop a particular sector or policy preference, this does not preclude or prejudge the statutory assessment requirements controlling that sector, for example the need for a marine licence, or the outcome of any (environmental) impact assessment.

Interpretation of policies

The sector objectives and policies should be interpreted as follows:

Note - The explanations that apply to the interpretation of general cross-cutting policies apply equally to the sector objectives and sector policies in this and subsequent chapters [see Introduction to general cross-cutting policies section].

a) Where a policy relates to proposals “in” specified areas or “affecting” specified areas or activities, it means all proposals that are planned to take place in those areas or that may have a significant impact on those areas or activities. The likely scale of
impacts will depend on the proposed activity its scale and other factors, and should be considered on a case by case basis.

b) “To support long term security, clarity and investment decisions” means providing a degree of confidence through signalling the likely future potential of the sector to those working in or with the sector. It includes providing early clarity on significant anticipated changes to trends, policy or legislation where possible. (“Long term security” for a sector refers to that sector’s operations and not to defence or social welfare security).

c) “Sustainable growth” refers to growth of a sector in line with the sustainable development principle set out in section 5 of the Well-being of Future Generations (Wales) Act 2015 [[link]]. Under this act, “sustainable development” means the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals.

d) Wales’ wellbeing goals” refer to the goals set out in the Well-being of Future Generations (Wales) Act 2015. Achieving Wales’ well-being goals may refer to achieving economic, social, cultural, health or wealth-related benefits for individuals and communities. Although the Act only applies to the activities of Welsh public authorities, the goals are applicable to, and desirable for, broader sectors and so our objectives seek to deliver these goals more widely. Indeed, although it is only explicitly stated in some of the objectives, ultimately all the objectives relate to achieving all of these goals.

Sector chapters - Key interactions with other sectors

This sub-section sets out how the sector currently interacts with and may be expected to interact with other sectors. As the use of our seas increases, the level of interaction between sectors may be expected to increase.

Future

This sub-section describes the likely future trends for the sector in terms of its growth and how this may affect marine planning decisions. A key component of this is a consideration of the implications of the effects of climate change on the sector.

Maps

The information for some sectors is supported by one or more maps to spatially define sector policies or for illustrative purposes. Sector maps in this plan should be considered as indicative unless stated otherwise. Decisions should be taken in line with best available evidence; if in doubt, plan users should contact the relevant authority for up to date information.
Table 8. General policies of particular relevance to specific sectors *(To be populated)*

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<th>GEN-01</th>
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### Table 9. Key sector interactions

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**Limited**  
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### Table 10. Safeguarding policies

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<tbody>
<tr>
<td>Aggregates</td>
<td><strong>AGG-01:</strong> Decision making authorities should not authorise proposals in areas where a license for extraction of aggregates has been granted. <strong>AGG-02:</strong> Decision making authorities should ensure that proposals in or affecting areas identified as having high potential aggregate resource likely to be developed within the term of this plan demonstrate that they will in order of preference: a) avoid adverse impacts on likely future aggregate extraction; b) minimise them where they cannot be avoided c) mitigate them where they cannot be minimised d) present the case for proceeding where (a-c) are not possible</td>
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<td>Aquaculture</td>
<td><strong>AQU-02:</strong> Proposals should demonstrate in order of preference that they: a) avoid adverse impacts on existing aquaculture sites and any areas where a licence, authorisation or sea bed lease is pending and support coexistence of activities wherever possible; b) minimise impacts where they cannot be avoided c) mitigate impacts where they cannot be minimised d) present the case for proceeding where (a-c) are not possible</td>
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<td>Sector</td>
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<tr>
<td><strong>Defence</strong></td>
<td><strong>DEF-01</strong>: Decision making authorities must ensure that proposals in or affecting Ministry of Defence Danger and Exercise Areas are only authorised with agreement from the Ministry of Defence.</td>
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<td><strong>DEF-02</strong>: Decision making authorities should ensure that the operational effectiveness of the armed services in Welsh waters is not compromised by managing activity and development:</td>
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<td>a) within Firing Danger Areas</td>
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<td>b) within Exercise Areas</td>
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<td>c) which cause unacceptable interference with communication, navigation and surveillance systems, including RADAR necessary for national defence</td>
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<td><strong>DEF-03</strong>: Decision making authorities respect that, where required for the purposes of national defence, the Ministry of Defence may establish bye-laws for exclusions and closures of sea areas</td>
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<td><strong>Dredging and disposal</strong></td>
<td><strong>D&amp;D-01</strong>: Decision making authorities should ensure that proposals in or affecting licensed navigation dredging and disposal areas demonstrate, in order of preference:</td>
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<td>a) avoid adverse impacts on navigation dredging and disposal activities</td>
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<td>c) mitigate them where they cannot be minimised</td>
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<td>d) present the case for proceeding where (a-c) are not possible</td>
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<tr>
<td>Energy – oil and gas (including carbon capture and storage)</td>
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| Energy – low carbon | **ELC-01**: Decision making authorities should ensure that proposals in areas of current renewable energy activities or areas identified having high potential renewable energy resource likely to be developed within the term of this plan demonstrate that they will, in order of preference:  
   a) avoid adverse impacts on current or future renewable energy activities  
   b) minimise them where they cannot be avoided  
   c) mitigate them where they cannot be minimised  
   d) present the case for proceeding where (a-c) are not possible | | | |
### Sector policies

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<td><strong>Existing areas and activities</strong></td>
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<td><strong>Planned areas and activities</strong></td>
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<td><strong>Fisheries</strong></td>
<td><strong>FIS-01</strong>: Decision making authorities should ensure that proposals in established areas of commercial fishing activity demonstrate that they will, in order of preference:</td>
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<td>a) avoid adverse impacts on current fishing activities and support co-existence of activities wherever possible</td>
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<td>b) minimise impacts where they cannot be avoided</td>
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<td>c) mitigate impacts where they cannot be minimised</td>
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<td><strong>FIS-02</strong>: Decision making authorities should ensure that proposals in and affecting important fish feeding, breeding (including spawning and nursery) and migration areas for important species and their associated habitat, demonstrate that they will, in order of preference</td>
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<td>a) avoid adverse impacts on spawning and nursery areas and the associated habitat</td>
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## Sector policies

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<tr>
<th>Sector</th>
<th>Sector-specific safeguarding policy(ies)</th>
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| Ports & shipping | P&S-01: Decision making authorities must ensure that proposals avoid restricting access to, or wherever possible the future expansion of, major commercial ports.  

**P&S-02:** Decision making authorities should ensure that proposals demonstrate that they will, in order of preference:  
 a) avoid adverse impacts on current port and harbour activities and future opportunities for expansion  
 b) minimise impacts where they cannot be avoided  
 c) mitigate impacts where they cannot be minimised  
 d) present the case for proceeding where (a-c) are not possible  

**P&S-03:** Decision making authorities should ensure that proposals demonstrate that they will, in order of preference:  
 a) avoid substantial displacement of established navigation transit lines for all vessel sizes and types  
 b) minimise displacement where it cannot be avoided  
 c) mitigate it where it cannot be minimised  
 d) present the case for proceeding where (a-c) are not possible  

**P&S-04:** Decision making authorities should, where appropriate, support proposals which provide for the maintenance, repair, development and diversification of port and harbour facilities.  

| Subsea cabling | CAB-01: Decision making authorities should ensure that proposals demonstrate that they will, in order of preference:  

 a) avoid adverse impacts on existing (and planned?) subsea cables (and their landfall sites)  
 b) minimise them where they cannot be avoided  
 c) mitigate them where they cannot be minimised  
 d) present the case for proceeding where (a-c) are not possible |
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<th>Sector</th>
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<th>Page</th>
<th>Proposals should consider their impact on Existing areas and activities</th>
<th>Planned areas and activities</th>
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</table>
| Surface water runoff and wastewater management | **SWW-01**: Decision making authorities should ensure that proposals, in order of preference:  
  a) avoid adverse impacts on and from surface water management and waste water treatment infrastructure  
  b) minimise impacts where they cannot be avoided  
  c) mitigate impacts where they cannot be minimised  
  d) present the case for proceeding where (a-c) are not possible | | | |
| Tourism & recreation | **T&R1**: Decision making authorities should ensure that proposals demonstrate that they will, in order of preference:  
  a) avoid adverse impacts on existing recreation and tourism activities and areas of high potential for further growth  
  b) minimise impacts where they cannot be avoided  
  c) mitigate impacts where they cannot be minimised  
  d) present the case for proceeding where (a-c) are not possible | | | |
Aggregates

Context

Marine aggregates play an important role in the supply of aggregates nationally. Demand is predominantly for use in construction projects, with associated benefits such as investment and jobs, making a contribution to the Welsh economy.

The Marine Policy Statement (MPS) states that “the extraction of marine dredged sand and gravel should continue to the extent that this remains consistent with the principles of sustainable development, recognising that marine aggregates are a finite resource and (to manage extraction) in line with the relevant guidance and legislation.”

Decision-making authorities should base decisions on sustainability criteria and should take into account:

- the existing seabed within the marine plan area that is currently being dredged;
- offshore movement of aggregates (i.e. supply between regions & exports);
- the importance of meeting regional and national construction needs, beach replenishment and contract fill; and
- the need to safeguard reserves for future use.

Marine sourced aggregate is expected to continue to dominate supplies when compared to other sources (principally recyclates, land won or imported) although supplies from recycled sources are encouraged within the practical limitations that apply. It is unlikely in the foreseeable future that the marine-dredged sand could be substantially replaced from other sources without raising the cost and / or reducing the quality of construction.

The aggregates industry in Wales

Marine aggregate extraction can only occur where commercially viable deposits of sand and gravel occur in spatially discrete areas where they were formed by geological processes. Historically, the majority of marine aggregate extraction in Wales has been in the Bristol Channel and Severn Estuary. However, quantities of aggregate exist off west Wales and a significant potential aggregate resource off the north Wales coast, although there is currently only a limited market to utilise this.

In 2013, more than 1 million tonnes of material (of a permitted 1.7 million tonnes) were dredged in the Bristol Channel and Severn Estuary from English and Welsh waters collectively, the majority of which consisted of fine sand which is used in the construction and ready-mixed concrete industry. Outside of the Bristol Channel, the only other area currently licensed in Welsh waters is Hilbre Swash (in the north-west) in 2013 50,000 tonnes of aggregate were landed in North Wales ports.

Aggregates are a bulk commodity where transportation costs and associated carbon emissions drive the need for policies that support the collection of aggregates close to centres of use as currently occurs in South Wales or the development of offshore
resources using larger vessels and facilities which accommodate economies of scale.

**Governance**

Management of aggregate extraction takes place under a Marine Licence issued under Part 4 of the Marine and Coastal Access Act 2009 (MCAA) by Natural Resources Wales (NRW) on behalf of Welsh Ministers. It also requires a lease from The Crown Estate (TCE) which is issued following confirmation that Ministers will issue a licence containing conditions.

The MPS states that a marine licence or other regulatory approval to dredge should only be issued if the decision maker is content that the proposed dredging is environmentally acceptable.

Where an application might impact upon coastal features, then a Coastal Impact Study (CIS) will be undertaken. Licence applications will also need to address cumulative effects to permit appraisal of the environmental capacity at a regional level.

Aggregates dredging conditions will incorporate a management plan to cover monitoring and risk management linked to indicators, thresholds, and actions. In general, these will require the monitoring of short and long-term impacts of extraction on the seabed (physical properties / bathymetry) and sometimes also monitoring of benthos.

The intensity of dredging will be monitored through electronic monitoring systems to keep impacts to an acceptable level and to promote recovery of the seabed.
<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
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**Table 11. Aggregates sector objectives and policies**
Sector objectives | What do the objectives mean and why are they important? | Policies | Policy interpretation: guidance for implementation | How do the policies support the objectives?
--- | --- | --- | --- | ---
To contribute to meeting our current and future aggregate needs by guiding the efficient and effective use of Wales’ marine aggregate resources. | Extraction can only occur in the spatially discrete areas where commercially viable deposits of aggregates occur. As marine aggregates are a finite resource it is important that their extraction (and use) is sustainably managed. Areas of high marine aggregate potential have been identified (eg see BGS and TCE reports) and this evidence will form a key component of any spatial policies to manage current and future extraction. These objectives provide a direct link between sector-specific and plan-specific objectives for marine aggregates. They enable interactions between sectors to be considered and assessed. They also ensure that any spatial policies pertaining to aggregate extraction are fully justified and explained. Recognising the importance of the physical characteristics of marine aggregates to its commercial viability these objectives address the potential for other activities to ‘contaminate’ the resource (e.g. with fine sediments) and the need for applying safeguarding measures. | Guidance for implementing general crosscutting policies in the aggregates sector: The aggregate sector should apply the general policies of this plan, in particular, on: sustainable development and use; economically productive activities; opportunities to create employment; skills development and diversification; coexistence; access to the marine environment; coastal communities; safety; marine protected species and areas; conservation and biodiversity; geodiversity; cumulative effects; environmental impact assessment; coastal change and flooding; historic assets; climate change; engagement; cross border; sound scientific and socio-economic evidence; risk based approach. | Section still under development

To minimise adverse impacts on the marine environment by guiding marine aggregate extraction towards areas of high potential. | Policies apply to the inshore region of this plan. AGG-01: Decision making authorities should not ordinarily authorise proposals | Guidance for implementing aggregate sector policies: The supply of high quality aggregates close to the place of need is essential to maintain the viability of both the aggregates and construction industries and the jobs they support. While other alternative sources of supply of suitable fine aggregates will continue to be investigated, and recyclates will continue to be used, reliance on the use of marine dredged sand in Wales will continue for the foreseeable future, especially in some areas. It is policy to plan to maintain licensed dredging reserves at between ten and fifteen years supply, subject to suitable applications coming forward. This approach helps meet the demands of changing markets. However, licences will only be issued to the extent that this remains consistent with the sustainable development principles and delivery across Wales’ well-being goals and where potential environmental impacts have been assessed. | How the general crosscutting policies support the aggregates sector objectives: Text to follow

To support long-term security, clarity and investment decisions for the sector by taking a spatial policy | | | How the sector policies support the plan objectives: Obj 1 – sustainable development Obj 2 – create long term employment Obj 4 – managing multiple use Obj 6 – coast & seas accessible and safe to use Obj 7 – heritage assets, protected landscapes & seascapes Obj 8 – climate change Obj 10 & 11 – biodiversity & MPAs Obj 13 – integrated decision-making Obj 14 – unique characteristics and future opportunities Obj 15, 16 & 17 – engagement,
<table>
<thead>
<tr>
<th>Sector objectives</th>
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<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aggregates</strong></td>
<td>To support the sustainable development of the sector by managing the extraction totals of marine aggregates to acceptable levels.</td>
<td>in areas subject to an Exploration and Option Agreement with The Crown Estate or where a licence for extraction of aggregates has been granted.</td>
<td>shown in Figure 11. This policy protects licensed areas (existing and new once identified at the application stage) against other new proposed development or activities, e.g. cables, built infrastructure, whether in or adjacent to the area, that would compromise aggregate extraction operations. This is to reflect the work by all involved parties, including investment by the applicant, to obtain a licence or reach the point of application for an aggregate extraction licence. It encompasses any agreement between The Crown Estate and dredging companies to give exclusive rights to seek permission for extraction of sand and/or gravel for a defined term. This helps to provide confidence to the industry, Where a marine licence is issued, operators are typically required to commence works within five years of the date of issue, subject to the completion of any pre-dredge surveys required, otherwise the licence will lapse. In some cases, there may be an overriding need to authorise proposals in areas where AGG1 applies. Decision making authorities should only decide to consent a proposal within AGG1 areas where the benefits of the proposal significantly outweigh those from the aggregate activity in terms of supporting the delivery of Wales’ well-being goals over the long term.</td>
<td>ecosystem approach and marine evidence base Obj 18 – risk based approach</td>
</tr>
<tr>
<td><strong>Aggregates</strong></td>
<td>To understand future opportunities, and safeguard strategically important resources from sterilisation where appropriate.</td>
<td>AGG-02: Decision making authorities should ensure that proposals in or affecting areas identified as having high potential aggregate resource demonstrate that they will in order of preference: e) avoid adverse impacts on shown in Figure 11. This policy protects licensed areas (existing and new once identified at the application stage) against other new proposed development or activities, e.g. cables, built infrastructure, whether in or adjacent to the area, that would compromise aggregate extraction operations. This is to reflect the work by all involved parties, including investment by the applicant, to obtain a licence or reach the point of application for an aggregate extraction licence. It encompasses any agreement between The Crown Estate and dredging companies to give exclusive rights to seek permission for extraction of sand and/or gravel for a defined term. This helps to provide confidence to the industry, Where a marine licence is issued, operators are typically required to commence works within five years of the date of issue, subject to the completion of any pre-dredge surveys required, otherwise the licence will lapse. In some cases, there may be an overriding need to authorise proposals in areas where AGG1 applies. Decision making authorities should only decide to consent a proposal within AGG1 areas where the benefits of the proposal significantly outweigh those from the aggregate activity in terms of supporting the delivery of Wales’ well-being goals over the long term.</td>
<td>ecosystem approach and marine evidence base Obj 18 – risk based approach</td>
<td></td>
</tr>
<tr>
<td><strong>Aggregates</strong></td>
<td><strong>AGG-02:</strong> The MPS states that, amongst other considerations, marine plan authorities and decision-makers should: ‘…take into account the need to safeguard [aggregate] reserves for future extraction’. This policy also</td>
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</table>

**Sector policies: Aggregates**
<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGG-03: Decision making authorities should support proposals for the sustainable use of marine dredged sand and gravel, whilst ensuring the optimum use of aggregates as a finite resource by taking a long-term view by applying the likely future aggregate extraction; f) minimise impacts where they cannot be avoided g) mitigate impacts where they cannot be minimised h) present the case for proceeding where (a-c) are not possible</td>
<td>recognises the extent of potential aggregate resources that exist in Welsh waters and the need to safeguard the resource for future use. This policy protects areas of high potential future aggregate resource from proposed developments in high aggregate potential areas [shown in Figure x - Areas of Future Technical Opportunity]. The policy safeguards the resource by ensuring that any nearby developments (such as dumping) do not lead to a deterioration of aggregate quality and that other developments do not occupy and prevent the development of areas which may be licenced in the future. This will help to secure future access to sufficient supply of aggregate resources and maintain flexibility for future activity in these areas thereby enabling maintenance of licensed reserves at a 10-15 year supply level. Where a decision is taken that adverse impacts cannot be avoided, for example, where a cable proposal must cross a broad area of high future potential then careful project design should ensure the minimal practical impact of the proposal upon future potential resource use. Mitigation could be the use of sediment screens to minimise potential of suspended sediments (e.g. from cable laying operations) contaminating aggregate resource with fines sediments; or assistance in re-locating fixed fishing gears.</td>
<td>AGG-03: The policy recognises the long term contribution</td>
<td></td>
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</table>
### Sector objectives

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<thead>
<tr>
<th>What do the objectives mean and why are they important?</th>
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<th>Policy interpretation: guidance for implementation</th>
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</tr>
</thead>
<tbody>
<tr>
<td>sustainable development principles.</td>
<td>of aggregates from sustainable marine sources will need to make to support achievement of Wales’ well-being of future generation goals and in line with MPS objectives. National and local mineral planning policy is a key consideration when assessing the appropriateness of marine sourced aggregates relative to terrestrial sourced aggregates.</td>
<td></td>
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</tbody>
</table>
**Key interactions with other industries**

Other marine uses can overlap with marine aggregate extraction activities at certain times and this may need to be managed e.g. fishing, recreational boating.
Aggregates and fishery liaison meetings may be appropriate to ensure a good level of communication and planning between the sectors. Other activities may not be compatible e.g. cables and pipelines, fixed structures associated with renewable energy or oil and gas, and navigation dredging and sea disposal of dredged material in close proximity (due to resource contamination risk). There is a direct relationship between the marine aggregate and transport and ports sectors with vessels needed to transit, berth and unload materials providing mutual economic benefits. Provision of suitable wharf facilities for aggregate unloading is an important consideration that will support maintenance of supply over the long term [see Ports and shipping section]. Potential interactions with shipping and ferry services include short-term displacement during aggregate extraction.

**Future**

The aggregates supply business is closely linked to the construction sector, and therefore the wider economy. Demand for marine aggregate materials is also likely to be influenced by large scale infrastructure projects such as the expansion and development of ports, nuclear new build and renewable energy development (offshore wind farms and tidal lagoons).

A study by BGS (BGS Resource Assessment Study) shows at a high level of detail where aggregate deposits are located and their composition. ([http://www.thecrownestate.co.uk/energy-and-infrastructure/downloads/mineral-resource-assessments/](http://www.thecrownestate.co.uk/energy-and-infrastructure/downloads/mineral-resource-assessments/)). This shows that the extent of the potential resource around Wales is extensive albeit finite, however many constraints would need to be overcome to classify this into reserve status, particularly in more remote areas such as west Wales or offshore in deeper more exposed waters. TCE has undertaken an analysis of a range of constraints and mapped areas of future technical opportunity which are shown in the sector map [Figure x]. Substantial quality aggregate resources are situated in the Outer Bristol Channel area and are likely to be suitable to be licensed but constraints exist in developing these in such deep water, subject to tides and waves so far from wharf facilities.

**Climate change**

Sea level rise, and increased storminess associated with climate change, exacerbates coastal erosion and the requirement for remediation and protection works. Increased demand for soft engineering defences (such as beach replenishment) for flood defence programmes in coastal and inland areas may result due to pressures from climate change. Beach recharge schemes utilising marine won aggregates present a cost-effective coast protection option as the materials can be sourced and deposited in a single operation. Large scale beach recharge schemes may be of value to support coastal dynamics over the long term.

As part of the EIA (and CIS if necessary) proposals for aggregates dredging will need to consider climate change and the government predictions for rise in sea level and wave climate to demonstrate that they will not increase flood risk or impact upon beaches and coast protection acceptably [ see Coastal change and flooding and Climate change sections].
Aquaculture

Context
The Welsh Government is committed to the continued sustainable growth of aquaculture in the WNMP Inshore region. It is one of the UK’s key food production sectors and contributes to economic growth, particularly in rural and coastal communities. Aquaculture has significant potential to contribute to further growth and thus job-creation, particularly given the limited new fishing opportunities for the Welsh capture fleet. The health benefits of regularly eating seafood as part of a balanced diet are generally acknowledged. For these reasons, increased aquaculture production has been identified as a key component of the EU’s “Blue Growth” strategy.

Commercial aquaculture for human consumption in Wales has traditionally been focused on the production of shellfish, mainly mussels but also some small scale pacific oyster production. The cultivation of shellfish can be a low-impact, sustainable form of food production when appropriately managed. The production of farmed finfish in Wales is relatively small and is currently confined to on-shore activities - either salmonids in ponds or latterly purpose built state of the art recirculation facilities for sea bass, although caged fin fish farms have existed in the past.

The Welsh Government has identified the potential to expand aquaculture in Welsh inshore region waters and by 2020 it intends to double the quantities of shellfish and finfish cultured. However, to achieve these demanding targets will require a simplification of administrative procedures to obtaining production licences. Welsh Government is proposing changes to the Sea Fisheries (Shellfish) Act 1967, through the Environment Bill in order to allow Ministers to grant Orders for aquaculture businesses which will aid the taking of longer term investment and planning decisions.

Welsh Government commissioned a report from ABPMer in 2015 “A spatial assessment of the potential for aquaculture in Welsh waters”, which considers the environmental constraints and identifies areas potentially suitable for future marine aquaculture developments in inshore Welsh waters. This study has informed this Plan and has fed into the UK Aquaculture Multi-Annual National Strategic Plan (MANS) that is being prepared to meet Commission requirements under Article 34 of the revised CFP for member states to produce a multi annual plan to foster growth in the aquaculture sector. The delivery of the MANS will be aided by the European Maritime and Fisheries Fund which will focus on capacity building, increasing innovation and new developments, building on links between operators and scientific bodies as well as increasing the sustainability of the industry in its interactions with the environment.

The Welsh aquaculture industry is relatively small and lacks representation. The creation of a Welsh Aquaculture Partnership Forum would help in formulating advice.
and could provide a coherent view to inform policy development as well as increasing cooperation within the industry. The existence of this plan and decisions taken under it will help to encourage effective industry input to policy development and better management and integration of their sector.

Aquaculture in Wales has a good track record of working collaboratively with scientific research institutions. The industry is highly skilled with strong marine science capability and support available to it. Nevertheless, current aquaculture production remains focussed on relatively few species and therefore, further research into the cultivation of other fish and algae would be beneficial in the long term and such initiative should be supported where appropriate.

**Governance**

Regulation of aquaculture is a devolved matter and includes both the development and operation of the sector. Natural Resources Wales regulate development of any supporting infrastructure (including consideration of any likely significant environmental effects from operation) through a marine licence under Part 4 of the Marine and Coastal Access Act 2009 and where appropriate the Conservation of Habitats and Species Regulations 2010. Authorisation is required from the Fish Health Inspectorate to set up a fish, shellfish or crustacean farm ([https://www.gov.uk/guidance/fish-shellfish-or-crustacean-farm-authorisation](https://www.gov.uk/guidance/fish-shellfish-or-crustacean-farm-authorisation)) to prevent the introduction and spread of infectious diseases. Several Orders and Regulating Orders under the Sea Fisheries (Shellfish) Act 1967 are administered and enforced by Welsh Ministers. Facilities will also require a seabed lease from The Crown Estate.
### Table 12. Aquaculture sector objectives and policies

<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
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</thead>
</table>

*Sector policies: Aquaculture*
### Sector objectives

**To contribute to sustainable growth by promoting sustainable aquaculture with the aim of doubling production by 2020, specifically:**
- Marine finfish to 1,000 tonnes (from 480 tonnes in 2011)
- Shellfish, especially mussels, to 16,000 tonnes (from 9,000 tonnes in 2012)

**To support the long term security and clarity of the sector to take investment decisions and to support the production of food supply including by identifying areas of high potential for aquaculture.**

### What do the objectives mean and why are they important?

The aquaculture sector has potential for growth in the WNMP inshore region which will contribute to the rural economy and help meet future food needs. Aquaculture enterprises can be low impact if suitably located and managed. Assured long term access to locations that meet the particular needs of each culture method (e.g. shelter, water quality, environmental conditions, land facilities) will enable the sector to develop. Opportunities should be taken to co-locate aquaculture with other sectors wherever feasible and viable.

### Policies

<table>
<thead>
<tr>
<th>Guidance for implementing general crosscutting policies in the aquaculture sector:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant guidance and codes of practice should be followed, including where appropriate: Bangor Mussel Producers Association Code of Good practice. SeaFish - Best aquaculture practices. Code of Good practices for Scottish finfish aquaculture and Scottish Shellfish growers. Aquaculture activities and proposals should demonstrate best practice in the management of invasive non-native species. A large proportion of Welsh inshore waters are designated under the Birds and Habitats Directives which places an obligation on consenting bodies to ensure that activities within, or adjacent to these sites do not have an adverse impact [Link to be inserted]. Decision making authorities should consider, as part of any planning or approvals process, the impact of any new development on water quality that may impact upon any aquaculture production businesses or area of aquaculture potential and ensure that statutory provisions are adhered to, and that no significant adverse effects arise.</td>
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</table>

### Policy interpretation: guidance for implementation

<table>
<thead>
<tr>
<th>Guidance for implementing aquaculture sector policies:</th>
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</thead>
<tbody>
<tr>
<td>Aquaculture should be viewed as an industry with potential for expansion and should be encouraged in appropriate locations by decision making and planning authorities. This would encourage new entrants into the industry, more quality local produce, more jobs and increased competitiveness in the market.</td>
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</table>

### How do the policies support the objectives?

<table>
<thead>
<tr>
<th>How the general crosscutting policies support the aquaculture sector objectives:</th>
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</thead>
<tbody>
<tr>
<td>Text to follow</td>
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</table>

<table>
<thead>
<tr>
<th>How the [insert sector title] sector policies support the [insert sector title] sector objectives:</th>
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<tbody>
<tr>
<td>Text to follow</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>How the sector policies support the plan objectives:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relates to general plan objectives that support: Obj 1 – sustainable development Obj 2 – create long term employment Obj 4 – managing multiple use Obj 5 – communities Obj 6 – coast &amp; seas accessible and safe to use Obj 12 – ecosystem goods and services Obj 13 – integrated decision-making Obj 15 – engagement Obj 18 – risk based approach and precautionary principle</td>
</tr>
<tr>
<td>Sector objectives</td>
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</table>
### Sector policies: Aquaculture

<table>
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<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
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<tr>
<td></td>
<td></td>
<td>sites and any areas where a licence, authorisation or sea bed lease is pending and support co-existence of activities wherever possible;</td>
<td>further development: If this is not possible then a case may be made for proceeding.</td>
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<td></td>
<td></td>
<td>b) minimise impacts where they cannot be avoided</td>
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<tr>
<td></td>
<td></td>
<td>c) mitigate impacts where they cannot be minimised</td>
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<td></td>
<td></td>
<td>d) present the case for proceeding where (a-c) are not possible</td>
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<td></td>
<td></td>
<td><strong>AQU-03:</strong> Decision making authorities should ensure that proposals demonstrate consideration of opportunities for co-existence and have a regard to and support where possible, aquaculture proposals in areas identified as having aquaculture potential.</td>
<td><strong>AQU-03:</strong> Aquaculture should be encouraged as part of multi-use developments. Marine development proposals should demonstrate that they have appropriately considered opportunities for co-location with aquaculture production businesses in their application, especially in relation to certain future marine energy proposals. Where no co-location is proposed the applicant should explain the reasons why.</td>
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<td></td>
<td></td>
<td><strong>AQU-04:</strong> Decision making and advisory authorities should</td>
<td>To support a plan-led approach to the identification of areas of aquaculture potential, plan-makers should consider any areas of future potential identified through this plan and MANSP and make provision, where appropriate, for supporting growth in the sector. Developments which may adversely impact on current or potential aquaculture production areas should be discouraged, unless the impacts can be effectively minimised or mitigated.</td>
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<td></td>
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<td></td>
<td><strong>AQU-04:</strong> To meet sector growth targets decision makers will, in areas of high aquaculture potential, support viable</td>
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</tbody>
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**Notes:**
- **AQU-03:** If this is not possible then a case may be made for proceeding.
- **AQU-04:** To meet sector growth targets decision makers will, in areas of high aquaculture potential, support viable.
## Sector objectives

<table>
<thead>
<tr>
<th>Sector objectives</th>
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<th>How do the policies support the objectives?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>where possible, support appropriate proposals in areas of high aquaculture potential that provide realistic opportunities to develop viable aquaculture businesses and their supporting infrastructure.</td>
<td>business developments in the appropriate location which meet sustainability criteria. Aquaculture development opportunities can be limited and are principally related to the physical environment in which they may be located (although a broad range of other criteria may also apply). Such opportunities depend upon the species and selected method of culture. Aquaculture businesses consistently require clean and healthy water conditions to maintain their viability. Their presence acts as a driver to maintain, improve and monitor water quality with consequential benefits to the marine environment as a whole. Accordingly, appropriately sited and managed aquaculture enterprises should be supported.</td>
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*Sector policies: Aquaculture*
Figure 12. Areas of aquaculture or potential

Sector policies: Aquaculture
Key interactions with other industries:

Aquaculture enterprises, depending upon type, require a range of onshore and offshore facilities and accordingly will interface with other marine users. A successful aquaculture sector will be dependent upon a clean, healthy and biologically diverse marine environment. However, it can also have detrimental impacts upon the environment, including water quality changes, changes to benthic habitats and the introduction of non-natives species which has implications for other sectors. Future aquaculture growth will need to operate within environmental limits to ensure sustainable development.

Co-existence is a key consideration for the Marine Planning process [see Sustainable co-existence section]. Aquaculture is seen as an area with potential for co-location for example, with some future marine energy infrastructure. Co-location of a variety of complementary aquaculture activities in sheltered conditions such as tidal lagoons may be an option that has not been previously feasible.

Future

Aquaculture is considered to be a key area for development by Welsh Government due to its potential to contribute to the security of food supply on a sustainable basis. Development of this industry is closely linked to changes in wild fisheries, site availability, the environmental carrying capacity and investment viability. Therefore, although difficult to predict with accuracy, continued growth is likely. Aquaculture could become the greatest source of the required increase in fish and shellfish production that will be needed in the coming decades to bridge the gap between diminishing food resources and the increasing demand for food. Implementation of the European Maritime and Fisheries Fund (EMFF) will provide the funding opportunity to enable Wales to support a range of innovative aquaculture projects which will help increase aquaculture production and economic activity for the benefit of our coastal communities to meet CFP and UK National Plan targets.

Climate change

Climate change will impact on both finfish and shellfish aquaculture. The main impacts on shellfish aquaculture, which predominates in Wales, will be around changes that affect conditions that cultivated species grow in, such as seawater temperature and, changes in rainfall and run-off will affect turbidity and nutrient loading. Ocean acidification could also affect shell forming organisms and larval production in the long term. For finfish aquaculture, storm damage to infrastructure and impacts of temperature change on fish disease are likely to be the biggest impacts. Climate change could also affect the ecology of the environment leading to impacts upon aquaculture.

It will be important to ensure that both existing and sites of future potential are resilient to the impacts of climate change. Sites that are naturally sheltered from storm impacts, as well as those less susceptible to impacts from contaminant loading, may support resilience to climate change. Warming may make some areas...
more optimal for both shellfish and finfish growth, including the cultivation of currently marginal warm water species. Some diseases may become more or less prevalent depending on their thermal tolerances. In the longer term, a better understanding of the impacts of ocean acidification on commercially important shellfish species will be needed.
**Defence**

**Context**

While there are no major Naval Bases in Wales, the Welsh seas and coasts are important to a diverse range of defence activities that utilise the marine environment, directly or indirectly, include:

- Naval vessels (including Royal Fleet Auxiliary) and navigational interests;
- Aircraft;
- military training exercises;
- test and evaluation ranges and facilities;
- surveillance of potential threats to the country’s offshore interests;
- continued operational reasons.

The MoD is committed to the protection of the natural and historic environment although it is recognised that defence related activities, including extensive test and evaluation functions may pose risks to the marine environment. The main issues are given below:

- **Noise**: Certain sonar activity and use of live explosives can have impacts on marine species including disturbance of behaviour and in worst case fatalities. The MoD has put in place management arrangements to ensure that these impacts are avoided wherever possible.

- **Pollution**: Accidental or incidental release of oil and other hazardous substances and the environmental consequences is a risk with almost all maritime activity. Existing MoD wrecks are managed to ensure the environment is safeguarded from incidental pollution.

- **Habitat change/species disturbance**: Operational activity including development of ports has the potential to impact on habitat and species and the MoD has put in place internal procedures to ensure that these impacts are avoided wherever possible. These include sustainability appraisals and environmental assessments.

- **Introduction of non-native species**: Ballast water can accidentally introduce non-native species when discharged in harbours or coastal waters with potentially serious environmental consequences. The MoD has put in place management arrangements to ensure that these impacts are avoided wherever possible.

UK defence is not a matter devolved to Welsh Government. The MoD has the power to regulate sea areas and restrict their use either temporarily or permanently by making byelaws under the provisions of the *Military Lands Act 1892 and 1900* and the *Land Powers Defence Act 1958*. The *UK National Strategy for Maritime Security* (May 2014) sets out the scope and objectives to safeguard and promote UK interests and prosperity by upholding the freedom of the seas, by mitigating national security threats and by exploiting opportunities throughout the maritime domain.
Table 13. Defence sector objectives and policies

<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation – rationale and guidance for implementation</th>
<th>How do the policies support the objectives?</th>
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*Sector policies: Defence*
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<tr>
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<th>Policy interpretation – rationale and guidance for implementation</th>
<th>How do the policies support the objectives?</th>
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</table>
| To contribute to the achievement of Wales’ well-being goals by safeguarding the ability of the Royal Navy, Army and Royal Air Force to defend the nation. | The sector objective promotes a safe and secure Wales in which the armed services are free to fulfil their duties for the defence of the nation. Public bodies are working towards a shared vision of a prosperous, resilient, healthy, more equal, globally responsible Wales with cohesive communities, vibrant culture and thriving Welsh language. Whilst these goals do not explicitly apply to the armed services in Welsh waters, national security is fundamental to the social, economic, environmental and cultural well-being of Wales. | Guidance for implementing general crosscutting policies in the defence sector: The defence sector should apply this plan’s general policies, in particular, on: sustainable development and use; opportunities to create employment; skills development and diversification; coexistence; access to the marine environment; coastal communities; seascapes; historic assets; climate change; safety; marine protected areas; protected species; conservation of biodiversity; noise; cumulative effects; engagement; cross-border; sound scientific and socio-economic evidence; risk based approach. | Guidance for implementing defence sector policies: In order for the Royal Navy, Army and Royal Air Force and wider Defence to use Wales’ seas for the purposes they require (to defend the nation) they need:  
- the ability to deploy and develop a flexible and broad range of capabilities.  
- to use exemptions in law for the purposes of defence and national security.  
- to retain the statutory right to close areas in internal waters and create bye-laws for complete closures and exclusions.  

The defence of the nation is a clear contributor to the safety and well-being of its inhabitants but there are clearly dangers associated with the operations of firing ranges to those seeking to go about their business around the borders of them or indeed within, when they are inactive. MoD currently provides Royal Air Force Search and Rescue (SAR) service from RAF Valley, Anglesey. The SAR service will transition to a new service, run by the Department of Transport, in 2017 with services being based at St Athan and Caernarfon. DEF-01: Decision making authorities must ensure that proposals in or affecting | Relevant general policies and general sector policies:  
DEF-01 & DEF-02: Consideration of other activities supports General Obj 1 (sustainable development) and Obj 4 (managing multiple use)  
DEF-03: Supports Obj 4 (managing multiple use) and Obj 6 (coast & seas accessible and safe to use)  
How the [insert sector title] sector policies support the [insert sector title] sector objectives: Text to follow  
How the sector policies support the plan objectives: Relates to general plan policies that support:  
Obj 1 – sustainable development  
Obj 4 – managing multiple use  
Obj 6 – coast & seas accessible and safe to use  
Obj 9 – GES (in particular policies on underwater noise, litter & non invasive species)  
Obj 13 – integrated decision-making | General cross-cutting policy on minimising impact on |
<table>
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<tr>
<th>Sector objectives</th>
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<td>Defenee</td>
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</tr>
<tr>
<td>Sector policies</td>
<td>Defence</td>
<td>Ministry of Defence Danger Areas are only authorised with agreement from the Ministry of Defence.</td>
<td>very carefully the proximity of defence establishments and activities to the site of any proposed project or development and will consider the views of the MoD when offering advice or taking decisions. Where potential for conflict is identified, appropriate mitigation will be identified and agreed with the MoD, prior to planning permission, a marine licence, or other consent being granted. MoD practice exercise areas, firing ranges and coastal establishments are marked on navigation charts and cover areas of Welsh seas which are used extensively for training throughout the year.</td>
<td>DEF-02: In most areas this will mean that: (a) within Firing Danger Areas: ▪ Permanent infrastructure is unlikely to be compatible with the use by the MoD. ▪ Permitted activities may have temporal restrictions imposed. ▪ Proposals for development and use should be discussed with the MoD at an early stage in the process. (b) within Exercise Areas: ▪ Activities may be subject to temporal restrictions. ▪ Development that either individually or cumulatively obstructs or otherwise prevents the defence activities may not be permitted. (c) which cause unacceptable interference with communication, navigation and surveillance systems, including RADAR necessary for national defence ▪ Proposals may be prohibited if mitigation cannot be determined. ▪ Proposals for development and use should be discussed with the MoD at an early stage in the process.</td>
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**DEF-02:** Decision making authorities should ensure that the operational effectiveness of the armed services in Welsh waters is not compromised by managing activity and development: (a) within Firing Danger Areas: ▪ Permanent infrastructure is unlikely to be compatible with the use by the MoD. ▪ Permitted activities may have temporal restrictions imposed. ▪ Proposals for development and use should be discussed with the MoD at an early stage in the process. (b) within Exercise Areas: ▪ Activities may be subject to temporal restrictions. ▪ Development that either individually or cumulatively obstructs or otherwise prevents the defence activities may not be permitted. (c) which cause unacceptable interference with communication, navigation and surveillance systems, including RADAR necessary for national defence ▪ Proposals may be prohibited if mitigation cannot be determined. ▪ Proposals for development and use should be discussed with the MoD at an early stage in the process. |
## Sector objectives

<table>
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<tbody>
<tr>
<td>DEF-03: Decision making authorities respect that, where required for the purposes of national defence, the Ministry of Defence may establish byelaws for exclusions and closures of sea areas.</td>
<td>DEF-03: In most areas this will mean temporary exclusive use of areas by the MoD. Where potential for conflict is identified, appropriate mitigation will be identified and agreed with the MoD, prior to planning permission, a marine licence, or other consent being granted. Whilst defence is a reserved issue there is a benefit in identifying the implications of defence marine use for other marine users and to minimise potential impacts. UK and Welsh environmental legislation applies to MoD operations in Wales. Where exemptions or derogations from environmental legislation applicable to Defence are sought; MoD should introduce standards and management arrangements that produce outcomes that are, so far as reasonably practicable, at least as good as those required by legislation.</td>
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</table>

### The military use of the Welsh marine environment varies in its geographic extent and intensity relative to training and operational needs over time. Using byelaws under the provisions of the Military Lands Act 1892 and 1900 and the Land Powers Defence Act 1958 the MoD can regulate and restrict the use of sea areas either temporarily or permanently. Military training areas firing ranges are not in constant use and where appropriate other activities are permitted where consistent with operational requirements. However, in these areas, permanent installations will be at risk from live firing damage and are therefore not compatible. In these situations restricted activities often have positive impacts and potential benefits for nature conservation. Post war, sea dumping was endorsed by Government as necessary to reduce munitions stocks. Dumping on the UK continental shelf ceased in 1972, and was stopped entirely in 1992 under the OSPAR Convention. There are three known dump sites off Milford Haven. Activities involving the sea bed, such as certain fishing practices, may be restricted in munition areas. |
<table>
<thead>
<tr>
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<td>Such areas are well documented and information is available for users such as the fishing community.</td>
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</tbody>
</table>
Key interactions with other industries

The presence and variety of defence activities in Welsh waters means Defence interacts with a number of other marine users. Key interactions of particular interest
to marine planning include:

- **Oil and gas, CCS and marine renewables** including wind and wave and tidal:
  MoD activity has little impact on the infrastructure, although conversely the development of new infrastructure, such as that of marine renewables, may lead to navigational issues and possible disruption to MoD activity. Radar activity can also be affected by some installations and development requires careful consideration.

- **Shipping**:
  The Right of Innocent Passage granted by UNCLOS (United Nations Convention on the Law of the Sea) could in certain circumstances significantly disrupt MOD operation where vessels e.g. from a marina regularly cross a range danger area in territorial waters, in which case byelaws could not be enforced against the Rights of Innocent Passage and firing would have to cease. Byelaws continue to be enforceable within internal waters.

- **Recreational and commercial boating activity**:
  Some activities such as commercial fishing and yachting may be restricted on a temporal basis in range danger areas.

**Future**

- Continued use of Welsh seas for training in all aspects of defence, including test and evaluation activities.
- To be able to manage the potential impacts from marine reserves/MPA protection measures.
- Safeguarded use of the Welsh Exercise and Danger Areas and defence surveillance and communication capabilities (including RADAR).

**Climate change**

- To be able to manage the potential impacts from marine reserves/MPA protection measures.
- Safeguarded use of the Welsh Exercise and Danger Areas and defence surveillance and communication capabilities (including RADAR).

Whilst climate change is likely to affect MoD owned facilities and assets, and its operations in Welsh waters appropriate adaptation measures will be brought forward, as appropriate, by the MoD to address these challenges. Adaptation of this sector remains a reserved issue for the UK Government.
Dredging and disposal

Context

Dredging is closely linked with and supports the transport (ports and shipping) sector and consists of navigation dredging of ports, harbours, marinas and navigation channels to maintain navigable depths for vessels and dredging for ecosystem enhancement. Dredging and disposal are essential for maintaining and developing unimpeded and safe navigation of ports, harbours and waterways. In 2014 Welsh ports handled 59 million tonnes of cargo (representing 12% of the total UK throughput). Ports and shipping are critical to the effective movement of cargo and people, and form an essential part of the Welsh, UK and global economies.

Dredging is carried out for the following purposes:

a) Navigation dredging includes:
   • Capital (or new-work) dredging for navigation which involves enlarging or deepening existing channel and port areas or creating new ones. Capital works also include dredging for engineering purposes but these are addressed in other sections of this plan, such activities include: constructing trenches for pipes [see Energy – Oil and gas (including carbon capture and storage) section], cables [see Subsea cabling section], removal of material unsuitable for foundations [see Energy – Low carbon section] or for aggregate extraction [see Aggregates section], immersed tube tunnels, and for hydraulic purposes to increase the flow capacity of the waterway;
   • Maintenance dredging to maintain channels, berths or construction works, etc. at their designed dimensions (i.e. to counteract sedimentation and changes in morphology);
   • Dredging for coastal protection: use of sediments for such activities as beach nourishment and construction of levees, dykes, jetties [see Coastal change and flooding section].

b) Dredging for the purposes of ecosystem enhancement includes:
   • Environmental dredging to remove contaminated sediment for the purpose of reducing risks to the environment and to human health;
   • Restoration dredging to restore or create environmental features or habitats to establish ecosystem functions, benefits, and services; e.g., wetlands creation, island habitat construction/nourishment, construction of offshore reefs and topographic features for fisheries enhancement, and
   • Dredging to support local and regional sediment processes retaining sediment within the natural sediment system to support sediment based habitats, shorelines and infrastructure.

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. Where possible, dredged material should be reused or recycled before choosing to dispose at sea. Schemes for such re-use include replenishment of mudflats providing habitat and feeding grounds for wildlife, and recharging of
barrier beaches for coastal defence. If no alternative uses for the dredged material can be found then, as long as the dredged material is deemed suitable by regulators, it is usually disposed of at sea at designated disposal sites. In the Welsh marine area there are currently 15 open sea disposal sites. On average, between 2010 and 2012 there was 1,695,880 dry tonnes of dredged material disposed to licensed disposal sites around the Welsh coast.

Governance

Dredging and disposal operations are commissioned by port and harbour operators to ensure safe access. Some harbour authorities have powers to consent their own dredging operations under the Harbours Act 1964 (as amended) the remainder require a marine licence from NRW under the Marine and Coastal Access Act 2009. All operations to dispose dredged material at sea require a marine works licence from NRW. Guidance controlling disposal at sea operations is provided by the Oslo and Paris (OSPAR) and London Conventions.
Table 14, Dredging and disposal sector objectives and policies

<table>
<thead>
<tr>
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**Sector policies: Dredging and disposal**
<table>
<thead>
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<tr>
<td>To support economic activity at local, regional and national scales by safeguarding navigational access to ports, harbours, marinas and waterways.</td>
<td>The sector objectives promote unimpeded navigational access to ports, harbours and waterways and are closely aligned with those of the transport (ports and shipping) sector. Optimal reuse requires consideration of the physical, chemical and biological characteristics of the dredged material at source and at the re-use or disposal site. Potential adverse environmental impacts include remobilisation and translocation of contaminants, changes to granulometric composition and the associated biota. Preferred areas for disposal are those with a long record of use and / or those that have been characterised to receive dredged materials in line with Chapter 6 of the Dredged material assessment guidelines (&quot;Waste Assessment Guidelines under the London Convention and Protocol: 2014 edition&quot;, <a href="http://www.imo.org/Publications/Pages/Home.aspx">http://www.imo.org/Publications/Pages/Home.aspx</a>).</td>
<td>Guidance for implementing general crosscutting policies in the dredging and disposal sector: The dredging and disposal sector should apply this plan's general policies, in particular, on: sustainable development and use; economically productive activities; opportunities to create employment; skills development and diversification; coexistence; access to the marine environment; coastal communities; safety; marine protected species and areas; conservation and biodiversity; geodiversity; cumulative effects; environmental impact assessment; coastal change and flooding; historic assets; climate change; engagement; cross border; sound scientific and socio-economic evidence; risk based approach.</td>
<td>Text to be adjusted to align with headings</td>
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<tr>
<td>To minimise adverse impacts on the marine environment by promoting the optimal re-use of dredged material and guiding disposal towards preferred areas.</td>
<td>Text to be adjusted to align with headings</td>
<td>How the general crosscutting policies support the dredging and disposal sector objectives: Text to follow</td>
<td></td>
<td>How the [insert sector title] sector policies support the [insert sector title] sector objectives: DD1: Consideration of other activities supports General Obj 1 (sustainable development) and Obj 4 (managing multiple use) DD2: Supports Obj 1 (sustainable development), Obj 4 (managing multiple use), Obj 6 (coast &amp; seas accessible and safe to use) and Obj 13 (integrated decision-making)</td>
</tr>
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</table>

**Sector policies: Dredging and disposal**
### Sector objectives

To support long term security and clarity of maritime transport through a strategic approach to consenting navigation dredging and disposal operations.

### What do the objectives mean and why are they important?

Dredgments on the suitability of dredged material for re-use or sea disposal are subject to regulatory assessment to reduce environmental impact. Characterisation of preferred re-use and disposal sites are subject to environmental impacts assessments. Minimising the distance between dredge and re-use/disposal locations reduces environmental impact and supports sustainable development. A strategic approach means continuing to work towards securing longer term licences with appropriate adaptive management measures applied through licence conditions to support longer-term confidence.

Strategic approach means consistent well informed decisions that are based on long-term benefits. Long-term security and clarity means ensuring developers, investors and governing bodies understand the long-term approach and any likely changes so

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<td><strong>Policy D&amp;D-01: Decision making authorities should</strong></td>
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<tr>
<td><strong>Policy interpretation: guidance for implementation</strong></td>
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- are critical to the effective movement of cargo and people, both within the United Kingdom and in the context of the global economy.

In summary the key considerations for marine planning for the dredging and disposal sector are:

- The sector operates in an international, complex and competitive environment full of both opportunities and considerable risks. A balance is needed between the identification and management of project risks with the legislative and planning framework.
- An integrated approach can provide a basis for considering economic acceptability and ecological sustainability. An integrated approach encourages open lines of communication between all stakeholders early and often during the dredging (and disposal) project design and implementation, considers the full range of environmental and economic issues of the project in relation to the waterbody and the associated ports and harbours.
- Dredging projects should be ecologically sustainable and technically feasible
- Planning requires a wide understanding of scientific, technical and managerial aspects of dredging and dredged material management

**D&D-01:** Dredging and disposal are essential for maintaining and developing unimpeded and safe

### How do the policies support the objectives?

Relates to general plan objectives that support:

- Obj 1 – sustainable development
- Obj 4 – managing multiple use
- Obj 6 – coast & seas accessible and safe to use
- Obj 9 – GES
- Obj 13 – integrated decision-making

General cross-cutting policy on minimising impact on environment or other users supports Obj 4 (managing multiple use), Obj 6 (coast & seas accessible and safe to use) and Obj 9 (GES)
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<td>they can plan their activities.</td>
<td>ensure that proposals in or affecting licensed navigation dredging and disposal areas demonstrate, in order of preference: a) avoid adverse impacts on navigation dredging and disposal activities b) minimise impacts where they cannot be avoided c) mitigate impacts where they cannot be minimised d) present the case for proceeding where (a-c) are not possible</td>
<td>navigation of ports, harbours and waterways. This policy supports ports policies [see Ports and shipping section] and other activities that require the effective dredging and management of dredge material (e.g. fisheries; recreational boating). It does so by ensuring that where possible proposals do not have adverse impacts upon dredging and disposal activities or that where they do they are effectively minimised or mitigated. Mitigation may include temporal restrictions on access for the duration of the dredging or disposal campaign; burial or rerouting of infrastructure (e.g. cables, pipelines) to avoid interaction with dredging and disposal operations. Where (a-c) are not possible a proposal must set out the case for proceeding by demonstrating that the public benefit in terms of supporting the delivery of Wales’ well-being goals outweighs the potential adverse impact upon dredging and disposal activity including the knock on effect on associated port activities.</td>
<td>Decision making authorities should ensure that navigation dredging operations and sea disposal of dredged materials should comply with legal requirements and recognised good practice (including prioritising re-use opportunities) to minimise the impact on the environment and other users. Legal requirements: Marine licensing (under Marine and Coastal Access Act 2009) provides a robust mechanism to assess the potential environmental effects of dredging and disposal.</td>
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<td>sea disposal of dredged material. Under both the OSPAR and London international treaties all countries in the North East Atlantic and globally (including Wales as part of the UK returns) provide annual reports of the quantities of dredged material disposed at sea, maps of the disposal sites and details of any chemical contaminants within the dredged material. Recognised good practice: Both the OSPAR Convention and London Protocol provide complementary guidelines for the management of dredged material operations, including characterisation of the material, determinations on alternative uses, selection of disposal sites, assessment of potential environmental effects and monitoring. When considering suitable management options, it is generally the preferred option to retain dredged material within the same aquatic sedimentary system from where it originated, if it is environmentally, technically, socially and economically feasible to do so. Dredged material can be a valuable resource, and can be used in environmental enhancement projects including habitat creation and enhancement, and engineering projects for construction materials, flood defence, land reclamation and beach nourishment.</td>
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Key interactions with other industries:

The direct association between dredging and disposal with the transport (ports and shipping) sector means that the combined interaction of these with other sectors should be considered. Increased competition for marine resources potentially
affecting the sea space available for the safe navigation of ships remains a key issue for the sector. Shipping (including the maintenance of navigation channels) can coexist with marine conservation, fishing and aggregate extraction but there are other uses of the sea which may be incompatible. The projected growth in offshore renewable energy developments has the potential to disrupt shipping activity (e.g. forcing deviation from planned routes). Marine plan authorities and decision-makers should take into account and seek to minimise any negative impacts on shipping activity, freedom of navigation and navigational safety and ensure that their decisions are in compliance with international maritime law.

Construction of marine infrastructure, e.g. cables and pipelines, offshore renewable energy devices have the potential to compromise dredging and disposal operations. However, opportunities may also exist in such cases, for example establishing and maintaining safe navigation channels from ports and harbours also provides the means to transport personnel, materials, construction and maintenance vessels / equipment to service these other sectors.

Future

The amount of dredged material disposed at sea has remained relatively constant over the last 20 years, with a slight reduction in the trend as operators seek to reduce costs. The requirements for the disposal of dredged material at sea is directly linked to the activity of ports sector (see section 5.9 of the SSE). There will be a limit to which operators can reduce their maintenance dredging requirements, and together with the increasing size and draft of vessels opportunities for future port expansion projects, the level of maintenance dredging seems likely to be stable.

Climate change

Climate change will impact on both dredging and disposal activities. Navigational dredging activities mostly take place in estuaries, ports and coastal areas. The morphology of these areas is highly influenced by sediment supply and hydrodynamic conditions such as currents, waves, winds, water levels and tidal range. Changes in these conditions due to climate change may induce changes in erosion and sedimentation patterns, with potential consequences for dredging requirements. In South Wales, the majority of activity occurs around ports where there is a need for the dredging and disposal in support of the development and maintenance of ports, harbours and waterways for navigation, flood management and remediation. Increases in storminess and storm intensity are likely to add additional sediment load in rivers resulting in greater sedimentation volumes in areas where ports, harbours and marinas are located. Changes in coastal erosion and sedimentation processes could have an increased impact on shipping navigation channels (displacement of sand, sedimentation, etc.). The result will be the requirement for more dredging resulting in greater volumes of dredged material being disposed to sea. However, these impacts may be offset by higher sea levels which may reduce the need for dredging. Climate change may result in more flooding, due to higher river flows (caused in
particular by an increase in the quantity and intensity of winter rainfall) and rising sea levels. Dredging may have an important role to play in improving resilience and reducing vulnerability to flooding and coastal erosion. This may be through the deepening channels to increase flood conveyance capacity or through the use of dredged material as a resource for beach re-nourishment, to raise strengthen flood and coastal defences and for environmental creation and enhancement projects.

If climate change has an influence on currents and/or circulation patterns, there may be further impacts resulting from the dispersal of sediment plumes that typically result from dredging/aggregate extraction and disposal operations. Also the recovery time of the sea bed (sediment infill) may be affected following passage of a dredging vessel.

If storminess increases (this is highly uncertain) then it may be necessary to designate new disposal sites in more sheltered waters, or to set aside larger areas – acknowledging difficulties in precise dredge operations.
Energy – Oil and gas (including carbon capture and storage)

Context

Energy is one of our most important economic imperatives. The energy system in Wales and wider afield is on the threshold of great change driven by new energy, technology and low carbon energy transition objectives. This change, in combination with affordability, efficiency and security of supply imperatives, offers huge opportunities and challenges that the Welsh Government is determined to meet. Although energy policy for Wales is largely the responsibility of the UK Government, it is vital for all the enabling policy areas that are in the Welsh Government’s responsibility to join up in order to make the most of the opportunity and deliver our energy ambitions.

Welsh Government is committed to move to a low carbon energy system but recognise that this cannot happen immediately. Major challenges face us including climate change, energy security and the cost of energy to businesses and consumers. To address these challenges we need a low carbon energy transition. We do however recognise the important role of indigenous energy resources to help ensure energy security and affordability. In terms of electricity generation, gas continues to remain the dominant source, responsible for almost 50% of all electricity generated in Wales. Coal and nuclear have gradually decreased as particular generating plants come off-line. Gas is a flexible, reliable, responsive energy source with lower emissions than other fossil fuels and will have a key role in the transition to a low carbon energy system. In Wales little historic oil and gas exploration has been undertaken. More research is required to consider whether gas from indigenous sources might contribute to the future energy mix and benefit the people of Wales. Our deep sea ports provide access to the energy in our seas. Our gas infrastructure – notably the two LNG terminals at Milford Haven – is an important source of stability during the transition to a low carbon economy.

There is currently limited conventional oil and gas exploration or production taking place within Welsh waters, although DECC have recently undertaken the 28th Oil and Gas Licence Round and there are currently a number of licensed blocks in Welsh waters. Supporting activities include the significant Point of Ayr Gas Terminal, located close to Prestatyn on the north coast. This terminal handles gas from the Liverpool Bay gas fields, which is delivered via subsea pipeline. Following the refinement process the gas is sent by underground pipeline to the CCGT power station at Connah’s Quay in North Wales. Whilst Milford Haven plays an important role in the UK’s energy sector, with several oil refineries and one of the largest Liquefied Natural Gas (LNG) terminals in the world, this activity is covered under the Ports and shipping section.

Welsh government has a precautionary approach to unconventional gas in Wales and considers there is a need to carefully consider all the issues, including economic, environmental and social impacts associated with its development. We will engage with the onshore oil and gas industry to understand their proposals for exploratory
activity in Wales and ensure any potential benefits to Wales are maximised.

Whilst gas is important in a low carbon transition, it cannot be a long term basis for the energy economy of Wales without carbon capture and storage (CCS). Carbon capture and storage therefore, if successfully commercialised and supported by the appropriate regulatory framework, will be a vital component of our medium to long term energy future. There are currently no commercial scale CCS projects operating in the Welsh marine area but Aberthaw power station in Barry is operating a multi-million pound pilot CCS facility, one of the largest to be built in the UK and further efforts to develop the CCS industry in Wales are being investigated by several institutions. However, the availability of offshore CO₂ storage capacity is limited by suitable geology.

Wales has a number of conventional power stations in coastal locations which would need to factor in any marine planning decisions: e.g.

- Aberthaw: a CCGT-type power station which runs on natural gas
- Pembroke CCGT: a combined cycle gas turbine (CCGT) plant which began full commercial operation in 2012 is capable of generating over 2000MW, the station is located to the west of the town of Pembroke, South West Wales, on the banks of Milford Haven.
- Uskmouth: a coal-fired power station with a generation capacity of 240MW (decision to close announced in May 2014).
- Connah’s Quay: a combined cycle gas turbine (CCGT) power station with an overall generation capacity of 1420MW, located on the Dee Estuary gas from Liverpool Bay is delivered straight to the site through a 27km pipeline from the Point of Ayr gas terminal.
- Abernedd: a proposed Combined Cycle Gas Turbine (CCGT) power station, which would be close to Port Talbot in South Wales.
- Deeside: a CCGT-type power station which runs on natural gas, 500 MW capacity.

**Governance**

There are a range of international policies controlling the governance of fossil fuel energy developments and operations at the national level (e.g. Kyoto Protocol, Carbon Storage Directive, 2009/31/EC). Oil and gas and CCS are currently non-devolved powers with all activities requiring the approval of Her Majesty’s Secretary of State for Energy and Climate Change. The development of and production from oil and gas fields in the UK’s territorial waters and on the UK Continental Shelf is subject to a licensing regime overseen by the Licensing, Exploration and Development Branch (LED) which is part of the Energy Development Unit (EDU) of the Department of Energy and Climate Change (DECC). In reviewing proposals, DECC’s overall aim is to maximise the economic benefit to the UK of its oil and gas resources, taking into account the environmental impact of hydrocarbon development and the need to ensure secure, diverse and sustainable supplies of energy to UK businesses and consumers at competitive prices. There are various regulations controlling the exploration, assessment, construction,
operation and decommissioning of oil and gas and CCS facilities. These regulations include: The Environmental Assessment of Plans and Programmes Regulations 2004; The Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999 (as amended); The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (as amended); The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended); The Offshore Chemicals Regulations 2002 (as amended); The Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005 (as amended); The Offshore Combustion Installations (Pollution Prevention and Control) Regulations 2013; The Energy Act 2008, Part 4A Consent to Locate; The Energy Act 2008 (Consequential Modifications) (Offshore Environmental Protection) Order 2010; The Marine and Coastal Access Act 2009. Welsh Government and Natural Resources Wales are statutory consultees for any developments likely to affect Welsh interests.

Strategic Environmental Assessment (SEA) is the process of appraisal through which environmental protection and sustainable development may be considered, and factored into national and local decisions regarding Government (and other) plans and programmes – such as oil and gas licensing rounds and other offshore energy developments including gas and carbon dioxide storage. The Department of Energy and Climate Change (DECC), as the principal regulator of the offshore oil and gas industry, has taken a proactive stance on the use of SEA as a means of striking a balance between promoting economic development of the UK’s offshore energy resources and effective environmental protection. The European Strategic Environmental Assessment Directive (Directive 2001/42/EC) is incorporated into UK law by The Environmental Assessment of Plans and Programmes Regulations 2004.
Table 15. Energy - Oil and gas (including carbon capture and storage) sector objectives and policies

<table>
<thead>
<tr>
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Sector policies: Energy - Oil and gas (including carbon capture and storage)
### Sector objectives

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<tr>
<td>To provide Welsh businesses and consumers with affordable energy from a mix that includes traditional, new technologies and low carbon generation, that is both secure and resilient.</td>
<td>Welsh Government is committed to doing all that it can to ensure Wales’ energy infrastructure is robust. Whilst still working within environmental limits, our aim is to unlock and harness Wales’ energy resources in order to maximise economic, social and environmental benefits for the people of Wales. Investment in energy infrastructure creates jobs, and stimulates and enables wider economic development. We will seek to work in partnership with business to ensure this happens. Energy presents a significant opportunity to bring wealth and long term benefit to urban and rural areas, thus safeguarding the long term viability of our communities. It is vital in the current economic climate that we prioritise our efforts and focus most strongly on the energy projects that offer greatest benefit to Wales. We aim to safeguard and maximise the Welsh energy position; maximise the benefit to Wales of the transition to low carbon generation; maintain a business friendly and</td>
<td>Policies apply to both the inshore and offshore regions of this plan</td>
<td>Guidance for implementing general crosscutting policies in the oil and gas sector: The oil and gas sector should apply the general policies of this plan, in particular, on: sustainable development and use; economically productive activities; opportunities to create employment; skills development and diversification; coexistence; access to the marine environment; seascapes; historic assets; climate change; safety; protected species; biodiversity; noise; air quality; EIA and SEA; cumulative effects; engagement; cross-border; sound evidence; risk based approach.</td>
<td>Section text still under development</td>
</tr>
<tr>
<td>To maximise the economic benefits, in terms of jobs and wealth, from the transition to low carbon energy.</td>
<td><strong>EOG-01:</strong> Decision-makers should take a consistent and standard approach when assessing applications.</td>
<td>Guidance for implementing oil and gas sector policies: <strong>EOG-01:</strong> Policy relates to exploration, production and power stations. Industry is seeking a stable and clear policy landscape in order to de-risk and facilitate energy investment. The development of and production from oil and gas fields in the UK’s territorial waters is subject to a licensing regime overseen by Department of Energy and Climate Change (DECC). In reviewing proposals, DECC’s overall aim is to maximise the economic benefit to the UK of its oil and gas resources, taking into account the environmental impact of hydrocarbon development and the need to ensure secure, diverse and sustainable supplies of energy to UK businesses and consumers at competitive prices.</td>
<td>Text to follow</td>
<td></td>
</tr>
</tbody>
</table>

**Sector policies: Energy - Oil and gas (including carbon capture and storage)**
### Sector objectives

<table>
<thead>
<tr>
<th>What do the objectives mean and why are they important?</th>
</tr>
</thead>
<tbody>
<tr>
<td>competitive environment for investment and affordable supply, and seek to secure parity and increased influence within the UK and wider afield, for Wales and Welsh interests.</td>
</tr>
</tbody>
</table>

### Policies

<table>
<thead>
<tr>
<th>Policy interpretation: guidance for implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOG-02: Decision making authorities should ensure that proposals in areas of current oil, gas and CCS activities or</td>
</tr>
<tr>
<td>The Secretary of State will consider this aim in assessing proposals and, more specifically, will consider the following policy objectives:</td>
</tr>
<tr>
<td>a. ensuring the recovery of all economic hydrocarbon reserves;</td>
</tr>
<tr>
<td>b. ensuring adequate and competitive provision of pipelines and facilities; and</td>
</tr>
<tr>
<td>c. taking proper account of environmental impacts and the interests of other users of the sea.</td>
</tr>
<tr>
<td>DECC also seeks wherever possible to facilitate communication and cooperation between Licensees.</td>
</tr>
<tr>
<td>These policy objectives represent the current Departmental objectives applicable to the majority of field developments. No single objective routinely takes precedence and, where a conflict arises, the relative merits of each will be viewed in the light of the particular facts of the proposal.</td>
</tr>
<tr>
<td>Further information on the regulation of oil and gas developments, including current Guidance Notes, can be found on the DECC Website: <a href="https://www.gov.uk/topic/oil-and-gas">https://www.gov.uk/topic/oil-and-gas</a></td>
</tr>
<tr>
<td>Policy relates to the planning, construction, operation and decommissioning of facilities. Some power stations have infrastructure on coasts or have discharges into air and sea which can affect the environmental status of Welsh waters.</td>
</tr>
</tbody>
</table>

### How do the policies support the objectives?

Obj 13 – integrated decision-making  
Obj 14 – unique characteristics and future opportunities  
Obj 15, 16 & 17 – engagement, ecosystem approach and marine evidence base  
Obj 18 – risk based approach
<table>
<thead>
<tr>
<th>Sector objectives</th>
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<th>How do the policies support the objectives?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>areas identified having high potential resource likely to be developed within the term of this plan demonstrate that they will, in order of preference:</td>
<td></td>
<td>EOG-02: This policy safeguards the resource by ensuring that any nearby developments do not compromise capabilities to extract resources and that other developments do not occupy and prevent the development of areas which may be licenced in the future. This will help to secure future access to sufficient supply of fossil fuel resources and maintain flexibility for future activity in these areas.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) avoid adverse impacts on current or future energy activities</td>
<td></td>
<td>Avoid means not pursuing a licence where adverse effects are identified or seek alternative technologies, e.g. directional drilling. Minimise includes the identification of potential adverse effects and considering options that may reduce such effects to acceptable levels, e.g. following the UK Energy Strategic Environmental Assessment to minimise the risk of a significant environmental impacts. Mitigation, includes measures to amend the design or construction methods, e.g. temporal restrictions on exploration seismic surveys during fish spawning; use of marine mammal observers to avoid adverse effects.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) minimise impacts where they cannot be avoided</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) mitigate impacts where they cannot be minimised</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) present the case for proceeding where (a-c) are not possible</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Key interactions with other industries

Interactions with other sea users will vary and depend on the device type, location and possible pressures from other marine activities. As part of the project application process developers are responsible for considering interactions with other sea users.
Welsh National Marine Plan

For example, when an offshore development is planned DECC will need to be assured that adequate consultation has taken place with the appropriate Fishery Department and with those fishery organisations which operate in the area of the development.

Various legislative requirements (see above) cover the environmental aspects of offshore oil and gas field development. Some of the main environmental issues relate to:

- Disturbance to species and habitats
- Effects of underwater noise particularly during construction
- Effects from lighting as operations are 24hrs.
- Effects of habitat loss
- Collision risks (with associated infrastructure and vessels)
- Cooling water discharges

Full guidance on aspects of environmental permitting can be found on the Department’s website at: [https://www.gov.uk/oil-and-gas-offshore-environmental-legislation](https://www.gov.uk/oil-and-gas-offshore-environmental-legislation)

**Future**

Welsh Government is strongly committed to unlocking the energy in our seas, however this is likely to be in the form of harnessing marine renewable energy potential [see Energy – Low carbon section] as part of our transition to a low-carbon economy.

Although there is limited conventional current oil and gas exploration and production, there are a limited number of licensed blocks, including one with a significant discovery. In addition there are many blocks within Welsh Waters that are included in the 28th Oil and Gas Licensing Round and therefore future developments cannot be discounted. ([https://www.gov.uk/oil-and-gas-licensing-rounds](https://www.gov.uk/oil-and-gas-licensing-rounds)).

A further consideration is the prospect of shale gas reserves being explored and produced. At present efforts are being concentrated onshore, however, over the 20 year period of marine plans, this technology may become a possibility offshore if the relevant geology and economic drivers indicate potential this may become an option. This emerging industry remains, however, at an immature stage.

In terms of CCS, opportunities may exist in the East Irish Sea oil and gas fields when depleted, which would require transport infrastructure (pipelines) through Welsh waters. However, at this time, CCS is very much an emerging industry and as such trends are currently very difficult to predict. Further detail is provided in the Marine Planning for Wales Strategic Scoping Exercise.

We believe that the Welsh Government is best placed to align Wales’ energy aspirations with the needs of our communities and our natural environment. We will therefore continue to seek full powers over energy consenting (with the exception of Nuclear) and seek the necessary levers that will enable us to incentivise the right technologies for Wales. We will also continue to engage with the National Grid and
stakeholders to ensure that grid development in Wales is fit for purpose.

Climate change

The marine environment is seeking to be one of the biggest contributors of energy. This includes the oil and gas sector through the exploration and extraction of petroleum and natural gas from underground wells and drilling rigs. Climate change impacts related to extreme storms and waves may affect a wide range of marine structures (e.g. oil and gas platforms) and “weather” windows for operations at sea (e.g. difficulties during exploration and extraction of these resources). Particularly on the exploration aspects, climate change could produce more frequent extreme storms and waves, sea level rise and changes in ocean currents demanding the installation of additional structures (e.g. e.g. platforms / Floating Production Storage Offloading (FPSO) as vessels will need to receive and/or process the oil and gas. The installation of subsea facilities (wellheads) and pipelines to transport the oil and gas onshore for treatment or export will also have to be made of robust structures to cope with strong waves and tide.
Energy – Low carbon

Context

Energy underpins our entire way of life and the UK faces a significant challenge in achieving a secure, affordable low carbon energy supply. The Climate Change Act 2008 established a long-term framework to cut greenhouse gas emissions by at least 80% below 1990 levels by 2050. The UK Climate Change Committee recommended that the electricity sector needed to be largely decarbonised by 2030 (http://www.theccc.org.uk). As part of the move to a low carbon energy economy, the UK must meet a legally binding EU target for 15% of energy consumption to come from renewable sources by 2020 (Renewable Energy Directive (Directive 2009/28/EC), Annex I). As energy matters in Wales are largely reserved to the UK Government no specific Welsh renewable energy targets have been set. However, Wales is playing a significant role in assisting the UK Government in meeting its binding targets.

The UK Marine Policy Statement (MPS) sets out the role a low carbon energy industry will play in ensuring that our natural resources are used in a sustainable way in line with the UK’s high level marine objectives. The MPS states that a significant part of the renewable energy required to meet climate change targets and objectives is expected to come from marine sources, with offshore wind providing the largest single renewable electricity contribution in the short to medium term (to 2020), but with wave and tidal stream technologies also having significant potential in the medium to long-term. The MPS notes that Marine Plans should take account of and identify areas of potential for the deployment of different renewable energy technologies. Measures should be taken to prevent, mitigate, and where that is not possible compensate, for any potential negative impacts in line with legislative requirements. This plan and the marine planning process will need to be flexible in responding to emerging evidence about the impacts of new technologies.

Wales is surrounded by a wealth of natural resources and, if harnessed sustainably, our wind, wave and tidal resource can play a major role in meeting our ambition to decarbonise the economy and to provide greater energy security. We continue to work within our powers to achieve our ambition of creating a low carbon future for Wales. Energy Wales: A Low Carbon Transition (March 2014) is clear about the Welsh Government’s priorities for leading the transition to a low carbon economy whilst capturing the benefits from key innovation, research and development on low carbon technologies that will power our future. A further Energy Wales statement in April 2015 clarified these plans and sets out our aim to enhance the economic, social and environmental wellbeing of the people and communities of Wales to achieve a better quality of life for our own and future generations Welsh seas have a key role to play in providing for our future energy needs.

Current marine renewable energy activity in Wales includes:
### Offshore Wind

Commercial scale offshore wind energy generation has been present in Wales since 2003 with the development of North Hoyle (60MW) offshore wind farm, the UK’s first major offshore renewable energy project. The 90MW Rhyl Flats and the 576MW Gwynt-y-Môr offshore wind farms have since been constructed. Applications have also been received for other sites e.g. in Swansea Bay, Mid Bristol Channel and off north Anglesey, but for commercial reasons prevailing at the time they have not been progressed. Such development interest may re-emerge. Although not situated in Wales, the cable for the Burbo Bank Extension offshore wind farm comes ashore on the north Wales coast and the wind farm is visible from Wales [see Figure 16].

### Tidal Range

A substantial tidal range exists around the coast of Wales. With the second highest tidal range in the world, the Welsh Government believes that the Severn Estuary represents a strategically important source of renewable energy. A key consideration will be an evaluation of how such projects impact on the tidal regimes to ensure they do not inadvertently constrain other developments (including considering the carrying capacity of wider UK seas). There are a number of early stage tidal lagoon proposals around the Welsh coast with one 320MW project (Tidal Lagoon Swansea Bay) having received development consent from UK Government on 9 June 2015.

### Wave and Tidal Stream

Wales has a substantial natural tidal stream and wave resource. Wales currently has three projects with the necessary consent or planning stage to deploy in Welsh waters, at Ramsey sound (Pembrokeshire) and Skerries (Anglesey) [see Figure 16].

### Trans-European Network-Energy (TEN-E) and Sub-Sea HVDC Cables

Wales has a sub-sea inter-connection to Northern Ireland, the EirGrid East West Interconnector. There is potential for further offshore grid projects in future.
The Wylfa Nuclear Power Station (490 MW) on Anglesey has been in operation since 1971 (Reactor 2 was shut down in 2012 and Reactor 1 is likely to operate until 2015). The Welsh Government supports the development of nuclear new build (Wylfa Newydd) on Anglesey, with the potential to contribute £2.34 billion to the economy over the period to 2025.

**Governance**

The consenting of marine renewable energy projects in Wales is currently divided between the UK Government and the Welsh Government on the basis of the energy capacity of projects as follows:

<table>
<thead>
<tr>
<th>Threshold (Megawatt MW)</th>
<th>Consenting Regime</th>
<th>Licensing Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1MW</td>
<td>Marine Licence under Part 4 of the Marine and Coastal Access Act 2009 (M&amp;CAA)</td>
<td>Natural Resources Wales on behalf of Welsh Ministers</td>
</tr>
<tr>
<td>1MW – 100MW</td>
<td>Marine Licence under Part 4 of M&amp;CAA and Section 36 consent under the Electricity Act 1989</td>
<td>Natural Resources Wales on behalf of Welsh Ministers and Marine Management Organisation</td>
</tr>
<tr>
<td>100MW and above</td>
<td>Marine Licence under Part 4 of M&amp;CAA and Development Consent Order under the Planning Act 2008</td>
<td>Natural Resources Wales on behalf of Welsh Ministers and The Secretary of State for Energy and Climate Change, following a recommendation by the UK Planning Inspectorate</td>
</tr>
<tr>
<td>Nuclear</td>
<td>Marine Licence under Part 4 of M&amp;CAA and Development Consent Order under the Planning Act 2008</td>
<td>Natural Resources Wales on behalf of Welsh Ministers and The Secretary of State for Energy and Climate Change, following a recommendation by the UK Planning Inspectorate</td>
</tr>
</tbody>
</table>

A new Wales Bill will give powers to Welsh Ministers for all energy development consents in Wales for projects up to 350MW onshore and in Welsh territorial waters.
In addition to the above, developments in the marine environment require a range of other permissions that are not currently devolved to the Welsh Ministers, including seabed leases, safety zones and decommissioning. Furthermore, the decisions over financial incentives, such as the Contract for Difference for renewable energy electricity pricing, are also decided at UK level.

The Crown Estate (TCE) role primarily involves leasing areas of the seabed and managing the associated seabed rights for a range of activities including renewable energy developments. As custodians of the UK’s seabed out to the 12 nautical mile limit, TCE play a major role in the development of the offshore renewable energy sector and associated infrastructure (e.g. subsea cables).

Figure 16 shows low carbon activities in Welsh waters including technical opportunity areas to develop wind, tidal and wave resources.
Table 18. Energy - Low carbon sector objectives and policies

<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
</tr>
</thead>
</table>

**Sector policies: Energy - Low carbon**
<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
</tr>
</thead>
<tbody>
<tr>
<td>To support sustainable growth, energy security and the development of a low carbon economy over the next 20 years by maximising Wales’ use of its abundant natural marine energy resources and safeguarding key marine renewable resource areas for future use.</td>
<td>A key aim of the Welsh Government’s Programme for Government is to strengthen the conditions that will enable business to create jobs and sustainable economic growth. The energetic waters off the Welsh coast are ideally suited for the establishment of a sustainable, successful and competitive marine renewable energy industry. Whilst the technology associated with the capture and conversion of marine renewable energy is still emerging, our deep sea ports, supply-chain and manufacturing infrastructure, accessible grid infrastructure and excellent research capabilities puts us in a good worldwide position to develop a thriving marine energy industry, both as a significant generator and as an exporter of marine energy knowledge, technologies and services.</td>
<td>Guidance for implementing general crosscutting policies in the energy – low carbon sector:</td>
<td>The energy – low carbon sector should apply this plans general policies, in particular, on: sustainable development and use; economically productive activities; opportunities to create employment; skills development and diversification; coexistence; access to the marine environment; coastal communities; safety; marine protected species and areas; conservation and biodiversity; cumulative effects; environmental impact assessment; coastal change and flooding; historic assets; climate change; engagement; cross border; sound scientific and socio-economic evidence; risk based approach; noise; deploy and monitor.</td>
<td>Section text under development</td>
</tr>
<tr>
<td>To contribute to the achievement of Wales’ wellbeing goals over the next 5 – 10 years by supporting the development and demonstration of tidal stream and wave energy technologies working towards achieving</td>
<td>Because of the potential scale of deployment and the speed with which the sector is developing, marine renewable energy developments in Welsh waters over the next 20 years has the potential to transform the way we use and benefit from areas of sea. We want to support the sustainable development of all marine renewable energy resources for all types of activity: tidal range, tidal stream, wind and wave, thereby making a strong contribution to energy security and</td>
<td>Guidance for implementing energy – low carbon sector policies:</td>
<td>Energy Wales: A Low Carbon Transition recognises the role and importance of working in partnership with private and public sectors to realise our ambitions and to secure a wealthier, more resilient and sustainable future for Wales. The ambition for Wales to become more prosperous through development within environmental limits and with the involvement of local people is set out in the Well-being of Future Generations (Wales) Act 2015.</td>
<td>How the general crosscutting policies support the low carbon sector objectives: Text to follow</td>
</tr>
<tr>
<td></td>
<td>sustainable development and use; economically productive activities; opportunities to create employment; skills development and diversification; coexistence; access to the marine environment; coastal communities; safety; marine protected species and areas; conservation and biodiversity; cumulative effects; environmental impact assessment; coastal change and flooding; historic assets; climate change; engagement; cross border; sound scientific and socio-economic evidence; risk based approach; noise; deploy and monitor.</td>
<td></td>
<td>The Welsh Government is strongly committed to unlocking the energy potential from Welsh waters and we continue to bring together our expertise across government, industry and academia to focus on the delivery of marine energy projects in Welsh waters. Supporting the deployment of marine renewable technologies at commercial scale in Welsh waters is a high priority for this plan as reflected in our vision for the plan area. Over the next 20 years, a variety of developments will make a significant contribution</td>
<td>How the sector policies support the plan objectives:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Obj 1 – sustainable development</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Obj 2 – create long term employment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Obj 3 – renewable energy resources</td>
</tr>
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<td></td>
<td>Obj 4 – managing multiple use</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Obj 6 – coast &amp; seas accessible and safe to use</td>
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<td></td>
<td></td>
<td>Obj 7 – heritage assets, protected landscapes &amp; seascapes</td>
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<td></td>
<td>Obj 8 – climate change</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>Obj 9 – GES</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>Obj 10 &amp; 11 – biodiversity &amp; MPAs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Obj 13 – integrated decision-making</td>
</tr>
</tbody>
</table>
### Sector objectives

<table>
<thead>
<tr>
<th>commercial scale deployment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>To contribute to the achievement of Wales’ wellbeing goals over the next 20 years by continuing to support the commercial development of our offshore wind energy resources.</td>
</tr>
</tbody>
</table>

| To contribute to the achievement of Wales’ wellbeing goals over the next 20 years by supporting commercial scale deployment of tidal range energy devices. |

### What do the objectives mean and why are they important?

| climate change emissions targets through the responsible deployment of low carbon technologies. |
| The Welsh Government sees great potential for tidal range developments, e.g., tidal lagoon technologies. By their nature, tidal range projects cover large areas and as such their development has implications for a range of other sectors and policies. Proposals for large scale developments need to be considered carefully. |

| Wales already has a key nuclear energy workforce and pursuing opportunities such as Wyfra Newydd enable these skills to be retained in Wales. |
| The Welsh Government is committed to ensuring that our communities are involved in our transition to a low carbon future and that communities and local businesses receive the maximum benefits from a thriving marine sector and for hosting renewable energy projects. These benefits relate not only to opportunities to reduce carbon emissions and promote sustainable energy but can be wide and varied such as the potential for industrial and economic regeneration, training schemes and employment in manufacturing and research |

### Policies

| Policies apply to both inshore and offshore regions of this plan. |
| ELC-01: Decision making authorities should, where possible, support proposals for: |
| a) commercial scale marine tidal stream renewable energy projects in the key resources areas identified in Map X |
| b) commercial scale marine wave renewable energy projects in the key resources areas identified in Map X |
| c) marine renewable energy projects in the wave and tidal stream test and demonstration zones identified in Map X |
| d) wind farms in areas of high potential |
| e) new nuclear energy developments. |

### Policy interpretation: guidance for implementation

| to climate change targets and provide a strong contribution to the national and local economies. |
| The National Policy Statement for Renewable Energy Infrastructure (EN-3) taken together with the Overarching National Policy Statement for Energy (EN-1), provides the primary basis for decisions on applications for nationally significant renewable energy infrastructure. |

| ELC-01: Different technologies are at different stages of commercial development. Wind technology is well developed and able to make significant further contribution to our objectives through further development subject to commercial decisions. Other technologies are less developed and therefore are likely to require greater support to enable their further development in the medium to long term. |
| Wales has strong offshore wind resources that can be captured at a commercial scale. With three offshore wind farms already operating in Welsh waters we have capacity to host further developments in the future under favourable industry and market conditions. |

| The Welsh Government would welcome test and further commercial developments of tidal stream, tidal range and wave technologies. |
| The key resources areas identified in Figure 16 are illustrative and do not preclude consideration of other areas as the low carbon energy policies for Wales are further developed and implemented. Developments in lower energy areas outside of the key resource areas will also be supported. |

<p>| Key resources areas for commercial scale marine renewable energy projects includes the Marine Renewable Obj 14 – unique characteristics and future opportunities |
| Obj 15, 16 &amp; 17 – engagement, ecosystem approach and marine evidence base |
| Obj 18 – risk based approach |</p>
<table>
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<tr>
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<th>How do the policies support the objectives?</th>
</tr>
</thead>
<tbody>
<tr>
<td>£ £ £</td>
<td>To support sustainable growth, energy security and the development of a low carbon economy over the next 20 years by supporting the nuclear energy sector in Wales.</td>
<td></td>
<td>Energy Strategic Framework (MRESF) high energy yield scenario in which all amalgamated resources are developed to deliver a potential 6.4GW of installed capacity (see <a href="http://mresf.rpsgroup.com/Home.aspx">http://mresf.rpsgroup.com/Home.aspx</a>). Including the 6.4GW scenario in this plan allows us to consider current and future options for renewable energy development. Welsh Government continues to work closely with Horizon Nuclear Power and its parent company, Hitachi-GE Nuclear Energy Ltd, to understand the requirements of the construction programme at Wylfa and to develop the supply chain and skills base. Power stations can have a potential impact on the marine environment not only through affecting the water quality and resources, but through changes to water temperature and radionuclide emissions. There will be an increased impact during the construction phase of any power station, in addition to the land-based activities the construction of Wylfa Newydd requires a Marine Offshore Loading Facility (MOLF). More detail on impacts and specific measures and actions to avoid or minimise adverse impacts, including on marine ecology, is contained in the 2001 UK National Policy Statements for Nuclear Power Generation (EN-6). This plan recognises the extensive wind resource that exists in Wales’ marine area (Map x) and the potential for that resource to be further harnessed for the benefit of society. Proposals for additional offshore wind developments will be supported provided those proposals meet the other relevant policies in this plan.</td>
<td></td>
</tr>
<tr>
<td>£ £</td>
<td>To contribute to securing a terrestrial and marine electricity transmission grid that meets both our current and future needs.</td>
<td></td>
<td>ELC-02: Relevant decision making and advisory authorities should, in liaison with the sector and other interested parties, identify areas of high potential for future offshore wind development.</td>
<td></td>
</tr>
<tr>
<td>£ £</td>
<td></td>
<td></td>
<td>ELC-02: Where areas of high potential have been identified by the relevant decision making and advisory authorities then proposals within such areas will be supported where appropriate.</td>
<td></td>
</tr>
</tbody>
</table>

**Sector policies: Energy - Low carbon**
### Welsh National Marine Plan

#### Sector policies: Energy - Low carbon

<table>
<thead>
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<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
</tr>
</thead>
<tbody>
<tr>
<td>To contribute to the achievement of Wales’ wellbeing goals by developing and promoting Welsh technology, skills and knowledge in the marine renewable energy sector.</td>
<td></td>
<td>ELC-03: Decision making authorities should, where possible, take a risk-based, proportionate approach to consenting for marine renewable energy projects.</td>
<td>ELC-03: The renewables sector is undergoing a period of rapid technological development and accordingly uncertainty may exist in the operation of the equipment and the nature of associated social and environmental impacts. The MPS notes that marine energy deployments, that is wave and tidal deployments, may pose potential risks to the environment if inappropriately sited. However, the level of risk and ecological significance is largely unknown since, in particular, tidal stream and wave technologies are at a relatively early stage of development. Studies of tidal range technologies, including barrages, have indicated that these structures can have adverse impacts on migratory fish and bird species and on the hydrodynamics of the estuarine environments in which they are situated. To underpin the marine planning process further research is needed to develop a better understanding of the potential impacts that marine technologies might have on potentially sensitive environmental features. For example, adaptation and mitigation methods for such impacts may be supported by detailed monitoring programmes and co-ordinated research initiatives, including after devices are deployed. While this evidence is being gathered, decision-makers are encouraged to consent projects on a staged, deploy and monitor approach. This approach would enable pre-commercial / commercial arrays to be deployed with monitoring requirements to build our understanding of how devices interact with each other when deployed on a staged approach and with the marine environment.</td>
<td></td>
</tr>
<tr>
<td>Sector objectives</td>
<td>What do the objectives mean and why are they important?</td>
<td>Policies</td>
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| ELC-04: Decision making authorities should ensure that proposals in areas of current renewable energy activities or areas identified as key resource areas (Map x) or areas as having high potential for offshore wind and likely to be developed within the term of this plan demonstrate that they will, in order of preference:  
  a) avoid adverse impacts on current or future renewable energy activities  
  b) minimise impacts where they cannot be avoided  
  c) mitigate impacts where they cannot be minimised  
  d) present the case for proceeding where (a-c) are not possible | ELC-05: Decision makers should, where appropriate, | ordinated and targeted evidence gathering is supported in order to help de-risk the consenting process.  
As technologies develop and new evidence emerges, this plan and decision-makers must be flexible | ELC-05: The Welsh Government sees great potential for |
<table>
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<tr>
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<tr>
<td>Energy - Low carbon</td>
<td>support tidal range schemes that maximise benefits from the marine resource. <strong>ELC-06</strong>: Decision making authorities should support proposals that provide opportunities to develop associated electrical infrastructure. <strong>ELC-07</strong>: Decision making authorities should support initiatives that provide opportunities to improve understanding of the constraints on, and opportunities for, renewable energy development and facilitate the development of this sector and the development and promotion of Welsh expertise and R&amp;D.</td>
<td>tidal range developments and we welcome developments that provide the maximum social and economic benefits for our communities provided proposals are within acceptable environmental and financial limits. It will be important to consider environmental carrying capacity at a regional scale including the potential for far-field effect of large scale infrastructure projects. <strong>ELC-06</strong>: subsea transmission power cables, interconnectors, offshore and onshore substations and grid connectivity are all integral components to the planning, consenting and development of technically and economically feasible projects. The Welsh Government recognises that any consideration of energy developments must also fully evaluate options for sustainable development of electrical infrastructure. <strong>ELC-07</strong>: The marine renewable energy sector is still emerging and there is recognition across all UK Governments that there are gaps in our knowledge and understanding around how marine renewable devices interact with the marine environment. The establishment of demonstration zones is a means of both testing the energy devices and undertaking an assessment of their impacts. Should more zones be identified in future, decision-makers and the marine plan will need to be flexible to take these into account. To address priority environmental issues faced by decision-makers and developers a UK research partnership has been established to tackle the issues to de-risk and accelerate the consenting of marine renewable projects. Wales has strong research capabilities and we continue to support and promote the work of institutions like the Low</td>
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## Sector objectives

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</table>
| ELC-08: Decision making authorities should, where appropriate, support proposals that facilitate the establishment and development of wave and tidal stream and other renewable energy technology test and demonstration sites. | Carbon Research Institute (LCRI) ([http://www.lcrimarine.org/](http://www.lcrimarine.org/)) and SEACAMS (Sustainable Expansion of the Applied Coastal and Marine Sectors) ([http://www.seacams.ac.uk/](http://www.seacams.ac.uk/)) that develop expertise and technologies to meet growing demands for marine renewables in Wales. Having built strong foundations our research community (such as that demonstrated by Marine Energy Pembrokeshire (MEP) ([http://www.pembrokeshirecoastalforum.org.uk/projects/marine-energy-pembrokeshire/](http://www.pembrokeshirecoastalforum.org.uk/projects/marine-energy-pembrokeshire/)) has the capabilities to support the global marine sector, putting Welsh renewables and skills on the global map. ELC-08: Whilst the Welsh wave and tidal sector develops it needs significant support from private and public investment. Public funding sources that may provide support for Welsh developments are:  
- The Wales Infrastructure Investment Plan is the Welsh Government’s key vehicle to drive collaboration, increase visibility and deliver our strategic capital investment decisions. ([http://gov.wales/funding/wiipindex](http://gov.wales/funding/wiipindex))  
- The Welsh European Funding Office (WEFO) is a part of the Welsh Government and is the Managing Authority for European Structural Funds in Wales, which supports the strategies and policies of the EU and the Welsh Government. Marine renewable energy has been identified as a priority for Welsh deployment of Structural Funds for 2014-2020 with £80M allocated to the sector. ([http://wefo.wales.gov.uk](http://wefo.wales.gov.uk)).  
- The Welsh Government has committed £5M in 2015/16 to set up a Green Growth Fund. Once fully established the fund will increase and accelerate... | ELC-08: Decision making authorities should, where appropriate, support proposals that facilitate the establishment and development of wave and tidal stream and other renewable energy technology test and demonstration sites. |
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Key interactions with other industries

The potential benefits and adverse effects of renewable energy developments will vary greatly, depending for example on the technology type and their size, structure and geographical location. Accordingly, interactions with other sea users and the
environment will depend on the device type, location and nature of other marine activities.

The MPS notes that renewable energy developments can potentially have adverse impacts on marine fish and mammals, for example through construction noise, and may displace fishing activity and have direct or indirect impacts on other users of the sea, including mariners. Certain bird species may be displaced by offshore wind turbines, which also have the potential to form barriers to migration or present a collision risk for birds. Their foundation designs are likely to have an effect on hydrodynamics and consequent sediment movement. This includes potential scouring of sediments around the bases of turbines.

Future

Marine renewable energy opportunities include harnessing directly wind, wave, and tidal stream energy and indirectly the rise and fall of tide through tidal range technologies such as lagoons or barrages.

- **Offshore Wind:** The MPS recognises that offshore wind will play a growing role in the renewable energy sector, assisting Government to meet UK carbon emission targets and improving energy security in the medium-term.

- **Key commercial wave and tidal stream resource:** Between 2007 and 2011, the Welsh Government assessed the available wave and tidal resource within Welsh territorial waters (within 12 nautical miles) and developed the Marine Renewable Energy Strategic Framework (MRESF). This is an on-line tool to map the geographic location of our resource to assist developers in project site selection. The project also took into account development constraints including access to ports and grid infrastructure, and legislative and nature conservation considerations, to identify the practical opportunities to utilise renewable energy resources. The work concluded that the potential exists to generate 5GW of wave energy and 1GW of tidal stream energy per year around the coast of Wales. As technology has since developed (for example in the “kite” technology being developed as a commercial trial by Minesto in Holyhead deep), that potential may have increased.

- **Tidal range resource:** The seas around Wales have a large rise and fall, especially within the Severn estuary which has the second highest tidal range in the world and represents a strategically important source of renewable energy. The Welsh Government encourages technologies that can exploit this energy resource in a sustainable way. Tidal lagoon technology is presenting new opportunities to harness the tidal range and there are a number of lagoon proposals around the Welsh coastline. By their nature, tidal range projects cover large areas and have the potential to offer substantial local and national benefits.

- **Wave and tidal stream test and demonstration zones:** In 2013, to support the UK marine renewables sector, The Crown Estate (TCE) initiated discussions on the establishment of wave and tidal stream test and demonstration zones around the UK. Building on initial testing and demonstration, the zones would provide an opportunity for project and technology developers to expand...
projects out into commercial resource areas, subject to successful tests. The Welsh Government worked with TCE and NRW to identify and lease to third party manager suitable test and demonstration zones in Wales. The third party managers have been appointed to manage the zones and are responsible for site preparation works and sub-letting sections of the zones to developers. A wave test and demonstration zone off Pembrokeshire (managed by WaveHub), and a tidal stream test and demonstration zone off Anglesey (managed by Menter Môn) were established in July 2014 [see Figure 16]. Both zone managers are working with the Welsh Government and other partners to promote and increase the attractiveness of the zones for development, for example by undertaking preparatory activity such as survey work, the installation of infrastructure or seeking consent for the zone.

- **Nuclear:** The £12bn Wylfa Newydd new build project will be the single largest investment project in Wales over the next 10 years, and is of significant importance to the economy, particularly that of North West Wales. A Welsh Government Nuclear Programme Board was established in late 2014 to coordinate nuclear agenda related activity across sectors and departments within Welsh Government. WG is committed to supporting the delivery of the new nuclear power station.

**Climate change**

Marine renewable energy generation is evolving rapidly when compared to other activities that have taken place in the marine environment. Climate change effects on the energy industry are likely to result from increased storminess which may have a negative impact on the structural stability of offshore wind and wave farms (Rees, 2008\(^\text{18}\)). Changes in currents could result in changes to scour around the legs and supports of offshore installations and array and export cables (Rees, 2008). Increases in the occurrence of bad weather could also result in operation and maintenance issues for these activities.

In the case of tidal barrages, which will be located closer to the coast in estuaries and embayment, structures could be subject to the projected increased storminess and sea level rise. Increased storminess will put additional stresses on barrage structures and sea level rise may lead to the overtopping and flooding of the structures. In terms of resource, the predicted changes to waves, wind and tides could provide an increased source of energy for the renewables industry resulting in an increased potential for electrical generation from both waves and wind. The overall potential for increased electrical generation will vary across different areas (UKMMAS, 2010\(^\text{19}\)).


Fisheries

Context

In 2014, 466 fishing vessels were registered in Wales (426 under 10m and 40 Over 10m). These employed 850 Welsh commercial fishers of which 547 were regular fishers and 303 were part time. In 2014 £2.8 million (1,213 tonnes) of fish and £12.0 million (10,500 tonnes) of shellfish was landed in Wales by UK vessels (mainly scallops, whelks and crabs/lobsters). In 2012 an estimated £3.3 million of cockles were gathered from Welsh fisheries mainly from regulated (licenced) fisheries in the Dee Estuary and Burry Inlet. The most common fishing methods are hand gathering, angling, lining, dredging, netting (fixed and drift), potting (lobster, crab, whelk and prawn) and trawling.

The rates at which fin fish are harvested are controlled by Total Allowable Catches under the European Common Fisheries Policy (CFP), dispersed to fleets via quotas. As a consequence of history, Welsh vessels have only very limited access to quota under the CFP and further opportunities are not expected to develop. Accordingly, the focus for most vessels is on non-quota species, principally shellfish (e.g. scallop, lobster, crab species), but also some finfish, notably sea bass (which currently is the subject of urgent stock conservation action at EU level). Some crustacean shellfish stocks are also believed to be fully exploited, leaving little opportunity for expansion in most areas, although the Welsh fishing industry do have long term plans to enhance stocks of lobster. In that context, any opportunity for growth in the sector needs to focus on added value, not on increased catch levels.

The Welsh fishing industry comprises mainly small businesses operating from the shore or from small (<12m) vessels in dispersed locations around the coastline. Such vessel operations are constrained through the actions of:

- Weather (windows of opportunity can be small)
- Strong tidal flows (at certain locations and on each spring tide)
- Other activities including energy, aggregates, dredging, dumping, MoD firing ranges, Shipping and navigation routes, cables, pipelines, platforms or other underlying structures
- Marine Protected Areas (e.g. for nature conservation)
- Fishery management restrictions (e.g. area closures / restrictions to aid stock management or recovery)
- Other fishing activity (e.g. the presence of static gear (pots or nets) prevents the operation of mobile gear (trawls or dredges)

The fact that the location and abundance of both shellfish and fin fish is usually associated with use of particular habitats (rather than being evenly dispersed) means that fishing activity can be very localised and dependent upon a particular area and may therefore be disrupted or prevented by other maritime activities. These factors make the fishing industry, particularly of small vessels, extremely vulnerable to severe disruption from other maritime activities. Unlike larger more nomadic vessels fishing mobile gears, these vessels cannot migrate to other areas where, in any case,
the available space and the available catch is probably already taken by the larger vessels. If marine plan policies were to result in the potential displacement of fishing vessels to other areas in Wales this is unlikely to be a viable option for individual fishers. Any additional disruption to fishing activity may impact upon the financial viability of small, location based businesses due to the additional costs of travel and reduced *per capita* catches. Displacement would both impede access to commercial stocks and increases pressure on any alternative grounds into which fishing efforts may be concentrated, resulting in a greater impact on recovery of fish stocks or increased pressure on fish stocks or damage to the environment. There may be social and economic effects associated with displacement, such as new grounds being less profitable for fishermen, or beyond the capacity of some vessels and/or unable to provide the mix of species on which current business models rely.

The fishing industry is a key component and contributor to rural (coastal) communities where employment opportunities can otherwise be limited. Its value goes beyond just first sale value of fish and fishery products to include the service sector e.g. in supplies and provisions, fuel, chandlery and port fees etc. It also adds value for example to tourism and adds to a locations identity [Marine Character Area link]. A thriving recreational sea angling sector also exists in Wales [see Recreation and Tourism sector] which depends upon healthy fish populations and services provided or sustained by the fishing industry (e.g. in moorings, ports, chandlery, vessels and services). The primary and secondary social and economic values of these aspects are as yet poorly understood and in need of further research, but their positive net contribution to coastal communities, especially outside of the key tourist season, should not be underestimated.

**Governance**

The Welsh Government manages fishing activity in the inshore and offshore plan regions. Fishing within 6 nm and on-shore is managed exclusively by Welsh Government under Welsh or UK legislation in compliance with the Common Fisheries Policy (CFP). Beyond 6 nm the Welsh Government manages vessels in compliance with CFP access rights. The reformed CFP will establish the high level framework to enable Member States to manage fisheries and deliver the objectives of the reform including the discard ban, taking account of wider conservation of the marine environments, achieving Maximum Sustainable Yield (MSY) for all major fisheries by 2020, introducing a regional approach to management and increasing aquaculture outputs. The Welsh Government works closely with stakeholders to refine and develop these measures to deliver sustainable fisheries.
Table 19. Fisheries sector objectives and policies

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<th>Sector objectives</th>
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<th>Policies</th>
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<th>How do the policies support the objectives?</th>
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Sector policies: Fisheries
### Sector objectives

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| To support the long term security and clarity of the sector to take investment decisions and to support the production of food supply. | A buoyant fishing industry produces revenue and jobs, often in vulnerable rural communities, and provides an important source of healthy food all year round. Security relates to the current and future viability of the sectors and clarity relates to transparency of operational and regulatory requirements in order to:  
  - Support sustainable food production  
  - Promote sustainable fisheries  
  - Recognise the importance of fishing as a valuable source of food. | **Guidance for implementing general crosscutting policies in the fisheries sector:**  
Wales Government has set out its commitment to implementing an ecosystem-based approach to fisheries management to deliver sustainable fisheries in Wales.  

The fisheries sector should apply this plans general policies, in particular, on: sustainable development and use; economically productive activities; opportunities to create employment; skills development and diversification; coexistence; access to the marine environment; coastal communities; safety; marine protected species and areas; conservation and biodiversity; litter; cumulative effects; engagement; cross border; sound scientific and socio-economic evidence; risk based approach. | **How the general crosscutting policies support the fisheries sector objectives:**  
General policies on coexistence, communities, engagement (co-management with the fishing sector) and developing a sound evidence base apply in particular to this sector. |
| To safeguard the sector where it fishes sustainably and to promote sustainable capture fisheries. | **Guidance for implementing fisheries sector policies:**  
Opportunity for growth in the sector through taking more fish may be limited; although initiatives are in hand to consider new species and stock enhancement opportunities in the longer term. Meanwhile, the industry should focus on obtaining added value from the catches they do take. Through managing fishing effort to specific locations, this plan supports better protection of vulnerable stocks and of the seabed.  

The planning of fishing activity and of marine activities, fully taking account of the needs of the fishing industry and of the sustainability of fish resources, will allow the sector to itself invest and plan for the future and other sectors to plan around it.  

Fish stocks are a scare resource and the environment is easily damaged by inappropriate fishing activity and other human pressures. It is important to manage fishing using the best available evidence to ensure that fish stocks are sustainably fished and remain in a healthy state and that the environmental impacts of fishing are acceptable.  

Recreational fishing is a valuable activity as is the contribution that the fishing sector makes e.g. to tourism in the summer and to the rural economy | **How the sector policies support the plan objectives:**  
Relates to general plan objectives that support:  
- Obj 1 – sustainable development  
- Obj 2 – create long term employment  
- Obj 4 – managing multiple use  
- Obj 5 communities  
- Obj 9 – GEnS & GES  
- Obj 10 – biodiversity  
- Obj 12 – ecosystem goods and services  
- Obj 13 – integrated decision-making  
- Obj 14 – unique characteristics and future opportunities  
- Obj 15 - engagement  
- Obj16 – ecosystem approach  
- Obj 17 - marine evidence base |  
| To encourage the recognition of fishing as a long-standing marine activity, which contributes to the achievement of Wales’ wellbeing goals by ensuring that the full range of benefits of fishing activities to coastal communities are taken into account in decision making. |  
| To contribute to the achievement of Wales’ wellbeing |  
|  
### Sector policies: Fisheries |
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<td>goals by optimising the economic value to local communities through maximising the value of the catch from point of capture to point of consumption.</td>
<td>throughout the year. Good practice should be recognised through market</td>
<td>engage with the fishing industry when considering the implications of their developments or activities.</td>
<td>In developing this plan and in consideration of the policies within it, the activities of fishers should be taken into account. The aim is to achieve a greater clarity of decisions and long term security both for fishers and other marine users.</td>
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<td>To promote and support the co-existence of fisheries with other marine activities.</td>
<td></td>
<td>This plan highlights a range of issues in deciding on marine usage and its potential impact on fishing, including:</td>
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<td></td>
<td>- the cultural and economic importance of fishing, in particular to vulnerable coastal communities.</td>
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<td>To minimise adverse impacts on the marine environment and other users by promoting good practice including co-management and collaboration on shared evidence.</td>
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<td>- the potential impact (positive and negative) of marine developments on the sustainability of fish and shellfish stocks and resultant fishing opportunities in any given area (FIS 1).</td>
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<td>- the potential effect of displacement on: fish stocks; the wider environment; use of fuel; socio-economic costs to fishers and their communities and other marine users, including the economic importance of fishing at a given location (noting that the welsh fleet comprises of small vessels and operators that cannot easily or practically relocate).</td>
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<td>- the potential impact on stocks and sustainability.</td>
<td>- the potential impact on stocks and sustainability.</td>
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<td>Any impacts on existing fishing activity, including any possible opportunities to minimise or mitigate impacts, should be assessed in conjunction with the proposed developer and existing fishing interests.</td>
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<td>The sustainability of fishing activity in MPAs will be assessed by the management agencies and kept under review in liaison with fishing representatives.</td>
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<td>Marine Planning provides the opportunity to manage marine activities in a sustainable manner taking into account economic, social and environmental considerations. However, it may be hampered by the</td>
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The following policies apply to both inshore and offshore regions of this plan:

**Policy FIS-01:** Decision making authorities should ensure that proposals in established areas of commercial fishing activity demonstrate that they will, in order of preference:

a. avoid adverse impacts on current fishing activities and support co-existence of activities wherever possible
b. minimise impacts where they cannot be avoided
c. mitigate impacts where they cannot be minimised
d. present the case for proceeding where (a-c)

paucity of good spatial data for fisheries activities (in particular for vessels less than 12 m). Other considerations include the displacement of fishing from MPAs and other developments [see section 3.3].

Developments should take into account the nature and intensity of fishing activity in the proposed development area and the implications of any likely associated displacement of fishing activity. Actions in relation to displacement must consider the nature of the Welsh Fleet, particularly in the context of small-scale vessels and operators who cannot easily or practically relocate. Accordingly, this plan makes provision for the particular sensitivities of the Welsh commercial vessel fishing sector to be taken into account. Wherever possible, decision makers should seek to encourage opportunities for co-existence between fishing and other activities. This plan considers the potential social and economic impacts of other developments on fishing activity, as well as potential environmental impacts of fishing.

Proposals relating to the management of fisheries and in consideration of the implications of planning developments on the sector, should involve representatives of the wider fishing industry and coastal communities.

**FIS-01:** In order to maintain and increase the contribution to the economy, fish stocks need to be managed effectively. Management of fisheries and any activities likely to impact fisheries should ensure the sustainability of stocks. Other users should implement methods to minimise impacts in areas of established commercial fishing activity and should not undertake activities that might have a significant adverse effect on fishing activity.

Minimisation can be facilitated by establishing liaison groups as a fora for developing understanding and cooperation on the needs of each sector and what is and is not feasible (e.g. impacts may be minimised by setting
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<td></td>
<td>are not possible</td>
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<td>temporal restrictions on activities. Mitigation could be the use of sediment screens to minimise potential of suspended sediments (e.g. from cable laying operations) being transported to settle on shellfish beds; or assistance in re-locating fixed fishing gears.</td>
<td>FIS-02: Other users should implement methods to minimise impacts in fishery habitat areas considered to be important to either supporting the welfare of fish stocks or fish aggregation areas (e.g. feeding, breeding, nursery, migration or aggregation areas) where fishing effort may also be focussed.</td>
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<td>Policy FIS-02: Decision making authorities should ensure that proposals in and affecting important fish feeding, breeding (including spawning and nursery) and migration areas for important species and their associated habitat, demonstrate that they will, in order of preference a. avoid adverse impacts on spawning and nursery areas and the associated habitat b. minimise impacts where they cannot be avoided c. mitigate impacts where they cannot be minimised d. present the case for proceeding where (a-c) are not possible</td>
<td></td>
<td>Important species includes those of commercial, conservation, ecological or recreational importance. Information for some lifecycle stages is better than others, e.g. spawning and nursery grounds for some species are reasonably well defined (see <a href="http://cefas.defra.gov.uk/media/29947/sensi_maps.pdf">http://cefas.defra.gov.uk/media/29947/sensi_maps.pdf</a> and [<a href="http://www.cefas.defra.gov.uk/publications/techrep/TechRe">http://www.cefas.defra.gov.uk/publications/techrep/TechRe</a> p147.pdf](<a href="http://www.cefas.defra.gov.uk/publications/techrep/TechRe">http://www.cefas.defra.gov.uk/publications/techrep/TechRe</a> p147.pdf)) but that for feeding and migration areas is less well understood.</td>
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<td>Policy FIS-03: Decision making and advisory authorities should, where appropriate, support proposals that enhance the fishing sector by: a. Supporting sustainable fishing and b. Increasing, and where possible maximising its</td>
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<td>FIS-01 and FIS-02: A range of indicative information is available in report form, on the Welsh Government Marine Portal and from industry and regulators to assist the identification of important spawning / nursery areas and established commercial fishing areas. Decision makers should take this indicative information into account before reaching a decision. A dialogue at an early stage of project development with the relevant fishermen or their representatives will be encouraged.</td>
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<td></td>
<td>FIS-02: Other users should implement methods to minimise impacts in fishery habitat areas considered to be important to either supporting the welfare of fish stocks or fish aggregation areas (e.g. feeding, breeding, nursery, migration or aggregation areas) where fishing effort may also be focussed.</td>
<td></td>
<td>FIS-03: In order to maintain the long term viability of the fishing industry the sector needs to fish sustainably i.e. to align fishing effort to the availability and sensitivity of fish stock needs taking a long term view, and to not have an adverse effect on the environment on which they depend.</td>
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## Sector objectives

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<td>value added and / or</td>
<td>Markets should incentivise good practice. Fishery management should reflect the needs of the high value recreational sector which has a direct interest in the state of fish stocks. Decisions will need to positively consider (in dialogue with sector representatives) measures that will increase value created, ensure that fishermen have access to as wide a range of catching opportunities as are practically possible (and consider the adverse effects of displacement etc if access is restricted), and plan for the longer term constraints and opportunities created by a changing climate.</td>
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<td>c. Supporting diversification and / or</td>
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<td>d. supporting access to fishing grounds and / or</td>
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<td>e. improving resilience to the effects of climate change and / or</td>
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<td>f. Support market incentives that encourage sustainable fishing and</td>
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<td>g. Increase recreational access to a quality resource</td>
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Figure 17 (a-d) Important fishing areas

Sector policies: Fisheries
Figure 17 (a-d). Important fishing areas

Sector policies: Fisheries
Key interactions with other industries

Significant interaction is likely between a number of other sectors and fishing activity which is subject to tidal and weather conditions and is often seasonal. Fishers may also compete for fish in the same waters and with other sectors including energy, aggregate extraction, capital and navigation dredging, dumping, MoD firing ranges, shipping and navigation routes, cables, pipelines, platforms or other underlying structures.

Given the dynamic and mobile nature of many fisheries, it is often very difficult accurately to predict precisely where fishing activity will take place from year to year. Fishing occurs (at different intensities) across most of Welsh waters at one time or another, making it difficult for all areas to be accurately mapped; however, core areas of fishery / habitat can be mapped.

Designated conservation areas can also help to underpin sustainable fishing by protecting habitats of value to commercial species’ life cycles, supporting the recovery of protected species and serving to enrich the biodiversity of an area, for example, by acting as nursery or spawning grounds for fish which could improve the state of stocks in the surrounding areas. However, controls on fishing or by method in such areas may also acts as a constraint.

Future:

The reform of the CFP and greater reference to the wider environmental impacts of fishing creates a state of uncertainty in the sector. Welsh Government continually reviews fishery legislation in order to rationalise and reform management actions to effectively deliver longer term sustainability which fully assesses and takes account of the impact of fisheries on the marine environment and meets other legislative needs (e.g. Habitats Directive, WFD and MSFD).

As most fish stocks are either in a state of decline or are static this will result in a shortage of new fishing opportunities. Accordingly, the move away in recent decades from larger nomadic vessels to small vessels is likely to have stabilised. The industry will continue to maintain a need to be dynamic and flexible so as to make the most of local catching opportunities as they arise, and to enhance value for the sector by making the most of downside processing and developing the supply chain.

Climate change

The main climate change impacts on fisheries are from sea temperature change on fish species productivity and distributions (e.g. cod moving further north and out of the area, spider crab and bass moving northwards and into the area), as well as the impacts of storms and increased run-off on onshore and offshore operations. In the long term, ocean acidification could have implications for the shellfish industry, (for example in the decalcification of shells), increased risks of pests and disease and impaired viability.
Changes in species distribution and productivity may provide opportunities or put pressure on quota allocations (both locally and nationally). Profitability in the industry may be impacted by changes in weather patterns and storminess that disrupt activities, damage fishing gear or hamper access to processing facilities and export markets.
Ports and shipping

Context

The shipping industry will remain strongly linked to the state of the Welsh (and global) economy and the effectiveness of the ports industry to accommodate demand for import and export of goods. Continued growth of the ports and shipping sector is likely due to demand from other sectors utilising their facilities, e.g. servicing renewable energy developments.

There are 14 ports in Wales that handle commercial traffic accounting for a significant proportion (11%) of UK port traffic. Collectively they have handled between 50-65 million tonnes of cargo per annum over the last decade. The sector supports around 3,300 port related jobs in Wales and supports other jobs indirectly. In 2012 the total freight traffic through Welsh ports was 54.6 million tonnes (Mt) (comprised of 36.5 Mt goods inwards and 18.1 Mt goods outwards). Milford Haven is by far the largest port in Wales (handling 74% of all traffic), and the third largest by tonnage in the UK, with 9% of the total UK shipping tonnage in 2011. The long-term trend is for sustained growth of 3% to 4% on average per year in the container and Ro-Ro sectors. With port-related and ferry traffic in the north and south of the plan area these are the busiest areas for Shipping. However, areas in Cardigan Bay have notably very low levels of shipping activity.

The markets for the Welsh ports industry include:

- Roll-on Roll-off (ro-ro) and passenger traffic with links to the Republic of Ireland handled by Holyhead, Fishguard and Pembroke Dock; major oil and energy sector traffic handled by Milford Haven and offshore renewable energy development facilities at the Port of Mostyn.
- markets served by the ports at Newport, Cardiff, Port Talbot and Swansea handle dry and liquid bulk, forest products, iron and steel products and some container traffic.
- a range of smaller ports where there is a mixture of general cargo, and significant leisure activity.

Welsh ports form part of the Trans-European Transport Network (TEN-T)\(^20\). TEN-T is the European Union’s strategic transport infrastructure policy to connect the East, West, North and South with the aim of promoting and strengthening seamless transport chains for passengers and freight to help the economy recover and grow. TEN-T is supported by an EU budget of €26 billion up to 2020. TEN-T policy is aimed at increasing the shipping element in inter-modal transport chains by making them more commercially efficient than road-only transport, which should result in a more integrated, sustainable transport mix. The importance of Welsh ports to inter-modal freight in Wales is highlighted in the report of the Wales Freight Task and Finish Group\(^21\).

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\(^{21}\) http://wales.gov.uk/topics/transport/freight/wales-freight-group/?lang=en
Figure 18. Freight traffic movement through the main Welsh ports
Cruise ships and their support facilities are a high spend niche market and can make a considerable impact on the local and Welsh economies. The economic impact of cruise in Wales for 2015 is £2.9 million. A vessel with 2500 passengers on board is equivalent to £240k in to the local economy. Wales will welcome 44 cruise ships and 22,000 passengers with 7500 crew in to its ports in 2015. The passenger numbers are currently restricted due to the size of the vessels that Welsh ports can accommodate. As an example of what ports with fewer restrictions could achieve: Liverpool has 64 calls in 2015 with 85,000 passengers and Dublin has 105 calls with 220,000 passengers. Overall spending by cruise passengers and crew in the UK, including air fares, is estimated at nearly £350 million annually and purchases in the UK by cruise lines themselves are estimated to be worth nearly £1.5 billion every year.

**Governance**

International maritime law, and in particular the United Nations Convention on the Law of the Sea (UNCLOS), gives obligations to respect the rights of innocent passage and freedom of navigation. IMO international conventions also regulate shipping. Currently, the Department for Transport, under the National Policy Statement for Ports, provides the framework for decisions on proposals for new port development in the England and Wales but the Welsh Government has responsibility for many related functions, including transport and land use planning. Works to change infrastructure within or to develop new port, harbour and marina facilities require consents from NRW (on behalf of Welsh Ministers) under Part 4 of the Marine and Coastal Access Act 2009 (including determinations under the Conservation of Habitats and Species Regulations 2010 if the works have the potential to affect protected habitats and species). Certain ports (e.g. Cardiff Harbour Authority; Milford Haven Port Authority; Newport Harbour Commissioners) have powers to control their activities under the Harbours Act 1964 (as amended).

In line with the St David’s Day Agreement (February 2015), ports in Wales are due to be devolved as part of the Wales Bill; and the Welsh Government is committed to establishing a ports strategy for Wales in partnership with the sector and stakeholders.
<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
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**Sector policies: Ports & shipping**
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<tr>
<td>To support ports, harbours and marinas in Wales to make a significant contribution to the economy and society of Wales by safeguarding existing operations and enabling facilities to grow and diversify through a coherent and strategic approach that identifies where investment should be targeted.</td>
<td>Having functional and attractive port, harbour and marina facilities that can accommodate current and future demands for freight, passenger and leisure [See Tourism and recreation sector] throughout are essential to achieving Wales’ well being of future generation goals. Support and investment in these facilities unlocks potential to boost the economy both directly from the greater use of the facilities and indirectly through the opportunities that improved maritime transport infrastructure provide for other sectors (both nationally and internationally) This can make Wales an attractive location for businesses, visitors and freight transportation. Applying a strategic approach reduces uncertainty by providing a clear vision within which ports, harbours and marinas can plan their current and future operations (including options for expansion and or diversification). Support for some aspects of the sector has direct linkages with the tourism and recreation sector.</td>
<td>Guidance for implementing general crosscutting policies in the transport – ports and shipping sector: The transport – ports and shipping sector should apply the general policies of this plan, in particular, on: sustainable development and use; economically productive activities; opportunities to create employment; skills development and diversification; coexistence; access to the marine environment; coastal communities; safety; marine protected species and areas; conservation and biodiversity; geodiversity; cumulative effects; environmental impact assessment; coastal change and flooding; historic assets; climate change; engagement; cross border; sound scientific and socio-economic evidence; risk based approach.</td>
<td>Section under development How the general crosscutting policies support the ports and shipping sector objectives: Text to follow</td>
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<tr>
<td>To minimise adverse impacts on the marine environment and other users by promoting good practice in the design, location, and operation of Welsh ports and shipping activities.</td>
<td></td>
<td>Guideline for implementing transport – ports and shipping sector policies: Ports and shipping policy matters are currently reserved for the UK Government and are market-driven. However, Welsh Ministers have significant powers to develop Welsh ports and the Silk Commission recommended that several aspects of ports policy should be fully devolved to the Welsh Government. The UK National Policy Statement (NPS) for Ports (Department for Transport 2012) represents the framework for decisions taken by the Secretary of State on proposals for new port development. UK Government policy is one of non-intervention. The NPS for Ports explains to planning decision-makers the approach they should take to proposals, including the main issues which, in the UK Government’s view, will need to be addressed to ensure that future development is fully sustainable. These policies: a) Provide co-ordinated support to ports, harbours, marinas and ferry terminals to ensure they can</td>
<td>Guidance for implementing transport – ports and shipping sector policies: Ports and shipping policy matters are currently reserved for the UK Government and are market-driven. However, Welsh Ministers have significant powers to develop Welsh ports and the Silk Commission recommended that several aspects of ports policy should be fully devolved to the Welsh Government. The UK National Policy Statement (NPS) for Ports (Department for Transport 2012) represents the framework for decisions taken by the Secretary of State on proposals for new port development. UK Government policy is one of non-intervention. The NPS for Ports explains to planning decision-makers the approach they should take to proposals, including the main issues which, in the UK Government’s view, will need to be addressed to ensure that future development is fully sustainable. These policies: a) Provide co-ordinated support to ports, harbours, marinas and ferry terminals to ensure they can</td>
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<td></td>
<td>To support economic development in Wales through better understanding of the supply chain of goods and services and opportunities to enhance these.</td>
<td>Policies cover both inshore and offshore regions of this plan.</td>
<td>respond to market influences and provide support to other sectors with necessary facilities and transport links.</td>
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<td></td>
<td>To contribute to the achievement of Wales’ wellbeing goals by improving cross-border connectivity in this sector.</td>
<td>P&amp;S-01: Decision making authorities must ensure that proposals avoid restricting access to, or wherever possible the future expansion of, major commercial ports.</td>
<td>b) Consider spatial co-ordination of maritime modes of transport to promote opportunities for more integrated and sustainable travel options.</td>
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<td>P&amp;S-02: Decision making authorities should ensure that proposals demonstrate that they will, in order of preference:</td>
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<td>a) avoid adverse impacts on current port, harbour and marina activities and future opportunities for expansion</td>
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<td>b) minimise impacts where they cannot be avoided</td>
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<td>c) mitigate impacts where they cannot be minimised</td>
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<td>d) present the case for</td>
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<td>Ports &amp; shipping</td>
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<td><strong>P&amp;S-03:</strong> Decision making authorities should ensure that proposals demonstrate that they will, in order of preference:</td>
<td>proceeding where (a-c) are not possible</td>
<td>future generation goals and in line with MPS objectives.</td>
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<td>e) avoid substantial displacement of established navigation transit lines for all vessel sizes and types</td>
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<td>f) minimise displacement where it cannot be avoided</td>
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<td>g) mitigate it where it cannot be minimised</td>
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<td>h) present the case for proceeding where (a-c) are not possible</td>
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<td><strong>P&amp;S-04:</strong> Decision making authorities should, where appropriate, support proposals which provide for the maintenance, repair, development and diversification of port and harbour facilities.</td>
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<td><strong>P&amp;S-03:</strong> The following factors should be taken into account when reaching decisions:</td>
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<td>- The extent to which the locational decision interferes with existing or planned routes used by shipping, access to ports and harbours and navigational safety.</td>
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<td>- Where interference is likely, whether alternatives can be identified.</td>
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<td>Where there are no reasonable alternatives, whether (minimise then next, mitigate) mitigation through measures adopted in accordance with the principles and procedures established by the International Maritime Organization can be achieved. Application of this policy also ensures that developments do not impose a disproportionate cost burden on shipping or infringe the navigational rights and freedoms of shipping which are provided under international law (particularly the United Nations Convention on the Law of the Sea).</td>
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<td><strong>P&amp;S-04:</strong> The significant value of ports, harbours and marinas to the Welsh economy and society is recognised in this plan. Functionality is a critical component of their viability which requires achieving quality standards for the repair and expansion of facilities and infrastructure. As the proportions of large vessels increase, access to ports, which are largely dependent on suitable tidal conditions (or substantial capital dredging campaigns), has become increasingly constrained. This puts at risk Welsh ports’ ability to take advantage of potential opportunities for expansion into these markets. This policy recognises the need to ensure well-maintained, safe and vibrant ports.</td>
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Figure 18. Port and shipping interests

Key interactions with other industries

The main interactions expected in coming years are with commercial shipping freight and continued support of sectors such as fishing, aquaculture and aggregates. Emerging and growth industries such as renewable energy development and tourism
and recreational usage, including usage by cruise liners, will also be important. Shipping and ferries have potential to conflict spatially with recreational activities. Risk to shipping navigation may arise from some developments and may lead to increased collision risk, displacement of anchorages and displacement of fishing or recreational vessels into areas used by commercial shipping. Obstructions can lead to increased voyage distance and time resulting in financial and environmental costs, such as emission increases.

**Future:**

In terms of future growth and diversification, Welsh ports have the potential to play a greater role within inter-modal freight networks and strongly support the Welsh economy through further growth. Facilities to support cruise visits will be an increasingly important component of Welsh port capacity.

Also, due to their land holdings, ports are in a good position to provide transit facilities for handling goods passing between different transport modes, as well as hosting value added processes such as manufacturing, enhancing economic growth and job opportunities in the local area. For example, there are important opportunities to plan for ports in Wales to further serve the low carbon agenda specifically in nuclear, wave/tidal and offshore wind industries.

The Welsh Government would like to see an increase in ‘short sea shipping’ activities through Welsh ports to help improve the sustainability of the freight network, as well as enhancing local economic growth and jobs. This ambition is aligned with the EU TEN-T policies. The Welsh Government is supporting the use of ports in Wales as cruise liner call ports, and encouraging the tourism aspect of its ports and marinas in line with ‘Partnership for Growth: The Welsh Government Strategy for Tourism 2013-2020’.

For an island economy, there are limited alternatives to the use of sea transport for the movement of freight and bulk commodities (freight by air and train is constrained by capacity). Consequently, shipping will continue to provide the only effective way to move the vast majority of freight in and out of the UK, and the provision of sufficient sea port capacity will remain an essential element in ensuring sustainable growth in the UK economy. The shipping industry will remain strongly linked to the state of the Welsh economy, and will be limited to the effectiveness of the ports industry to accommodate demand for import and export of goods (and vulnerable to global scale macro-economic trends). However, the ports and shipping sector will continue to grow due to demand from sectors that are able to operate independently of the economy, e.g. renewable energy.

The growing renewable energy industry[See Energy-low carbon] will have port requirements for activities including manufacture, installation and maintenance, particularly for ports in relatively close proximity to proposed future offshore wind farm or tidal lagoon developments. Holyhead, Mostyn, Milford Haven (including

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23 EU definition: coastal transportation linking European ports with adjacent countries
Pembroke Dock), Port Talbot, Newport and Swansea have all been identified as having the greatest competitive advantage in exploiting the opportunities from low carbon energy sectors, although this doesn’t preclude niche roles for other ports in Wales (Welsh Government 2011a). There is, however, likely to be serious competition from ports in both England and Ireland.

The global cruise market continues to grow; 40 cruise ships are on order for delivery in the next four years alone, costing the cruise lines an estimated $25 billion. The ships are also getting larger with 22 of the new orders exceeding 100,000 tonnes deadweight and 18 of them are over 130,000 tonnes deadweight. Their length will be up to 350 metres. This growing market represents a clear opportunity for the Wales, especially given the continued growth in the number of American and German cruise passengers, with whom the UK has long been popular as a cruise destination. Future investment in Welsh cruise tourism is seen as hugely important to the cruise industry of the UK.

**Climate change**

Sea level rise and surge events, as well as extreme storms and waves could damage, or cause widespread disruption to ports and shipping activities. The Port of Milford Haven, in their 2011 adapting to climate change report (MHPA, 2011) identified the increased risk of flooding from both tidal and fluvial sources, high winds disrupting operations and the impacts of climate extremes on supply chain (e.g. transport links) as the greatest threats. Some minor benefits from reduced dredging with sea level rise, as well as the potential to co-locate wind energy renewables (with any increase in wind) and increased marina tourism were identified at Milford Haven.

Climate change studies for the shipping sector have tended to focus on shipping emissions (i.e. the contribution shipping makes to climate change, rather than the impacts of climate change on shipping). Changes in weather patterns, including any increase in the frequency and intensity of major storms, as well as wave climate, which can affect ship’s routing, delays on passage and for smaller ships could increase the need to seek shelter. There could also be significant implications for international shipping as result of polar ice melt as arctic shipping routes become increasingly viable options for movement of freight around the globe.

Key sources of information include the Milford Haven adapting to climate change report (MHPA, 2011), as well as the other port adaptation reporting power (ARP) reports produced by major port and harbour authorities ([https://www.gov.uk/government/publications/adaptation-reporting-power-received-reports](https://www.gov.uk/government/publications/adaptation-reporting-power-received-reports)). The 2013 MCCIP review on ports and shipping (Wright et al. 2013) covers both the impacts of climate change on this sector, as well as the contribution that shipping makes to climate change through greenhouse gas emissions.

References:
Milford Haven Port Authority (2011) Adapting to Climate Change: Milford Haven Port Authority Report to the Secretary of State. 60pp
Subsea cabling

Context:

The Marine Policy Statement (3.7.1) states that subsea cables are an integral component of the world's power, information and international telecommunications infrastructure, and are socially and economically crucial to the UK. Sections 5.5 and 5.8 of the Marine Planning for Wales - Strategic Scoping Exercise (Welsh Government, 2015) provides background on power and telecommunications cabling. In summary:

- Subsea cabling is vital to telecommunication (telephone, internet and data) and energy;
- The sector can be impacted by other marine users due to the sensitive nature of the cables;
- The sector can impact the environment and other marine users, e.g. disturbance to marine habitats and species during laying, maintenance, protection, operation and decommissioning of cables;
- Where possible, and appropriate, the preferred option is to bury the cables under the sea bed (e.g. in shallower waters);
- Whilst at present there are relatively few telecommunication subsea cables in Wales the number is expected to increase proportional to trends in e-commerce (increasing demand for communication cables, faster services and the capacity of cables);
- The expansion of offshore renewable energy technologies is likely to increase the number of subsea power cables.

Governance

Proposals to install cables at sea (within the 12 nm limit) require consent(s) via application to NRW (marine licensing division) for consideration under the requirements of the Marine & Coastal Access act 2009. The UK Government and Devolved Administrations are also signatories to the UN Convention on the Law of the Sea (UNCLOS) which governs activities (including cable laying) in UK waters beyond 12 nm.
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</table>

Table 21. Subsea cabling sector objectives and policies
### Sector objectives

| To support the optimal distribution of electricity through the appropriate development of infrastructure in order to maintain security of supplies at competitive rates. |
| To support better global communications by promoting opportunities for growth of digital communication networks. |
| To minimise the risk to power supply and telecommunications by promoting good location of infrastructure, eg locating power generation systems close to areas that will use the power and taking a long term approach to location decisions, will allow sustainable growth by optimising use of space. It will also reduce environmental impact by allowing coexistence. The development and implementation of best practice may involve training and undertaking research and monitoring of methods and environmental impact. |

### What do the objectives mean and why are they important?

The sector objectives demand a good supply of both power and telecommunications where they are needed to provide international connectivity and services to high demand service users. It requires consideration of both traditional and renewable energy sources and of the entire telecommunications network including interconnectors and associated infrastructure. A good supply means minimal interruptions to supply, superfast broadband in appropriate areas. Appropriate location of infrastructure, eg locating power generation systems close to areas that will use the power and taking a long term approach to location decisions, will allow sustainable growth by optimising use of space. It will also reduce environmental impact by allowing coexistence. The development and implementation of best practice may involve training and undertaking research and monitoring of methods and environmental impact.

### Policies

**Policies apply to both inshore and offshore regions of this plan.**

**CAB-01:** Decision making authorities should ensure that proposals demonstrate that they will, in order of preference:

- Avoid adverse impacts on existing (and planned) subsea cables (and their landfall sites).

**CAB-01:** Other users should implement methods to minimise impacts on subsea cables. Such considerations are an integral component of marine works licensing under the Marine and Coastal Access Act 2009.

### Policy interpretation – guidance for implementation

**Guidance for implementing general crosscutting policies in the subsea cabling sector:**

The subsea cabling sector should apply the general policies of this plan, in particular, on: sustainable development and use; economically productive activities; coexistence; access to the marine environment; coastal communities; safety; EIA and SEA; cumulative effects; engagement; terrestrial and marine planning are integrated; cross-border; sound evidence; risk based approach.

**Guidance for implementing subsea cabling sector policies:**

The need and extent of subsea cables is dictated by overriding UK and Welsh Government policies on telecommunications and energy.

**How the general crosscutting policies support the subsea cabling sector objectives:**

| Section needs re-fashioning |
| Policies on co-existence and co-management support General cross-cutting Obj 1 (Sustainable development) and 4 (multiple use) as well as sector obj 1, 2 and 3 (developing power and communications supply). |
| Policy on minimising impact on environment or other users supports plan Obj 4 (multiple use) and 6 (seas are safe to use) and sector obj 4 (minimise impact) |
| Policy on using best evidence supports all sectors |

**CAB-01:** Consideration of other activities supports General Obj 1 (Sustainable development) and 4 (multiple use) as well as sector obj 1, 2 and 3 (developing power
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| practice in design, location, implementation and operation for the laying and protection of subsea cables. | The objectives drive socio-economic benefits: access to international telecommunications networks for commercial use through can boost business and support the economy and; improved competition (between different operators) leads to competitive rates and this supports economic wellbeing; Good practice boosts the reputation of Wales and maximises opportunities for sustainable development. Well considered location of infrastructure reduces the quantities of cabling needed means less cost, less potential for environmental damage and less risk to other marine users. Imperatives exist to be environmentally friendly so the negative impact of human activities must be minimised and potential positive impacts maximised where feasible. | f) minimise and mitigate impacts where they cannot be avoided  
g) mitigate impacts where they cannot be minimised  
h) present the case for proceeding where (a-c) are not possible | **Policy CAB-02:** Decision making authorities should ensure that subsea cable laying, operation, maintenance and decommissioning complies with recognised good practices to minimise the impact on the environment and other users. **CAB-02:** The sector operates to a range of good practices including: liaison with fisheries and UKHO; cable awareness; cable installation; cable protection; safe working distances; fouling incidents and decommissioning (see [http://www.subseacablesuk.org.uk/](http://www.subseacablesuk.org.uk/) and [http://www.kis-orca.eu/](http://www.kis-orca.eu/)). | **CAB-02:** Good practice supports General obj 1 (Sustainable development), 4 (multiple use) and 6 (seas are safe to use) as well as sector Obj4 by safeguarding subsea from man-made and natural hazards. |
| To minimise adverse impacts on the marine environment and other users by promoting and implementing the highest possible safety standards. | Planning When making proposals, cable and network owners and marine users should evidence that they have taken a joined-up approach to development and plan their activities to, wherever possible, minimise impacts on assets, infrastructure, other users, the marine historic and the natural environment. In accordance with legislation appropriate and proportionate environmental consideration and risk assessment should be provided which may and comms supply). **CAB-04:** A growing comms network supports General obj 2 (thriving economy) | Text to follow | Text to follow |

**Sector policies: Subsea cabling**
### Sector objectives
What do the objectives mean and why are they important?

### Policies
Policy interpretation – guidance for implementation

### How do the policies support the objectives?

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<tr>
<td>Cables should be suitably routed to avoid sensitive habitats and areas that offer important resource to other sectors, eg the aggregates industry, and provide sufficient requirements for installation and cable protection. When selecting locations for landfall of power and telecommunications cables, developers and decision-makers should consider and ensure that any proposals are aligned with the policies on flooding and coastal protection.</td>
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<tr>
<td>Where burial is demonstrated not to be appropriate, in line with regulatory requirements and industry good practice, permission should be sought for protection using recognised and approved measures (such as placement of rock, mattresses, or armouring), noting that any decision will be subject to an appropriate level of assessment of environmental, economic and feasibility considerations. New cables should implement methods to minimise impacts on the environment, seabed and other users, where operationally possible and in accordance with relevant industry good practice and marine environmental legislation. Authorisation to lay or protect subsea cables may be subject to conditions to reinstate the seabed, and monitoring and to carry out remedial action wherever deemed necessary by the public authorities.</td>
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<tr>
<td><strong>Policy CAB-03:</strong> Decision making authorities should, where appropriate, support proposals that facilitate the development of infrastructure for the optimal distribution of electricity.</td>
<td>Cable owners have rights to repair damaged infrastructure (cables or protection). Cable and network owners (and/or associated sector leads) should engage with decision-makers at the early planning stage to notify them of any intention to lay or replace cables before routes are selected and agreed. Repair of cables in the case of an emergency or breakage needs to be undertaken as swiftly as possible, the cable owner needs to notify the regulator of the intention to repair the cable.</td>
<td><strong>Decommissioning</strong> A risk-based approach should be applied by network owners and decision-makers to the removal of redundant subsea cables, with consideration given the cables being left in situ where this would minimise impacts on the marine and historic environment and other users.</td>
<td>CAB-03: See Energy – Oil and gas (including carbon capture and storage) and Energy – Low carbon sections for rationale and guidance. The achievement of energy targets requires sufficient infrastructure to transport electricity from offshore facilities and share energy between countries in order to reduce the frequency and severity of high price spikes and facilitate improved supply/demand timelines.</td>
<td></td>
</tr>
<tr>
<td><strong>Policy CAB-04:</strong> Decision making authorities should, where appropriate, support proposals that facilitate the growth of digital</td>
<td></td>
<td><strong>CAB-04:</strong> The government report Digital Britain outlines the importance of the communications sector, its crucial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sector objectives</td>
<td>What do the objectives mean and why are they important?</td>
<td>Policies</td>
<td>Policy interpretation – guidance for implementation</td>
<td>How do the policies support the objectives?</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------</td>
<td>---------</td>
<td>-----------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>communication networks.</td>
<td></td>
<td>contribution to the economy and its role in building Britain’s industrial future (Department for Culture Media and Sport and Department for Business Innovation and Skills 2009). International telecommunications connectivity relies almost entirely on the submarine telecommunications networks within the waters surrounding the UK. An increasing number of businesses depend on accessing international connectivity to operate, and with the continued upward trend of e-commerce it is important that the plan allows for the expansion and support of the telecommunications sector (including subsea cables).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sector policies: Subsea cabling**
Figure 20. Subsea telecommunications and transmission cables

Key interactions with other industries:

Cabling may interact with other sectors, such as ports, shipping anchorages, aggregate extraction and fishing. Potential interactions include (modified from MMO 2013b):
- disturbance to marine habitats and species during laying, maintenance and protection of cables (including potential effects on electro-sensitive species);
- impacts on other sectors from subsea cables, e.g. fishing (snagging of gear); aggregate extraction, navigation dredging – exclusion or displacement of activities or other mitigation;
- Impacts from other sectors on subsea cables, e.g. shipping (damage to cables from anchoring);
- technological improvements for fibre optic telecommunications cables allow capacity increases per cable which could allow the industry to keep pace with demand without an exponential increase in the number of cables required, hence the need for even greater protection of the cable network.

Co-existence of cables with other activities can be managed, however in certain circumstances co-location with other activities can be unacceptable, e.g. once a cable is installed (whether on the surface or buried) it is protected by law and activities such as fishing, anchoring over it must be prevented.

**Future:**

Increasing use of the internet and an increase in e-commerce has led to an increasing demand for communication cables, faster services and the capacity of cables. There has been substantial investment through the delivery of a fibre optic corridor linking Dublin to Holyhead, before going on to Manchester, London and Europe (Broadband Finder 2008). Given that the lifetime of these assets is 15 to 25 years it is considered unlikely that further telecommunication development will be necessary in this area in the immediate future.

The Welsh Government is working with international connectivity providers to provide direct and diverse international options from south Wales.

It is expected that the growth of the sector will mirror that of the UK economy as a whole, i.e. the growth rates for the sector are set to align with the expected growth of the UK economy. Thus growth of 1.1% in Year 1 (2013/14), increasing to 2.1% by Year 4 (2016/17) is forecast (HM Treasury 2013 estimates).

Areas of future technical opportunity for the cables sector from TCE assessments (SSE - Figure 34) have been derived by identifying sections of territorial waters that provide optimal landing zones. This analysis was driven by the location of developing offshore generating assets and the presence of onshore electricity and telecommunication infrastructure.
Surface water runoff and wastewater management

Context

Surface water runoff is the rainwater that runs from roofs, highways and paved areas into the public sewerage system. In rural areas a high proportion of water that falls as rain soaks into the ground, then seeps into streams and rivers and flows to the sea. However, in urban areas there is much less green and open space. Land in villages, towns and cities have ever more houses and other buildings, tarmac roads and paths, paved patios and driveways, reducing the area available to absorb rainfall and directing it straight into the sewer.

For a number of reasons, including more frequent severe storms and the growth of built-up areas, Welsh Water’s sewer network has to deal with increasing flows of surface water. Occasionally, the capacity of the network is exceeded in some areas and the sewers overflow, resulting in pollution incidents in streams and rivers and, in extreme cases, incidents of sewage flooding roadways, gardens and homes.

Domestic sewage and trade waste is treated either in public or private works and is the subject of a consenting regime administered by NRW before discharge either to the sewerage system or (less commonly) directly to the environment.

The treatment and disposal of surface run-off and waste water, and the frequency of overflows leading to the release of untreated waste water, play an important role in water quality. One 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 management and treatment of surface and waste water.

Governance

The majority of the waste water network in Wales are owned and managed by the not-for-profit company Welsh Water. There are a small number of assets run by Welsh Water for private concerns and a small number of areas where the network is managed by others under contract to Welsh Water. The sector is managed by NRW under various regulations, including: Urban Waste Water Treatment Directive; Water Framework Directive; Shellfish Water Directive; Bathing Water Directive. The Habitats Directive, Wild Birds Directive and Marine Strategy Framework Directives may apply in certain circumstances. NRW enforce environmental regulations and determine where improvement is required to meet specific water quality drivers and long term water quality goals. OFWAT regulate the commercial aspects of the sectors, i.e. water bills and how much Welsh Water can charge customers to meet the environmental improvements determined by NRW.
Table 22. Surface water runoff and wastewater management sector objectives and policies

<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
</tr>
</thead>
</table>

*Sector policies: Surface water runoff and wastewater management*
### Sector objectives

<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
</tr>
</thead>
</table>
| To safeguard capacity to safely and effectively treat and discharge surface runoff and waste water. | The sector objective of Safe and effective treatment and discharge of surface and waste water means:  
- Minimal adverse impact on the environment  
- Minimal adverse impact on other marine users  
- Cost-effective  
- No long-term or serious adverse impacts on human health  
- The required degrees of treatment may differ depending on the source of the water and where it will be discharged  
- Extra treatment may be required depending on waste composition, time of year, currents and proximity to bathing waters.  
- Minimal overflows during storm surges  
- Minimal fluctuations in water charges to customers  
Our capacity to treat and discharge surface and waste water means:  
- Having the necessary infrastructure in place where it is needed – appropriate location; size, etc (STWs near areas of higher demand); covering drains, sewers, pumping stations, STWs... |  
**Policies:**  
- **SWW-01:** Decision making authorities should ensure that proposals, in order of preference:  
  a) avoid adverse impacts on and from surface water management and waste water treatment infrastructure minimise impacts where they cannot be avoided mitigate impacts where they cannot be minimised present the case for proceeding where (a-c) are not possible |  
**Guidance for implementing general crosscutting policies in the surface water runoff and waste water management sector:**  
The surface water runoff and waste water management sector should apply this plans general policies, in particular, on: sustainable development and use, coexistence; safety; marine protected areas; EIA and SEA; cumulative effects; terrestrial and marine planning are integrated; cross-border; risk based approach.  
**Guidance for implementing surface water runoff and waste water management sector policies:**  
**SWT1:** Although untreated waste water is mostly water, (generally less than 0.1% is solid material), without treatment the waste water produced every day would cause significant damage to the environment. The impacts of untreated waste water include: chronic ecosystem damage due to oxygen depletion of receiving waters from the biodegradation of organic matter; ecosystem damage from eutrophication of waters resulting from excessive inputs of nutrients present in waste water; possible toxic substances and potential health risks from water-borne pathogens from inadequately treated discharges to waters used for recreational activities, such as swimming and canoeing. Untreated waste water also contains sewage litter and other sewage solids that can impact the environment, for example, through the smothering of river beds or posing a hazard through its ingestion by wildlife. Sewage solids can also damage commerce by making beach and riverside resorts unattractive to potential visitors.  
- Infrastructure is needed for the collection, treatment and disposal of waste water from housing and industry, the effective drainage of storm water and runoff to the sea and mitigating the effects of diffuse pollution from urban areas and agriculture;  
- Effective management and improvements to drainage design are key activities to achieve this.  
- Infrastructure must be in place and maintained for necessary disposal activity to be carried out in compliance with EU legislative requirements. However, it is recognised that it is not possible to construct sewerage |  
**How the general crosscutting policies support the water runoff and waste water management sector objectives:**  
Sustainable development policy supports sector objective 1 (safeguard capacity).  
Coastal change and flooding policies, climate change policies, safe seas policy, marine litter policy and EIA policy support investment in water treatment systems and so support sector Obj 1 (safeguard capacity).  
Policy on using good practice to minimise impact on environment or other users supports General Obj 4 (multiple use) and 6 (seas are safe to use)  
Policy on using best evidence supports sector obj 1 (safeguard capacity).  
**How the [insert sector title] sector policies support the [insert sector title] sector objectives:**  
**Text to follow**  
**How the sector policies support the plan objectives:**  
**SWT1:** Consideration of other activities supports Plan I Obj 1 |
### Sector objectives: Surface water runoff and wastewater management

<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Having the resources and access to maintain it</td>
<td>systems that will treat all waste water during situations such as unusually heavy rainfall. At such times, overflows of dilute untreated waste water have to be discharged from the sewerage network to reduce the risk of flooding from overloaded sewers. Such discharges are inevitable, well regulated, and largely benign and subject to review and improvement if it is found they are having significant adverse impacts.</td>
<td>(Sustainable development), 4 (multiple use), 6 (safe marine environment), 9 (GES), 10 (biodiversity), and 13 (integrated decision making) as well as sector obj 1 (safeguarding capacity).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Having the capacity to respond to future challenges such as increases in population, the need to improve systems to remove litter and new pollutants</td>
<td>The Water Strategy for Wales provides an overarching guideline for water issues. There are also various Defra, UKTAG, NRW and Welsh Government guidelines that apply to specific aspects of river and marine water quality. Welsh Water also provides guidance documents for developers, see <a href="http://www.dwrcymru.com/en/Developer-Services.aspx">http://www.dwrcymru.com/en/Developer-Services.aspx</a>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The development and implementation of best practice may involve training and undertaking research and monitoring of methods and environmental impact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Infrastructure must be in place and maintained for necessary disposal activity to be carried out in compliance with EU legislative requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- A healthy marine environment provides well-being (health) benefits and socio-economic benefits in terms of food supply, tourism, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Sewerage infrastructure and drainage is essential in supporting economic and social development though improving quality of discharge (so lessening impact on environment) and reducing the risk of flooding in urban areas.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Consistent, affordable water rates and healthy water supply provide socio-economic benefits to individuals and</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

This is important because:
- Infrastructure must be in place and maintained for necessary disposal activity to be carried out in compliance with EU legislative requirements
- A healthy marine environment provides well-being (health) benefits and socio-economic benefits in terms of food supply, tourism, etc.
- Sewerage infrastructure and drainage is essential in supporting economic and social development through improving quality of discharge (so lessening impact on environment) and reducing the risk of flooding in urban areas.
- Consistent, affordable water rates and healthy water supply provide socio-economic benefits to individuals and communities.
<table>
<thead>
<tr>
<th>Sector objectives</th>
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<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
</tr>
</thead>
</table>
|                   | • Improved competition (between different operators) leads to reduced pressure on pricing, competitive rates and this supports economic wellbeing  
• Good practice reduces environmental impacts and boosts the reputation of Wales and maximises opportunities for sustainable development. Well considered location of infrastructure reduces the cost of construction, operation and repair  
• We are under pressure to be environmentally friendly so the negative impact of human activities must be minimised and potential positive impacts maximised where feasible. |         |                                                 |                                          |
Key interactions with other sectors

Discharges of surface run-off and of treated or untreated waste water into the marine environment have the potential to affect local water quality which has implications for other sectors such as fisheries, recreation and nature conservation. Related infrastructure (e.g. pipelines) has the potential to impinge on flood & coastal
defence, recreation and amenity. Changes in treatment systems, particularly marine outfalls, may be required to accommodate the effects of development on the local marine receiving waters or Welsh Water assets, e.g.

- Coastal Flooding / Sea Defences / Sea Level Rise - Sea level rise will mean some potential adverse effects on coastal water infrastructure, e.g. tidal locking, saline intrusion additional pumping. Coastal flooding can threaten waste water treatment works in low lying coastal areas. Construction of sea defences could require construction over outfalls or changes to outfall performance. As yet this has not been a significant issue in Wales, but is likely to change in future, so examples are not available.
- Coastal erosion, in response to climate change or adverse impacts of development could undermine outfalls or place assets at risk.
- Damage to outfalls during marine construction and dredging works. Damage from anchors.
- Designation of areas for bathing and shellfisheries or habitats is probably the most significant effect on treatment process and network as this can require improvements to meet locally higher water quality requirements. There is little scope for these activities to be mitigated.
- Waste from processing of fish and shellfish can impact the marine environment, or affect water treatment where waste is introduced to sewers. This could be mitigated by treatment at the processing plant, recycling and minimising waste and use of best practise.
- Development based on the coastline, e.g. marinas, power stations, industry, can lead to additional network flow or treatment at existing treatment works. This may require improvement to existing systems where there is insufficient capacity. Removal of surface water, from the site discharge and other local compensatory schemes can significantly mitigate these effects by freeing up capacity in the network / treatment process. Welsh Water Developer Support work with developers to maximise these benefits.
- Some marine activities, e.g. large discharges from other industry, tidal lagoons / impoundments, port and harbour development can affect the operation of outfalls or change marine circulation and dispersion thereby reducing water quality. These effects can be partly mitigated through good design but will typically require additional treatment or outfall repositioning to maintain existing marine water quality. The recent Swansea Lagoon development is a good example where the developer has worked with Welsh Water to extend an outfall to help mitigate development impacts and potentially improve water quality.

Future

Increasing waste water pollution events in the future may arise due to (MMO 2013d):

- More frequent and intense storm events linked to climate change, resulting in an increased frequency of potential storm overflows;
- Population growth putting more demand on sewage network to dispose of waste water;
Urban creep increasing the proportion of the catchment that is impermeable and thus increasing the demand for water courses to rapidly respond to rainfall events;

Diffuse urban and rural pollution from wider catchment areas.

**Climate change**

The main climate change impacts relate to the extent of increased storminess which results in a higher volume of water running into sewerage systems over a shorter period of time. Engineering works and other management schemes (eg SUDS) are intended to better accommodate these conditions or spread peak flows. Increased risk of drought is also likely where waste to receiving waters is likely to be less diluted, but this is difficult to mitigate or manage. Higher temperatures may also encourage algal growth and eutrophication.
Tourism and recreation

Context:

In this plan the term tourism relates to the range of activities, services and infrastructure associated with visitors and holidaymakers (whether domestic or from outside of Wales) whereas the term recreation relates to any activities that people engage in during their free time (including the support services and infrastructure for these activities). There is clear overlap between some of these activities and their supporting services and infrastructure, however this plan also acknowledges that there are some distinct differences in the way that these sectors are assessed, managed and supported. For the purposes of spatial and temporal management considerations this plan has combined tourism and recreation into a single section because in broad terms the objectives and policies have similarities. However, it is recognised that full engagement with these sectors under this plan will require dedicated dialogue, e.g. consideration of the seasonal nature of many tourism activities and the year round nature of many recreational activities.

The UK Marine Policy Statement\(^{25}\) states that the UK Administrations’ aim for tourism is to take steps to improve the competitiveness of the tourism industry, recognising the important part that it plays in the national economy and to encourage growth within environmental limits. Tourism is one of the top three growth sectors with seaside tourism estimated to currently support 21000 jobs and contributes £3.6 Billion to the UK economy.

Wales has some of the finest opportunities for tourism and recreation in the world, based around its outstanding marine and coastal environment. The Welsh Government is committed to a sustainable growth of the tourism and recreation sector that maximises the potential of the coast and is identified as a key action in the Partnership for Growth Strategy (Link to be inserted). The target is to grow tourism earnings by 10% or more by 2020 in a sustainable way making an increasing contribution to the economic, social and environmental well-being of Wales.\(^{26}\)

In Wales, the value of coastal tourism was estimated to be worth £602 million in 2013 generating 3.6 million trips\(^{27}\). Trips to the sea side account for a higher proportion of trips and spend in comparison to other destinations in the UK demonstrating the sector’s importance to the Welsh economy. Within the regions, seaside tourism is particularly important for North and South West Wales, where it accounts for half of all tourism activity (57% and 48% of tourism spend respectively).\(^{28}\) A central reason why visitors choose to holiday in Wales and on its coast is the quality and accessibility of the natural environment.

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\(^{25}\) The UK Marine Policy Statement 2011


\(^{27}\) Great Britain Visitor Survey http://www.visitbritain.org/statistics-insights

\(^{28}\) Welsh Assembly Government 2008a
The expenditure generated by visitors undertaking marine and coastal recreation is broken down in Table 23.

**Table 23. Visitor expenditure for marine and coastal recreation**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Expenditure (2011-2013 average)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Where the activity is the main purpose of the holiday</strong></td>
<td></td>
</tr>
<tr>
<td>Sailing/Yachting</td>
<td>2.871m</td>
</tr>
<tr>
<td>Watersports – motorised</td>
<td>3.308m</td>
</tr>
<tr>
<td>Watersports – non motorised</td>
<td>10.236m</td>
</tr>
<tr>
<td>Swimming (indoors and outdoors)</td>
<td>28.249m</td>
</tr>
<tr>
<td>Sea angling</td>
<td>7.216m</td>
</tr>
<tr>
<td><strong>Where the activity is one of several activities undertaken during the holiday</strong></td>
<td></td>
</tr>
<tr>
<td>Sailing/Yachting</td>
<td>9.977m</td>
</tr>
<tr>
<td>Watersports - motorised</td>
<td>11.077m</td>
</tr>
<tr>
<td>Watersports – non-motorised</td>
<td>28.348m</td>
</tr>
<tr>
<td>Swimming (indoors and outdoors)</td>
<td>147.949m</td>
</tr>
<tr>
<td>Sea angling</td>
<td>40.157m</td>
</tr>
</tbody>
</table>

There were an estimated 2.9m visits to the Wales Coast Path between October 2011 and September 2012. Expenditure related to these trips was approximately £33.2m generating 730 person-years of employment.

A key priority for Visit Wales is to increase the volume and value of cruise visits to Wales’ ports. A Cruise Development Strategy for Wales is being developed and this will include recommendations for any future cruise berth developments in Wales. The economic impact for cruise in Wales in 2013 was estimated at 2.4 million and in 2015 Wales will welcome 21,000 passengers and around 7000 crew.

There are six ports in Wales that are actively marketed by Visit Wales: Newport, Cardiff, Swansea, Milford Haven, Fishguard and Holyhead. The ambition is to make improvements to port infrastructure to allow the handling of larger ships with higher passenger numbers. Holyhead and Fishguard have been identified as sites for port development. In addition, a number of smaller marina developments with potential to develop the sailing infrastructure and opportunities have been identified as priorities for the next round of European funding. These include:

- Saundersfoot Harbour
- Aberystwyth
- Porthcawl Harbour

Tourism and recreation activities (Table 24) are widely distributed around the Welsh coastline with concentrations found at areas with relevant access, infrastructure and environmental appropriateness. Participation ranges from organised international events (e.g. Ironman Wales), clubs, commercial activities and by individuals. In a regional study, Wales Activity Mapping recorded 25 activities carried out on the St David’s Peninsula [see Figure 20] demonstrating the diverse mix carried out within multiple designated areas (SAC, SPA, SSSI etc.) and differing sectoral interests. Of
these, beach activities, walking and wildlife boat trips were the most popular in terms of participant days with wildlife boat trips generating £9.7M per annum to the local economy.  

Table 24. Marine and coastal tourism and recreation activities recorded on the South West Wales coastline

<table>
<thead>
<tr>
<th>Beach activities</th>
<th>Land yachting</th>
<th>Horse riding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body boarding</td>
<td>Power boats</td>
<td>PWC</td>
</tr>
<tr>
<td>Canoeing / kayaking</td>
<td>Power kite flying</td>
<td>Kite boarding</td>
</tr>
<tr>
<td>Caving / potholing</td>
<td>Quad biking</td>
<td>Kite surfing</td>
</tr>
<tr>
<td>Climbing</td>
<td>Rowing</td>
<td>Walking</td>
</tr>
<tr>
<td>Coasteering</td>
<td>Sea angling</td>
<td>Wildlife boat tours</td>
</tr>
<tr>
<td>Cruiser sailing</td>
<td>Shooting</td>
<td>Wildlife watching</td>
</tr>
<tr>
<td>Cycling</td>
<td>Snorkelling</td>
<td>Windsurfing</td>
</tr>
<tr>
<td>Dingy sailing</td>
<td>Surfing</td>
<td>Dog walking</td>
</tr>
<tr>
<td>Diving</td>
<td>Swimming</td>
<td>Wake boarding / Water skiing</td>
</tr>
</tbody>
</table>

Alongside economic benefits, worldwide research has shown that recreational enjoyment is essential to human health, key to human development, essential to the quality of life, builds communities, and reduces the cost of health care.  

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31 A Pilot Study on the Economic Valuation of Marine Recreation Activity in Pembrokeshire 2013
32 www.pembrokeshirecoast.org.uk/?PID=526

Sector policies: Tourism and recreation

Page 209
important to consider these wider impacts upon society that exist beyond the obvious economic drivers.

The Marine Planning process can facilitate and improve sustainable development of tourism and recreation by ensuring development (facilities and access) or the activity is carried out in suitable locations, based on the environment, capacity, and consideration of other stakeholders. Welsh Government has developed Tourism Destination Management Plans (Link to be inserted) which outline the development priorities for tourism destinations across Wales. ³³

Governance

To be completed
Table 25. Tourism and recreation sector objectives and policies

<table>
<thead>
<tr>
<th>Sector objectives</th>
<th>What do the objectives mean and why are they important?</th>
<th>Policies</th>
<th>Policy interpretation: guidance for implementation</th>
<th>How do the policies support the objectives?</th>
</tr>
</thead>
</table>

To support the delivery of jobs and wealth by promoting the sustainable growth of a profitable tourism sector.

To contribute to sustainable growth, supporting the target to grow tourism earnings in Wales by 10% or more by 2020 by improving the quality of the visitor experience thereby increasing Wales’ reputation as a world class sustainable marine tourism and recreation destination.

To support the sustainable development of tourism and recreation activities by promoting access to, and the public’s understanding, awareness and stewardship of, the environment in which they take

| Tourism and recreation are distinct sectors, however there is considerable overlap between many of the associated activities, support services and infrastructure. In recognition of this overlap these high-level objectives for the sectors have been combined for tourism and recreation. However, this plan acknowledges, and will ensure that its implementation, appropriately considers the specific needs of tourism and recreation separately for both local communities and Wales’ as a whole. All objectives will increase economic and social benefits to support Wales’ well-being goals.
| Improving the quality of the visitor experience by increasing the range and quality of attractions, accessibility, facilities and infrastructure means that it is more likely that they will return and recommend it Wales to others.
| Increasing Wales’ reputation means raising public awareness of its positive attributes (beauty, facilities, friendliness, value for money) through positive reviews and word of mouth increasing the number of people who consider visiting Wales’ marine area as a holiday destination or in pursuit of recreational activities.
| Co-existence means both multiple tourism and recreational activities and other sectors with tourism and recreation.
| Promoting access means footpaths, sign-posting, public transport, entry

Guidance for implementing general crosscutting policies in the tourism and recreation sector:

Links to general policies on: co-existence; access; safe seas; living within environmental limits – Natural Resource Management; coastal communities; creating employment

Decision making authorities should, where appropriate, support proposals that comply with recognised good practice in respect of minimising disturbance to marine wildlife and habitats, invasive non-native species and sustainable tourism and recreation management.

Guidance for implementing [insert sector title] sector policies in the tourism and recreation sector:

The Welsh Government’s Tourism Strategy has a target to grow tourism earnings in Wales making an increasing contribution to the economic, social and environmental well-being of Wales. Actions that assist in promoting the safe access and health and benefits that our seas and coasts provide to local communities and tourists alike should be supported.

There will be a need to ensure appropriate integration between marine and terrestrial planning. This is key in specific areas such as in terms of facilities that are based onshore – toilets, car parks, access points - that are essential for marine recreation as well as for transport links and other services.

There is a distinct need to ensure that development is not undertaken without consideration of all existing plans and designations in an area to ensure that all developments are sensitive to all necessary considerations.

All organisations developing plans and strategies for the differing activities in the case will act together where needed to facilitate this for decision makers as well as users and potential users of the sea. Co-operative arrangements must be in place for the 20 year duration of the Plan to accommodate changes. A robust and formal structure for integration is needed to ensure the best possible, most up to date information is easily accessible.

The policies apply to the inshore region of this plan

T&R-01: Decision making

Section to be developed

How the general crosscutting policies support the tourism and recreation sector objectives:

Text to follow

How the [insert sector title] sector policies support the [insert sector title] sector objectives:

Text to follow

How the sector policies support the plan objectives:

Relates to general plan objectives that support:

Obj 1 – sustainable development
Obj 2 – create long term employment
Obj 4 – managing multiple use
Obj 5 - communities
Obj 6 – coast & seas accessible and safe to use
Obj 7 – heritage assets, protected landscapes & seascapes
Obj 12 – ecosystem goods and services
Obj 13 – integrated decision-making
Obj 14 – unique characteristics and future opportunities
Obj 15 - engagement
To contribute to the achievement of Wales’ wellbeing goals by supporting the potential for co-existence with tourism and recreation activities.

To optimise the management of tourism and recreation activities by better understanding current uses and potential opportunities including identifying areas of high use, access, potential conflict and opportunities for co-existence.

Optimising management means making improved decisions to increase cost efficiency and appropriate environmental protection.

Authorities should ensure that proposals demonstrate that they will, in order of preference:

- avoid adverse impacts on existing recreation and tourism activities and areas of high potential for further growth
- minimise impacts where they cannot be avoided
- consider opportunities for co-existence
- mitigate impacts where they cannot be minimised
- present the case for proceeding where (a-c) are not possible
- consider the potential to enhance tourism and recreation opportunities.

T&R-02: Decision making authorities should, where appropriate, support proposals that provide new opportunities for tourism and recreation or enhance existing opportunities.

T&R-01: Tourism and recreation is the largest maritime activity in Europe and is closely linked to many other parts of the economy. Across the EU it employs almost 3.2 million people, generating a total of €183 billion in gross value added and representing over one third of the maritime economy. Planning Policy Wales states that tourism is vital to economic prosperity and job creation in many parts of Wales. It is a significant and growing source of employment and investment, based on the country’s cultural and environmental diversity. Decision making will need to balance the needs of differing tourism and recreation activities as they may compete temporally and spatially within areas of demand. Co-existence and multiuse should be promoted wherever possible.

Avoid means not pursuing activities where adverse effects are identified or seek alternative methods or locations, e.g. diverting footpaths, closed areas. Minimise includes the identification of potential adverse effects and considering options that may reduce such effects to acceptable levels, e.g. restricting access. Mitigation, includes measures to amend the design or construction methods, e.g. building designs that blend into the landscape. The requirement under (d) is to provide information for consideration by the relevant public authority. It does not indicate that approval of the proposal will follow by default. In determining the proposal, the public authority will take account of a range of relevant considerations including compliance with legislation, regulations and potential impacts highlighted in project level assessments.

T&R-02: Through increased partnership working, there has been significant amounts of public/private sector and European funding investment in coastal tourism infrastructure to enhance and improve Wales’s tourism offer. Key developments are outlined below.

- Coastal Centres of Excellence establishing a new visitor centre at Aberdaron, a Watersports centre and

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35 Planning Policy Wales, Chapter 11 2014
### Sector policies: Tourism and recreation

#### T&R-03: Decision making

- Decision making authorities should, where appropriate, support proposals that provide opportunities to improve understanding of current and potential tourism and recreation activities and the importance of a high-quality environment to this sector.

- Improvements to Porthcawl Harbour in Swansea Bay and improving access to the water in Pembrokeshire.
- The Wales Coast Path was opened on April 5th 2012, a world first.
- Sailing Academy and events centre that maximises the potential of the world class sailing waters around Pwllheli.
- The National Trust recently completed a major investment to establish Stackpole in Pembrokeshire as a truly sustainable coastal tourism destination.
- The Coastal Recreation Zoning project (as part of the marine code work) carried out by PCF could be considered for national roll out or in N2K sites. This offers a positive interface between recreation and the environment in a way that can be understood by planning.

#### T&R-04: Ancillary activities

- Ancillary activities, supporting this industry include the construction and maintenance of marinas, moorings and slipways, building and maintenance of pleasure and sporting boats, manufacture of sports equipment, operation of sport, transport and beach facilities, and renting and selling of sports goods and equipment.

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36 [www.landuse.co.uk/project/marine-and-coastal-recreation-audit-wales#.VcNWHv1VhBc](http://www.landuse.co.uk/project/marine-and-coastal-recreation-audit-wales#.VcNWHv1VhBc)
enhancing access to the marine environment.

**T&R-05:** Decision making authorities should, where appropriate, support proposals that provide opportunities to enhance the aesthetic qualities, coastal character and wildlife experience of Wales’ marine areas.

**T&R-05:** The natural environment, archaeological and historic interest, landscape and seascape are key attractions for most visitors to the Welsh coast with 70% of the coastline designated for its environmental quality. In a Visit Wales survey the most popular main activity for visitors was to enjoy the landscape/countryside/beach.\(^{37}\) The Wales Outdoor Recreation Survey\(^{38}\) recognises that enjoying the scenery and wildlife was ranked highly in reasons for visiting the outdoors demonstrating that natural beauty of Wales is also valued among local residents.

Bathing water quality and relevant beach awards are important and any future developments must minimise impacts upon the qualities that both local communities and visitors value in their use of the coast. Non-native species must also be considered in any development whilst voluntary codes of conduct e.g. Pembrokeshire Marine Code to minimise disturbance to ecosystems should be promoted.

Impacts on the environment from tourism and recreation can occur and will vary in nature and extent. By adopting an approach which encourages greater engagement with the outdoors; increased flexibility to allow for a wide range of activities and for the positive management of multiple activities; to provide safeguards for existing commercial activities and opportunities for new; and allowing for the protection of the natural environment these can be minimised.

Wales has lead the way in engaging with the tourism and recreation sectors in managing and mitigating potential impacts. Relevant examples include projects such as the Pembrokeshire Marine Code and Outdoor Charter which have been in existence for over 10 years, Snowdonia Active, South Wales Activity Providers and Wales Activity Tourism Association.

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\(^{37}\) Visit Wales – Wales Visitor Survey, 2013

\(^{38}\) WORS, 2011
Key interactions with other industries:

Wales’s importance as a coastal destination and a resource for recreation activities requires balancing with other uses. Interactions with other sectors can provide potential opportunities and issues.
Much of the spatial use of the Marine Plan area for tourism and recreation takes place on the shoreline or within 3 nautical miles. This will require planning to align with other sectors and terrestrial plans to ensure co-existence. Although a regional study, Wales Activity Mapping,\textsuperscript{39} found that where there were areas of conflict they were often temporal and spatial in occurrence and that education and best practice schemes were often useful in conflict management.

- Healthy and high quality environment: Tourism and recreation benefit and are often dependant on a quality marine and coastal environment where natural attractions remain one of the strongest features for attracting visitors. This is also true for Welsh residents where activities such as wildlife watching and visiting a beach have increased significantly in recent research.\textsuperscript{40} Issues could include disturbance to sensitive flora and fauna and conflict among users where impacts upon the quality of expected experience can occur e.g. PWC users in an area perceived as important for scenic and tranquil quality.

- Marine energy: Issues could include seascape (offshore wind) and potential no go areas dependent on the technology and deployment area. Opportunities could include new infrastructure e.g. Tidal Lagoon Power proposals that could provide new opportunities for tourism and recreation.

- Shipping: There are potential cross-sectoral issues with water sports users and leisure boating, which include collision risks with tankers and ferries within busy port limits.

- Development: Issues can include access. Opportunities can include new developments, which can increase interest and opportunities for access. Coastal Defence Schemes can also generate tourism benefits e.g. the Porth Eirias Watersports Centre in Colwyn Bay and the Surfer’s Reef at Borth.

- Commercial fishing: Commercial fishing and sea angling has the potential for conflict due to the targeting of similar key species in Welsh territorial waters. Angling also has the potential for conflict in areas popular for recreational diving e.g. wrecks

Future:

The continued growth in coastal tourism will increase the pressure on the coastal environment. There are gaps in understanding on the current and likely future distribution and intensity of coastal recreation and tourism activity and how this may impact upon marine natural resources.

Identification of the most common and intense activities (including new emerging and expanding recreational activities) could inform identification of areas where management intervention is needed. Further increased environmental awareness for coastal and marine users may also help towards the protection of the marine area.

Tourism activity can be seen as a potential competitor for marine space by several other sectors. Marine and coastal users (i.e. stakeholders, local authorities, and

\textsuperscript{39} \url{www.walesactivitymapping.org.uk/}
\textsuperscript{40} Wales Outdoor Recreation Survey, NRW, 2015
water sports associations) through engagement may be required to resolve conflicts of use of marine space and help to weigh up the costs and benefits of sustainable tourism and the protection of the marine environment.

**Climate change**

Climate change could have a variety of significant impacts upon the tourism and recreation sector with both positive and negative influences likely. These are difficult to predict but could include:

Changes in sea level, storms, and waves with the loss of infrastructure e.g. car parking at Aberieddy and increases in flooding. Impacts on supporting marine infrastructure e.g. marinas and water safety. Bathing water quality issues from increased land run-off.

Warmer summers are expected to lead to an extension of the tourist season, with opportunities for increased tourism, investment in infrastructure, increased employment and enhanced water sport opportunities. Understanding the carrying capacity of coastal communities will be important to ensure that growth is achieved in a sustainable manner.
### Annex 1 – Ecosystem approach

<table>
<thead>
<tr>
<th>Ecosystem approach principle and Environment Bill principles as applied to the marine planning process</th>
<th>Relevant plan stage</th>
<th>Approach</th>
<th>Relevant plan document / policy / implementation support tool</th>
<th>Future direction of travel</th>
</tr>
</thead>
<tbody>
<tr>
<td>There should be clear long-term ecosystem objectives, ideally linked to targets and indicators, against which progress can be monitored</td>
<td>Plan scope; vision &amp; objectives</td>
<td>Objective-based approach informed by HLMOs, with supporting targets and indicators. WNMP identified as a contributor to achievement of GES under MSFD.</td>
<td>Main plan document; SA; IA</td>
<td>Further strengthen linkages between plan objectives, well-being goals and Natural Resource Management</td>
</tr>
<tr>
<td>Integration of social and economic objectives to support sustainable development</td>
<td>Vision &amp; objectives; identify issues &amp; opportunities; options analysis; plan policy development</td>
<td>Social and economic baseline reviewed in SSE. Specific objectives and policies developed. Socio-economic assessment of policies in SA. Plan informed by typology of Welsh coastal communities report.</td>
<td>SSE; Main plan document; SA; IA</td>
<td>Strengthen socio-economic evidence base of plan and improve consideration of socio-economic effects with quantitative assessment of impacts</td>
</tr>
<tr>
<td>A robust, dynamic baseline, which acknowledges that change is inevitable, should be established against which progress towards achievement of objectives can be measured</td>
<td>Gathering evidence; implement, monitor &amp; review</td>
<td>Collation of data from a range of sources on a variety of issues within the plan area as part of the SSE. Development of a Marine Evidence Strategy associated with the implementation and further development of marine planning.</td>
<td>SSE; SPP; Marine Evidence Strategy</td>
<td>Focussed development of applied evidence base, particularly understanding of future scenarios and EGS provision</td>
</tr>
<tr>
<td>All forms of relevant information should be considered including scientific and local knowledge</td>
<td>Gathering evidence; identify issues &amp; opportunities</td>
<td>All forms of evidence considered, including local knowledge through stakeholder workshops and local engagement. Draft evidence base shared for comment. Marine Planning Evidence Portal developed to share available spatial evidence; feedback invited.</td>
<td>SSE; SPP; Marine Evidence Strategy</td>
<td>Ensure an effective process is in place to make best use of all information received</td>
</tr>
<tr>
<td><strong>All relevant sectors of society and scientific disciplines should be involved</strong></td>
<td><strong>All planning stages</strong></td>
<td><strong>Collaborative, multi-stakeholder approach to plan development and implementation. Guided by Stakeholder Reference Group. Opportunities for engagement set out in SPP.</strong></td>
<td><strong>Main plan document; SPP; SA; IA; SSE; Marine Evidence Strategy</strong></td>
<td><strong>Improve partnerships with key stakeholders particularly to support evidence and tool development</strong></td>
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<tr>
<td><strong>Monitoring, review and adaptive management are important elements of the planning and management cycle</strong></td>
<td><strong>Implement, monitor &amp; review</strong></td>
<td><strong>Indicative proposals for evaluation set out alongside draft plan. Baseline analysis in SSE</strong></td>
<td><strong>SPP; SA;</strong></td>
<td><strong>Review effectiveness of monitoring / suitability of indicators and implement adaptive management</strong></td>
</tr>
<tr>
<td><strong>Conservation of ecosystem structure and function to provide ecosystem services should be a priority and ecosystems must be managed within limits of their functioning and with consideration for lag effects that characterise ecosystem processes</strong></td>
<td><strong>Vision &amp; objectives; options analysis; plan policy development</strong></td>
<td><strong>Impacts of policies on ecosystem structure and function assessed in SA and HRA. Environmental limits recognised in HLMOs, reflected in the plan’s objectives and structure. Precaution applied within an overall risk-based approach</strong></td>
<td><strong>Main plan document; SA; IA</strong></td>
<td><strong>Understand and better reflect limits of ecosystem functioning, carrying capacity and accounting for the value of EGS (including non-use values) and responses to management interventions</strong></td>
</tr>
<tr>
<td><strong>A co-ordinated and integrated approach should be adopted when considering effects of human activity, particularly taking account of cumulative effects and thresholds, to support sustainable development</strong></td>
<td><strong>Vision &amp; objectives; options analysis; plan policy development</strong></td>
<td><strong>Integrated approach taken to developing the plan – land-sea interactions considered, cross-border interactions considered, policies developed in line with well-being goals to reflect SD. Policies supporting assessment and management of cumulative impacts. Co-ordination with other relevant plan authorities to understand cross-border dependencies and impacts</strong></td>
<td><strong>Main plan document; SA; IA; HRA</strong></td>
<td><strong>Develop a common framework for understanding cumulative effects, including social and economic considerations</strong></td>
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<tr>
<td><strong>Appropriate spatial and temporal scales should be applied</strong></td>
<td><strong>All planning stages, particularly scoping stage</strong></td>
<td><strong>Spatial extent took account of physical and administrative boundaries and considered human activities and biogeographical features. Policies supporting cross-boundary working and terrestrial integration. Long-term approach adopted with requirement for regular review. Policies expressed spatially where possible</strong></td>
<td><strong>Main plan document; SA; SPP</strong></td>
<td><strong>Expand the evidence base to incorporate information on the likely spatio-temporal scale of activity-pressures and pressures-receptor. Take account of ecosystem functional requirements and socio-economic dependencies across plan boundaries</strong></td>
</tr>
<tr>
<td>Planning and management should be decentralised to the lowest appropriate level</td>
<td>Plan policy development; plan implementation</td>
<td>Recognition of local issues within plan where appropriate. Local authorities and partnerships involved in plan development and delivery.</td>
<td>Main plan document; SA; SPP; IA</td>
<td>Work with public authorities and coastal partnerships to translate plan policies into local frameworks. Decision-making authorities will apply the plan policies at the appropriate spatial scale.</td>
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</tbody>
</table>
Annex 2 - Impact assessments

We have undertaken a number of specific impact assessments to determine the impact of marine planning on our diverse communities, in line with best practice and Welsh and UK Government policy. The topics of the assessments are listed below. Full details are available on our internet pages.

1. Poverty and inequality, including the consideration of protected characteristics: age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation.
2. The rights of the child
3. The future of the Welsh language
4. Legal / regulatory impact
5. Economic impact