



HM Government

North West Inshore and North West Offshore Marine Plan

Technical Annex

June 2021



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Published by the:

Department for Environment, Food and Rural Affairs
1st Floor, Seacole Building
2 Marsham Street
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Publication date: June 2021

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Cover photo: Liverpool, Merseyside

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Chapter One

1 Introduction and background

1.1 The North West Inshore and Offshore Marine Plan

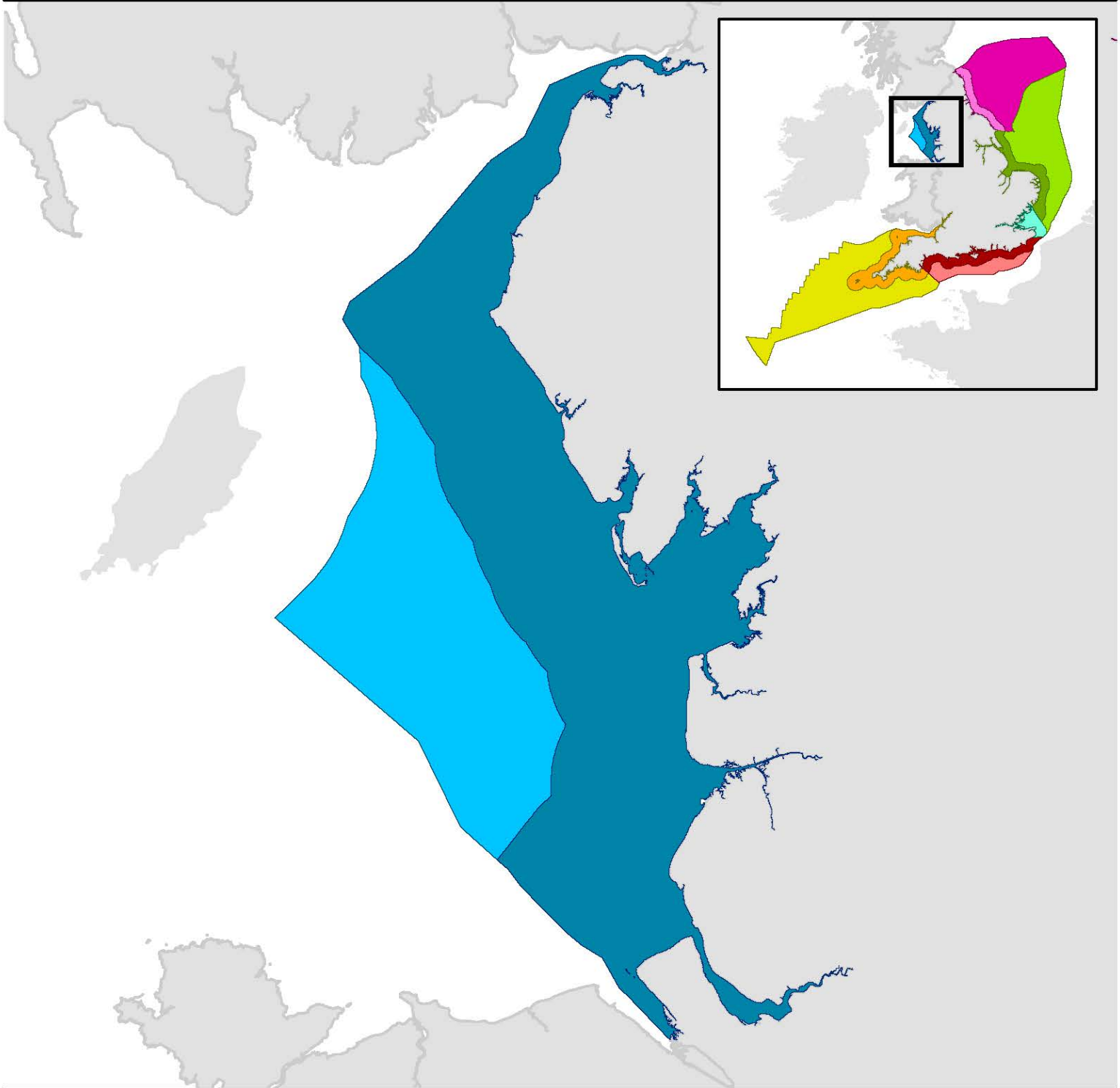
1. A marine plan is required for each of the north west inshore and north west offshore marine plan areas shown in Figure 1 ([Marine and Coastal Access Act 2009](#) Section 51). Due to commonalities and dependencies between the north west inshore and north west offshore marine plan areas, a single document has been produced, the [North West Marine Plan](#). It is acknowledged that while there is one document, they remain two separate plans – the North West Inshore Marine Plan and the North West Offshore Marine Plan.
2. While the [North West Marine Plan](#) document and this Technical Annex are separate documents, the Technical Annex forms part of the [North West Marine Plan](#) and must be read alongside the main plan document to inform policy implementation and the development of proposals. This Technical Annex provides additional detail on what each policy covers, why it is important, and where and how the policy will be implemented. Unless stated otherwise in this Technical Annex, the policies apply all year round. The Technical Annex also provides guidance on use of the latest data and information to support the application of policies. Policies are written in such a way as to accommodate updates to the evidence that supports implementation.
3. The [Explore Marine Plans](#) digital service should also be used alongside the [North West Marine Plan](#) and this Technical Annex. The [Explore Marine Plans](#) digital service displays the appropriate marine policy documents for all of England's marine plan areas in an accessible, online, quick-reference format. It is aimed at interested parties seeking to understand marine plans, particularly in the context of proposals. This resource is also designed to provide support to public authorities in their use of marine plans in decision-making. Relevant data holders and regulatory authorities (as under existing requirements) should also be consulted to make sure the most up-to-date evidence is used, and to understand where evidence gaps exist.

1.2 The north west inshore and offshore marine plan areas

4. The north west marine plan areas contain dynamic and low-lying coastlines and diverse marine environments, which are also very busy. The coast includes a diverse range of communities, with urban centres found in the southern part of the inshore marine plan area and predominantly rural communities to the north. There is varying wealth, with some areas with strong employment opportunities and other areas that are experiencing social and economic challenges. The marine plan areas are important for energy production, through discrete gas reserves, nuclear energy and renewable energy production.

5. Within the north west marine plan areas, there are a number of overlapping marine protected areas, three world heritage sites, one of which is also designated as a National Park (the Lake District National Park), heritage coast, two coastal Areas of Outstanding Natural Beauty, sites of special scientific interest and extensive Ministry of Defence danger areas. Section 1.3 of the [North West Marine Plan](#) provides more information on the north west inshore and offshore marine plan areas.
6. In preparing the [North West Marine Plan](#), adjacent areas (the marine areas of Scotland, Wales and the Isle of Man), referred to as reporting areas, have also been taken into account. This includes wider areas of analysis based on the issues being considered and also issues that do not have a defined geographical boundary, which is particularly important for the north west marine plan areas due to the administrative complexity of being surrounded by multiple different governments.
7. Figure 1 shows a map of the north west marine plan areas. For further information about the plan areas, see relevant evidence held on the Marine Management Organisation [Evidence Projects Register](#) or visit the [Explore Marine Plans](#) digital service.

Figure 1 | North West Inshore and Offshore Marine Plan Areas



Marine Plan Areas

	East Inshore		North West Inshore		South West Inshore
	East Offshore		North West Offshore		South West Offshore
	North East Inshore		South East Inshore		South Inshore
					South Offshore

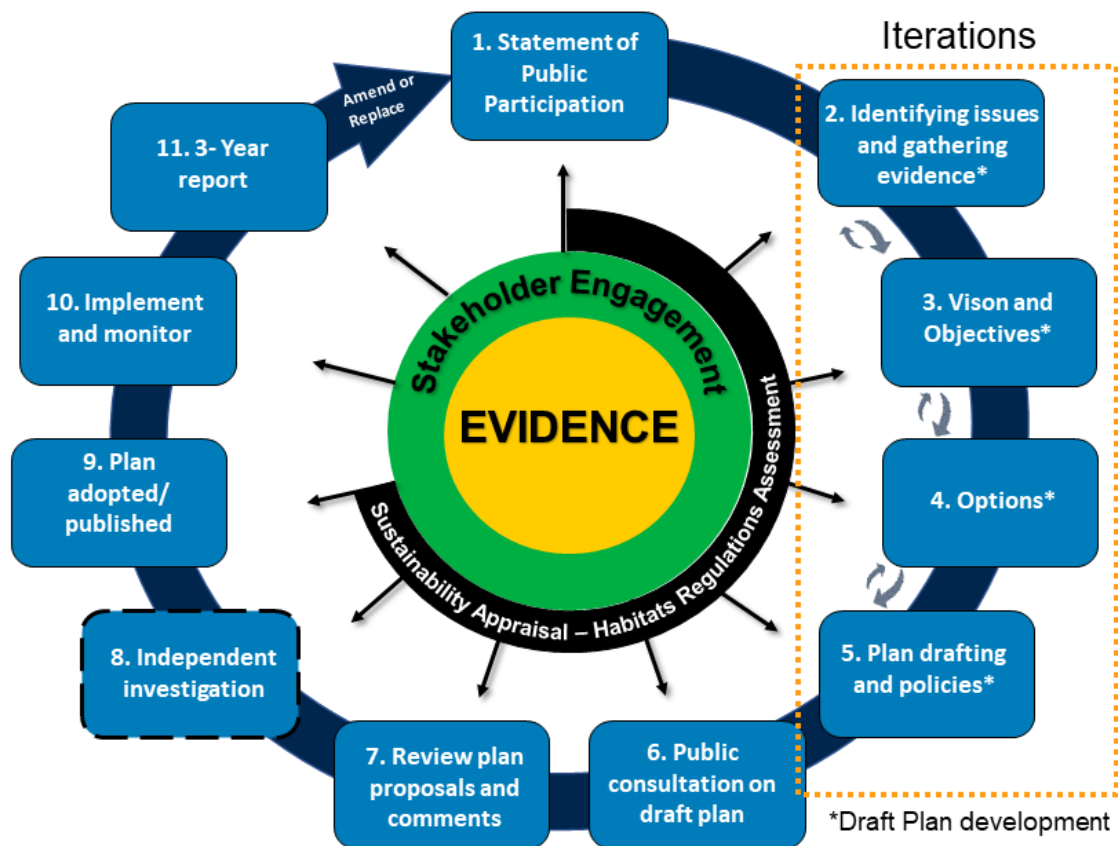
Information map

This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

1.3 Overview of plan development

8. Figure 2 shows the stages of marine planning¹:

Figure 2: The marine planning process



9. Activities undertaken during the plan development process bring wide benefits. For example, sub-national policy analysis should lead to better integration of decision-making. Evidence collation and commissioning will improve the marine evidence base to inform decisions. Engagement, including workshops, meetings and training, has increased awareness or improved the implementation of existing measures, as well as measures within the [North West Marine Plan](#) and the [UK Marine Policy Statement](#).
10. Consequently, not all issues raised have resulted in a specific north west marine plan policy, as some are already addressed by existing measures. The benefits of marine planning activities as a whole must be recognised and included when measuring the success of the Plan.

¹ All the relevant documents associated with the stages can be accessed at: <https://www.gov.uk/government/collections/north-west-marine-plan> including the Statement of Public Participation (SPP) and associated assessment documents.

1.4 The structure and composition of the Plan

11. The following sets out the 'elements' that make up the [North West Marine Plan](#). See Figure 3 for the overall structure. For further explanation of terms, see the glossary in Annex 1. Refer to Chapters 2, 3 and 4 for more information on vision, objectives, policies and signposting.

Figure 3: Elements making up the North West Marine Plan



Chapter Two

2 Vision

2.1 Vision statement

The vision for the north west marine plan areas in 2041

The north west marine plan areas are distinctive for the growth and variety of industries, including energy generation, ports, aggregate extraction, tourism and fisheries. The sustainable growth in marine infrastructure is facilitating access to the sea throughout the region. Sustainable coastal tourism is flourishing, with places such as Blackpool, the Lake District, Liverpool, Southport and Morecambe acting as catalysts for further regional development of recreation and tourism opportunities up and down the coast. The quality of the natural environment provides a safe haven for species, particularly birds and highly mobile animals located in the exceptional environments across the plan areas. Decisions made in the north west marine plan areas apply an ecosystem approach and a natural capital framework. The environment is in a better state than before and Good Environmental Status is achieved. Biodiversity is conserved, enhanced and restored through applying well-established principles of biodiversity gain and delivery of a well-managed ecologically coherent network of marine protected areas.

Effective environmental management, within and between sectors, contributes to providing the area with resilience to the impacts of climate change, contributing toward the UK's commitment of reducing greenhouse gas emissions to net zero by 2050, and to maintain and enhance natural assets. Effective transboundary co-operation with partners across the Irish Sea, and more locally, has created marine plan areas which are benefiting from a wide variety of cross-border activities. Sustainable and plan-led decision-making has accounted for and balanced the considerations of economic, environmental and social needs within the north west marine plan areas.

12. The [UK Marine Policy Statement](#) Section 2.1.1 states that “the UK vision for the marine area is for ‘clean, healthy, safe, productive and biologically diverse oceans and seas’”. That vision is reiterated in [A Green Future: Our 25 Year Plan to Improve the Environment](#). The north west marine plan areas will contribute to achieving this vision, supported by a specific north west marine plan vision.
13. The north west marine plan vision for the next 20 years covers significant issues identified through the planning process and iterations to develop the Plan. The Plan aims, through sustainable, effective and efficient use of the north west marine plan areas, to manage competing priorities between economic growth, environmental

conservation and social benefits, while considering the distinctive characteristics of the areas.

2.2 How will the north west marine plan areas look in 2041?

14. The north west marine plan areas sit in the bustling heart of the Irish Sea, stretching from the Scottish border to the River Dee boundary with Wales. It is a relatively small plan area that is variable in character, for example, valued areas of tranquillity alongside industrial locations, supports a wide range of existing activities and is already very busy. In 2041, the North West Marine Plan has facilitated the co-ordination of a variety of activities, sectors and governance structures that take place in, flow through, and sit next to the plan areas. Sustainable decision-making has accounted for, and balanced, the considerations of economic, environmental and social needs along the coast and out into the marine plan areas. Understanding of the marine environment has developed through new scientific and socio-economic research. Our understanding of the north west plan areas is better than ever before through sound science (including data collection, monitoring and research) that underpins effective marine management, policy developments and transboundary co-operation.

Achieving a sustainable marine economy

15. By 2041, the north west marine plan areas have become a hub for a variety of industries including the energy sector, ports and connected cable infrastructure to name a few. The expansion of associated industries, such as aggregate extraction, are being managed sustainably. Projects like the Atlantic Gateway have provided opportunities to showcase low carbon technologies to work towards a sustainable, inclusive economy, while contributing towards the UK's commitment of reducing greenhouse gas emission to net zero by 2050. This expansion has been assisted through the use of both established and innovative technology and has provided long-term benefits such as increased employment opportunities for local communities, from Liverpool in the south to Carlisle in the north, and coastal communities around and in between. But it has also taken into consideration the knock-on-effects of increased business, such as on local ports and harbours and the environment. In addition, sustainable coastal tourism thrives throughout the plan areas with coastal and adjacent locations, including The Lake District National Park, Blackpool, Liverpool, Southport and Morecambe, helping to drive tourism in the north west. Given the tight boundaries of the marine plan areas and the north west coastline, the co-existence of activities and sectors has been paramount in decision-making for plan-led development, particularly for providing the infrastructure to deliver sustainable economic growth.

Ensuring a strong, healthy and just society

16. Access to the coast and marine plan areas has been enhanced appropriately and inclusively allowing more people to explore and enjoy the varied marine environment of the north west marine plan areas. Improved access has led to the increased health and well-being of residents and visitors and led to a greater appreciation of the north west marine plan areas' seascape and landscape, and cultural heritage. For example, Liverpool's historic waterfront, the piers at Southport and Blackpool,

and the Solway Coast Area of Outstanding Natural Beauty. The continued expansion of the renewable energy sector is helping diversify and develop local skills and expertise to bring multiple areas out of deprivation. There is greater access to fisheries resources that are being managed in a sustainable way, recognising their importance as a social and environmental resource in addition to an economic one. The important role that the marine environment can play in mitigating climate change has been harnessed, particularly in coastal habitats, such as saltmarshes and intertidal peat beds. Natural flood defences are contributing to the protection of local communities, while playing an important role in the local and regional ecosystem. The region is recognised for its excellent contribution to Ministry of Defence practice and exercise areas including tests sites such as Eskmeals Firing Range and the submarine base at Barrow-in-Furness, strengthening international peace and stability and the defence of the UK.

Living within environmental limits

17. By 2041, the marine and coastal environment continues to be conserved and, where appropriate, enhanced and restored, building on the important role it plays in providing natural resources while maintaining the north west marine plan areas' distinctiveness and variety of habitats. Effective management of designated sites such as Morecambe Bay and intertidal habitats, which make up so much of the north west's coastline, has improved the resilience of sensitive habitats and species. Marine development within the natural environment is being effectively managed, with reduced impacts on sensitive species from pressures such as pollution and underwater noise. Intertidal and subtidal habitats are being enhanced, resulting in thriving populations of breeding and over-wintering species like the red-throated diver and common scoter. The extensive network of marine protected areas are being effectively managed as part of a coherent UK network, conserving and enhancing the region's highly valued habitats and species. The associated environmental enhancements to the marine plan areas have led to improved water quality with the wider benefits helping to drive tourism and improve well-being. Decisions made in the north west marine plan areas apply an ecosystem approach and natural capital framework. The environment is in a better state than before, and Good Environmental Status is achieved. Biodiversity is conserved, enhanced and restored by applying well-established principles of biodiversity gain and through delivery of a well-managed ecologically coherent network of marine protected areas.

Promoting good governance

18. The North West Marine Plan has promoted and achieved good governance by spatially planning the use of the marine environment. All those who have a stake in the marine environment input into associated decision-making. Marine, land and water management mechanisms have been responsive and now work effectively together, for example through integrated coastal zone management and the river basin management plans. The north west marine plan areas border Wales, Scotland and the Isle of Man. All these governments have regard to the different management systems to collaborate effectively in tackling transboundary issues. Marine businesses have been, and continue to be, subject to clear, timely, proportionate and, where appropriate, North West Marine Plan-led regulation. Public authorities,

including the 23 Local Planning Authorities, are utilising the Plan and working efficiently together for transboundary issues. Relevant public authorities are using mechanisms such as the Coastal Concordat to ensure effective and efficient join up in land-sea planning interactions.

Chapter Three

3 Objectives overview

3.1 Objectives

19. The vision for the North West Marine Plan will be achieved through the marine plan objectives (Table 1). Relevant high level marine objectives set out in the [UK Marine Policy Statement](#) are used as the plan objectives. The plan objectives reflect engagement with stakeholders and government throughout the planning process, and lessons from the development of earlier marine plans.
20. High level marine objectives relevant to the North West Marine Plan are those that would be delivered mainly through plan policies. The plan objectives are therefore based on the economic, social and environmental high level marine objectives.
21. While some of the plan policies may also contribute to the governance and sound science high level marine objectives, plan policies are not the primary mechanism to achieve these objectives. The high level marine objectives that are delivered through planning processes or other mechanisms, such as plan development or implementation², are not appropriate for use as marine plan objectives. Instead, these are considered to be ‘supporting’ objectives and are set out in Table 2 alongside some examples of how these objectives are delivered.
22. The plan objectives provide a link between the issues present in the north west marine plan areas, the future vision for the plan areas, and the policies developed to achieve the vision. The objectives cover the full scope of sustainable development, integrating the principles of a sustainable marine economy, ensuring a strong, healthy and just society, and living within environmental limits.
23. Table 1 describes the local relevance of the plan objectives to the north west marine FFIGURplan areas. The objectives are further tailored to the north west marine plan areas through the policies that will apply to individual decisions made in the north west plan areas, and the evidence base that supports implementation.
24. Due to the cross-cutting nature of the objectives, Table 1 provides only a flavour of the relevance of each plan objective to the north west marine plan areas to avoid duplication across the objectives. The commentary is not definitive. Table 4 in Chapter 4 shows the broad range of policies that contribute to the achievement of the plan objectives. Note, Table 4 provides a guide to the most obvious links between plan policies and objectives, rather than being a definitive assessment; the

² For example, objective 17: “Marine businesses are subject to clear, timely, proportionate and, where appropriate, plan-led regulation” will be achieved through the development and implementation of marine planning as a whole rather than through specific policies.

policies that do and do not contribute to the corresponding objectives will also depend on the circumstances of each proposal or decision to which the Plan is applied. In some cases, policies contribute to multiple plan objectives, for example, policy NW-CBC-1, which encourages cross-border co-operation.

25. The order of plan objectives does not reflect priority or weighting. The order follows the order set out in the [UK Marine Policy Statement](#). Economic, social and environmental objectives must be considered equally alongside one another. Plan objectives should be read and applied in an integrated way, although not every objective will apply to every situation and in every location, and their relevance may change over time as the evidence base evolves.

3.2 Contribution to the Marine Strategy

26. [The Marine Strategy Regulations 2010](#)³ require the UK to take necessary measures to achieve or maintain Good Environmental Status of our seas by 2020 through the development of a marine strategy. The strategy reflects the UK's vision for clean, healthy, safe, productive and biologically diverse oceans and seas, and helps to deliver international obligations and commitments to protect and preserve the marine environment.
27. Good Environmental Status is wide-ranging and is defined by 11 descriptors set out in the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#). Good Environmental Status for each descriptor, including the ecosystem components⁴ associated with descriptor 1 (biological diversity), will be delivered through the achievement of high level objectives. These objectives, as set out in the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), are listed below in Table 3 of this Technical Annex.
28. The [Marine Strategy Part Three: UK programme of Measures](#) states that marine planning will make a positive contribution to the achievement of Good Environmental Status. Table 3 of this Technical Annex demonstrates where the north west marine plan objectives and policies contribute either directly or indirectly across all of the descriptors. Marine plan objectives that are indirectly linked to the marine strategy objectives are included in brackets.

3.3 Contribution to other UK strategies

29. The plan objectives contribute to the aims of the [Industrial Strategy](#) and the [Sustainable Development Strategy](#) by enabling sustainable economic growth in the north west marine plan areas. The plan objectives encourage a move towards net zero carbon targets defined in the [Clean Growth Strategy](#). The Plan also encourages

³ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

⁴ Cetaceans, seals, birds, fish, pelagic habitats and benthic habitats as set out in the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#)

proposals to leave the environment in a better state than before to contribute to aspirations set out in [A Green Future: Our 25 Year Plan to Improve the Environment](#).

Table 1: Relevance of the marine plan objectives to the north west marine plan areas

Marine Plan Objectives		Relevance to North West Marine Plan Areas
Achieving a sustainable marine economy	1	<p>Infrastructure is in place to support and promote safe, profitable and efficient marine businesses.</p> <p>The north west marine plan areas contain several marine sectors which rely on supporting infrastructure for day-to-day operations. For example, there are significant shellfish beds in the north west which require provision and maintenance of infrastructure for landing and processing incoming catch. Being relatively small and very busy marine plan areas, space for new infrastructure is increasingly restricted. Existing infrastructure can be reused or repurposed to support new developments, where appropriate. For example, infrastructure for aquaculture can also be used by fisheries and vice versa, which contributes to the integration of the industries. The north west region is considered England's 'Energy Coast', with infrastructure in place such as cabling, ports and quays to support the maintenance and growth of offshore renewable energy. It is difficult to predict the future growth of ports in the north west as the size and number of vessels will respond to global markets. Subsea cabling in the north west marine plan areas is vital for supplying broadband and achieving the aims of Building Digital UK to ensure everyone has the right to request high-speed broadband by 2020. Cabling is also essential to support the offshore renewable energy supply in the area. Maintaining and supporting appropriate infrastructure for marine-based activities such as these will help to promote safe, profitable and efficient marine businesses in the north west marine plan areas.</p>
	2	<p>The marine environment and its resources are used to maximise sustainable activity, prosperity and opportunities for all, now and in the future.</p> <p>The marine environment of the north west marine plan areas provides a wide range of resources that are important for supporting the local and national economy. It is important that these environmental resources are used sustainably. As the north west is a key manufacturing base, future economic growth may lead to an increase in demands on ports and harbours. Port and harbour development will further support offshore renewable energy production. The dredging of ports and harbours plays a vital role in maintaining safe access at the advertised navigational depth to ports and harbours. Sustainable port development brings economic benefits through direct and indirect job creation. The future expansion of ports to accommodate larger vessels may require deeper, wider and more frequent dredging. Oil and gas extraction has been declining since 2000; however, it remains important to the UK's energy mix as we transition to a low carbon economy, and as a significant employer. Within the north west marine plan areas, there are discrete gas reserves, with associated infrastructure that continue to be utilised. The UK aims to reduce emissions to net zero by 2050, including from energy generation, and increase the proportion of energy generated from renewable and nuclear energy sources. The north west marine plan areas will contribute to the growth of renewables and the delivery of nuclear electricity production. By ensuring that the marine environment and its resources are used to maximise sustainable activity, it will enable prosperity and opportunities for all, now and in the future.</p>
	3	<p>Marine businesses are taking long-term strategic decisions and managing risks effectively. They are competitive and operating efficiently.</p> <p>Alongside other factors, increasing activity in some parts of the north west marine plan areas will require businesses to take long-term strategic decisions and manage risks effectively. As the marine plan areas become busier, marine activities are required to take a long-term, strategic view of the plan areas to enable future activities to make the most efficient use of available space. Activities within the north west marine plan areas such as renewable energy, cables, aggregate extraction, tourism, recreation and activities related to ports and harbours are just some of the marine businesses that require communication and co-operation between different sectors to ensure long-term strategic decisions are made. Over the lifetime of the North West Marine Plan, there may be an increase in the requirement for marine aggregates due to the growing pressures on traditional land-based aggregates. There are currently 11 planned or operational wind farms and extensions in the north west marine plan areas, and areas have been identified that could potentially support future development. Ports within the plan area provide a range of support services to other economic activities, such as offshore</p>

Marine Plan Objectives		Relevance to North West Marine Plan Areas
		wind, oil and gas and cables, in addition to the transportation of people and goods. Co-operation between activities will allow early identification of risks, including enabling the development of sufficient capacity and capability as well as protecting and identifying potential risk to access to ports. If the full range of marine businesses takes long-term strategic decisions and manages risks effectively, including the consideration of other activities that share the same area, it will help to achieve a sustainable marine economy.
	4 Marine businesses are acting in a way which respects environmental limits and is socially responsible. This is rewarded in the market place.	Marine business, if not managed in a responsible way, can have detrimental effects on the marine environment that they rely upon. That means continuing to assess impacts on the environment in line with existing requirements and those set out in the marine plan, including consideration of cumulative effects where appropriate. That includes how activities are undertaken as well as where. Over the lifetime of the North West Marine Plan, activity is set to increase as new infrastructure is deployed and existing infrastructure repurposed or decommissioned. For example, commercial fishing is dependent on a high-quality environment and remains an important form of employment in the north west marine plan areas but faces increasing pressure on access to fishing grounds from activities competing for space. With climate change set to increase pressures on the marine environment, including a shift in fish stocks, marine businesses will need to have increasing regard to such changes in ensuring they respect environmental limits. There is an existing but increasing emphasis on having regard to social values in planning for and making decisions on activities in the marine area. In the north west, that includes giving due consideration to impacts on the fisheries sector and significant tourism and recreation sectors.
<i>Ensuring a strong, healthy and just society</i>	5 People appreciate the diversity of the marine environment, its seascapes, its natural and cultural heritage and its resources and act responsibly.	The north west marine plan areas have a rich and diverse maritime heritage with a variety of heritage and seascape features that goes beyond what is visible on the sea surface. They provide opportunities for tourism and recreation, health and well-being benefits and a strong sense of place which is valued by local communities and visitors alike. The sea is highly visible from the land in the north west, with iconic views of Scotland, Wales, the Isle of Man and the Irish Sea. International designations reflect the importance of the intertidal habitats, including sand dunes, vegetated shingle, saltmarsh, prehistoric landscapes and lagoons, supporting a rich birdlife. The legacy of nuclear power generation at Sellafield from the 1950s remains as England's Energy Coast'. Liverpool has been an international port for several hundred years and remains an important trade hub and its waterfront is also a World Heritage Site. Formby beach hosts culturally and historically significant Mesolithic period human and animal footprints. The north west marine plan policies will improve public knowledge, understanding, appreciation and enjoyment of the cultural and heritage assets and marine environment. While it is important to increase awareness and education of these assets amongst the public, enabling people to appreciate them responsibly, without damage, will ensure they can continue to be appreciated in the future. Increasing awareness of these cultural and heritage assets will enhance the values of and connectivity to the coast, such as along the coastlines of the Arnsdale and Silverdale and Solway Coast Areas of Outstanding Natural Beauty and the Lake District National Park. The heritage and seascape benefits for coastal communities and visitors include improved mental and physical health and well-being, and an increased sense of place. These benefits can increase cohesion, pride and passion for the marine environment, which stimulates the economy.
	6 The use of the marine environment is benefiting society as a whole, contributing to resilient and cohesive communities that	Coastal communities in the north west inshore marine plan area have strong links to the sea. Many coastal communities continue to be intrinsically linked to the marine environment. However, coastal communities are most vulnerable to the effects of climate change at the coast, such as erosion, sea level rise and heightened flood risk. A significant amount of the coastline in the north west has been identified as vulnerable to coastal change. As these issues become more widespread, there is increased potential for significant adverse impacts on local residents, businesses (including ports, marinas and recreational

Marine Plan Objectives		Relevance to North West Marine Plan Areas
	can adapt to coastal erosion and flood risk, as well as contributing to physical and mental wellbeing.	facilities), and important coastal and marine habitats, such as saltmarshes, that offer natural flood defence protection. Policies within the North West Marine Plan support decision-makers and coastal communities as they adapt to these and future challenges. The Plan aligns with and complements existing 'regional' strategies, including shoreline management plans, which aim to ensure appropriate coastal development that considers future risks to people, assets and natural resources. Improving the quality of life for many people living in the north west inshore marine plan area is important as numerous communities experience high levels of social and economic deprivation, linked to unemployment. Tourism and recreation are important, well-established sectors within the north west marine plan areas, with potential to expand and diversify. Facilitating access to iconic attractions such as Liverpool, Blackpool Tower, Morecambe Bay and the Lake District National Park, and developing alternative recreation activities, can aid coastal regeneration, offering significant employment opportunities to revitalise communities and boost the regional economy.
7	The coast, seas, oceans and their resources are safe to use.	The North West Marine Plan encourages diversification and continued sustainable economic growth and development while ensuring that the coast, seas and their resources are safe to use. Alongside marine-related sustainable development and use, such as coastal developments and recreational use, there are predicted increases in housing. The predicted increases in various activities could risk significant adverse impacts on the environment, society and the economy. For example, increases in marine litter, including from food and drink packaging, have significant negative environmental, social and economic impacts. Coastal development may have adverse impacts on shipping transits from the busy freight and passenger's ports in the area (including Liverpool, Fleetwood, Heysham, Barrow and Manchester Ship Canal). Increases in shipping activity will increase emissions, which may lead to poor air quality, although these may be addressed through existing and emerging strategies, as well as new measures to reduce climate and other gas emissions. Good water quality is important for essential fish habitats, commercial aquaculture and bathing waters. The waters of the north west inshore marine plan area have the UK's poorest ecological quality and face challenges from agricultural run-off, waste water and sewer overflows from the large catchments of Liverpool, Preston and Blackpool. In addition, oil and gas structures are the highest risk pathways for the introduction and spread of non-native species. This is exacerbated by the semi-enclosed nature of the Irish Sea and the close proximity to other marine plan areas. The north west marine plan areas also support a diverse range of internationally significant habitats and species which are vulnerable to the negative impacts of invasive non-native species. The North West Marine Plan has a role to promote effective management of potential negative impacts on the marine resources and values of the north west so that the marine area is safe to use for all.
8	The marine environment plays an important role in mitigating climate change.	Marine ecosystem services play a critical role in mitigating climate change. Within the north west marine plan inshore area lies integral coastal habitats that reduce certain causes of climate change including increasing carbon dioxide levels. For example, saltmarshes as well as offshore muds in the offshore marine plan area provide a natural carbon sequestration service. Seagrass beds in the Solway Firth, are an important carbon sink and sediment stabilising habitat. Coastal squeeze, as a result of reduced space between hard structures and rising sea level or coastal erosion, can result in loss of habitats which provide regulatory services. Healthy and resilient ecosystems are important in mitigating the local effects of climate change and so the North West Marine Plan aims to limit change or loss of coastal habitats which affects the function of ecosystems and ecosystem service provision. Economic opportunities to mitigate climate change through the use of the marine environment in the north west marine plans areas are prevalent. The north west marine plan areas boast considerable wind and tidal resource which can be utilised to deliver renewable energy schemes, producing clean energy sent back to our shores. The 11 operational and in-development offshore wind farms exemplify the role the region has to play now and into

Marine Plan Objectives		Relevance to North West Marine Plan Areas
		the future for increasing renewable energy usage in a multitude of ways, therefore helping to reduce our greenhouse gas emission output. Future opportunities for carbon capture usage and storage also exist in the north west marine plan areas, which can further help mitigate climate change. The North West Marine Plan promotes cross-border and cross-plan co-operation in establishing such projects, ensuring that the benefits are realised across the UK.
	9 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 coast and sea can improve people's quality of life, health and well-being, cultural identity and sense of place. Equitable access creates opportunities to raise environmental awareness as well as an increased understanding and appreciation of the marine environment and its natural, cultural and heritage assets. This is important for remote, rural, coastal communities who are intrinsically linked to and dependent on access to the marine environment. The north west region includes a number of prominent coastal landmarks; the tower at Blackpool, Liverpool's historic waterfront and the expansive beach at Morecambe Bay. Access for tourism and recreational activities occurs up and down the coast with award-winning sandy beaches, local wildlife reserves and the Lake District National Park all being big attractions. The north west coast is popular for wildlife watching, with various national and local nature reserves. Multiple protected species are present at different times throughout the year, for example, the entire population of Svalbard barnacle geese overwinter in the Solway Firth. Harbour porpoise and dolphin are regular visitors, and some locations in Cumbria offer opportunities to watch grey seals year-round. Access for appropriate recreation and tourism may also help protect these species through increased public awareness and funding. Commercial fishing activity occurs across the north west marine plan areas with a number of locations supporting historic shellfisheries. In addition, there are several commercial fishing ports such as Barrow, Fleetwood, Lancaster, Liverpool, Maryport, Preston, Runcorn, Workington and Whitehaven.
	10 Use of the marine environment will recognise, and integrate with, defence priorities, including the strengthening of international peace and stability and the defence of the United Kingdom and its interests.	Marine and land-based Ministry of Defence activities in the north west marine plan areas are of national importance. The north west marine plan areas contain over 2,000km ² of military practice and exercise areas, including areas of maritime navigational interest. The north west marine plan areas also contain extensive danger areas used for weapon test and evaluation activities. There are a number of coastal sites with associated danger and exercise areas used for firing ranges and ordnance disposal. Proposals for development of marine infrastructure may pose potential adverse effects on the continuity and future use of such Ministry of Defence activities and areas. The North West Marine Plan ensures Ministry of Defence activities and strategies are able to function to ensure protection of the UK's economy, peace and stability. The north west marine plan policies encourage early communication with the Ministry of Defence and public authorities to enable marine activities to be undertaken safely and in a manner that does not threaten Ministry of Defence activities and assets.
<i>Living within environmental limits</i>	11 Biodiversity is protected, conserved and, where appropriate, recovered, and loss has been halted.	The north west marine plan areas support a rich diversity of nationally and internationally significant marine life. The importance of biodiversity within the north west marine plan areas is recognised by 21 designated marine protected areas, covering more than 3,500km ² . The mainly sedimentary coastline supports internationally significant populations of seabirds and waterfowl, such as little tern, red-throated diver and whooper swan. The expansive sand and mudflats along the shores of the north west inshore marine plan area are particularly important areas for feeding seabirds and waterfowl. The Ribble, Solway and Wyre estuaries provide feeding grounds and areas for post-larval development for smelt. Allonby Bay supports large living reefs of honeycomb worm. Areas to the west of the Isle of Man support a variety of species, such as sea urchins, starfish, burrowing anemones, molluscs and commercially important species such as Norway lobsters. Biodiversity in the busy north west marine plan areas is vulnerable to loss, damage and disturbance caused by the numerous marine activities, and the effects of climate change. Habitats and species require space if they are to adapt to the effects of climate change. Species movement in the north west marine plan areas must be carefully managed to prevent the spread and introduction of

Marine Plan Objectives		Relevance to North West Marine Plan Areas
		invasive species. Protecting and conserving biodiversity in the north west marine plan areas is important, as are improvements to biodiversity through enhancement and restoration using well-established principles of biodiversity gain. Conserved, enhanced and restored biodiversity will ensure healthy, functioning and resilient ecosystems can continue to deliver important services for wildlife, people and businesses in the north west marine plan areas.
12	Healthy marine and coastal habitats occur across their natural range and are able to support strong, biodiverse biological communities and the functioning of healthy, resilient and adaptable marine ecosystems.	The north west marine plan areas have a high concentration of activities across a diverse range of habitats. Coastal areas are characterised by estuaries in the north and south, with Morecambe Bay, the largest intertidal area in the UK, in the centre. Sandflat, mudflats and saltmarsh are important estuarine habitats that support many species of invertebrate, seabirds and waterfowl. The inshore marine plan area also hosts extensive beaches and sand dunes. The rich species assemblage associated with these habitats relies on natural sediment supply and transport to maintain a healthy ecosystem function. The offshore marine plan area is characterised by muds, sands and gravels which support molluscs, worms, urchins, starfish and the Norway lobster, also known as scampi. Habitats in the north west marine plan areas are important natural capital assets that deliver a range of ecosystem services that, in addition to the wildlife, benefit communities and businesses. Saltmarsh absorbs carbon and can dissipate wave energy to reduce impacts from storm surges. Seagrass and bivalves can remove nitrogen and hazardous chemicals from the water column to regulate water quality. Coastal habitats are particularly vulnerable to coastal squeeze as a result of sea level rise, which can be exacerbated by hard coastal defence structures. Storm surges, the sea level, and maritime activity are predicted to increase over the lifetime of the marine plan. It is important that habitats have the space to adapt to the impacts of climate change. As maritime growth is expected, it is vital that the North West Marine Plan ensures that healthy and resilient habitats, communities and ecosystems are maintained and restored.
13	Our oceans support viable populations of representative, rare, vulnerable, and valued species.	The north west marine plan areas support many rare, vulnerable and valued species as well as species typical of UK waters. Marine protected areas in the north west marine plan areas protect a range of habitats that support various life stages and behaviours of important species. Highly mobile species, such as seabirds and waterfowl, fish and marine mammals, may only spend a small proportion of their time in a protected area and may be vulnerable to impacts from human activities in the busy north west marine plan areas. St Bees Head, for example, is important for migratory seabirds which breed there from April to July. There are several Atlantic salmon rivers in the north west inshore marine plan area, with juvenile and adult salmon migrating through the area. Liverpool Bay supports red-throated diver and common scoter. The Solway Firth is an important nursery ground for bass, pollack and some flatfish species. Subtidal sand and gravel provide important spawning and nursery grounds for plaice, skate and thornback rays, and harbour porpoises are often spotted in the area. Migratory routes are essential to the success of key life stages of migratory species, such as breeding. Disruption to migratory pathways can negatively affect the success of a population, potentially threatening long-term viability. The north west marine plan policies ensure that as activities within the marine plan areas increase, disturbance impacts to representative, rare, vulnerable and valued species are effectively managed.

Table 2: Supporting objectives delivered through non-policy mechanisms and processes

Supporting Objective		Delivery Mechanisms and Processes	
<i>Promoting good governance</i>	14	All those who have a stake in the marine environment have an input into associated decision-making.	Marine plan development and implementation will be the primary processes through which this objective is achieved.
	15	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 plan implementation will be the primary process through which this objective is achieved, but marine plan policies for cross-border co-operation and water quality will also contribute.
	16	Marine management in the UK takes account of different management systems that are in place because of administrative, political or international boundaries.	Marine plan development and implementation will be the primary process through which this objective is achieved, but the marine plan policy for cross-border co-operation will also contribute.
	17	Marine businesses are subject to clear, timely, proportionate and, where appropriate, plan-led regulation.	Marine plan implementation will be the primary process through which this objective is achieved.
	18	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.	Marine plan development and the evolving evidence base that supports plan development and implementation will be the primary processes through which this objective is achieved. Marine plan policies for the environment, climate change and heritage will also contribute.
<i>Using sound science responsibly</i>	19	Our understanding of the marine environment continues to develop through new scientific and socio-economic research and data collection.	Marine plan development, implementation and monitoring, and the evolving evidence base that supports these processes will be the primary processes through which this objective is achieved.
	20	Sound evidence and monitoring underpins effective marine management and policy development.	Marine plan development, implementation and monitoring, and the evolving evidence base that supports these processes will be the primary processes through which this objective is achieved.
	21	The precautionary principle is applied consistently in accordance with the UK Government and Devolved Administrations' sustainable development policy.	Marine plan implementation will be the primary processes through which this objective is achieved.

Table 3: Contribution of marine plan objectives and policies to the marine strategy high level objectives

GES Descriptor	Marine Strategy High Level Objective	Plan Objectives	Contributing Policies					
D1, D4 Cetaceans	The population abundance of cetaceans indicates healthy populations that are not significantly impacted by human activities	11,13 (4, 5)	NW-DIST-1	NW-BIO-1	NW-BIO-2	NW-MPA-1		
			NW-MPA-2	NW-UWN-1	NW-UWN-2	NW-CE-1		
D1, D4 Seals	The population abundance and demography of seals indicate healthy populations that are not significantly impacted by human activities.	11,13 (4, 5)	NW-DIST-1	NW-BIO-1	NW-BIO-2	NW-MPA-1		
			NW-MPA-2	NW-UWN-1	NW-UWN-2	NW-CE-1		
D1, D4 Birds	The abundance and demography of marine bird species indicate healthy populations that are not significantly impacted by human activities.	11,13 (4, 5)	NW-DIST-1	NW-BIO-1	NW-BIO-2	NW-MPA-1	NW-MPA-2	NW-CE-1
D1, D4 Fish	The abundance and demography of fish indicate healthy populations that are not significantly impacted by human activities.	11,13 (4, 5)	NW-FISH-3	NW-DIST-1	NW-BIO-1	NW-BIO-2	NW-MPA-1	
			NW-MPA-2	NW-UWN-1	NW-UWN-2	NW-CE-1		
D1, D4 Pelagic habitats	Pelagic habitats are not significantly adversely affected by human activities.	11,12 (4, 5)	NW-FISH-3	NW-BIO-1	NW-BIO-2	NW-CE-1		
D1, D6 Benthic habitats	The health of seabed habitats is not significantly adversely affected by human activities.	11,12 (4, 5)	NW-BIO-1	NW-BIO-2	NW-BIO-3	NW-FISH-3	NW-MPA-1	NW-MPA-2
			NW-MPA-3	NW-MPA-4	NW-CC-1	NW-CE-1		
D2 Non-indigenous species	The rate of introduction of NIS, spread and impact of invasive NIS caused by human activities is not adversely altering ecosystems.	4, 5, 11 (12, 13)	NW-INNS-1	NW-INNS-2	NW-MPA-1	NW-CE-1		
D3 Commercial fish	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.	4, 13 (5, 11, 12)	NW-FISH-3	NW-DIST-1	NW-CE-1			
D4 Food webs	The health of the marine food web is not significantly adversely affected by human activities.	11, 13 (4, 5)	NW-BIO-1	NW-BIO-2	NW-MPA-1	NW-FISH-3	NW-CE-1	

GES Descriptor	Marine Strategy High Level Objective	Plan Objectives	Contributing Policies					
D5 Eutrophication	Human-induced eutrophication is minimised in UK marine waters.	4, 5, 7, 11 (13)	NW-WQ-1	NW-MPA-1	NW-CE-1			
D7 Hydro-graphical conditions	The nature and scale of any permanent changes to hydrographical conditions resulting from anthropogenic activities do not have significant longterm impacts on UK habitats and species.	11, 12, 13 (4, 8)	NW-CC-1	NW-CC-2	NW-CC-3	NW-MPA-1	NW-MPA-2	NW-CE-1
D8 Contaminants	Concentrations of contaminants in water, sediment or marine biota, and their effects, are lower than thresholds that cause harm to sea life, and are not increasing.	4, 5, 7, 11 13	NW-WQ-1	NW-MPA-1	NW-CE-1			
D9 Contaminants in seafood	Concentrations of specified contaminants in fish and other seafood caught or harvested for human consumption in UK seas do not exceed agreed safety levels set in Regulation (EC) No 1881/2006.	4, 7 (11, 13)	NW-WQ-1	NW-CE-1				
D10 Marine litter	The amount of litter and its degradation products on coastlines and in the marine environment is reducing and levels do not pose a significant risk to the environment and marine life.	4, 5, 7, 11, 13	NW-ML-1	NW-ML-2	NW-CE-1			
D11 Underwater noise	Loud, low and midfrequency impulsive sounds and continuous low frequency sounds introduced into the marine environment through human activities are managed to the extent that they do not have adverse effects on marine ecosystems and animals at the population level.	4, 11, 13	NW-UWN-1	NW-UWN-2	NW-DIST-1	NW-MPA-1	NW-CE-1	

Chapter Four

4 Policies overview

4.1 Plan policies

30. The marine plan policies will be implemented by public authorities through existing regulatory and decision-making mechanisms; there are no new burdens in the form of additional mechanisms. The plan-led decision-making framework encourages early discussion between the potential proponents, relevant decision-makers and associated consultees to help remove uncertainty and reduce the resources required. The plan policies should not be read in isolation, as more than one policy could apply to any proposal. It is unlikely that a particular decision will involve a single policy or all policies. Instead, several plan policies will likely be pertinent to a decision.
31. Policies are set out under the following headings in Chapter 5 of this Technical Annex:
 - achieving a sustainable marine economy
 - ensuring a strong, healthy and just society
 - living within environmental limits
 - promoting good governance
32. Marine plan policies must be complied with in line with requirements under the [Marine and Coastal Access Act 2009](#) Section 58. The order of policies does not reflect their priority. Individual marine plan policies must not be read in isolation. The marine plan must be read as a whole, taking all plan policies together. It is unlikely that a particular decision will involve only one policy or all policies. Instead, several plan policies are likely to be pertinent to a decision. Policies must be considered alongside each other and applied in an integrated way to achieve the cross-cutting marine plan objectives.
33. Land-based plans are primarily applied by local authorities and others, such as the Environment Agency, to inform authorisation and enforcement decisions. Marine plans, however, are used by a broader range of decision-makers and can apply to a greater scope of activities, many of which are not subject to authorisation or consenting regimes, for example, the creation of a byelaw to manage a marine protected area. As such, terms such as 'proposals' have been developed to apply to a multitude of decisions that need to consider marine plans, mindful of the lack of an 'application' process in many cases, for example, the development of a strategic

plan. The phrasing used respects the different decision-makers who apply the Plan. Supporting information for decision-makers and proponents is provided in this Technical Annex, including a full glossary in Annex 1, and through the [Explore Marine Plans](#) digital service.

4.2 Policy structure

34. Each policy has a unique reference code, for example, NW-BIO-1. Where policies are closely related, they are grouped and presented alongside each other in Chapter 5 of this Technical Annex, with shared supporting text. For example, policies related to aquaculture are grouped together. Each group of policies is presented in a box at the start of the section on that topic, and then each policy is shown in a text box at the appropriate point in the text where implementation is discussed.
35. Each group of policies, or individual policies where there is only one for a topic, is accompanied by supporting text that sets out:
 - definitions of **what** the policies are focused on, eg what is biodiversity?
 - **why** policies are required, eg local importance, or national and international drivers
 - the **aim** of each policy
 - if the policy applies to the inshore, offshore, or both marine plan areas
 - **how** each policy will be implemented and by whom⁵, including legislation, guidance, existing measures or other plans that may be relevant; signposting to other relevant plan policies is not included because the Plan must be read as a whole
 - maps or other information that indicate where the policy applies in the marine plan areas or where resources and activities are located

Individual marine plan policies must not be read in isolation. The marine plan must be read as a whole, taking all plan policies together. It is unlikely that a particular decision will involve only one policy or all policies. Instead, several plan policies are likely to be pertinent to a decision. Decision-makers, working with proponents and others as necessary, are to determine which plan policies (and associated maps) apply to a particular decision, and which policies can be screened out. Proposals should indicate how they support the north west marine plan vision, objectives and policies.

⁵ Each policy will be of interest to a wide range of plan users. This section draws out the main consideration for proponents and decision-makers.

Table 4: Achievement of marine plan objectives through marine plan policies

Marine Plan Objective			Contributing Policies												
Achieving a sustainable marine economy	1	Infrastructure is in place to support and promote safe, profitable and efficient marine businesses	NW-AQ-2	NW-CAB-2	NW-INF-1	NW-INF-2	NW-PS-1	NW-PS-2	NW-PS-3	NW-CBC-1	NW-CCUS-3				
	2	The marine environment and its resources are used to maximise sustainable activity, prosperity and opportunities for all, now and in the future.	NW-AGG-1	NW-AGG-2	NW-AGG-3	NW-DD-1	NW-DD-2	NW-DD-3	NW-OG-1	NW-OG-2	NW-REN-1	NW-REN-2	NW-REN-3	NW-AQ-1	
			NW-AQ-2	NW-CCUS-1	NW-CCUS-2	NW-CCUS-3	NW-EMP-1	NW-FISH-2	NW-PS-1	NW-PS-2	NW-PS-3	NW-CO-1	NW-CBC-1	NW-CE-1	
	3	Marine businesses are taking long-term strategic decisions and managing risks effectively. They are competitive and operating efficiently.	NW-AGG-1	NW-AGG-2	NW-AGG-3	NW-CCUS-1	NW-CCUS-2	NW-CCUS-3	NW-PS-1	NW-PS-4	NW-AIR-1	NW-OG-1	NW-OG-2		
NW-CAB-1			NW-CAB-2	NW-CAB-3	NW-REN-1	NW-REN-2	NW-REN-3	NW-CC-2	NW-CC-3	NW-FISH-1	NW-CE-1	NW-CBC-1			
4	Marine businesses are acting in a way which respects environmental limits and is socially responsible. This is rewarded in the market place.	NW-AQ-1	NW-CAB-1	NW-CAB-3	NW-EMP-1	NW-FISH-1	NW-CO-1	NW-CE-1	NW-CBC-1						
Ensuring a strong, healthy and just society	5	People appreciate the diversity of the marine environment, its seascapes, its natural and cultural heritage and its resources and can act responsibly.	NW-HER-1	NW-SCP-1	NW-SOC-1	NW-CBC-1									
	6	The use of the marine environment is benefiting society as a whole, contributing to resilient and cohesive communities that can adapt to coastal erosion and flood risk, as well as contributing to physical and mental wellbeing.	NW-CC-1	NW-CC-2	NW-CC-3	NW-SOC-1	NW-TR-1	NW-ACC-1	NW-CO-1	NW-CBC-1	NW-CE-1	NW-HER-1			
	7	The coast, seas, oceans and their resources are safe to use.	NW-ML-1	NW-ML-2	NW-WQ-1	NW-AIR-1	NW-INNS-1	NW-INNS-2	NW-CBC-1						
	8	The marine environment plays an important role in mitigating climate change.	NW-CC-1	NW-CCUS-3	NW-BIO-3	NW-CBC-1	NW-REN-1	NW-REN-2	NW-REN-3	NW-CO-1					

Marine Plan Objective			Contributing Policies										
	9	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.	NW-ACC-1	NW-FISH-2	NW-HER-1	NW-SCP-1	NW-TR-1	NW-CO-1	NW-CBC-1	NW-SOC-1			
	10	Use of the marine environment will recognise, and integrate with, defence priorities, including the strengthening of international peace and stability and the defence of the United Kingdom and its interests.	NW-DEF-1	NW-CO-1	NW-CBC-1								
<i>Living within environmental limits</i>	11	Biodiversity is protected, conserved and, where appropriate, recovered, and loss has been halted.	NW-BIO-1	NW-BIO-2	NW-BIO-3	NW-MPA-1	NW-MPA-2	NW-MPA-3	NW-MPA-4	NW-WQ-1	NW-CE-1	NW-CC-1	
			NW-CC-3	NW-INNS-1	NW-INNS-2	NW-DIST-1	NW-FISH-3	NW-UWN-2	NW-ML-1	NW-ML-2	NW-CO-1	NW-CBC-1	
	12	Healthy marine and coastal habitats occur across their natural range and are able to support strong, biodiverse biological communities and the functioning of healthy, resilient and adaptable marine ecosystems.	NW-BIO-1	NW-BIO-2	NW-BIO-3	NW-DIST-1	NW-MPA-1	NW-MPA-2	NW-MPA-3	NW-FISH-3			
			NW-CC-1	NW-CC-3	NW-CE-1	NW-CO-1	NW-CBC-1	NW-INNS-1	NW-INNS-2				
	13	Our oceans support viable populations of representative, rare, vulnerable, and valued species.	NW-DIST-1	NW-UWN-1	NW-UWN-2	NW-BIO-1	NW-BIO-2	NW-BIO-3	NW-CO-1	NW-CBC-1			
NW-MPA-1			NW-MPA-2	NW-MPA-3	NW-FISH-3	NW-INNS-1	NW-INNS-2	NW-CE-1					

4.3 Maps

36. Some of the policies in the North West Marine Plan Technical Annex are supported by data layers presented in three types of maps. These map types are indicated by coloured text, as follows (see Box 1 for details):
- policy map – green text
 - indicative map – red text
 - information map – purple text
37. The maps are based on the most recent data available to the Marine Management Organisation. Data is available to view on the [Explore Marine Plans](#) digital service, and data owned by the Marine Management Organisation can be downloaded from the [Department for Environment, Food and Rural Affairs Data Services Platform](#). While efforts will be made to ensure that the information provided here is up-to-date, some data is owned by third parties; therefore, it cannot be guaranteed that all maps reflect the current position. Relevant data holders and regulatory authorities (as under existing requirements) should always be consulted to make sure the most up-to-date evidence is used when considering where plan policies apply, and to discuss where evidence gaps exist.

Box 1: Map types

Policy maps

Policy maps principally define spatially discrete areas, for example where defined activities, resources, designations, leases or licences exist. These areas are usually based on the provision of third-party data. Where a policy map is provided, the policy applies specifically to the area defined on the map. Some policy boundaries are also derived from the analysis of third-party data by the Marine Management Organisation. As such, any changes to these maps will be undertaken by the Marine Management Organisation. Updates or changes made to data supporting any of these policy maps following the publication of the North West Marine Plan may be a 'relevant consideration' and enable deviation from the Plan by a public authority. Should substantial revisions be made to data supporting the policy maps, for example, a significant change in where the plan policies apply, a revision of the North West Marine Plan through the formal review procedure may be required. The Marine Management Organisation is required to review and amend the Plan as appropriate.

Indicative maps

Indicative maps are based on the best available data. They are for guidance only. They indicate locations that are particularly relevant and do not set spatially defined boundaries to the related policies. They may not cover all locations to which the policies apply. Relevant policies should be applied across the whole of the north west marine plan areas. Additional locally specific data collected in the support and development of proposals will supersede the information provided in indicative maps.

Information maps

Information maps provide context or signposting. For example, a map showing the boundaries of local authorities and county councils has been included to support

consideration of other statutory and non-statutory plans with marine relevance. The information provided in these maps is not exhaustive, and there may be other information available to support the application of policies and existing policies or measures. Proponents should consult other data sources to be able to apply the policy.

Explore Marine Plans digital service – policy groupings in the North West Marine Plan

Table 2 in the North West Marine Plan groups similar policy types together. It is important to note that many of the activities identified are transient, may be temporal, or affected by seasonality and other factors, such as market forces. The [Explore Marine Plans](#) digital service shows the most current information for all marine planning activities and should be considered in preference to figures included in this Technical Annex. Use this service to find and view:

- marine data on a map of the English marine area
- information on marine planning licences relating to a specific area
- policy information from the marine plans

4.4 Supporting evidence

38. The evidence base that supports the implementation of policies will continue to develop over the lifetime of the North West Marine Plan. The most up-to-date evidence and government guidance must be applied at the time a decision is made.
39. The [Explore Marine Plans](#) digital service provides an online, interactive resource for viewing marine planning policies, evidence, and supporting information. It allows users to consider multiple sources of information at a resolution relevant to their interests.
40. The Marine Management Organisation [marine evidence and data register](#) includes evidence reports that support the work of the organisation, including marine planning. These reports may also support the implementation of policies.

4.5 Additional legislation

41. Additional legislation and regulation relevant to a proposal will be identified through the decision-making process. The North West Marine Plan does not remove the need for a proposal to meet the requirements of other relevant legislation. Relevant legislation includes, but is not limited to:
 - [The Conservation of Habitats and Species Regulations 2017](#)⁶
 - [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁷
 - [Electricity Act 1989](#)

⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁷ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

- [Energy Act 2004](#)
- [Energy Act 2013](#)
- [Energy Act 2016](#)
- [The Town and Country Planning \(Environmental Impact Assessment\) Regulations 2017](#)⁸
- [The Marine Works \(Environmental Impact Assessment\) Regulations 2007](#)
- [The Environmental Assessment of Plans and Programmes Regulations 2004](#)
- [Flood and Water Management Act 2010](#)
- [Harbours Act 1964](#)
- [Marine and Coastal Access Act 2009](#) (including chapters other than those on marine planning)
- [The Marine Strategy Regulations 2010](#)⁹
- [Petroleum Act 1998](#)
- [Planning Act 2008](#)
- [The Waste \(England and Wales\) Regulations 2011](#)
- [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)¹⁰

⁸ As amended by [The Environmental Assessments and Miscellaneous Planning \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Waste \(Circular Economy\) \(Amendment\) Regulations 2020](#)

⁹ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

¹⁰ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

Chapter Five
5 Objectives and policies

**Achieving a
sustainable
marine
economy**

5.1 Infrastructure

Policy Code	Policy Wording
NW-INF-1	Proposals for appropriate marine infrastructure which facilitates land-based activities, or land-based infrastructure which facilitates marine activities (including the diversification or regeneration of sustainable marine industries), should be supported.
NW-INF-2	<p>(1) Proposals for alternative development at existing safeguarded landing facilities will not be supported.</p> <p>(2) Proposals adjacent and opposite existing safeguarded landing facilities must demonstrate that they avoid significant adverse impacts on existing safeguarded landing facilities.</p> <p>(3) Proposals for alternative development at existing landing facilities (excluding safeguarded sites) should not be supported unless that facility is no longer viable or capable of being made viable for waterborne transport.</p> <p>(4) Proposals adjacent and opposite existing landing facilities (excluding safeguarded sites) that may have significant adverse impacts on the landing facilities should demonstrate that they will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate</p> <p>- adverse impacts so they are no longer significant.</p>

What is infrastructure?

42. **Infrastructure** is defined as a physical structure or facility which could be in the form of, but not limited to:
- boat repair facilities
 - electric charging points for vessels
 - slipways, floating docks and moorings
 - launching and berthing facilities for tourism and recreation
 - structures for passenger transfer
 - flood defence protection works
 - water and wastewater treatment plants
 - landing, storage and processing facilities for fisheries and shellfisheries catch, freight or goods
 - coastal and estuarine combustion, hydrogen production and desalination plants
 - nuclear power stations (inside areas of identified potential)
 - terminals for aggregate or waste handling
 - utilities transmission, including maintenance bases, cables, associated structures and operations
 - works to protect the safety of people, existing marine infrastructure, or the environment

43. **Diversification** is the varying or enlarging of a field of operations typically to increase operational efficiency, range of products, services or outputs. Diversification allows for expansion of the use of infrastructure within, or adjacent to, the north west marine plan area for marine and/or land-based activities. Expansion of land-based infrastructure to facilitate marine activities, or marine infrastructure to facilitate activities on land, allows for a range of industries and activities to co-exist and operate within the same area. This provides more resilience to local economic and social change and optimises the use of space. Diversification can take many different forms including could be seen in a wide range of ways in the inshore marine plan area, including change in use of fishing facilities, the expansion of tourist opportunities, additional port and harbour roles (such as varying the types of vessels for which engineering support is available), and the inclusion of maritime renewable energy infrastructure.
44. **Regeneration** refers to the reinvigoration of local and regional economies, including associated improvements in economic competitiveness and prosperity. Regeneration is often linked to increased inward investment and the relocation of businesses and households in deprived areas. It aims to increase business start-ups and growth, employment, earnings and skills development. Regeneration can have the subsequent effect of improved quality of life in the area. Regeneration can occur across a wide range of maritime sectors including ports, tourism and existing fishing industry facilities.
45. **Landing facilities** are structures, or amenities, that enable the loading or unloading of goods, catch, freight, waste or passengers by vessels (for example, aggregate and waste wharves, slipways, jetties and piers).
46. **Safeguarded landing facilities** are designated sites that protect their functioning for current and future use. In the north west, selected landing facilities are safeguarded through local plans and regional and county minerals and waste plans. These sites remain safeguarded until the relevant mineral and waste plans are formally removed or amended. Safeguarded sites across the north west inshore marine plan area include operational and viable non-operational wharves, which have the potential to be reactivated and their use maximised for waterborne freight handling.
47. **Alternative development** at existing landing facilities is a change in the use of the existing landing facility to another land-use class. Existing uses of landing facilities include the loading and unloading of goods, catch, freight or waste.

Why is infrastructure important?

48. Infrastructure is critical to realising the economic and social benefits of activities in, and adjacent to, the north west marine plan areas. Existing and new infrastructure provides a vital connection between land and sea, and supports sustainable marine and terrestrial development. Some examples of expected infrastructure, including those identified in the [Futures analysis for the North East, North West, South East and South West marine plan areas \(MMO1127\)](#) report, are:
- infrastructure to maintain and support the tourism industry
 - maintenance and replacement of the cable network

- new or adapted infrastructure at ports to accommodate an expanding offshore renewable energy sector
 - quays and landing facilities for fisheries and shellfisheries and their associated processing facilities, transport links and markets
49. NW-INF-1 supports the development of new, and the diversification of existing, land-based and marine infrastructure, especially where that infrastructure will support activity in the other environment. The policy also ensures the integration of coastal infrastructure by managing marine and land-based structures as a single system (as required in Section 1.3 of the [UK Marine Policy Statement](#) and under paragraph 166 of the [National Planning Policy Framework](#)). NW-INF-1 complements the [UK Marine Policy Statement Section 1.2.1](#), the [Welsh National Marine Plan](#) and the [Scotland's National Marine Plan](#) by promoting integration between the marine plans in the north west inshore marine plan area with the Welsh and Scotland national marine plans (also see NW-CBC-1).
50. NW-INF-1 is supported by the [National Planning Policy Framework](#) paragraph 204(e), which requires planning policies to “safeguard existing, planned and potential sites for: the bulk transport, handling and processing of minerals; the manufacture of concrete and concrete products; and the handling, processing and distribution of substitute, recycled and secondary aggregate material”.
51. NW-INF-1 is important to support areas of economic and/or social disadvantage such as small coastal towns in the north west reliant on one type of industry (particularly if that industry is in one of the lower grossing sectors). Regeneration of current and provision of new infrastructure, as well as diversification of its use, that would renew and increase economic activities would also be supported
52. Diversification and regeneration, facilitated by new and/or improved land-based and marine infrastructure, may lead to a more resilient economy which will, in turn, help to improve quality of life and create employment opportunities in coastal areas (see NW-EMP-1).
53. Policies NW-INF-1 and NW-INF-2 support the “agent of change principle”, as set out in the [National Planning Policy Framework](#), where the latter states that “planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities. Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the proponent (or ‘agent of change’) should be required to provide suitable mitigation before the development has been completed.”
54. Supporting infrastructure is important as it supports:
- the [overarching National Policy Statement for Energy](#) where “the government is committed to increasing dramatically the amount of renewable energy generation capacity” including offshore wind, which would require land-based

infrastructure for utilities transmission and port development to service new sites

- the [National Policy Statement for Ports](#) where “the government seeks to encourage sustainable growth in imports and exports” where land-based infrastructure, including landing facilities, enable this
- the [National Planning Policy for Waste](#) that aims to “deliver sustainable development and resource efficiency, including provision of modern infrastructure”

55. Diversification and regeneration, facilitated by new, expanded or improved infrastructure, may act to promote multiple-use socio-economic benefits and co-existence between different sectors. The availability of existing infrastructure could attract new business to the marine plan areas. For instance, Cumbria is considered ‘England’s energy coast’¹¹. The continued and enhanced use of infrastructure facilities to support renewable energy development could increase the economic success of small-town ports. Expansion could also allow the regeneration of older buildings in need of repair which could potentially enhance the local seascape (see NW-SCP-1). New infrastructure development could also provide better access to the coast by supporting new and existing tourism and recreation activities.

56. There are numerous north west communities that have been socially and economically disadvantaged, especially due to loss or decline of the one or few industries upon which they are heavily reliant. The regeneration of current and provision of new infrastructure, and diversification of its use, will increase economic resilience through renewing current activities, introducing new ones and reducing reliance on a single marine industry. This will, in turn, provide local social benefits through the creation of employment opportunities (see NW-EMP-1) and improving the quality of life. For instance, the port of Heysham currently provides freight ferry services to Ireland and passenger ferry services to the Isle of Man, but could also be used to import and export bulk materials and aggregate.

Policy NW-INF-1 Infrastructure

Proposals for appropriate marine infrastructure which facilitates land-based activities, or land-based infrastructure which facilitates marine activities (including the diversification or regeneration of sustainable marine industries), should be supported.

Policy aim

57. Many marine activities in the north west and adjacent marine plan areas are reliant on land-based infrastructure. Similarly, activities on land may also be reliant on marine infrastructure. Supporting infrastructure development, diversification and regeneration will provide socio-economic benefits and support marine businesses, including those that are land-based. NW-INF-1 supports the integration of the marine and terrestrial systems. It does so by encouraging proposals (and other measures)

¹¹ The North West Marine Plan Vision describes the area as ‘England’s energy coast’

that maintain or improve existing, or provide new, sustainable marine or land-based infrastructure that facilitates activity in the other system.

58. Policy NW-INF-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

59. Appropriate in NW-INF-1 is defined by what can be demonstrated as reasonable in the context of the location, nature and scale of a given proposal and refers to the need to be compliant with:

- limiting disturbance from infrastructure which is important to help support the conservation objectives of marine protected areas; relevant statutory assessments must be carried out for marine conservation zones in accordance with the [Marine and Coastal Access Act 2009](#), sites of special scientific interest in accordance with the [Wildlife and Countryside Act 1981](#), special protection areas, special areas of conservation and Ramsar sites in accordance with [The Conservation of Habitats and Species Regulations 2017](#)¹² and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹³
- a Habitats Regulations Assessment must be conducted where disturbance from increased public access is a consideration of the conservation objectives of a special protection area, special area of conservation or Ramsar site. Where enhanced or new access may lead to a likely significant effect on the protected features of these sites, an Appropriate Assessment will be required. It is government policy for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to special protection areas
- relevant local plans, especially plans that coordinate terrestrial and marine development (for example electricity grid connections). Proposals in the north west inshore marine area that would significantly compromise terrestrial development plans are unlikely to be supported
- relevant shoreline management plans
- landscape designations (such as National Parks and Areas of Outstanding Natural Beauty)

60. The appropriateness of any such infrastructure will be determined by the relevant decision-maker. Proposals will be assessed on a case-by-case basis and based upon their individual merits having regard to local plans as a material consideration where relevant. Pre-proposal discussions with relevant statutory and advisory bodies, such as Historic England and Natural England, are also advisable.

¹² As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

Proponents

61. Proposals for new, or the maintenance, expansion or improvement of existing, marine or land-based infrastructure should be supported, especially where the proposal will facilitate activity in the other environment.
62. Proposals should clearly demonstrate how they will support one or more activities.

Decision-makers

63. Decision-makers should support proposals for appropriate marine and land-based infrastructure that support activity in the other environment (including infrastructure that leads to the diversification or regeneration of the industry/business). Preference should be given to proposals that demonstrate that there is no potential to utilise the existing infrastructure.
64. Examples of land-based infrastructure which facilitates marine activity that should be supported by public authorities include land-based handling and disposal facilities for vessels for refuse, waste water and sewage (see also NW-WQ-1).
65. Public authorities should support marine activities, and their associated land-based infrastructure, in their decision-making as well as in other public authority enforcement or authorisation decisions. This includes strategic policy-making authorities in the drafting or amendment of their local plans. Decision-makers should also have regard to proposals on land that have potential impacts on the application of marine plan objectives.
66. Decision-makers should endeavour to follow the principles of the [Coastal Concordat](#) for England to provide a co-ordinated approach between the required terrestrial and marine authorisations, wherever possible.
67. In determining proposals for Nationally Significant Infrastructure Projects, examining authorities and government departments acting on behalf of the relevant Secretary of State must have regard to this policy for marine or land-based infrastructure proposals which facilitate marine or land-based activity in the other environment.

Policy NW-INF-2 Infrastructure

(1) Proposals for alternative development at existing safeguarded landing facilities will not be supported.

(2) Proposals adjacent and opposite existing safeguarded landing facilities must demonstrate that they avoid significant adverse impacts on existing safeguarded landing facilities.

(3) Proposals for alternative development at existing landing facilities (excluding safeguarded sites) should not be supported unless that facility is no longer viable or capable of being made viable for waterborne transport.

(4) Proposals adjacent and opposite existing landing facilities (excluding safeguarded sites) that may have significant adverse impacts on the landing facilities should demonstrate that they will, in order of preference:

a) avoid

b) minimise

c) mitigate

- adverse impacts so they are no longer significant.

Policy aim

68. Landing facilities in the north west inshore marine plan area are critical for enabling industries, including shipping, tourism/travel (eg to Ireland and the Isle of Man), offshore wind, fisheries and aggregates. By protecting existing landing facilities, identifying the difference in safeguarding, NW-INF-2 mirrors similar provisions in terrestrial planning and supports the continued operation of vital existing landing facilities.
69. Policy NW-INF-2 applies to the north west inshore marine plan area.

How will this policy be implemented?

70. A marine licence may be required from the Marine Management Organisation for activities or developments in the marine area, including tidal rivers, up to mean high water springs where landing facilities are situated. A River Works Licence may also be required from the relevant authority.
71. Adjacent in NW-INF-2 describes the areas extending from both ends of the berth of the landing facility. It also includes the area above the facility. Opposite in NW-INF-2 describes areas which may include the opposite side of an estuary or river or opposite the coast. NW-INF-2 encourages proposals adjacent or opposite the landing facility (for example riparian and perpendicular proposals) that would not have significant adverse impacts on the landing facility due to the need for vessels to navigate safely to the landing facility in all maritime conditions.
72. No longer viable, in relation to 3) in NW-INF-2, describes a landing facility that is not viable due to factors including market demands, size, shape and location.
73. Avoiding significant adverse impacts, in relation to 4) in NW-INF-2, means planning, designing and delivering proposals that result in no adverse impact occurring. This

can include changing the location, the construction materials used, or method of operation of a proposal.

74. Minimising significant adverse impacts, in relation to 4) in NW-INF-2, describes where the proponent has reduced impacts through measures which may include:
- increasing the distance between the proposal's location and the landing facility
 - technical measures, for example a proposal designed in a way that reduces the impact in line with the agent of change (eg a reduction in collateral damage to the facility by boat wakes, or impact on operations at the facility)
 - temporal measures, for example an activity not occurring when a landing facility is in significant use (eg a fish quay during shellfish seasons)
75. Mitigating significant adverse impacts, in relation to 4) in NW-INF-2, describes where the proponent has implemented measures that mitigate impacts in another way, which may include:
- financial settlements
 - providing a new landing facility elsewhere, where appropriate
 - providing benefits to a landing facility elsewhere
 - providing other benefits to the community or industry/business that will be affected by the significant adverse impacts to the landing facility (benefits of staff aid, training, communication or events)

Proponents

76. In areas at, adjacent to or opposite safeguarded landing facilities, proponents, in relation to 1) and 2), will most likely not have their proposal approved if it involves alternative development at the site or will have significant adverse impacts on the site.
77. Proponents are not encouraged to propose alternative development at landing facilities, in relation to 3), unless they can demonstrate that the facility is no longer viable or capable of being made viable for waterborne transport.
78. Proposals that may have a significant adverse impact on existing land facilities, in relation to 4), should clearly set out to the relevant decision-maker how they have taken in to account the landing facilities and demonstrate that they have satisfied the criteria of the mitigation hierarchy. Significant adverse impacts include potential restrictions placed on the functioning of the landing facility as a result of the proposed new development or activity. Proposals should first demonstrate how they will avoid significant adverse impacts on existing land facilities. Where significant adverse impacts cannot be avoided, proposals should demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised proposals should demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals should demonstrate how they have satisfied a) before moving to b), and so on.

Decision-makers

79. Decision-makers must consider what type of landing facility the proposal is at, adjacent to or opposite to. If the proposal is:
- at a safeguarded landing facility, 1) in NW-INF-2 applies
 - adjacent to or opposite a safeguarded landing facility, 2) in NW-INF-2 applies
 - at a landing facility that is not safeguarded, 3) in NW-INF-2 applies
 - adjacent to or opposite a landing facility that is not safeguarded and may have significant adverse impacts on the facility, 4) in NW-INF-2 applies
80. In relation to 1) in NW-INF-2, decision-makers must not authorise developments or activities that change the use of a safeguarded landing facility.
81. In relation to 2) in NW-INF-2, decision-makers must ensure that developments or activities adjacent to or opposite existing safeguarded landing facilities demonstrate how the proposal avoids significant adverse impacts on safeguarded sites. Failure to provide this should lead to the decision-maker being requested for such information before approval.
82. In relation to 3) in NW-INF-2 decision-makers should not approve a proposal for alternative development at a landing facility that is not safeguarded unless that facility is no longer viable or capable of being made viable for waterborne transport.
83. Where a proposal may have a significant adverse impact on existing landing facilities, decision-makers should determine whether the proposal has satisfied the criteria of the mitigation hierarchy, in accordance with item (4) of NW-INF-2. Decision-makers should have regard to all significant adverse impacts associated with construction, operation and decommissioning phases, as appropriate. Significant adverse impacts on an existing landing facility may include restrictions placed on the functioning of the landing facility as a result of the proposed new development, or activity.
84. Decision-makers should determine policy compliance based upon the best available evidence, including information provided by proponents in support of a proposal, as well as consultation advice from relevant stakeholders and advisory bodies (eg Local Planning Authorities, Statutory Port Authorities and users of existing landing facilities).
85. Decision-makers will have regard to a range of considerations including compliance with relevant environmental assessments, legislation and regulations, which may, in certain instances, conflict with NW-INF-2. Examples of potentially relevant legislation include, but are not limited to, terrestrial local plans, and minerals and waste policies.
86. Public authorities (including strategic policy-making authorities) must have regard to NW-INF-2 in the drafting or amendment of their policies, for example in terrestrial local plans.
87. In determining proposals for Nationally Significant Infrastructure Projects, examining authorities and government departments acting on behalf of the relevant Secretary of State must have regard to NW-INF-2 for Nationally Significant Infrastructure Projects

that are at, adjacent to or opposite landing facilities, noting the difference in safeguarding powers in the policy where 1) and 2) have significantly more restrictions for proposals than 3) and 4).

88. Landing facilities occur in the intertidal area at multiple locations along the coast, estuaries or inland waterways.
89. The North West Marine Plan does not decide or amend the safeguarded landing facility site designations. Decision-makers and proponents should refer to the relevant statutory local plan. At the time of publication, this safeguarding data is from the following local plans:
 - [Liverpool Local Plan](#)
 - [Sefton Local Plan](#)
 - [Wirral Local Plan Minerals Report](#)
 - [Cheshire West and Chester Local Plan](#)
 - [Joint Lancashire Minerals and Waste Plan](#)
 - [Cumbria Minerals and Waste Local Plan](#)

5.2 Co-existence

Policy Code	Policy Wording
NW-CO-1	<p>Proposals that optimise the use of space and incorporate opportunities for co-existence and co-operation with existing activities will be supported.</p> <p>Proposals that may have significant adverse impacts on, or displace, existing activities must demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <ul style="list-style-type: none"> - adverse impacts so they are no longer significant. <p>If it is not possible to mitigate significant adverse impacts, proposals must state the case for proceeding.</p>

What is co-existence?

90. Space is essential for marine activities to function. For example, shipping requires room for transit and anchorage, and fishing relies on access to grounds and landing facilities. As the coastal-marine environment becomes busier, the pressure on available space increases and there is a greater need for marine users to share space. **Co-existence** is where multiple developments, activities or uses occur alongside or in close proximity to each other in the same area, or at the same time. While some activities can co-exist, others require exclusive use of an area, for example, to maintain navigational safety. Co-existence is necessary to ensure that marine resources are utilised effectively and sustainably, supporting the long-term vision for the north west marine plan areas. It can also promote innovation and ingenuity, and support the diversification of marine sectors.
91. One specific form of co-existence is **co-location**, in which multiple developments (often structures), activities or uses share the same area, either temporally or spatially (by using different portions of the water column). Examples of potential co-location opportunities include recreational and commercial fishers using the same landing facilities, or a floating wind farm infrastructure supporting appropriate types of aquaculture (where environmental conditions permit).
92. **Co-operation** describes the positive working relationship between marine sectors to secure long-term beneficial and sustainable growth for all. Sectors need to communicate effectively when considering how multiple uses will interact within a shared space to identify opportunities to optimise the use of the area, enhance sector activity or provide mutual benefits.
93. **Existing activities** are those that currently occur in an area. These can include management measures of both protected and unprotected areas as well as industrial and recreational use. 'Existing activities' also covers activities that have been authorised but not yet implemented.

94. **Potential conflicts** with existing activities can result in a decline in expected economic gains or targets for the existing activity, a reduction in available space for an activity to take place and/or restricted access to associated facilities that support the activity. Identifying and resolving potential conflicts at an early stage in the development process could assist in economic gains for the existing activity, provide better access, and offer opportunities to diversify the current activity or enhance the environmental conditions of the area. Sources of potential conflict include access restrictions on existing activities that could cause displacement to less desirable areas or prevent the activity happening altogether; declines in the environmental conditions in non-designated areas managed by local authorities or environment groups, or degradation of designated sites, resulting in a reduction of favourable conditions. Any new activities need to consider impacts on important environmental factors such as water quality, benthic ecosystems and intertidal ecology.

Why is co-existence important?

95. The north west marine plan areas are busy and space is limited due to high levels of shipping, a number of operational or consented offshore wind farms, a considerable number of protected areas, and extensive recreational and tourist use of the marine environment. During the lifetime of the North West Marine Plan, the competition for space in the plan area is likely to increase as new activities develop and existing activities expand.¹⁴
96. Optimisation of space and co-existence between competing sectors are important to ensure effective spatial planning of the north west marine plan areas. Co-operation between sectors can help resolve conflict and identify opportunities for existing and new activities to co-exist. For example, a wind farm proponent could provide submerged infrastructure and allow access for shellfisheries, facilitating the co-existence of both activities.
97. Existing activities within the north west marine plan areas can hold cultural, historical, economic and environmental importance for communities and individuals.
98. New developments could potentially provide benefits to existing activities. Conversely, new developments could be detrimental and cause conflicts with existing activities or local communities if the proposed activity is not compatible with current use or does not hold as much social, economic or environmental value.
99. Proposals in the marine area are very rarely isolated from interaction with other existing activities. It is important, therefore, that a new proposal assesses the range of activities within, and adjacent to, the area of the proposed new activity and demonstrates if there are any potential conflicts. That should include consideration of interaction with activities in adjacent marine plan areas, including in the shared waters of the Dee Estuary and the Solway Firth (see NW-CBC-1). In order for co-operation between sectors to occur and to facilitate co-existence, consultation with current users should be conducted to support the application of this policy. Proposals near the Isle of Man should have regard for any relevant legislation or plans, and

¹⁴ [Futures analysis for the North East, North West, South East and South West marine plan areas \(MMO1127\)](#)

those near Welsh or Scottish marine plan areas should also consider co-existence policies within the [Welsh National Marine Plan](#) and [Scotland's National Marine Plan](#).

100. Many local plans, national policy statements and government objectives require an increase in use of the marine area and so demand is anticipated to rise. Policies and associated information in the suite of marine plan documents state the relevance and importance of these current and expected requirements for each sector: for example, ports and shipping, renewables, cables, climate change and biodiversity. NW-CO-1 is important as it ensures that future uses or expansion of current marine activities are considerate of existing use and seek ways to optimise (preferably minimise) the use of space while also exploring options to aid co-existence between sectors.
101. NW-CO-1 supports achievement of the [UK Marine Policy Statement](#) by identifying opportunities for compatibility and encouraging co-existence between different activities within the context of social, economic and environmental considerations. Activities that can optimise the use of space, co-operate or co-exist should be encouraged to do so.

Policy NW-CO-1 Co-existence

Proposals that optimise the use of space and incorporate opportunities for co-existence and co-operation with existing activities will be supported.

Proposals that may have significant adverse impacts on, or displace, existing activities must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant.

If it is not possible to mitigate significant adverse impacts, proposals must state the case for proceeding.

Policy aim

102. Space within the busy north west marine plan areas is limited. To realise sustainable social, environmental and economic benefits it is, therefore, important to plan for and make efficient use of the space. NW-CO-1 encourages proposals to be spatially planned, take account of existing activities, and promote co-existence. The policy ensures new proposals seek to avoid creating conflicts and to minimise their footprint, or optimise it where it may not be feasible to minimise.
103. Policy NW-CO-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

104. Existing activities occur throughout the north west marine plan areas and many policies in this marine plan state where these activities, uses, infrastructure or measures are located. In order to understand where existing activities are in relation to a proposal, proponents, consultees and decision-makers may wish to consult

[Explore Marine Plans](#), and relevant policy maps in this plan, in addition to the application information supplied.

105. The term 'activities' in NW-CO-1 encompasses the full use of the marine area including, but not limited to, industrial, commercial, recreational and tourist use. Terrestrial land uses should also be included, particularly if they support a marine activity. As well as the need to manage spatial interactions with other marine users (for example fisheries, see policy NW-FISH-2), there is also the need to manage interactions with heritage sites (see policy NW-HER-1), marine protected areas (see policy NW-MPA-1) and other interests, for example recognised shipping routes, to ensure navigational safety. Examples of how co-existence can be managed are shown by the aggregates industry. The [British Marine Aggregate Producers Association guidance notes](#) include a range of best practice measures to adopt when interacting with various activities, such as heritage assets. In addition, regional approaches to assessment, monitoring and management have been adopted through regional dredging associations and associated marine aggregate regional environmental assessments. The offshore renewable energy sector has created [Recommendations for Fisheries Liaison](#) to promote co-operation and co-existence between both industries.
106. The application of this policy must be supported with an overall assessment of the range of existing activities within and adjacent to the proposed activity. The relative importance of existing activities to the area, and their potential growth to meet changing demand in the future, should be considered and demonstrated.
107. Co-existence of current and new activities in the marine area is complex due to the extensive use of different sectors at different times of the year. Some sectors are highly seasonal; for example, tourism activities in the north west marine plan areas are more popular in summer months (May-September) than at other times of the year. Optimisation of space, co-existence measures and co-operation between sectors is, therefore, particularly important during these months.
108. Ports, harbours, marinas and recreational boating facilities operate year-round and many have to undertake regular activities such as dredging to maintain safe access to the port, harbour or marina. Navigational routes are also in operation throughout the year and are subject to change as sandbanks migrate. The appropriate authorities require exclusive access to these areas for safety reasons, so the use of these areas for other purposes would need to consider any limitations or restrictions at all times.
109. It is likely that the seasonal trends of some of the current activities in the north west marine plan areas will change over the lifetime of the plans, as current use evolves, and due to the predicted effects of climate change on weather and tidal conditions. The most up-to-date information regarding seasonal use can be found on the [Explore Marine Plans](#) digital service.
110. There are also important environmental factors to consider: for example, key habitats for over-wintering or breeding birds. Optimising the use of space to avoid adverse

impacts on bird species needs to take account of when bird densities may be high at a given location.

111. Some activities are restricted by their reliance on a specific resource; for example, fishing, aggregate extraction or renewable energy production can only take place where the relevant resource occurs. Such limitations need to be considered and demonstrated when assessing opportunities for co-existence.
112. Proposals should be spatially planned and, where possible, they should minimise the use of space. However, it is recognised that in some situations a minimal footprint may not be economically viable (eg an offshore wind farm); in such cases, the footprint should be optimised in terms of the amount of space allocated to the activity.
113. For the purpose of implementing the mitigation hierarchy presented in policy NW-CO-1 above, avoid is defined as acting at source to plan, design and deliver proposals that result in no adverse impact occurring. To achieve this, where adverse impacts are identified, the proposal should be altered so that it no longer exerts a pressure, or the pressure produced can no longer be received by an identified receptor: for example, changing the location of a proposal to avoid conflict with an existing user.
114. Minimise is defined as acting at source to plan and design proposals to reduce adverse impacts to the smallest possible amount or degree. Minimisation reduces the level of pressure generated. An example may be a reduction in the scale of the proposal to decrease the potential area of impact.
115. Where adverse impacts from pressures cannot be avoided or minimised at source, and receptors are exposed to those pressures, action should be taken to make the consequences of the impacts less severe. Mitigation is a reduction of how a given pressure level is experienced by the receptor: for example, provision of an alternative area or facility to support an existing activity.
116. Proposals must firstly demonstrate how they will avoid significant adverse impacts on tourism and recreation activities. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b) and so on.
117. Where significant adverse impacts cannot be mitigated, proposals must state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused.
118. It is not possible to determine any prioritisation for optimising co-existence between marine users. This will be determined on a case-by-case basis and will be dependent on various factors including, but not limited to, the:
 - local conditions

- marine sectors involved
- presence of cultural or historic assets
- scale of the proposal
- type of proposal

Proponents

119. Proposals that optimise (preferably minimise) the use of space and incorporate opportunities for co-existence and co-operation with existing activities, or other known planned proposals, are encouraged.
120. Proposals will demonstrate whether and how their footprint could be reduced to optimise the use of space as well as how they have considered engagement and potential co-existence opportunities with existing users to promote co-operation between sectors. The best available evidence should be used to identify existing activities, including the [Explore Marine Plans](#) digital service (although the data provided is not exhaustive) and the Marine Management Organisation's [public register](#) of marine licences. Additionally, existing activities are described in other relevant policies in this marine plan. There could also be opportunities to discuss the proposal with local management groups or partnerships, especially in estuarine or coastal waters.
121. Inclusion of supporting information to demonstrate how significant adverse impacts have been avoided, minimised or mitigated, or how the benefits of the proposal outweigh the impacts, does not guarantee that approval of the proposal will follow by default. Proponents need to demonstrate compliance with other policies in the North West Marine Plan, relevant legislation and other local, regional or national plans, such as marine plans in neighbouring areas: [A Green Future: Our 25 Year Plan to Improve the Environment](#) or the [National Flood and Coastal Erosion Risk Management Strategy for England](#). Some proposals may also be subject to marine and/or terrestrial licences and permits, which have distinct application procedures.
122. Proposals need to demonstrate how they have taken other factors into consideration including [Habitats Regulations Assessment](#), [Environmental Impact Assessment](#), [Marine Conservation Zone Assessment](#), [National Planning Policy Framework](#) and [National Policy Statements](#), where appropriate.
123. Proponents should consult with stakeholders that currently use the area to promote co-operation between sectors, minimise conflict and find ways to co-exist where appropriate. Such discussions may result in technological innovation, diversification of activities or a more efficient use of the space. Note that current users can come from a broad range of stakeholders, from fishermen to coastal communities, that have a view of the coast. Consultation should therefore engage all interested parties who should be identified before the consultation stage begins.
124. Proponents may find it useful to do an assessment of their proposal to comply with NW-CO-1 in line with NW-CE-1 as it is likely to be relevant.

Decision-makers

125. Public authorities will support proposals that optimise (preferably minimise) their use of space if it has been demonstrated that the proposal incorporates opportunities for co-existence and co-operation with existing activities.
126. Public authorities must determine (based on the evidence provided) if a proposal will conflict with existing activities, including displacement. This conflict could be the impact on current and known future users of the same marine space.
127. Decision-makers also need to evaluate the suitability of a location for the proposed activities, taking into account factors that include, but are not limited to:
 - environmental impacts
 - navigational safety concerns
 - the presence of cultural or heritage assets
128. When assessing a proposal, decision-makers also need to consider that some conflicts may change over time. For example, some shipping routes may shift through the year due to changing conditions, and so potential conflicts with other marine users in certain areas may be transient in nature.
129. When making an authorisation, decision-makers should consider evidence from consultation with relevant stakeholders to discuss potential conflicts and develop opportunities for co-existence between marine users.
130. Decision-makers assessing proposals that are unable to avoid, minimise or mitigate significant adverse impacts should only authorise the proposed activity if it is demonstrated that the new activity will provide significant economic, social and/or environmental benefits that outweigh the impacts on the existing activities.
131. In examining and determining proposals for Nationally Significant Infrastructure Projects, examining authorities and the relevant Secretary of State must have regard to this policy for projects capable of affecting existing activities in the north west marine plan areas.

5.3 Aggregates

Policy Code	Policy Wording
NW-AGG-1	Proposals in areas where a licence for extraction of aggregates has been granted or formally applied for should not be authorised, unless it is demonstrated that the proposal is compatible with aggregate extraction.
NW-AGG-2	Proposals within an area subject to an Exploration and Option Agreement with The Crown Estate should not be supported unless it is demonstrated that the proposal is compatible with aggregate extraction.
NW-AGG-3	Proposals in areas of high potential aggregate resource that may have significant adverse impacts on future aggregate extraction should demonstrate that they will, in order of preference: <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <ul style="list-style-type: none"> - significant adverse impacts on future aggregate extraction so they are no longer significant. If it is not possible to mitigate significant adverse impacts, proposals should state the case for proceeding.

What are aggregates?

132. **Marine aggregates** are sand and gravel removed from the seabed, commonly intended for use in the construction industry. Marine aggregate extraction can only take place where commercially viable deposits of sand and gravel occur. In turn, the distribution of these deposits is dependent on the spatially discrete areas where they were formed by geological processes.
133. Marine aggregate extraction is subject to marine licensing [requirements](#). Further information can be found in the [British Marine Aggregates Producers Association](#) good practice guidance.
134. **Aggregate Exploration and Option Agreements** are issued by The Crown Estate following the acceptance of a marine aggregates tender bid for a defined area. The Exploration and Option Agreement provides exclusive rights to explore the defined area and carry out activities in that area to support a marine licence proposal. The duration of an Exploration and Option Agreement is for a period of five years from the date of issue.
135. **Areas of high potential aggregate resource** describe spatial areas where there is a high potential for marine aggregate resources, which can be used to guide future decisions on marine aggregate extraction, exploration and optioning. Areas of high potential aggregate resources were developed by the British Geological Survey, in conjunction with The Crown Estate in 2014. These areas (also referred to as areas of 'future technical opportunity') were identified by spatially modelling a mix of existing geological evidence, seabed and core samples taken by the British Geological Survey, bathymetry and geophysical information. These areas do not

include the presence of hard constraints posed by existing users of the marine estate or other factors, including natural and cultural resources, marine users, economics and market appetite. Should an improving evidence base allow, future updates to this mapping may be issued.

Why are aggregates important?

136. Current active marine aggregate dredging sites or areas subject to Exploration and Option Agreements in the north west marine plan areas can be viewed in Figure 4. However, growing pressures on traditional land-based aggregates mean that these areas may change with time. It is therefore important to safeguard potential future aggregate resources. Areas of high potential aggregate resources that would support this future extraction can be viewed in Figure 4.
137. Nationally, marine aggregate extraction is important for ensuring a supply of sand and gravel. The Crown Estate's [Marine aggregates Capability and Portfolio 2019](#) reports that more than 20% of sand and gravel currently used for construction in England and Wales is marine aggregate and that England, Scotland and Wales extract 15-20 million tonnes from the seabed annually.
138. Demand is predominantly for use in construction projects, supporting associated benefits such as investment and jobs, and contributing to the economy both in the UK and in Europe. In addition, it is, and will remain for the foreseeable future, a critical component in the defence and adaptation of our coastline.
139. The [UK Marine Policy Statement](#) Section 3.5.1 highlights that England has some of the best marine aggregate resource in the world, and Section 3.5.6 states that marine plan authorities and decision-makers should consider the need to safeguard marine aggregate reserves for future extraction. Further, [The National Planning Policy Framework](#) states that "It is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation". This means that the marine plans should seek to safeguard important marine aggregate resources for the future.

Policy NW-AGG-1 Aggregates

Proposals in areas where a licence for extraction of aggregates has been granted or formally applied for should not be authorised, unless it is demonstrated that the proposal is compatible with aggregate extraction.

Policy aim

140. NW-AGG-1 safeguards marine aggregate licence areas from other activities unless it is demonstrated that the other activities are compatible with marine aggregate extraction. This enables continuity of the supply of construction aggregate and supports local and national objectives and economies.
141. Policy NW-AGG-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

142. Proposals in areas where a licence for extraction of marine aggregates has been granted or formally applied for must demonstrate compatibility with marine aggregates extractions or the proposal will not be authorised.
143. A demonstration of compatibility may include, but is not limited to:
- consideration of existing marine aggregate licence areas
 - consultation with all relevant stakeholders, asset and landowners (frequently The Crown Estate in England)
 - evidence of the interaction between the proposal and marine aggregate licence areas
144. Activities which are unlikely to be compatible with marine aggregates extraction include, but are not limited to:
- cable and pipeline placement
 - certain types of fishing (bottom trawling and netting)
 - energy extraction
 - other dredging activities

Decision-makers

145. Decision-makers must not authorise any proposal in areas where a licence for extraction of marine aggregates has been granted or formally applied for unless the proposal has demonstrated that it is compatible with marine aggregates extraction.
146. A demonstration of compatibility may include, but is not limited to:
- consideration of existing marine aggregate licence areas
 - consultation with all relevant stakeholders, asset and landowners (frequently The Crown Estate in England)
 - evidence of the interaction between the proposal and marine aggregate licence areas
147. Activities which are unlikely to be compatible with marine aggregates extraction include, but are not limited to:
- cable and pipeline placement
 - certain types of fishing (bottom trawling and netting)
 - energy extraction
 - other dredging activities
148. Figure 4 shows licensed marine aggregate extraction areas.

Policy NW-AGG-2 Aggregates

Proposals within an area subject to an Exploration and Option Agreement with The Crown Estate should not be supported unless it is demonstrated that the proposal is compatible with aggregate extraction.

Policy aim

149. NW-AGG-2 safeguards marine aggregate Exploration and Option Agreement areas to enable the aggregate industry to explore defined areas in order to identify commercially viable aggregate resource. Proposals will only be supported if they are compatible with marine aggregate extraction. This enables the future supply of construction aggregate and supports local and national objectives and economies.
150. Policy NW-AGG-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

151. Proposals in areas subject to an Exploration and Option Agreement with The Crown Estate must demonstrate compatibility with marine aggregates extractions or the proposal will not be supported.
152. A demonstration of compatibility may include, but is not limited to:
 - consideration of existing Exploration and Option Agreement areas
 - consultation with all relevant stakeholders, asset and landowners (frequently The Crown Estate in England)
 - evidence of the interaction between the proposal and Exploration and Option Agreements areas
153. Activities which are unlikely to be compatible with marine aggregates extraction include, but are not limited to:
 - cable and pipeline placement
 - certain types of fishing (bottom trawling and netting)
 - energy extraction
 - other dredging activities
154. Once an operator's exploration or option rights are relinquished for any reason (such as the transfer of an area to a production agreement or finding the area unsuitable for aggregates extraction), they will fall outside of the scope of this policy.

Decision-makers

155. Decision-makers should not support any proposal in areas subject to an Aggregates Exploration and Option Agreement with The Crown Estate unless the proposal has demonstrated that it is compatible with marine aggregates extraction.
156. A demonstration of compatibility may include, but is not limited to:
 - consideration of existing Exploration and Option Agreement areas

- consultation with all relevant stakeholders, asset and landowners (frequently The Crown Estate in England)
- evidence of the interaction between the proposal and Exploration and Option Agreement areas

157. Activities which are unlikely to be compatible with marine aggregates extraction include, but are not limited to:

- cable and pipeline placement
- certain types of fishing (bottom trawling and netting)
- energy extraction
- other dredging activities

158. Once an operator's exploration or option rights are relinquished for any reason (such as the transfer of an area to a production agreement or finding the area unsuitable for aggregates extraction), they will fall outside of the scope of this policy.

159. Figure 4 shows areas of aggregates exploration and options agreements.

Policy NW-AGG-3 Aggregates

Proposals in areas of high potential aggregate resource that may have significant adverse impacts on future aggregate extraction should demonstrate that they will, in order of preference:

- avoid
- minimise
- mitigate
 - significant adverse impacts on future aggregate extraction so they are no longer significant.

If it is not possible to mitigate significant adverse impacts, proposals should state the case for proceeding.

Policy aim

160. NW-AGG-3 ensures that proposals consider areas of high potential aggregate resource, as defined by the British Geological Survey. It ensures that any impacts on access to commercially viable marine sand and gravel resources in the future are managed, enabling secure access to sufficient supply of aggregate resources.

161. Policy NW-AGG-3 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

162. Proposals should first demonstrate how they will avoid significant adverse impacts on future aggregate extraction in areas of high potential aggregate resource. Where significant adverse impacts cannot be avoided, proposals should demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals should demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where

significant adverse impacts cannot be mitigated, proposals should state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals should demonstrate how they have satisfied a) before moving to b), and so on.

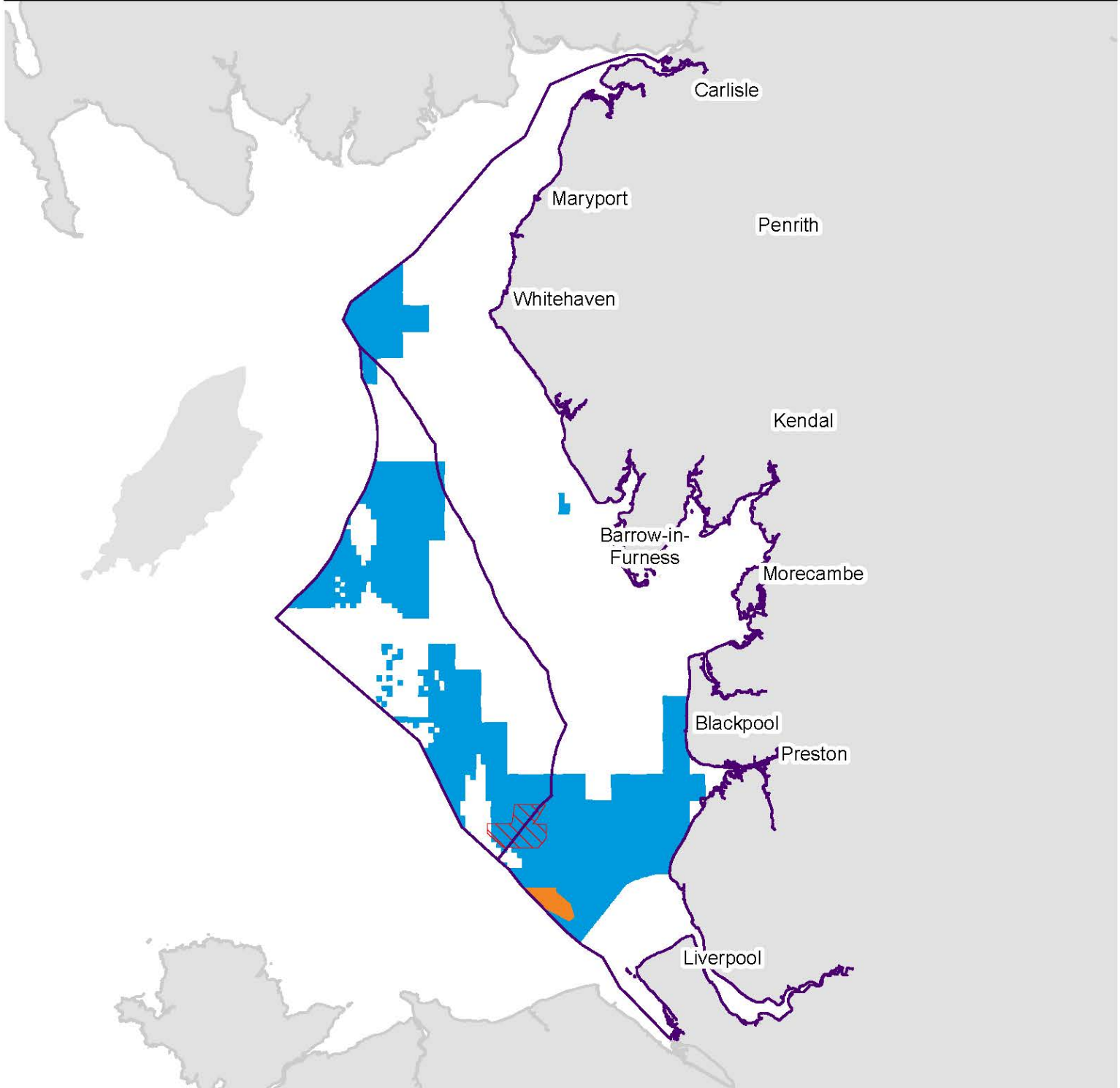
163. Examples of how significant adverse impacts can be avoided, minimised or mitigated include:
- avoiding impacts through a change in the location of the project
 - minimising impacts through consultation with the relevant landowners (frequently The Crown Estate in England)
 - mitigating impacts by a provision in the project design for the future extraction of aggregates
164. Where significant adverse impacts cannot be mitigated, proposals should state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused.
165. The case for proceeding may include, but is not limited to:
- agreement from seabed owners to locate a proposal inside the area of high potential aggregates resource
 - evidence that there is no possible interaction between the proposal and future aggregates extraction
 - evidence that all other possible avoidance, minimisation and mitigation has been considered






Decision-makers

166. Decision-makers should ensure that proposals in areas of high potential aggregate resource have first demonstrated how they will avoid significant adverse impacts on future aggregate extraction in areas of high potential aggregate resource. Where significant adverse impacts cannot be avoided, proposals should demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals should demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated, proposals should state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals should demonstrate how they have satisfied a) before moving to b), and so on.
167. Examples of how significant adverse impacts can be avoided, minimised or mitigated include:
- avoiding impacts through a change in location of the project
 - minimising impacts through consultation with the relevant landowners (frequently The Crown Estate in England)

- mitigating impacts by provision in the project design for the future extraction of aggregates
168. Where significant adverse impacts cannot be mitigated, proposals should state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused.
169. The case for proceeding may include, but is not limited to:
- agreement from seabed owners to locate a proposal inside the area of high potential aggregates resource
 - evidence that there is no possible interaction between the proposal and future aggregates extraction
 - evidence that all other possible avoidance, minimisation and mitigation has been considered
170. Figure 4 shows areas of high potential aggregates resource.

Figure 4 | Aggregate Marine Licensed Areas, Applications to The Crown Estate, Exploration Agreements and Potential Opportunity



-  North West Marine Plan Areas
-  MMO Licensed Aggregate Dredging Areas
-  Aggregate Application
-  Aggregate Exploration and Option Agreements
-  Areas of Future Technical Opportunity for Marine Aggregates

Policy map
 This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Date of Publication: August 2020
 Coordinate System: ETRS 1989
 UTM Zone 30N
 Projection: Transverse Mercator
 Datum: ETRS 1989

Not to be used for Navigation. © Crown copyright 2019. Ordnance Survey data © copyright and database right [2018]. National Oceanic and Atmospheric Administration © copyright and database right [2015]. Marine Management Organisation © [2020]. Note: The areas of future technical opportunity do not include the presence of hard constraints posed by existing uses of the marine estate or other factors including natural & cultural resources, marine users, economics & market appetite and policy drivers required for the opportunity to be supported. Cables and pipelines outside of the territorial waters limit (other than export cables) are not shown as they are not subject to The Crown Estate's permission.

5.4 Aquaculture

Policy Code	Policy Wording
NW-AQ-1	<p>Proposals within existing or potential strategic areas of sustainable aquaculture production must demonstrate consideration of and compatibility with sustainable aquaculture production. Where compatibility is not possible, proposals that may have significant adverse impacts on sustainable aquaculture production must demonstrate that they will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate - adverse impacts on sustainable aquaculture production so they are no longer significant.</p> <p>If it is not possible to mitigate significant adverse impacts, proposals should state the case for proceeding.</p>
NW-AQ-2	Proposals enabling the provision of infrastructure for sustainable aquaculture and related industries will be supported.

What is aquaculture?

171. **Aquaculture** refers to the controlled rearing of aquatic shellfish, finfish and the cultivation of aquatic plants and algae. Aquaculture can take place in both the inshore and offshore marine environment and can be broadly grouped according to water type (marine or freshwater), species type (finfish, shellfish or plants) and intensity (intensive, semi-intensive or extensive) ([Future Brief: Sustainable Aquaculture](#)).
172. **Sustainable aquaculture** considers environmental, economic and social sustainability. The specifics of this concept cannot be generalised and may vary according to species, location, farming methods and management techniques ([Sustainable Aquaculture](#)), among other factors.
173. Environmental sustainability in aquaculture requires operating in consideration of the wider ecosystem and in accordance with relevant environmental legislation, helping to achieve conservation objectives. It involves, but is not limited to ([Future Brief: Sustainable Aquaculture](#)):
- appropriate management of invasive non-native species: restricting their introduction and spread
 - minimising disruptions to ecosystems (such as seafloor disturbance) and impacts on biodiversity (through the management of escapees)
 - avoiding adverse impact on water quality, controlling organic pollution and the release of nutrient waste, pesticides, pharmaceuticals and antifoulants
 - reducing pressures on wild stocks by diversifying food sources
 - utilising methods that ensure the well-being of the cultured species, including minimising the spread of disease and parasites

174. Economic sustainability involves supporting long-term economic growth to help meet increased customer demand through viable businesses with good long-term prospects.
175. Social sustainability involves operating responsibly and positively impacting surrounding communities and social well-being through the creation of jobs and businesses.
176. **Infrastructure for aquaculture** includes both marine and land-based structures and facilities. Since aquaculture is a variable industry, the infrastructure used is highly dependent on the system. Marine infrastructure may include bottom-anchored methods, such as trestle tables and poles, techniques that are suspended from buoys or long-line systems (such as rope culture), sea-based container culture systems or moored sea cages ([Identification of areas of aquaculture potential in English waters \(MMO1184\)](#)). Shoreside infrastructure to consider includes, but is not limited to:
- all ports and harbours and associated landing and offloading facilities
 - markets, including infrastructure that helps build supply chain resilience
 - repair and chandlery facilities
 - storage and processing facilities (including depuration plants for shellfish and storage for wet fish, dry goods and other produce)
 - transport of produce to shore and once on shore (logistics companies)

Why is sustainable aquaculture important?

177. Aquaculture has the potential to become an important industry in the north west inshore marine plan area, with production values and industry statistics available at [Fishery statistics](#). The [Marine Plan - Sustainability Appraisal Scoping Report](#) notes important wild shellfish beds for cockles and mussels in Morecambe Bay, the Dee Estuary, the Ribble Estuary and the Solway Estuary. There is also an oyster hatchery on the north coast of Morecambe Bay which is Europe's largest oyster nursery, being an important source of oyster seed for farms across the UK and also in Ireland ([Publications, The Seafish Guide to Who's Who in UK Aquaculture](#)). There is currently no marine finfish aquaculture in the north west inshore marine plan area.
178. Although aquaculture accounts for 0.01% employment in the north west region, it may provide future employment in coastal areas, or those with limited alternative employment options (where the employment base may be ageing, emigrating or transitioning from traditional occupations), helping to maintain communities' traditions and social identities ([Evidence Supporting the Use of Environmental Remediation to Improve Water Quality in the South Marine Plan Areas \(MMO1105\)](#)). It is seen as an industry where development could occur particularly at local levels ([integrating aquaculture within local communities](#)), and is, therefore, a means of increasing or maintaining employment levels in the north west and realising the associated social and economic benefits.
179. Aquaculture industries employ people across several different skill sets. In particular, aquaculture requires knowledge and skills similar to those found in the fisheries (eg boat builders/handlers and processors) and, therefore, may support the

diversification of the fishing industry. The establishment of supporting agencies protecting the surrounding environment and monitoring the quality of output can also create jobs. The integration of aquaculture with other coastal activities can also extend the benefits of the sector to the wider community and across other marine activities ([Social impacts of fisheries, aquaculture, recreation, tourism and marine protected areas \(MPAs\) in marine plan areas in England \(MMO1035\)](#)).

180. In order to facilitate sustainable aquaculture production, provision and maintenance of accompanying infrastructure is required, without which the potential value of aquaculture cannot be realised. Provision and maintenance of infrastructure would include ensuring sufficient facilities are available to receive, process, store and transport incoming produce. The north west marine plan areas are busy with many demands on the space available; therefore, new or improved infrastructure is increasingly restricted for space. Provision of sufficient and appropriate infrastructure for aquaculture can also be combined with infrastructure to support fisheries since they can share much of the same shoreside infrastructure for landing and processing.
181. When discussing aquaculture, the aspect of sustainability is of key relevance. When aquaculture developments are well-managed through exemplary practice, the social and economic benefits of the sector can be realised with minimal negative environmental impacts and can even provide environmental benefits. However, depending on the management approach, unsustainable aquaculture practices can result in various negative environmental impacts, with awareness of those increasing ([Environmental economics, Background information for sustainable aquaculture development, addressing environmental protection in particular \(2015\)](#)). As part of this, it should be noted that the popularly-cultured Pacific oyster is classified in the UK as an invasive non-native species. Originally introduced to the UK at scale to supplement native oyster stocks, increasing water temperatures encouraged recruitment of farmed stocks, leading to some establishment of natural beds ([Pacific oysters on the south coast of England](#)). There is concern that wild beds of Pacific oyster compromise local ecosystems and conservation status, so inhibiting the spread of invasive non-native species is an important aspect of sustainable aquaculture management. Climate change may continue to aid the settlement of invasive non-native species.
182. When managed sustainably, aquaculture can be a means to conserve and recover marine biodiversity through restocking native species. Large populations of species, such as native oysters, provide ecosystem services (water filtering and stabilising shorelines) through the establishment of biogenic reefs (in the form of successive generations of oysters). These reefs also act as hotspots where biodiversity is greater than that of surrounding sediments and are, therefore, of high importance to the ecological functioning of the surrounding area ([Identifying sites suitable for marine habitat restoration or creation \(MMO1135\)](#)). Restocked species and the resulting higher biodiversity can also support commercial and recreational fishing, thereby supporting the livelihoods of local fishermen.

183. Seaweed aquaculture also presents some emerging opportunities. Research into the applications of seaweed shows that farms, aside from having a role in carbon sequestration and as fish nursery grounds, have a product that has applications in food and livestock feed, biofuels, cosmetics, pharmaceuticals and medicines ([Chapter Ten - Enzymatic Recovery of Metabolites from Seaweeds: Potential Applications](#)). Seaweed farming also requires minimal artificial inputs (as an unfed system), making them potentially good examples of sustainable aquaculture.
184. As a rapidly growing marine activity, aquaculture is a key area for development due to its potential to contribute to the sustainability and security of the UK's food supply, 80% of which is imported from overseas sources. These sources may not be viable over longer time scales, particularly due to increasing global demand ([Planning for sustainable growth in the English Aquaculture Industry](#)). The vision of the [Seafood 2040: A strategic framework for England](#) framework is that by 2040, a sustainable aquaculture sector will have seen significant growth thriving within a safe regulatory framework. Further, [Sustainable aquaculture: the United Kingdom multiannual national plan \(MANP\)](#) (published in 2015) describes how the government will encourage growth in the aquaculture sector, and how marine planning will be used to achieve sustainable development.
185. The aquaculture policies within the North West Marine Plan give a clear policy direction for aquaculture, which fulfils one of the key requirements to achieve the goals of Seafood 2040. As with the multiannual national plan, the policies highlight the government's commitment to aquaculture, emphasises its relevance to environmental, societal and economic issues, and ensures data and evidence bases are continually strengthened. Sustainable aquaculture offers substantial potential to increase its contribution to the UK economy, and through contributing to domestic food production, it will help the country meet the requirements of health and food security agendas.

Policy NW-AQ-1 Aquaculture

Proposals within existing or potential strategic areas of sustainable aquaculture production must demonstrate consideration of and compatibility with sustainable aquaculture production. Where compatibility is not possible, proposals that may have significant adverse impacts on sustainable aquaculture production must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts on sustainable aquaculture production so they are no longer significant.

If it is not possible to mitigate significant adverse impacts, proposals should state the case for proceeding.

Policy aim

186. The policy recognises that aquaculture is an important industry with the potential to grow, contributing to food supply and security. NW-AQ-1 seeks to protect both existing aquaculture operations as well as potential future opportunities for aquaculture within spatially defined strategic areas of sustainable aquaculture production. These strategic areas have been spatially defined for species of commercial importance by considering environmental factors, technical constraints, planning constraints and other users of the sea.
187. The policy does not prevent non-aquaculture developments or activities; it supports sustainable aquaculture production by spatially defining areas where all proposals are required to demonstrate consideration of and compatibility with sustainable aquaculture. If this cannot be achieved, the policy stipulates proposals that may have significant adverse impacts on sustainable aquaculture should follow the steps in the mitigation hierarchy through avoiding, minimising or mitigating these impacts, before being allowed to proceed if the Regulator agrees with the proponent's overriding justification. While protecting opportunities for sustainable aquaculture production, the policy makes allowances for both non-significant adverse impacts on aquaculture and significant adverse impacts that are outweighed by the benefits of the proposal.
188. Policy NW-AQ-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

189. NW-AQ-1 refers to areas of existing aquaculture production and those defined as potential strategic areas of sustainable aquaculture production, the latter of which have been spatially defined by the Marine Management Organisation in [Identification of areas of aquaculture potential in English waters \(MMO1184\)](#). All areas where this policy applies can be viewed in Figure 5 and on the [Explore Marine Plans](#) digital service.
190. At the time of plan publication, MMO1184 has identified potential strategic areas of sustainable aquaculture production for 14 species (four seaweed, four finfish, one crustacean and five shellfish), selected based on their current contributions to English aquaculture, their importance as commercial fish species, or potential future importance. For each species, the areas are defined by overlaying the following spatial data layers: optimal species growth rates in relation to environmental factors, technical constraints, (ie where the culture method can occur based on physical factors), and planning constraints (ie other users of the sea). Should further evidence become available to allow for refinement of the strategic areas of sustainable aquaculture production, these data layers will be updated and/or added to Explore Marine Plans.

Proponents

191. To locate strategic areas of sustainable aquaculture production in which this policy applies, proponents should consult Figure 5 or the equivalent layers on the [Explore Marine Plans](#) digital service. It may be beneficial to consult relevant organisations to determine whether there are existing aquaculture developments (or proposals) in the

area, and the potential impacts of the proposal on sustainable aquaculture production. Examples of relevant organisations are:

- the Centre for Environment, Fisheries and Aquaculture Science who can advise on water quality, wider species requirements and seafood safety standards
- the Fish Health Inspectorate, as the regulator of Aquaculture Production Business Authorisations ([Public register of Aquaculture Production Businesses in England and Wales](#))
- the Inshore Fisheries and Conservation Authorities if the proposal is within 0 to 6nm
- Marine Management Organisation Marine Licensing, from whom pre-application advice can be requested regarding site checks for any existing aquaculture operations or proposals in the area
- The Crown Estate for seabed leases or if a proposal is outside 6nm as they will be aware of any aquaculture lease proposals in the area

192. More information on the relevant organisations that should be consulted to determine potential effects of proposals on existing and future aquaculture development are listed in the [Aquaculture Regulatory Toolbox for England](#). Engagement should be as early as possible in the planning process, and evidence should be provided within the proposal. Early engagement will improve compatibility and may increase support for proposals.
193. If sited within existing or potential strategic areas of sustainable aquaculture production (as identified in the similarly named layer on the [Explore Marine Plans](#) digital service), all proposals must first demonstrate how they will avoid significant adverse impacts on sustainable aquaculture production. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated, proposals must state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.
194. Avoidance of significant adverse impacts might involve the relocation of the development outside strategic areas of sustainable aquaculture production. Minimisation may include demonstrating how physical obstructions to sustainable aquaculture production or significant adverse impacts on production (such as relating to water quality or culture species) would be reduced. Mitigation may include proponents allowing space within their proposal area for co-location with sustainable aquaculture.
195. As part of the above, proponents must also demonstrate that they have considered potential significant adverse impacts on:

- the culture species and its immediate environment – more information on culture species can be found in [Aquaculture Profiles - Web Tool](#)
- the wider water column – for example, whether pollutants, increased chlorophyll or invasive species released by a proposal might flow towards an aquaculture site
- water quality within the site where common adverse impacts could include pollutant release or increases in turbidity

196. Inclusion of this information does not indicate that approval of the proposal will follow by default. In deciding whether to grant approval, the decision-maker will have regard to other material considerations that may include, for example, other policies within the North West Marine Plan and other regional and national plans.

Decision-makers

197. Decision-makers will apply this policy when determining decisions on proposals in strategic areas of sustainable aquaculture production. Given the uncertainty on the exact location of future aquaculture developments, the policy makes allowance for the possibility of other, competing developments to proceed under particular circumstances, as outlined in the mitigation hierarchy.

198. Decision-makers should assess the potential impacts that other proposals may have on strategic areas of sustainable aquaculture production, and measures taken into account that promote co-existence and compatibility ([UK Marine Policy Statement Section 3.9.6](#) and NW-CO-1). The potential importance and relative contributions of areas of aquaculture potential should also be considered. Decision-makers should have regard to evidence of consultation with relevant organisations concerning existing aquaculture businesses and areas of potential future sustainable aquaculture.

199. Figure 5 shows the strategic areas of sustainable aquaculture production as defined by [Identification of areas of aquaculture potential in English waters \(MMO1184\)](#).

Policy NW-AQ-2 Aquaculture

Proposals enabling the provision of infrastructure for sustainable aquaculture and related industries will be supported.

Policy aim

200. NW-AQ-2 aims to tackle barriers to aquaculture by encouraging the provision, maintenance and development of marine and land infrastructure to support sustainable aquaculture and related industries. This policy supports sustainable aquaculture projects by encouraging the direct development of infrastructure, as well as supporting connectivity between marine operations and land infrastructure, which will ensure that opportunities for aquaculture are realised. Due to the overlap between some shoreside aquaculture and fisheries infrastructure, NW-AQ-2 supports the integration of aquaculture with the fishing industry through the sharing of infrastructure and the diversification of fishers. This policy will also benefit employment and the development of skills in coastal communities.

201. Policy NW-AQ-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

202. The aquaculture introductory text includes examples of infrastructure relevant to sustainable aquaculture and related industries. This policy can be applied in any area in which such infrastructure can be sited, subject to the marine licensing process. Within the north west inshore marine plan area, the major port for fisheries landings is Whitehaven, which also has supply chain connections to smaller ports. Barrow, Fleetwood and Liverpool docks are also important to fisheries. The Solway Firth contains a series of small but active ports with docks and associated infrastructure. A coastal railway links the port towns of Whitehaven, Workington and Maryport.

Proponents

203. Proponents should consider the impacts of their proposals on the infrastructure of sustainable aquaculture and related industries and should provide evidence of how support can be given via the proposed development. Positive impacts on such infrastructure will be supported under this policy. In addition to providing infrastructure to directly support cultured species, positive impacts might include infrastructure that supports new businesses, and the provision of facilities to process incoming produce. The sharing of infrastructure to support integration with fisheries is also encouraged.

204. If siting new aquaculture infrastructure, proponents may find it useful to refer to the strategic areas of sustainable aquaculture production layer in Figure 5 or on [Explore Marine Plans](#). This layer does not delineate areas where policy NW-AQ-2 applies, rather it indicates optimum areas for sustainable aquaculture (refer to policy NW-AQ-1) that may also be of interest to proponents. The project methodology is available at [Identification of areas of aquaculture potential in English waters \(MMO1184\)](#). Also of interest are the individual species suitability maps that are shown under the same category, and the aquaculture communications and consultation layer that indicates areas that may require additional engagement with relevant parties during the pre-proposal process, eg marine protected areas or offshore wind farms.

205. Proposals enabling the provision of infrastructure for sustainable aquaculture should focus on how they are fulfilling the sustainability aspect of the policy in reference to, but not limited by, the definitions given in the aquaculture introductory text. Consideration and adequate provision should be given to matters of biosecurity (in line with policy NW-INNS-1), ecosystem health and maintaining biodiversity; during both construction and ongoing management. Examples might include the use of raised cages within the water column (anchored by several points) to reduce direct building on the seabed, and ensuring that marine litter is not released. Developments that are not considered to be enabling sustainable infrastructure will not be supported under this policy. Proponents should consider consulting with other organisations, with potential impacts of proposals and evidence of engagement identified in the proposal. Organisations to consult with may include, but are not limited to:

- Fish Health Inspectorate – to ensure that aquaculture production businesses are compliant with all relevant aquatic animal health legislation
- Inshore Fisheries and Conservation Authorities – will have detailed knowledge of existing users, including aquaculture operations in their district
- Seafish – to advise on the distribution and requirements of the aquaculture industry
- Shellfish Association of Great Britain – can offer advice on shellfish specific aquaculture requirements

206. Proponents whose proposals include marine infrastructure to facilitate species growth should refer to Regulatory Requirements and Guidance for Aquaculture Businesses in England in the [Aquaculture Regulatory Toolbox for England](#). This resource forms a comprehensive guide on regulatory and legislative requirements for aquaculture businesses. Proponents should also review the guidance on how to [make a marine licence application](#) and should refer to government guidance on [fish, shellfish or crustacean farm authorisation](#), including the [controls of fish and shellfish diseases in England and Wales](#). Proponents should also comply with shipping regulations, including [The Merchant Shipping \(Distress Signals and Prevention of Collisions\) Regulations 1996](#) (which implements the International Regulations for Preventing Collisions at Sea 1972) and the [United Nations Convention on the Law of the Sea](#), in relation to safe navigation.

207. Infrastructure that supports aquaculture may result in adverse impacts on biodiversity, the surrounding ecosystem and other users of the north west marine plan areas. Individual developments of the scale likely to cause impact should include inbuilt mitigation to ensure the proposal complies with all the relevant legislation and policies in the North West Marine Plan. Proponents should also demonstrate an awareness of and attempt to co-exist with other marine activities (both existing and planned; viewable on [Explore Marine Plans](#)). Organisations to consult regarding potential impacts of proposals may include, but are not limited to:

- the Centre for Environment, Fisheries and Aquaculture Science who can advise on water quality, wider species requirements and seafood safety standards
- the Fish Health Inspectorate, as the regulator of Aquaculture Production Business Authorisations ([Public register of Aquaculture Production Businesses in England and Wales](#))
- Environment Agency – to advise on water quality requirements and migratory fish
- Historic England – to advise on scheduled monuments / archaeological interests
- local fishers and representative groups, including the National Federation of Fishermen's Organisations and Inshore Fisheries and Conservation Authorities
- local marine conservation groups and wildlife groups – to advise on protected species and habitats in the area

- local planning authority (including the Area of Outstanding Natural Beauty department if applicable) – to advise on other users, legislation and all impacts
- Marine Management Organisation Marine Licensing, from whom pre-proposal advice can be requested for guidance on designated sites, other users and regulation
- Maritime and Coastguard Agency – to advise on navigational concerns
- Natural England/the Joint Nature Conservation Committee (beyond 12nm) who are responsible for management agreements in marine protected areas for activities that are likely to damage the protected features
- other marine users – Harbour Authorities, Ministry of Defence, other marine developments (eg offshore wind farms, aggregate dredging, maintenance dredging and cables), and recreational users, eg Royal Yachting Association
- The Crown Estate (or relevant landowner) – to advise on seabed leases in the inshore and offshore marine plan areas of marine developments
- Trinity House – to advise on marking and lighting requirements

208. Early engagement with all stakeholders that may be impacted by the development is encouraged. Potential impacts and proof of engagement should be included in proposals, with comments taken into consideration and the proposal amended accordingly.

209. Proposals enabling the provision of infrastructure for sustainable aquaculture and related industries must consider the conservation objectives set out by the statutory nature conservation bodies and comply with the statutory assessments for marine conservation zones under the [Marine and Coastal Access Act 2009](#), sites of special scientific interest under the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites under [The Conservation of Habitats and Species Regulations 2017](#)¹⁵ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁶. Where proposals have been determined to have a likely significant effect on a special protection area, special area of conservation or Ramsar site through a Habitats Regulations Assessment, an Appropriate Assessment will be required.

210. Proposals should also ensure cohesion with Local Planning Authorities and terrestrial plans when concerned with the provision and use of infrastructure to support aquaculture. As part of this, the provision and use of infrastructure for aquaculture should also consider the opportunity to influence and improve local employment opportunities.

211. The inclusion of the above information does not indicate that approval of the proposal enabling the provision of infrastructure for sustainable aquaculture will follow by default. In deciding whether to grant approval, decision-makers will have regard to other material considerations, which may include, but are not limited to,

¹⁵ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

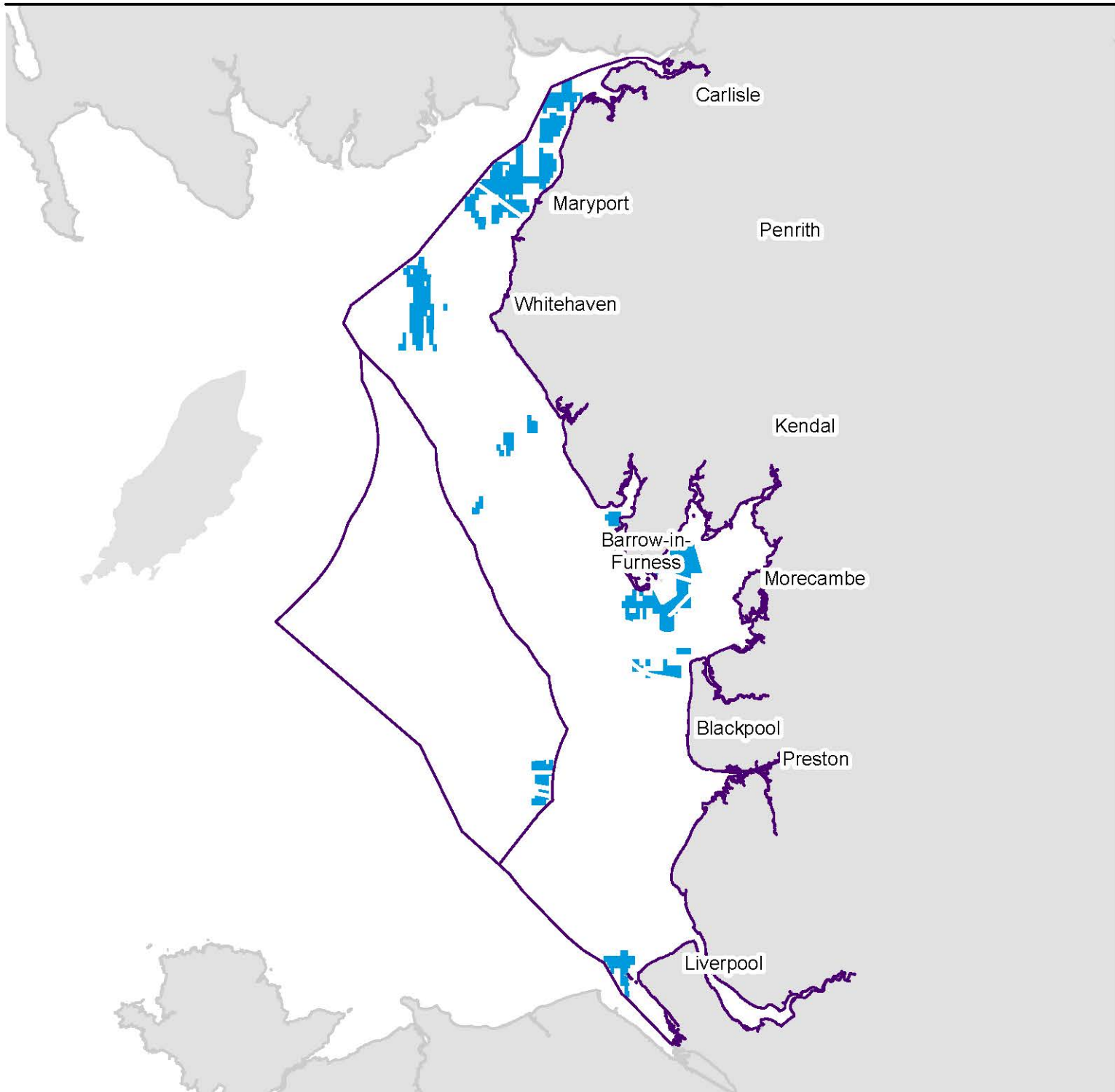
¹⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

other policies within the North West Marine Plan and other marine users. Proposals should, therefore, demonstrate consistency with all other policies in the Plan.

Decision-makers

212. Decision-makers with functions capable of influencing infrastructure should support proposals that result in positive impacts on infrastructure for sustainable aquaculture. Considerations could include ensuring that sufficient facilities are available to support the growth of sustainable aquaculture in the north west marine plan areas and that facilities are fully operational and accessible to operators.
213. Proposals should include provisions to ensure environmental, economic and social sustainability with respect to, but not necessarily limited by, the definitions in the aquaculture introductory text. Proposals will only be supported if they align with these definitions and with the conservation objectives of the designated sites, and if they comply with the relevant legislation and policies in the North West Marine Plan.
214. Decision-makers should ensure that infrastructure does not impede other interests and that proponents provide proof of engagement and consultation with relevant organisations and stakeholders as part of demonstrating the positive impacts on infrastructure for sustainable aquaculture, ensuring that issues are resolved early. Decision-makers should also refer to Aquaculture Guidance for Regulators in England in the [Aquaculture Regulatory Toolbox for England](#). Furthermore, [A Coastal Concordat for England](#) sets out how regulatory bodies can co-ordinate the separate processes for coastal development consent, including aquaculture, while paragraphs 24 to 27 of the [National Planning Policy Framework](#) highlight methods for effective co-operation and joint working between authorities.

Figure 5 | Strategic areas of sustainable aquaculture production



-  North West Marine Plan Areas
-  Strategic areas of sustainable aquaculture production

Policy map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

5.5 Cables

Policy Code	Policy Wording
NW-CAB-1	<p>Preference should be given to proposals for cable installation where the method of protection is burial.</p> <p>Where burial is not achievable, decisions should take account of protection measures for the cable that may be proposed by the applicant. Where burial or protection measures are not appropriate, proposals should state the case for proceeding without those measures.</p>
NW-CAB-2	<p>Proposals demonstrating compatibility with existing landfall sites and incorporating measures to enable development of future landfall opportunities should be supported. Where this is not possible proposals will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate - adverse impacts on existing and potential future landfall sites so they are no longer significant.</p> <p>If it is not possible to mitigate significant adverse impacts, proposals should state the case for proceeding.</p>
NW-CAB-3	<p>Where seeking to locate close to existing subsea cables, proposals should demonstrate compatibility with ongoing function, maintenance and decommissioning activities relating to the cable.</p>

What are cables?

215. **Subsea cables** are used for many purposes, including connecting offshore infrastructure to the point where the cable comes ashore (known as export cables), connecting different electricity markets (known as interconnector cables), and ensuring telecommunication between separate landmasses. Subsea cabling is important to the growth and sustainability of telecommunications, offshore energy generation, electricity transmission, and energy security.
216. Other types of subsea cables may also be used for scientific, research and defence purposes.
217. Subsea cables are subject to different controls in legislation and licensing, depending on the purpose of the cables and where the cables are to be located. All subsea cables are subject to licensing controls within UK territorial waters, although the licensing process for telecommunication and interconnector cables is different from cables used for offshore energy generation. Beyond territorial waters, telecommunications and interconnector cables are exempt from licensing, but cables associated with exploration or exploitation of natural resources (such as offshore wind energy generation) within the UK Exclusive Economic Zone remain subject to licensing control (for example, inter-array cables for wind farms or export cables).

218. Inter-array and export cables associated with offshore energy generation may fall under the Planning Act 2008 if they are associated with a Nationally Significant Infrastructure Project.
219. Activities associated with cables, including maintenance and protection, are also subject to different licensing controls, depending on the type and location of the cable. See the joint [Marine Management Organisation-European Subsea Cables Association Cables desk note](#) for more detail.
220. **Landfall sites** are areas on the coast where subsea cables come ashore.

Why are cables important?

221. The north west marine plan areas contain several large wind farms and, therefore, interconnector cables play an essential part in maintaining the nation's energy supply. There are also several landfall sites for telecommunication cables at Heysham, Blackpool and Southport. The north west marine plan areas are also notable for the high density of cable routes connecting Ireland, Northern Ireland and the Isle of Man with England.
222. In the coming years, several more projects will be commissioned in the north west marine plan areas. The [interconnector register](#) maintained by the National Grid Electricity System Operator is a register of interconnectors at varying stages of development, including operational, under construction, consented, and pre-consent proposals.
223. Subsea cabling is important to the growth and sustainability of a range of interests including, but not limited to:
- climate change mitigation
 - electricity transmission
 - energy security
 - offshore wind farms
 - telecommunications
224. Subsea telecommunications cable connectivity is a vital part of the supply of a high-quality superfast broadband experience to users. It contributed to the [Building Digital UK](#) plans to achieve superfast broadband for up to 95% of the UK by 2017, and will, by 2020, ensure that everyone in the UK has a clear, enforceable right to request high-speed broadband. Successful implementation of the [Building Digital UK](#) plans may require new infrastructure or upgrades to existing infrastructure.
225. Lack of telecommunications service can have a significant impact on the financial trading industry and other internet-based businesses, with considerable implications for the economy. Given their support role to the UK, electricity power cables also need similar protection measures to ensure the safety and security of the energy supply network.
226. The [UK Marine Policy Statement](#) Section 3.7.1 and [Building Digital UK](#) emphasise the importance of telecommunication and power cabling as vital infrastructure for the domestic and global economy. Timely development of the telecommunications

network in all parts of the UK is vital to action the government's plan for minimum broadband speed. The [National Planning Policy Framework](#) Parts 10 and 14 confirms support for continued expansion of high-quality, advanced communications infrastructure, in which cables play an essential part. National policy also continues to support the development of offshore wind energy and the associated subsea cables to connect those installations to land, with continued funding and support set out in the [Renewable Energy Road Map](#). This approach supports both the [Clean Growth Strategy](#) and [Industrial Strategy](#).

227. Cables are also important for the future of electricity transmission, including the mitigation of climate change through greater efficiency and enhanced cabling and transmission networks.

Policy NW-CAB-1 Cables

Preference should be given to proposals for cable installation where the method of protection is burial.

Where burial is not achievable, decisions should take account of protection measures for the cable that may be proposed by the applicant. Where burial or protection measures are not appropriate, proposals should state the case for proceeding without those measures.

Policy aim

228. Subsea cabling is important to the growth and sustainability of telecommunications, offshore wind farms and electricity transmission. NW-CAB-1 supports and encourages cable burial where possible to meet the needs of the sector while enabling co-existence with other users of the north west marine plan areas.
229. Policy NW-CAB-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

230. When planning a proposal, proponents should preferentially consider burial of the cable as a protection measure.
231. Where the evidence supports that burial is not achievable, proponents should propose and justify the need for alternative protection measures.
232. Alternative protection measures may include rock armour or various other types of cable protection.
233. Areas where cable burial may not be achievable include, but are not limited to:
- areas of hard seabed
 - areas where burying a cable may have a larger environmental impact than another cable protection method

234. Where burial or other protection measures are not appropriate, proponents should state the case for proceeding without any such measures. The case for proceeding may include, but is not limited to:
- extreme depth and/or inaccessibility of the cable
 - environmental impact caused by the use of cable protection
 - evidence that all types of cable protection have been considered
 - the presence of natural cable protection

235. Proponents should also demonstrate consultation with relevant stakeholders.

Decision-makers

236. For developments including subsea cables, preference should be given to proposals for cable installation where the method of installation is burial.

237. Where burial is not achievable, decision-makers should take account of proposed alternative protection measures for the proposed development.

238. Alternative protection measures may include rock armour or other various types of cable protection.

239. Areas where cable burial may not be achievable include, but are not limited to:

- areas of hard seabed
- areas where burying a cable may have a larger environmental impact than another cable protection method

240. Where burial or protection measures are not appropriate, decision-makers should take into account any case presented for proceeding without any such measures. The case for proceeding may include, but is not limited to:

- the extreme depth and/or inaccessibility of the cable
- environmental impact caused by the use of cable protection
- evidence that all types of cable protection have been considered
- the presence of natural cable protection

Policy NW-CAB-2 Cables

Proposals demonstrating compatibility with existing landfall sites and incorporating measures to enable development of future landfall opportunities should be supported. Where this is not possible proposals will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts on existing and potential future landfall sites so they are no longer significant.

If it is not possible to mitigate significant adverse impacts, proposals should state the case for proceeding.

Policy aim

241. Subsea cabling is important to the growth and sustainability of telecommunications, offshore wind farms and electricity transmission. Existing and potential future landfall sites for subsea cables are not currently protected from other proposals and uses, which may prevent these sites from being used as cable landfall locations. NW-CAB-2 seeks to avoid the loss of existing and potential future landfall sites and supports all proposals that consider the requirement for future cable landfall opportunities, ensuring that socially and economically vital cable activities can continue.
242. Policy NW-CAB-2 applies to the inshore marine plan area.

How will this policy be implemented?

Proponents

243. Proponents should consider the impacts a proposal may have on cable landfall sites within the proposal, demonstrate compatibility with existing landfall sites and incorporate measures to enable the development of future landfall sites.
244. Existing landfall sites can be viewed in Figure 6.
245. Considerations for future landfall sites should be determined on a case-by-case basis by reference to the most robust evidence. This may include consideration of the technical opportunity for cable installation, any existing assets and cable activity, and the most recent evidence provided by the National Grid Electricity System Operator, including but not limited to, the [10 Year Electricity Statement](#), [Network Options Statement](#) and [Future Energy Scenarios](#). Other evidence to support the assessment of potential future landfall sites may be made available through [Explore Marine Plans](#).
246. Proposals should first demonstrate how they will avoid significant adverse impacts on existing and potential future landfall sites. Where significant adverse impacts cannot be avoided, proposals should demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals should demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated, proposals should state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals should demonstrate how they have satisfied a) before moving to b), and so on.
247. Examples of how significant adverse impacts can be avoided, minimised or mitigated include:
- a change in location of the proposal
 - proposing alternative locations for subsea cables to connect
 - the provision of space within the proposal area for cables to connect
 - the exploration of cable sharing or bundling

248. Where it is not possible to avoid, minimise or mitigate significant adverse impacts, proponents should state the case for proceeding without such measures. The case for proceeding may include but is not limited to:
- an agreement from asset owners to locate a proposal close to an existing cable landfall site
 - demonstrating that there is no possibility for future cable landfall at the site
 - evidence that all other possible avoidance, minimisation and mitigation has been considered

Decision-makers

249. Decision-makers should consider the impacts a proposal may have on cable landfall sites within the proposal, supporting those that demonstrate compatibility with existing landfall sites and incorporating measures to enable the development of future landfall sites.
250. Existing landfall sites can be viewed in Figure 6.
251. Considerations for future landfall sites should be determined on a case-by-case basis by reference to the most robust evidence. This may include consideration of the technical opportunity for cable installation, any existing assets and cable activity and the most recent evidence provided by the National Grid Electricity System Operator, including, but not limited to, [the 10 Year Electricity Statement](#), [Network Options Statement](#) and [Future Energy Scenarios](#). Other evidence to support the assessment of potential future landfall sites may be made available through [Explore Marine Plans](#).
252. Proposals should first demonstrate how they will avoid significant adverse impacts on existing and potential future landfall sites. Where significant adverse impacts cannot be avoided, proposals should demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals should demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated, proposals should state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals should demonstrate how they have satisfied a) before moving to b) and so on.
253. Examples of how adverse impacts can be avoided, minimised or mitigated include:
- a change in location of the proposal
 - proposals for alternative locations for subsea cables to connect
 - the provision of space within the proposal area for cables to connect
 - the exploration of cable bundling or sharing
254. Where a proposal states it is not possible to avoid, minimise or mitigate significant adverse impacts, decision-makers should consider any case for proceeding without

such measures the proposal may have provided. The case for proceeding may include, but is not limited to:

- an agreement from asset owners to locate a proposal close to an existing cable landfall site
- demonstrating that there is no possibility for future cable landfall at the site
- evidence that all other possible avoidance, minimisation and mitigation has been considered

Policy NW-CAB-3 Cables

Where seeking to locate close to existing subsea cables, proposals should demonstrate compatibility with ongoing function, maintenance and decommissioning activities relating to the cable.

Policy aim

255. NW-CAB-3 protects the ongoing function, maintenance and decommissioning of subsea cables, up to the point of landfall.
256. Policy NW-CAB-3 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

257. Proposals that seek to locate close to existing subsea cables should demonstrate compatibility with the ongoing function, maintenance and decommission activities relating to the cable.
258. Ongoing function, maintenance and decommissioning activities relating to subsea cables are activities that encompass and enable the construction, operation and decommissioning of the cable from the point the cable is laid on the seabed to the point it is removed.
259. [European Subsea Cables Association guidelines](#) in relation to cable proximity and maintenance for offshore energy installations and the proximity of aggregate extraction to subsea cables has been endorsed by government departments with an interest in cables, and agencies such as the Marine Management Organisation.
260. Proponents should ensure appropriate consultation with relevant stakeholders and asset owners. Consultation with the relevant stakeholders will demonstrate and ensure that compatibility with the ongoing function, maintenance and decommissioning activities of cables can be provided.

Decision-makers




261. Decision-makers should consider how proposals that seek to locate close to existing subsea cables demonstrate compatibility with the ongoing function, maintenance and decommissioning activities of the cable.
262. Ongoing function, maintenance and decommissioning activities relating to subsea cables are activities that encompass and enable the construction, operation and

decommissioning of the cable from the point at which the cable is laid on the seabed to the point at which it is removed.

263. [European Subsea Cables Association guidelines](#) in relation to cable proximity and maintenance for offshore energy installations and the proximity of aggregate extraction to subsea cables have been endorsed by government departments with an interest in cables, and agencies such as the Marine Management Organisation.
264. Decision-makers should ensure that the proponent has consulted with relevant stakeholders and asset owners. Consultation with the relevant stakeholders will demonstrate and ensure that compatibility with the ongoing function, maintenance and decommissioning activities of cables can be provided.
265. Figure 6 shows subsea cables in the north west marine plan areas.

Figure 6 | Distribution of Subsea Cables



-  North West Marine Plan Areas
-  Subsea Cables (KIS-ORCA)
-  Subsea Cables (UKHO)

Policy map
 This map is to be used for reference only.

5.6 Dredging and disposal

Policy Code	Policy Wording
NW-DD-1	In areas of authorised dredging activity, including those subject to navigational dredging, proposals for other activities will not be supported unless they are compatible with the dredging activity.
NW-DD-2	Proposals that cause significant adverse impacts on licensed disposal sites should not be supported. Proposals that may have significant adverse impacts on licensed disposal sites must demonstrate that they will, in order of preference: a) avoid b) minimise c) mitigate - adverse impacts so they are no longer significant. If it is not possible to mitigate the significant adverse impacts, proposals must state the case for proceeding.
NW-DD-3	Proposals for the disposal of dredged material must demonstrate that they have been assessed against the waste hierarchy. Where there is the need to identify new dredge disposal sites, including alternative use sites, proposals should be supported if they conform to best practice and guidance.

What is dredging and disposal?

266. **Dredging activity** involves moving material from waterways, the sea or seabed using any device. There are two main types of navigational dredging: maintenance and capital.
267. Maintenance dredging is required to maintain water depths in areas where sedimentation occurs and is a routine activity required for the preservation of navigable depths¹⁷. The legal requirement for ports to maintain safe navigational access to the majority of ports and harbours would not be possible without maintenance dredging.
268. Capital dredging enables new activities to proceed by creating new or improved existing navigational channels and berths, often making them deeper and/or wider.
269. Other types of dredging activity include clearance dredging which is the removal of silt from outfalls, culverts or inlets.
270. Authorised dredge areas include those that are licensed or those that are exempt from a licence but which are required to be carried out by, or on behalf of, a harbour authority.
271. **Disposal sites** are designated areas in which material, for example from navigational dredging, is deposited. Disposal sites are classified as open, disused and closed sites. Sites are assessed and classified on a case-by-case basis, but in

¹⁷ [Futures analysis for the North East, North West, South East and South West marine plan areas \(MMO 1127\)](#)

general, open sites are defined as those that are in use, disused sites are those that have not been used in the last five years, and closed sites are defined as those that have not been used in the last 10 years. Alternative use sites are also currently considered as a category of disposal site.

272. **Disposal of dredged material** refers to the relocation of dredged material. Dredged material can only be disposed of in identified sites subject to the type of dredged material. Disposing of dredged material means that the material serves no further purpose; however, the exception to this is alternative use sites, which are also classified as disposal sites.
273. The preferred option in [The Waste \(England and Wales\) Regulations 2011](#) waste hierarchy is prevention: for example, by not carrying out dredging activities. If prevention is not possible, the options in the waste hierarchy in order of preference are: preparing for re-use, recycling, and other recovery. These options are encompassed by the term alternative use. Direct disposal of the material should only then be considered as a last resort.
274. Preparing for re-use relates to the re-use of dredged material as sediments, which are commonly referred to as beneficial use projects. Alternative use, therefore, encompasses beneficial use projects. Examples include:
- engineering uses, such as for construction materials, flood defences, land reclamation and beach nourishment
 - environmental enhancement, including habitat creation and enhancement, and recreation
 - sustainable relocation involves relocating the dredged material back into the system that it was removed from to maintain the sediment budget of a system, which can be done if the material is in an appropriate condition and it is the best option for the system^{18,19}
275. Recycling relates to the re-use of dredged material as sediments or for other purposes, where the dredged material has had to be reprocessed to other products, materials or substances. This can include making high-grade products from dredged material such as bricks or aggregates.
276. Other recovery can include treatment of dredged material to reduce contamination or alter the physical nature of the material.

Why is dredging and disposal important?

277. The north west is a major manufacturing base and key area for UK exports with several ports playing an increasing role in the export of key products, such as chemicals, cars and textiles. In particular, the Port of Liverpool and the smaller ports along the River Mersey are seen as key to economic activities in the future through the Atlantic Gateway initiative. Plans for this initiative include upgrades of port

¹⁸ [OSPAR Guidelines for the Management of Dredged Material at Sea](#)

¹⁹ [Use of beneficial dredge materials in the South inshore and offshore marine plan areas \(MMO 1073\)](#)

facilities and other port infrastructure²⁰. The ports and shipping services in the north west marine plan areas also support the expanding renewable energy sector in both the production and assembly of renewable facilities. Dredge activity, and, consequently, disposal of this material therefore plays a vital role in the maintenance of ports and harbours, along with the expanding social and economic benefits that port development attracts through direct and indirect job creation. This results in the potential need to identify new dredge disposal sites.

278. In addition to this, there are several commercial shipping routes across the region with key connections to world markets. The Port of Liverpool also contains several international passenger routes. These activities similarly require maintenance dredging, resulting in the need for disposal sites in this area.
279. Dredging also supports terrestrial infrastructure as well as imports, exports, tourism and recreation. Ports create a cluster effect by bringing together groups of related businesses, within and around the estate, which supports economic growth by encouraging innovation and the creation and development of new business opportunities. When considered alongside the expected growth in port expansion, marine development proposals, and the offshore renewable energy developments, in particular, there is scope for the expansion of the dredging and disposal sector, including for alternative use, to support this growth.
280. Ports and harbours in the north west inshore marine plan area require regular maintenance dredging as a result of estuary processes that deposit suspended material in maintained navigational channels and berth pockets²¹. Part II of the [Coast Protection Act 1949](#) gives ports powers to undertake navigational dredging to maintain this access. There are also other powers, such as harbour empowerment orders and local acts, that give ports and harbours powers to dredge. Guidance on [Harbour Orders](#) is available.
281. Increased shipping activity and larger vessels are likely to result in proposals to dredge deeper, wider and more frequently, increasing licence proposals for navigational dredging, disposal activity, and an increased need for disposal sites within the north west marine plan areas. However, alternative use can reduce the direct disposal of this dredged material. Increasing the rate of re-use, recycling and other recovery increases the available space within areas under development. This is important in the north west marine plan areas where there is a high density of activities. Using dredge material for alternative use also supports the growth of industry by providing an additional source of material; for example, dredge material can be used for engineering, agriculture and products.
282. Dredging of ports and harbours removes material from estuaries and coastal systems but can lead to coastal erosion and increased vulnerability to pressures caused by climate change. As described in the [Sustainability Appraisal Report Card – Climate July 2016](#), pressures such as sea level rise and coastal erosion exist

²⁰ [Futures analysis for the North East, North West, South East and South West marine plan areas \(MMO 1127\)](#)

²¹ [Futures analysis for the North East, North West, South East and South West marine plan areas \(MMO 1127\)](#)

within all marine plan areas. Alternative use of dredged material is important because it can contribute to the protection of coastal areas from these pressures. For example, dredged material can be used to protect, create and restore designated and deteriorating habitats, such as saltmarsh and mudflats²².

283. The designated disposal sites in the north west plan areas are predominantly used for the disposal of dredged material. Where alternative use is not viable, for example, due to the properties of the material, protecting disposal sites within the same vicinity as the dredging activity aids in retaining the material within the same sediment cell. This is a useful way of managing sediment budgets within estuaries, and therefore maintaining environmental conditions and habitats for native species. This may be prevalent in the areas where sediment movement is high, for example in the Mersey; therefore, protecting disposal sites within the north west marine plan areas will aid in retaining this sediment.
284. Dredge and disposal activities have a range of potential environmental impacts which may, for example, be reduced by considering alternative use options to direct disposal. Dredge and disposal activities may release pre-existing contaminants into the water column which could have secondary impacts through bioaccumulation and biomagnification in the food web²³. Contaminants associated with dredged material include organotin compounds, trace metals and polycyclic aromatic hydrocarbons. Tributyltin (an organotin) can cause shell malformation in oysters and imposex in marine snails, for example. Dredge and disposal activities can also have physical impacts, such as the smothering of sensitive species and habitats and the disruption of sensory capabilities of fish by masking the natural characteristics of seawater or tributary streams. More information on the impacts of dredge and disposal activities have been explored by the [UK Marine Special Areas of Conservation Project](#). However, these factors, amongst others, are considered, and the risks managed through the licensing process.
285. Following best practice and guidance, such as those stated in the [Guidance on developing an ecologically coherent network of OSPAR Marine Protected Areas](#), [Identifying best practice in management of activities on Marine Protected Areas \(NECR10\)](#) and [OSPAR Guidelines for the Management of Dredged Material at Sea](#), will minimise any potential environmental impacts, including biological, chemical and/or physical, that dredge and disposal may have. Through the potential reduction of these impacts, dredge and disposal policies support environmental policies in the north west marine plan areas.
286. Dredge and disposal policies will support [Shoreline management plans](#) which may include the need to identify options for the alternative use of dredged material. In the north west inshore marine plan area, the [Shoreline Management Plan 22 Great Ormes Head to Scotland](#) refers to saltmarsh development, habitat creation and beach recharge, all of which could be opportunities for alternative use of dredged material. Further information on potential alternative use sites can be found in the

²² [Use of beneficial dredge materials in the South inshore and offshore marine plan areas \(MMO 1073\)](#)

²³ [OSPAR Commission Assessment: Dumping and Placement of Dredged Material](#)

report [Alternative use of dredge material in the north east, north west, south east and south west marine plan areas \(MMO1190\)](#).

287. The [UK Marine Policy Statement](#) Section 3.4.1 identifies ports as an essential part of the UK's economy and highlights how they provide an important infrastructure between the land and the sea. Furthermore, in Section 3.6.3, dredging is identified as an enabling activity for the successful and safe function of ports and marinas and, therefore, it is important to protect dredging and disposal activity. However, Section 3.6.8 states that waste disposal proposals must consider [The Waste \(England and Wales\) Regulations 2011](#) waste hierarchy, in which the re-use of waste is a priority over disposal. These policies are in alignment with the [OSPAR Guidelines for the Management of Dredged Material at Sea](#), which states that it is important to recognise the potential value of dredged material as a resource and to consider the availability of beneficial uses. Further information can also be found in the [National Policy Statement for Ports](#). Section 207 of the [National Planning Policy Framework](#), which requires Local Planning Authorities to prepare annual Local Aggregate Assessments and consider dredged material as a possible source of aggregates, is complemented by these policies. Marine licences for dredging activities which may stipulate alternative use of the dredged material as a condition, in accordance with the waste hierarchy, are also supported.

Policy NW-DD-1 Dredging and disposal

In areas of authorised dredging activity, including those subject to navigational dredging, proposals for other activities will not be supported unless they are compatible with the dredging activity.

Policy aim

288. Dredge areas, and the area surrounding these that are required for dredge activity to take place, may be adversely impacted by new proposals such as those that negatively impact the ability to access or egress from these sites. NW-DD-1 ensures continued safe access by vessels to ports and harbours over the lifetime of the North West Marine Plan. This policy discourages proposals that would cause significant adverse impacts on dredge activities, such as the need for related vessels to navigate to and from authorised dredge areas.

289. Policy NW-DD-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

290. There are numerous ports and harbours in the north west inshore marine plan area which require navigational dredging to maintain safe access. Authorised dredging areas can be seen in Figure 7, along with statutory harbour authority areas; however, the [Explore Marine Plans](#) digital service and the [Public register](#) identifies the most up-to-date record of licensed sites for dredging.

Proponents

291. Proposals should include supporting information illustrating all known and potential significant adverse impacts on dredge activity and, where applicable, include

information on how the proposal is compatible with dredge activity. This may include a consultation to identify issues at the scoping stage and include how the proposal supports the north west marine plan vision, objectives and other plan policies. Proposals that may significantly impact authorised dredge activity, should consult the relevant port and harbour authority. As this policy may apply more widely than statutory harbour areas, proposals should also identify all ports and harbours that may be impacted and engage with them early in the proposal development.

292. Where they exist, port master plans and their descriptions of future development should be referred to. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations that decision-makers will have regard to which may include, for example, other plans and policies.
293. Proposals should consider applicable environmental constraints based on specifications of the proposed activity (including location, scale and timing), associated risks, and consequences.
294. Proponents can find guidance on [Do I need a marine licence?](#), [Marine licensing exempted activities](#), [Self-service marine licensing](#) and [Make a marine licence application](#) on the Marine Management Organisation's website. Where the proposal area for dredging activity occurs from mean low water springs landwards, an environmental permit may be required under [The Environmental Permitting \(England and Wales\) Regulations 2016](#). Where The Crown Estate, or another party, own the seabed, their permission is likely to be needed and proposals may need permission and/or authorisation from the harbour authority. [The Marine and Coastal Access Act 2009 \(Transitional Provision\) Order 2012](#) requires all maintenance and navigational dredging to gain consent through a marine licence, unless it is specifically exempted, for example, under the [Marine and Coastal Access Act 2009](#) or [The Marine Licensing \(Exempted Activities\) Order 2011](#).

Decision-makers

295. Decision-makers will establish whether the intent of this policy has been achieved through the determination of any proposals. Decision-makers will have regard to a range of relevant considerations, legislation and assessments which may include [National Policy Statements](#), [The Conservation of Habitats and Species Regulations 2017](#)²⁴, [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)²⁵, [The Marine Works \(Environmental Impact Assessment\) Regulations 2007](#), [The Town and Country Planning \(Environmental Impact Assessment\) Regulations 2017](#)²⁶ and [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)²⁷, where appropriate. Further considerations also include

²⁴ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

²⁵ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

²⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

²⁷ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

compliance with regulations detailed in the relevant local maintenance dredging protocol, where applicable.

296. Decision-makers should note that harbour authorities' statutory powers to dredge and dispose of dredged materials in tidal waters are subject to consent unless the activity is specifically exempt, for example under the [Marine and Coastal Access Act 2009](#) Section 75 or [The Marine Licensing \(Exempted Activities\) Order 2011](#).
297. In examining and determining proposals for Nationally Significant Infrastructure Projects under the [Planning Act 2008](#), examining authorities and the Secretary of State for the Ministry of Housing, Communities and Local Government must have regard to this policy for Nationally Significant Infrastructure Projects that may have significant adverse impact on areas of authorised dredge activity.
298. Figure 7 shows authorised dredge areas in the north west marine plan areas.

Policy NW-DD-2 Dredging and disposal

Proposals that cause significant adverse impacts on licensed disposal sites should not be supported.

Proposals that may have significant adverse impacts on licensed disposal sites must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant.

If it is not possible to mitigate the significant adverse impacts, proposals must state the case for proceeding.

Policy aim

299. Disposal sites, and the surrounding areas that are required for the disposal activity to take place, may be adversely impacted by new proposals that negatively impact the ability to access or egress from these sites. NW-DD-2 ensures that disposal sites are not compromised, reducing the need to designate new disposal sites that are not intended for alternative use, and so reducing environmental impacts. This policy discourages proposals that would cause significant adverse impacts on disposal activities, such as the need for vessels to navigate safely to and from disposal sites.
300. Preserving licensed disposal sites, including where sites are being used for alternative use, will enable and facilitate the growth of ports and harbours within the north west inshore marine plan area. Over the 20-year life span of the Plan, this may become more prevalent in the developing economic climate.
301. Policy NW-DD-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

302. There are 42 designated disposal sites in the north west marine plan areas which are located in both the inshore and offshore marine plan areas. Nineteen of the sites

are designated as open, two are disused and 21 are closed²⁸. Licensed disposal sites and designated disposal sites can be seen in Figure 7 however, the [Explore Marine Plans](#) digital service and the [Centre for Environment, Fisheries and Aquaculture Science data hub](#) contains the most up-to-date record of dredge disposal sites.

Proponents

303. Proposal should include supporting information illustrating potential significant adverse impacts upon licensed disposal sites. This may include consultation with relevant stakeholders to identify issues at the scoping stage and suggest measures to avoid, minimise or mitigate them. Proposals that cause significant adverse impacts on licensed disposal sites should first demonstrate how they will avoid significant adverse impacts on licensed disposal sites. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated, proposals must state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations that decision-makers will have regard to which may include, for example, other plans and policies.
304. Examples of how significant adverse impacts can be avoided, minimised or mitigated include:
- avoid - alternative location for the proposal
 - minimise - variation in the proposal to allow disposal activity to occur when required including timing, scale or the proposal's mode of operation
 - mitigate - propose alternative location for disposal activity to occur
305. Proponents can find guidance on [Do I need a marine licence?](#), [Marine licensing exempted activities](#), [Self-service marine licensing](#) and [Make a marine licence application](#) on the Marine Management Organisation's website. Where the disposal site occurs from mean low water springs landwards, an environmental permit may be required under [The Environmental Permitting \(England and Wales\) Regulations 2016](#). Where The Crown Estate, or another party, own the seabed, their permission is likely to be needed and proposals may need permission and/or authorisation from the harbour authority.

²⁸ [Futures analysis for the North East, North West, South East and South West marine plan areas \(MMO 1127\)](#)

Decision-makers

306. Decision-makers will establish whether the intent of this policy has been achieved through the determination of any proposals. Decision-makers will have regard to a range of relevant considerations, legislation and assessments which may include [National Policy Statements](#), [The Conservation of Habitats and Species Regulations 2017](#)²⁹, [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)³⁰, [The Marine Works \(Environmental Impact Assessment\) Regulations 2007](#), [The Town and Country Planning \(Environmental Impact Assessment\) Regulations 2017](#)³¹ and [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)³², where appropriate. Further considerations also include compliance with legislation and regulations detailed in the relevant local maintenance dredging protocol, where applicable.
307. Decision-makers should note that harbour authorities' statutory powers to dredge and dispose of dredged materials, in tidal waters are subject to consent unless the activity is specifically exempt for example under the [Marine and Coastal Access Act 2009](#) Section 75 or [The Marine Licensing \(Exempted Activities\) Order 2011](#). A licence to dispose of dredge material must be obtained from the Marine Management Organisation.
308. Figure 7 shows licensed disposal sites and designated disposal sites in the north west marine plan areas.

Policy NW-DD-3 Dredging and disposal

Proposals for the disposal of dredged material must demonstrate that they have been assessed against the waste hierarchy. Where there is the need to identify new dredge disposal sites, including alternative use sites, proposals should be supported if they conform to best practice and guidance.

Policy aim

309. As a result of dredging activity, disposal of dredge material is often required, whether this is direct disposal as a last resort in the waste hierarchy or deposit of material for alternative uses. This policy ensures that proposals have considered all steps within the waste hierarchy prior to the disposal of dredge material as a last resort. The establishment of new disposal sites which are for alternative use should be supported. The establishment of new dredge disposal sites as a last resort in the waste hierarchy should only be explored after previous levels within the waste hierarchy have been considered, and the potential to utilise open, disused or closed sites has been fully investigated and discounted. In some cases, designated disposal

²⁹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

³⁰ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

³¹ As amended by [The Environmental Assessments and Miscellaneous Planning \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Waste \(Circular Economy\) \(Amendment\) Regulations 2020](#)

³² As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

sites cannot be used, for example where sediment size does not match or there are particular constraints.

310. NW-DD-3 then provides a source of best practice and guidance for the designation of new dredge disposal sites. This is required as the demand increases for new disposal sites and encourages early consideration of impacts to avoid conflicts during the proposal process.
311. Policy NW-DD-3 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

312. Sources of information which may aid in identifying potential locations for alternative use of dredged material may include, but are not limited to: [Alternative use of dredge material in the north east, north west, south east and south west marine plan areas \(MMO1190\)](#), Beach Management Plans, [Identifying sites suitable for marine habitat restoration or creation \(MMO1135\)](#), Marine Biosecurity Action Plans, Port Maintenance Dredge Protocol, Port Master Plans, [River basin management plans](#), [Shoreline management plans](#) and the assessment of sites of special scientific interest. Relevant information may also be found in [Precipitating a SEA Change in the Beneficial Use of Dredged Sediment](#) and [Sustainable Shores](#). In addition to these suggested sources, other existing and future studies should also be considered to identify alternative use opportunities in the north west.
313. Potential locations for the alternative use of dredged material should not be restricted to the north west marine plan areas. Locations in other marine plan areas can be considered if the proposal is practical and meets the requirements of the relevant marine plan area vision, objectives and plan policies, where applicable. In considering locations for the alternative use of dredged materials outside the north west marine plan areas, it should be kept in mind that this may include jurisdictions beyond England's waters, including Devolved Administrations and/or the Isle of Man as appropriate.

Proponents

314. Proposals for disposing of dredged material must be assessed against the [Waste \(England and Wales\) Regulations 2011](#) waste hierarchy which specifies the order of preference for how waste should be dealt with. The preferred option is prevention, followed by preparing for re-use, recycling, other recovery and, finally, disposal should be considered as a last resort. Proposals should demonstrate how other disposal sites and potential alternative use opportunities in the vicinity have been regarded during assessment against the waste hierarchy. [Guidance on applying the waste hierarchy](#) and [Environmental permitting guidance: The waste framework directive \(to accompany the Environmental Permitting \(England and Wales\) Regulations 2007\)](#) is available.
315. Proposals which are unable to consider alternative use or the other preferred options in the waste hierarchy and instead dispose of dredged material must demonstrate the reasons why. Proposals must detail the process which the proponent went through to assess and screen out any other management options. Cases where

alternative use is not practicable may be due to the contamination status of the material, site selection, technical feasibility, environmental acceptability, costs/benefits and/or legal considerations.

316. A licence to dispose of dredge material, including the tidal extent of rivers and up to the mean high water springs mark, must be obtained from the Marine Management Organisation. Alternative use is considered as a type of disposal activity and so requires a marine licence. Permissions for any type of disposal may also be required from the landowner, harbour authority, The Crown Estate and/or any other parties with jurisdiction/ownership of the river/seabed. Guidance is available on [Do I need a marine licence?](#), [Marine licensing exempted activities](#), [Self-service marine licensing](#) and [Make a marine licence application](#), which can be found on the Marine Management Organisation's website.
317. A project-level appropriate assessment, ie under [The Conservation of Habitats and Species Regulations 2017](#)³³ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)³⁴, will be required where disposal or alternative use proposals mean that the possibility of a likely significant adverse impact on a European site within the UK national site network, or Ramsar site, cannot be excluded on the basis of currently available information. A Water Regulations Assessment may also be required under [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)³⁵.
318. Proposals should consider other interests, including potential impacts from other marine activities and the impacts that disposal or alternative use has on these activities. They should also consider applicable environmental constraints based on specifications of the proposed activity (including location, scale and timing), associated risks and consequences.
319. New sites should be designated where there are positive benefits to designation, [The Waste \(England and Wales\) Regulations 2011](#) and related waste hierarchy has been regarded, and a characterisation study has been completed. Examples of characterisation studies can be found on the [Marine licensing selected cases](#) page, such as the [Plymouth Dredged Material Disposal Site Selection – Characterisation Report](#) and the [Harwich Dredge Disposal Characterisation report](#). Although an [Environmental Impact Assessment](#) or [Habitats Regulations Assessment](#) is not required for the designation of a new disposal site, similar information should be included in the characterisation study.
320. If the decision is made to grant a licence for the disposal activity, the Marine Management Organisation will obtain a disposal site code from the Centre for Environment, Fisheries and Aquaculture Science.

³³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

³⁴ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

³⁵ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

Decision-makers

321. Decision-makers will establish whether the intent of this policy has been achieved through the determination of any proposals. Inclusion of this information does not indicate that approval of the proposals will follow by default. Decision-makers will have regard to a range of relevant considerations, legislation and assessments which may include [National Policy Statements](#), [The Conservation of Habitats and Species Regulations 2017](#)³⁶, [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)³⁷, [The Marine Works \(Environmental Impact Assessment\) Regulations 2007](#), [The Town and Country Planning \(Environmental Impact Assessment\) Regulations 2017](#)³⁸ and [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)³⁹, where appropriate. Further considerations also include regulations detailed in the relevant local maintenance dredging protocol, where applicable.
322. Plans and strategies should consider dredge disposal in relation to their area of responsibility, for example mineral and waste planning, when considering extraction of aggregates adjacent to existing or potential dredge disposal sites

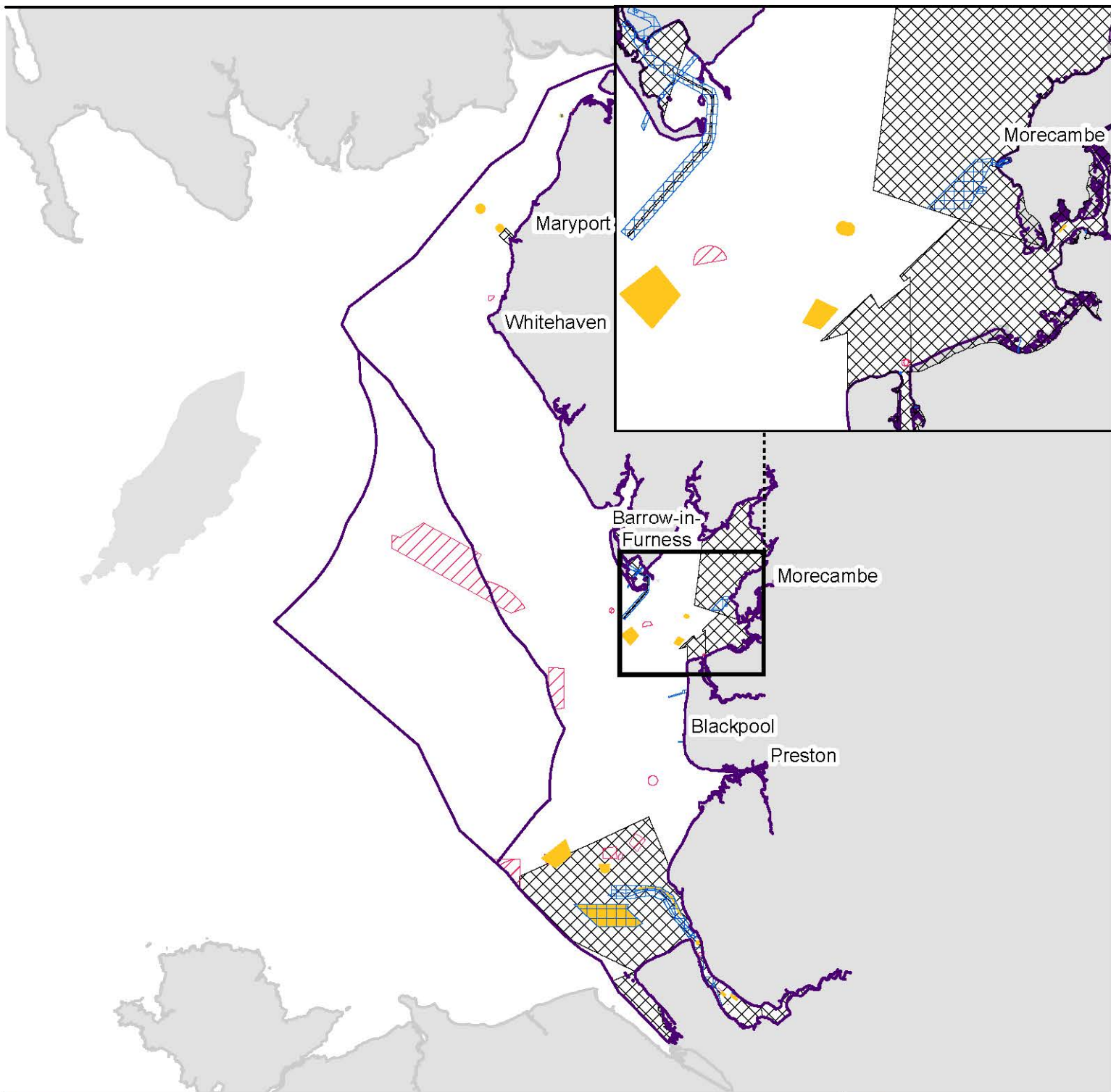
³⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

³⁷ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

³⁸ As amended by [The Environmental Assessments and Miscellaneous Planning \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Waste \(Circular Economy\) \(Amendment\) Regulations 2020](#)

³⁹ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

Figure 7 | Dredging and Disposal Sites



-  North West Marine Plan Areas
-  Authorised Dredge Areas
-  Licensed Disposal Sites
-  Designated Marine Disposal Sites
-  Statutory Harbour Authority areas

Policy map
 This map is to be used for reference only.

5.7 Oil and gas

Policy Code	Policy Wording
NW-OG-1	Proposals in areas where a licence for oil and gas has been granted or formally applied for should not be authorised unless it is demonstrated that the other development or activity is compatible with the oil and gas activity.
NW-OG-2	Proposals within areas of geological oil and gas extraction potential demonstrating compatibility with future extraction activity will be supported.

What is oil and gas?

323. **Oil and gas activity** in the marine area involves the exploration and production of oil and gas (hydrocarbon) deposits from below the seabed, forming the upstream sector of the oil and gas industry.
324. Exploration involves the location of crude oil and natural gas below the seabed, using various boat-based geophysical surveys and discrete sampling works, which are of limited duration. Oil and gas deposits are located in spatially discrete areas where the deposits were formed.
325. Production activities utilise infrastructure such as fixed platforms or floating production facilities, where hydrocarbons are extracted and processed prior to being exported onshore via pipelines or using shuttle tankers. Production facilities are installed for the duration of the field life and usually have a limited spatial footprint.
326. **Oil and gas licences** fall into several categories. The principal distinctions are between landward and seaward licences, and between exploration licences (which cover exploration alone and are not exclusive to a particular area) and production licences (which may include an element of exploration during the first phase of the development and are exclusive to a specified area). Licences are granted by the Oil and Gas Authority. Except in special circumstances, production licences run for three successive periods or Terms. These Terms are commonly associated with a particular activity, the Initial Term for exploration, the Second Term for the approval of a development plan and the Third Term for production. Licences expire at the end of these terms if the specified work has not been completed (Oil and Gas Authority: [Types of Licence](#)).
327. **Areas of geological extraction potential** are areas in which undeveloped oil and gas discoveries may exist below the seabed, having been identified through exploration work, but have not yet seen any production, extraction or development. They may represent the potential for future oil and gas extraction activities.

Why is oil and gas important?

328. Oil and gas production has been on a long-term decline on the UK Continental Shelf since 2000 but will remain of central importance to the UK's energy mix ([UK Marine Policy Statement](#) Section 3.3.7). Oil and gas (including pumped storage) contributed 41.8% of total UK electricity in 2018, while oil and gas extraction contributed 0.99% of Gross Domestic Product in 2017. Oil and gas also continue to be a significant

provider of employment ([National Statistics UK energy in brief 2019](#)). It is recognised that the energy supply will move towards carbon-neutral production and away from a reliance on oil and gas. However, during the transition process, it is important to ensure that the current importance and significance to the UK economy of the oil and gas energy supply is recognised and that space is safeguarded ([Industrial Strategy: building a Britain fit for the future](#) page 149).

329. Sustainably maximising the economic recovery and transmission of oil and gas from the UK Continental Shelf is a priority for energy supply and security and is crucial to meeting UK energy needs during the transition to a low carbon economy ([Statutory Security of Supply Report](#)). This is also an important aspect of increasing the UK's reliance on indigenous energy sources, minimising reliance on foreign imports, and thereby enhancing energy security.
330. This builds upon the [UK Marine Policy Statement](#) Sections 3.3.4 and 3.3.8, which refer to “the UK’s policy objective to maximise the economic development of the UK’s oil and gas resources, reflecting their importance to the UK’s economic prosperity and security of energy supply” and “maximising the economic recovery of UK oil and gas resources sustainably is therefore a priority in the UK’s energy supply and energy security strategies”.

Policy NW-OG-1 Oil and gas

Proposals in areas where a licence for oil and gas has been granted or formally applied for should not be authorised unless it is demonstrated that the other development or activity is compatible with the oil and gas activity.

Policy aim

331. The potential to extract oil and gas is important to the UK’s energy supply. However, oil and gas exploration and production (within existing licence areas) may require access to the same area of seabed as other sector proposals. This policy protects the supply of oil and gas by safeguarding areas where there are existing licences. However, this does not sterilise areas for other activities as proposals that demonstrate compatibility with oil and gas activities may be supported.
332. The policy gives clarity on dealing with potential future conflicts with other users who may want to use the same space as oil and gas extraction activities by supporting co-existence opportunities for different users of the north west marine plan areas. This supports the UK in meeting its energy and security objectives as activities that may impact or sterilise areas that may be used for potential oil and gas extraction would hinder the fulfilment of the objectives of the [UK Marine Policy Statement](#) and the UK’s energy objectives.
333. Policy NW-OG-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

334. This policy applies specifically to those areas where licences for oil and gas have been granted by the Oil and Gas Authority or formally applied for. UK oil and gas reserves are predominantly in the North and Irish Seas, with the majority of oil to the

north of the continental shelf and the gas to the south. The [Sustainability Appraisal Scoping Report - North East North West South East South West Marine Plans](#) notes a gas terminal at Barrow-in-Furness, and a number of oil and, particularly, gas fields in the north west marine plan areas.

Proponents

335. The potential for interaction between proposed oil and gas activity and current activities is addressed through existing measures, both as part of the process to identify and award licence blocks and to support application for a production licence (both requiring substantial investment) and through arrangements in place where any conflict remains. The policy wording supports that approach.
336. The Oil and Gas Authority is responsible for issuing Seaward Production and Exploration Licences, while the Department for Business Energy and Industrial Strategy Offshore Petroleum Regulator for Environment and Decommissioning is responsible for issuing activity-specific approvals. The above organisations should be consulted when considering whether a proposal has a potential impact on current or future exploration and production of oil and gas in areas where licences for oil and gas have been granted or formally applied for. Proponents should review the licence that has been granted and consult with the licensee to establish whether their proposal is compatible with the licensed activity as the temporal nature of certain oil and gas activities and/or the limited footprint may allow their proposal to be supported.
337. Proposals located in or around licensed blocks that have been granted or formally applied for should demonstrate how they could co-locate with any oil and gas exploration and production activities. Proposals should demonstrate measures to ensure that they do not sterilise areas in regard to the oil and gas activities covered by the licence or application for a licence. Proponents should demonstrate awareness of the spatial extent of the various oil and gas activities.
338. Licensed oil and gas blocks should be safeguarded for the activities identified in the licence until the licence is surrendered, (including completion of any relevant decommissioning activity). This means that areas covered by licences should not be sterilised against future oil and gas extraction activities. However, it is recognised that it may be possible for other activities to proceed where they can demonstrate compatibility with oil and gas activities, eg in areas where licensed blocks and offshore wind farm Agreement for Lease areas directly overlap, agreement over co-located use should be negotiated where possible, or suitable mitigation such as temporal measures agreed between all parties involved. Proponents should provide evidence in their proposal of the agreements reached and the engagement that this has involved.
339. Proponents should note that an aviation consultation zone exists around all offshore helicopter destinations (Civil Aviation Authority: [Policy and Guidelines on Wind Turbines](#)) and, as such, it is recommended that early engagement between wind energy leaseholders, oil and gas developers, and petroleum licence holders occurs

to enable future development plans to be discussed and to minimise the risks of unanticipated conflict at a later date.

340. Early engagement with the oil or gas licence holder is recommended as there may be a requirement for negotiation between the parties involved, the Oil and Gas Authority and the Department for Business, Energy and Industrial Strategy. Where conflict arises, public authorities should take account of the full range of benefits and risks, the national policy on development of oil and gas resources and arrangements in place for managing conflicts.
341. In the case of conflict between oil and gas and offshore renewables, all parties involved are expected to make every reasonable effort to reach a commercial agreement at the earliest stage. More detail on how such issues may be resolved between offshore wind and oil and gas is provided by the [Written Ministerial Statements](#) made by the Secretary of State for Energy and Climate Change to Parliament on the 12th July 2011 and the subsequent guidance on procedures for independent valuation, where necessary ([The Crown Estate interests](#)).

Decision-makers

342. This policy should be considered by decision-makers (such as Marine Management Organisation Marine Licensing) when authorising proposals and making decisions for activities within areas where licences have been granted or formally applied for that may require access to the same area of the seabed as future oil and gas extraction activities. Decision-makers should favour proposals that have highlighted the measures they have taken to demonstrate compatibility with oil and gas activity in their proposals, and that have provided proof of any relevant engagement and/or agreements.
343. Figure 8 shows areas where this policy applies, namely oil and gas blocks with existing awards, or those with recent provisional awards. Figure 9 shows layers of relevance to this policy, such as the existence of oil and gas fields, and existing oil and gas infrastructure such as pipelines. These layers can also be viewed and queried on the [Explore Marine Plans](#) digital service. They may be added to as more evidence becomes available during the lifetime of the North West Marine Plan:
- 29th Round Provisional Awards
 - 30th Round Provisional Awards
 - 31st Round Provisional Awards
 - 32nd Round Provisional Awards
 - Hydrocarbon fields
 - oil and gas awarded licensed blocks
 - oil and gas infrastructure
 - oil and gas safety zones

Policy NW-OG-2 Oil and gas

Proposals within areas of geological oil and gas extraction potential demonstrating compatibility with future extraction activity will be supported.

Policy aim

344. Maximising the economic recovery of oil and gas resources may require access to discoveries of deposits that have not yet been developed. However, other proposals may require access to the same area of seabed as these resources and, therefore, to future potential oil and gas production. This policy safeguards areas identified as having geological potential for future oil and gas extraction by ensuring that proposals have regard to future oil and gas activity prior to gaining support.
345. The policy gives clarity on dealing with potential future conflicts with other users who may want to use the same space as oil and gas extraction activities by supporting co-existence opportunities for different users of the north west marine plan areas. This supports the UK in meeting its energy and security objectives as activities that may impact or sterilise areas that may be used for potential oil and gas extraction would hinder the fulfilment of the objectives of the [UK Marine Policy Statement](#) and the UK's energy objectives. Policy NW-OG-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

346. This policy applies within areas of geological oil and gas extraction potential as spatially defined by relevant layers on the [Explore Marine Plans](#) digital service. UK oil and gas reserves are predominantly in the North and Irish Seas, with the majority of oil to the north of the continental shelf and the gas to the south. The [Sustainability Appraisal Scoping Report - North East North West South East South West Marine Plans](#) notes a number of oil and, particularly, gas fields in the north west marine plan areas.

Proponents

347. Proponents should demonstrate their awareness and consideration of the importance of maximising the economic recovery of oil and gas resources, and should also provide evidence in their proposals that they have had regard to known areas of oil and gas extraction potential (such as the relevant data layers on the [Explore Marine Plans](#) digital service). Proposals should demonstrate compatibility with future oil and gas extraction; preferentially, they should consider demonstrating that they can co-exist with future extraction activities if there is a possibility of overlap. Examples of how compatibility with future extraction can be demonstrated include negotiated changes in location and the provision of space within the proposal area for oil and gas extraction and associated operations and infrastructure.
348. The Oil and Gas Authority should be consulted in relation to areas of geological potential and when considering whether a proposal has a potential impact on the future exploration and production of oil and gas.

Decision-makers

349. This policy should be considered by decision-makers (such as Marine Management Organisation Marine Licensing) when authorising proposals and making decisions for activities within areas of geological oil and gas extraction, which may require access to the same area of seabed as future oil and gas extraction activities in the

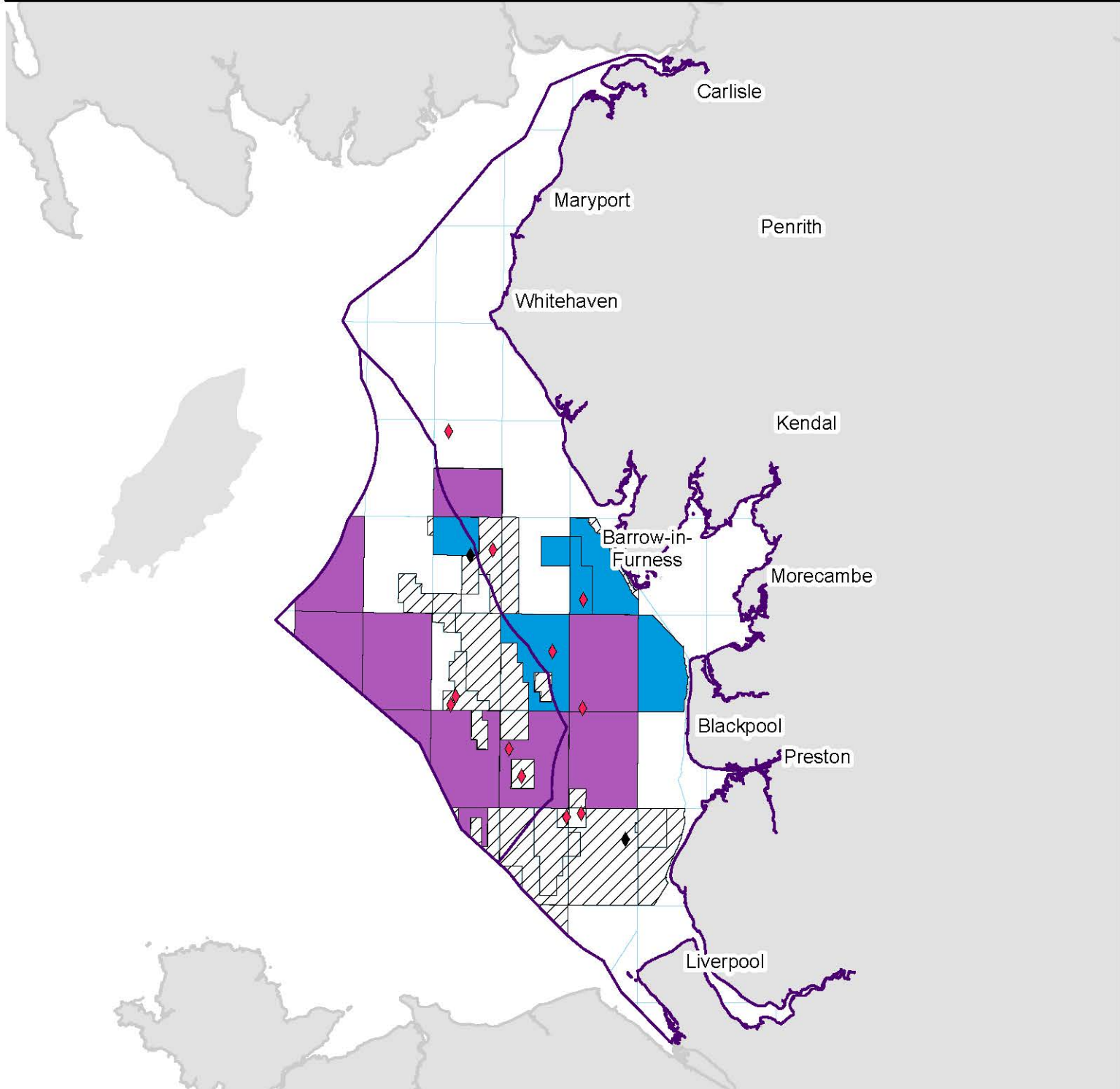
north west marine plan areas. Decision-makers will support proposals that have highlighted the measures they have taken to demonstrate compatibility with oil and gas activity in their proposals, and that have provided proof of doing so, such as proof any relevant engagement and/or agreements.







350. Figure 9 shows areas where this policy applies, namely areas of discovered yet undeveloped oil and gas discoveries.

351. The following layers on the [Explore Marine Plans](#) digital service may support the implementation of this policy:

- Gas Condensate Discoveries – Undeveloped
- Gas Discoveries – Undeveloped
- Oil Discoveries – Undeveloped

Figure 8 | Oil and Gas License Blocks and Licensing Round Awards



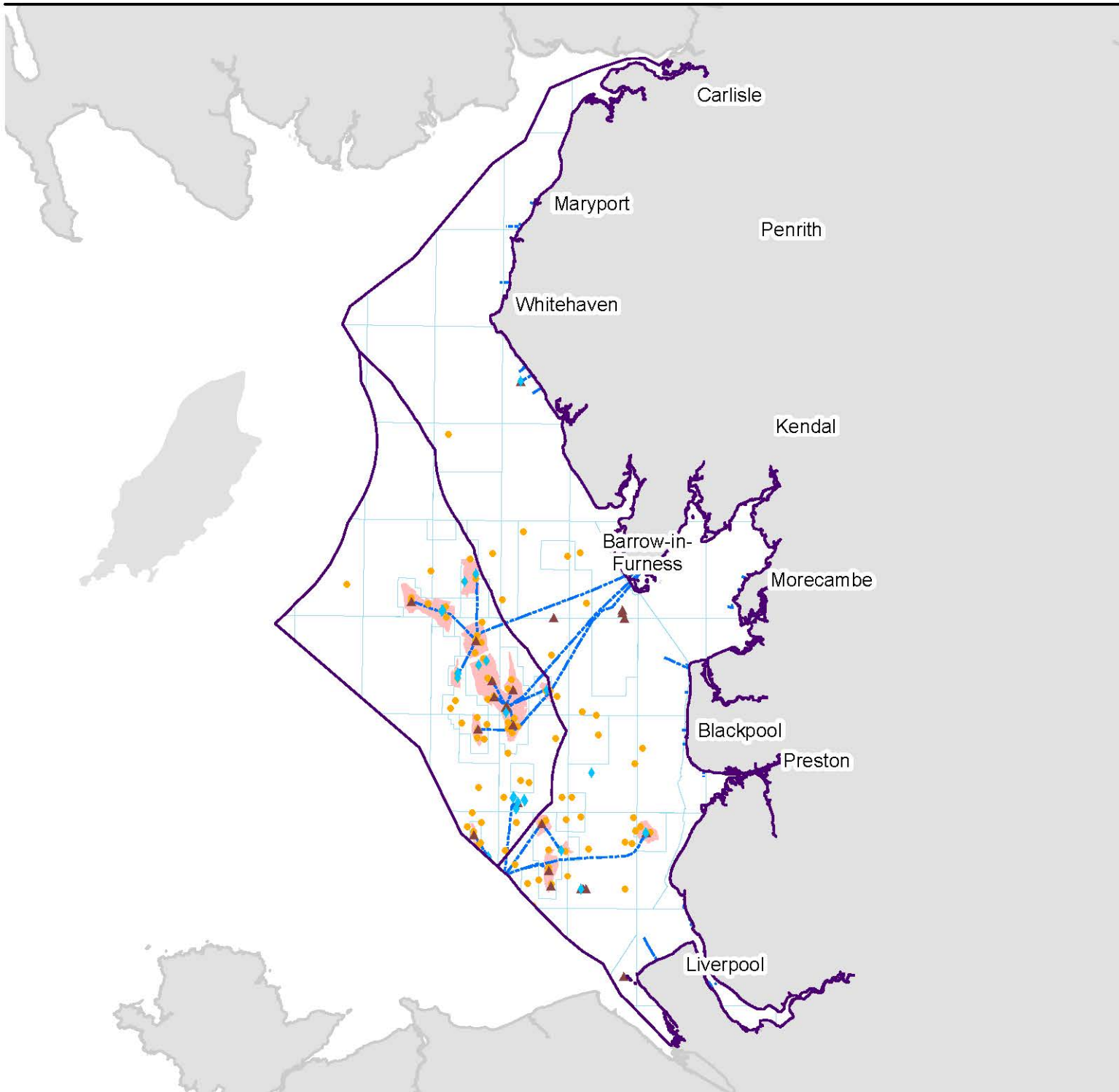
-  North West Marine Plan Areas
-  OGA License Blocks
-  Current Licensed Blocks
-  29th Round Provisional Awards
-  30th Round Provisional Awards
-  31st Round Provisional Awards








Undeveloped Discoveries

-  Gas
-  Gas Condensate
-  Oil

Policy map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Figure 9 | Oil and Gas Infrastructure and Fields



- | | |
|---|--|
|  North West Marine Plan Areas |  Pipelines |
|  Subsurface Infrastructure |  Hydrocarbon Fields |
|  Surface Infrastructure |  OGA License Blocks |
|  Wells | |

Indicative map
 This map is to be used for reference only.

5.8 Ports, harbours and shipping

Policy Code	Policy Wording
NW-PS-1	<p>In line with the National Policy Statement for Ports, sustainable port and harbour development should be supported.</p> <p>Only proposals demonstrating compatibility with current port and harbour activities will be supported.</p> <p>Proposals within statutory harbour authority areas or their approaches that detrimentally and materially affect safety of navigation, or the compliance by statutory harbour authorities with the Open Port Duty or the Port Marine Safety Code, will not be authorised unless there are exceptional circumstances.</p> <p>Proposals that may have a significant adverse impact upon future opportunity for sustainable expansion of port and harbour activities, must demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <ul style="list-style-type: none"> - adverse impacts so they are no longer significant. <p>If it is not possible to mitigate significant adverse impacts, proposals should state the case for proceeding.</p>
NW-PS-2	Proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance must not be authorised within or encroaching upon International Maritime Organization routeing systems unless there are exceptional circumstances.
NW-PS-3	Proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance which encroaches upon high density navigation routes, strategically important navigation routes, or that pose a risk to the viability of passenger services, must not be authorised unless there are exceptional circumstances.
NW-PS-4	Proposals promoting or facilitating sustainable coastal and / or short sea shipping as an alternative to road, rail or air transport will be supported where appropriate.

What are ports, harbours and shipping?

352. **Ports and harbours** are essential to realising the economic and social benefits of marine resources including ports' and harbours' ability to respond to opportunities for growth. UK ports and harbours compete with each other and with European ports and harbours. This helps drive efficiencies and lowers costs for industry and consumers, contributing to the competitiveness of the UK economy ([National Policy Statement for Ports](#)). Synchronising ports' and harbours' functions requires careful planning and management to ensure efficient use of space and to support future growth.
353. **Port and harbour activities** in the north west marine plan areas include, but are not limited to:

- facilitating recreational use
 - harbour maintenance activities
 - hosting of naval and research vessels
 - landing of marine aggregates and fisheries products
 - transport of cargo (including bulks, hydrocarbons, vehicles and roll-on/roll-off units) and passengers
 - waste and recycling management, and bioenergy centres
354. Ports and harbours also play a role in managing their local environments (natural and historic) and in marine and maritime-related events. The location and level of shipping activity is related to the location of ports, harbours and destinations for passenger and commercial traffic. The north west marine plan area is home to significant levels of coastal, short sea and international shipping.
355. The future growth of ports and harbours is directly related to the number of vessels and/or the size of vessels using them, making their growth difficult to predict as it is responsive to global markets. Consequently, there is a need for flexibility within port and harbour operations to respond quickly to the demands of international trade based on commercial judgements in a highly dynamic and competitive market. However, growth is not the aspiration of all ports and harbours; some seek to maintain current operations and management practices with no further expansion.
356. The **National Policy Statement for Ports** is the framework for decisions regarding UK port development proposals, also applying, where relevant, to associated road and rail links.
357. **Statutory harbour authorities** are statutory bodies responsible for the management and running of a harbour. The powers and duties in relation to a harbour are set out in local Acts of Parliament or a [Harbour Order](#) under the [Harbours Act 1964](#).
358. The [Port Marine Safety Code](#) states that “a harbour authority’s statutory powers are subject to the **Open Port Duty**. This means that the harbour, dock, or pier must be open to anyone for the shipping and unshipping of goods and the embarking and landing of passengers, on payment of the rates and other conditions set by the local legislation for that port”.
359. The **Port Marine Safety Code** is the safety code for harbour authorities with statutory powers and duties in the UK.
360. The **International Maritime Organization** is the United Nations agency that is responsible for the safety and security of shipping and the prevention of marine pollution by ships.
361. **International Maritime Organization routeing systems** are established to maintain navigational safety by managing shipping traffic in busy areas and/or in response to prevailing hydrographic features.
362. **High-density navigation routes** are areas at sea along which shipping traffic travels. These routes are used by vessels of 300 gross tonnes or more, including cruise services. Passenger services are regular routes for these vessels (which may

or may not overlap with high-density navigation routes). The methodology used to generate the high-density shipping navigation data can be viewed in the method statement in the Marine Management Organisation's evidence project, [Mapping the value of shipping \(MMO1158\)](#).

- 363. **Strategically important navigation routes** are those routes that are essential to regional, national and international trade.
- 364. **Passenger services** are commercial passenger transport services that are operated according to a published timetable.
- 365. **Short sea shipping** is the movement of cargo and passengers by sea over short distances, including along the coast between domestic ports and harbours and to and from the UK to European ports. Short sea shipping reduces congestion caused by terrestrial road transport and can provide air quality improvements through greater fuel economy, the use of increasingly lower sulphur fuels and lower emissions of carbon dioxide. Consequently, short sea shipping is one of the most sustainable and economically competitive modes of transport and the ports sector is working proactively to reduce emissions by developing port air quality strategies. The government vision for the future of the British maritime sector, [Maritime 2050: navigating the future](#), (particularly Chapter 8) is to support a move to new environmental standards in line with the [Clean Air Strategy 2019](#).
- 366. **Under-keel clearance** is the minimum clearance available between the deepest point on a vessel and the bottom in still water (see the Nautical and Offshore Renewables Liaison Group advice on under-keel clearance, [Under-Keel Clearance Policy Paper – guidance to developers in assessing minimum water depth over tidal devices](#)).

Why are ports, harbours and shipping important?

- 367. Ports and harbours in the north west play an important part in national, regional and local economies. In addition to contributing to port-related employment by bringing together groups of related businesses within and around the estate, ports and harbours create a cluster effect that supports economic growth by encouraging innovation and the creation and development of new business opportunities.
- 368. Through the [National Policy Statement for Ports](#) Section 3.4.16, the government has declared a compelling need for the provision of significant and sustainable additional long-term port capacity to enable economic growth in both local and regional economies. This includes proposals in support of the development of offshore renewable energy, the provision of facilities to accommodate long-term growth, encouragement of coastal shipping, and ensuring effective competition between ports (Section 3.3.1 and Section 3.5.1).
- 369. Shipping activity in the north west marine plan areas is linked to recent industrial and economic growth of areas, including the automotive industry, renewable energy and the process industries.
- 370. Shipping connections to global markets and the links between the north west and Ireland and the Isle of Man are part of the essential character of the north west

marine plan areas. Shipping routes within the Irish Sea comprise north-south routes along the Irish Sea and connecting routes to Ireland. Most notable are Holyhead and Liverpool to Dublin, Liverpool to Belfast and Liverpool and Heysham's strategic sea links to the Isle of Man. Heysham provides essential daily freight and transport links to the Isle of Man.

371. Short sea shipping in the north west marine plan areas is focused on, but not limited to, the docks and ports of Liverpool, Birkenhead, Manchester and Heysham, with other operations based in coastal towns such as Whitehaven, Workington, Silloth, Barrow and Garston.
372. New activities in the north west marine plan areas should afford protection to safe and competitive shipping, particularly where high-density navigation routes, strategically important navigation routes and/or passenger services are identified.
373. The [UK Marine Policy Statement](#) Section 3.4.7 states that "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". The [National Policy Statement for Renewable Energy Infrastructure](#) Section 2.6.161 states that Nationally Significant Infrastructure Projects should not be "... grant[ed] development consent in relation to the construction or extension of an offshore wind farm... [if] interference with the use of recognised sea lanes essential to international navigation is likely to be caused by the development".
374. Vessel diversions, which may arise from direct displacement by permanent or non-permanent development or activities, are likely to have a negative impact on the industry, for example, by increasing operational costs due to the increased use of fuel. Additionally, requirements to reduce sulphur emissions may lead to an increase in sea transport costs, reducing the competitiveness of short sea shipping and potentially affecting income for ports. See the government's [Clean Air Strategy 2019](#) (Section 5.1), [A Green Future: Our 25 Year Plan to Improve the Environment](#) (Chapter 4) and the [National Policy Statement for Ports](#) (Section 5.7.3).

Policy NW-PS-1 Ports, harbours and shipping

In line with the National Policy Statement for Ports, sustainable port and harbour development should be supported.

Only proposals demonstrating compatibility with current port and harbour activities will be supported.

Proposals within statutory harbour authority areas or their approaches that detrimentally and materially affect safety of navigation, or the compliance by statutory harbour authorities with the Open Port Duty or the Port Marine Safety Code, will not be authorised unless there are exceptional circumstances.

Proposals that may have a significant adverse impact on future opportunity for sustainable expansion of port and harbour activities, must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant.

If it is not possible to mitigate significant adverse impacts, proposals should state the case for proceeding.

Policy aim

375. Ports and harbours are essential to realising economic and social benefits for the marine plan areas and the UK. NW-PS-1 makes sure that proposals do not restrict current port and harbour activity or future growth, enabling long-term strategic decisions, and supporting competitive and efficient port and shipping operations. Policy NW-PS-1 applies to the inshore marine plan area only.
376. NW-PS-1 provides clarity on how the economic interests and statutory duties of ports and harbours should be protected and makes sure new development does not restrict current activities, future growth or compliance with the [Port Marine Safety Code](#). This policy protects the efficiency and resilience of continuing port operations and further port development ([UK Marine Policy Statement](#), Section 3.4.7). The sustainable development of ports (increase in shipping activity) is supported by the [UK Marine Policy Statement](#) Section 3.4.10. This policy also complements and supports the [National Policy Statement for Ports](#), setting provisions for port growth in the context of the management and development of other activities. Policy NW-PS-1 supports the government policy for ports ([National Policy Statement for Ports](#)). It is recognised that although not all ports are able, or wish, to grow physically, there will remain a need to be commercially viable through adaptation, change and diversification. Also recognised is the need to ensure safe navigation both within and in the approaches to ports, at present and in the future. Harbour masters are recognised experts in navigational safety within their jurisdictional areas. Accordingly, the policy recognises that their views regarding how proposals affect safety of navigation, the Open Port Duty and compliance with the Port Marine Safety Code should be sought and given significant weight.

377. NW-PS-1 confirms that proposals that compromise these important duties should not be authorised unless there are exceptional circumstances. Authorisation of proposals that impact upon compliance with these core duties are expected to be exceedingly rare. This policy supports continued port maintenance and repairs, diversification and other sustainable port development that contribute to long-term economic growth and prosperity.
378. This policy applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

379. Proposals must demonstrate that they are compatible with current port and harbour activities.
380. Additionally, proposals must demonstrate that they will avoid significant adverse impacts on future opportunities for sustainable expansion of port and harbour activities. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated, proposals should state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on. The inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations to be taken into account by the decision-maker which may include, for example, other plans.
381. Examples of how significant adverse impacts can be avoided, minimised or mitigated include:
- avoid - alternative location for the proposal
 - minimise - variation in the proposal for example, using materials or techniques that have a lower impact; reducing the scale of the proposal
 - mitigate - introducing measures to reduce the impacts
382. This policy applies to any organisation or individual putting forward a proposal including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity or a change to an existing activity that results in the change of authorisation or authorisation conditions, and that is subject to management by public authorities.
383. Proposals should demonstrate that they have considered the resilience of ports and harbours to changing markets and international needs.
384. Proposals must demonstrate that they have consulted the relevant statutory harbour authority and public authorities (including the Maritime and Coastguard Agency),

Proposals should also demonstrate that they have considered current activities and future growth of the port or harbour, irrespective of its local status.

385. As this policy may apply more widely than statutory harbour areas, proposals should identify all ports and harbours that may be affected and engage with them early in proposal development. This should include the matters listed in these plans but may also include other considerations such as anchorages and approach channels.

Decision-makers

386. Public authorities should ensure that proposals demonstrate that they are compatible with current port and harbour activities and will, in order of preference, avoid, minimise or mitigate significant adverse impacts on future opportunities for sustainable expansion of port and harbour activities.
387. Public authorities will have regard to a range of relevant considerations, including compliance with legislation, regulations and environmental assessment.
388. Figure 10 shows important areas where this policy should be applied. It includes navigational approaches, statutory harbour areas and anchoring areas. This should not be considered definitive. For example, in understanding where future port or harbour use may need to be accommodated, developments and other activities should also have regard to access and approach channels into ports and harbours.
389. Figure 10 should not be considered in isolation and any interpretation is subject to review with neighbouring port or harbour authorities to make sure navigation channels are considered in their entirety. This is necessary as navigation channels are maintained by licensed and natural processes. It may be that areas maintained by natural processes are subject to capital and maintenance dredging in the future as port requirements are identified. Where they exist, port and harbour master plans and their descriptions of future development should be referred to.
390. Figure 7 can also be used to identify potential future development as it shows existing licensed dredging and disposal areas, which can indicate future capital dredging and, thereby, port development. Please visit the [Explore Marine Plans](#) digital service for up-to-date versions of these maps.

Policy NW-PS-2 Ports, harbours and shipping

Proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance must not be authorised within or encroaching upon International Maritime Organization routing systems unless there are exceptional circumstances.

Policy aim

391. Within the north west marine plan areas, there are International Maritime Organization routing systems that are essential for shipping activity, freedom of navigation and navigational safety. NW-PS-2 confirms that proposals that compromise these important navigation routes should not be authorised. NW-PS-2 enables and supports safe, profitable and efficient marine businesses.

392. NW-PS-2 specifies that developments should not be authorised where the use of International Maritime Organization routing systems may be compromised. Authorisation of proposals that impact on the use of International Maritime Organization routing systems are very rare. Policy NW-PS-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

393. This policy applies to any organisation or individual putting forward a proposal including, but not restricted to, those applying for authorisation. A proposal can be for a new activity or a change to an existing activity that results in the change of authorisation or authorisation conditions, and that is subject to management by public authorities.
394. This policy will apply to proposals requiring static infrastructure that may have a presence at the sea surface and/or may reduce under-keel clearance to the extent that it will impact on vessel traffic. The areas involved are beyond the intertidal area and outside port and harbour authority limits and include activities that may encroach upon buffer zones around International Maritime Organisation routes.
395. This policy recognises existing designations for navigation while acknowledging the ability to co-locate with many seabed-related and non-permanent activities. See the guidance provided by the Maritime and Coastguard Agency, [Offshore renewable energy installations: impact on shipping](#).
396. Proposals should demonstrate that they have consulted and are in agreement with the Maritime and Coastguard Agency to define significant reduction of under-keel clearance in relation to their proposal during the scoping process.
397. Mid-water structures, for example tidal turbines, may also impose restrictions on navigation. Development of such structures or the intent to do so within International Maritime Organization routing systems in the north west marine plan areas have not been identified.
398. This policy does not preclude non-permanent static sea surface infrastructure, for example jack-up vessels, which are subject to operational requirements such as notifications to mariners to ensure safe operation. The policy does not discount International Maritime Organization routing and reporting systems changing in the future.
399. Proposals should demonstrate that they have consulted the relevant statutory harbour authority and other navigation authorities (including [Trinity House](#)), port operators, public authorities (including the [Maritime and Coastguard Agency](#)), and commercial shipping representation (including the [UK Chamber of Shipping](#)). Where a proposal may impede navigation or expected growth, proponents should also consult with other relevant navigation and shipping representatives.

Decision-makers

400. The policy will mainly be implemented by the Marine Management Organisation. Other government departments may also implement this policy, as per the [Planning Act 2008](#), including, but not limited to, the Maritime and Coastguard Agency and Trinity House.
401. Figure 10 shows the areas where NW-PS-2 policy applies.

Policy NW-PS-3 Ports, harbours and shipping

Proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance which encroaches upon high density navigation routes, strategically important navigation routes, or that pose a risk to the viability of passenger services, must not be authorised unless there are exceptional circumstances.

Policy aim

402. The north west marine plan areas are very busy with respect to high-density navigation routes, strategically important navigation routes and passenger services. NW-PS-3 confirms that proposals that pose a risk to safe navigation or the viability of these routes and services should not be authorised. NW-PS-3 aims to protect these routes and services by enabling and promoting safe, profitable and efficient marine businesses.
403. NW-PS-3 focuses on minimising negative impacts on shipping activity, protecting the economic interests of ports, harbours, shipping and the UK economy overall, and affording protection to the areas used by high intensities of traffic ([UK Marine Policy Statement](#) Section 3.4.2). It also gives effect to provisions in the [National Planning Policy Framework](#) Section 37 which aims to encourage sustainable transport. Policy NW-PS-3 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

404. This policy applies to any organisation or individual putting forward a proposal including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity or a change to an existing activity that results in the change of authorisation or authorisation conditions, and that is subject to management by public authorities.
405. This policy will apply to all proposals requiring static sea surface infrastructure or above surface structures that may encroach upon high-density navigation routes, strategically important navigation routes or that may cause a risk to the viability of passenger services. For example, infrastructure at the sea surface and/or below/above that reduces under-keel or overhead clearance. This approach recognises the ability to co-locate with seabed-located and non-permanent activities.
406. This policy should be implemented in high-density navigation routes or strategically important navigation routes that begin on the landward side at the boundaries of

statutory harbour areas and/or areas within International Maritime Organization routing systems. This does not include non-routine traffic such as fishing vessels, military vessels, tugs, dredgers and recreational vessels. Each proposal will be treated on its own merits, with measures such as navigational risk assessments undertaken as required.

407. Proposals should:

- account for impacts upon navigation in combination with other existing and proposed activities
- anticipate and provide for future safe navigational requirements where evidence and/or stakeholder input allows
- be compatible with the need to maintain space for safe navigation, avoiding adverse impacts

408. Proposals should demonstrate that they have consulted the relevant statutory harbour authority and other navigation authorities (including [Trinity House](#)), port operators, public authorities (including the [Maritime and Coastguard Agency](#)), and commercial shipping representation (including the [UK Chamber of Shipping](#)). Where a proposal may impede navigation or expected growth, proponents should also consult with other relevant navigation and shipping representatives.

Decision-makers

409. The policy will mainly be implemented by the Marine Management Organisation. Other government departments may also implement this policy, such as the Department for Business, Energy and Industrial Strategy in the case of energy-related Nationally Significant Infrastructure Projects where marine plans are a consideration ([Planning Act 2008](#) and [National Policy Statement for Renewable Energy Infrastructure](#) (EN-3)).

410. Figure 10 shows high density navigation routes and passenger services in the north east inshore marine plan area, data shown has been derived using the methodology identified in [Mapping UK shipping density and routes from AIS \(MMO1066\)](#). Figure 11 shows the economic value of shipping routes, based on the outputs of [Mapping the value of shipping \(MMO1158\)](#).

Policy NW-PS-4 Ports, harbours and shipping

Proposals promoting or facilitating sustainable coastal and / or short sea shipping as an alternative to road, rail or air transport will be supported where appropriate.

Policy aim

411. Short sea shipping provides a sustainable alternative for the transport of goods. NW-PS-4 aims to support sustainable coastal or short sea shipping, where appropriate, as an alternative to road, rail or air methods, lowering carbon dioxide emissions and reducing road congestion. Bulk volumes are moved quickly with a reduction in administrative burden and increased efficiency through economies of scale. Short sea routes also allow the transshipment of cargo from large vessels landing into major European ports to the UK (and through direct movements of smaller bulk materials),

reducing costs, improving reliability and allowing smaller ports to expand through the establishment of increased numbers of short sea shipping routes, where suitable.

412. Policy NW-PS-4 supports the government policy for ports ([National Policy Statement for Ports](#), Section 3.1.4, Section 3.3.5 and Section 3.4.14). The short sea shipping market is expected to grow over the lifetime of the marine plan, providing a flexible and specialised service. There are, however, several factors to consider in what is a price-sensitive market. In particular, the relatively lower costs of road transport, time constraints on delivery of goods and the availability of government subsidies.
413. The types of cargo currently carried by short sea shipping in the north west plan areas include, but are not limited to:
- marine aggregates and fisheries products
 - materials to support fabrication and storage of renewable energy components, waste and recycling management, and bioenergy centres
 - transport of cargo (including bulks, vehicles and roll-on/roll-off units) and passengers
414. Policy NW-PS-4 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

415. This policy applies to any organisation or individual putting forward a proposal including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity or a change to an existing activity that results in the change of authorisation or authorisation conditions, and that is subject to management by public authorities.
416. Proposals that promote short sea shipping will be supported where appropriate and provided they comply with all other relevant legal and environmental regulations, and all other relevant legislation.
417. The primary driver of this policy will likely be from the ports and harbour sector when considering expanding operations or increasing the capacity of trade into ports. This is an enabling policy designed to apply to all ports and harbours to facilitate growth, without giving an advantage to any one port over another. All proposals should demonstrate that all relevant ports, harbours, wharves and port master plans have been considered. As this policy may apply more widely than statutory harbour areas, proposals should identify all ports, harbours and wharves that may be affected and engage with them early in proposal development. This should include the matters listed in these plans but may also include other considerations, such as safeguarding anchorages that may be restricted through port expansion. Consideration of necessary terrestrial infrastructure requirements will be required, through reference to the relevant local planning authority local plan.
418. This policy provides support to the efficiency and resilience of continuing port operations, and further port development ([UK Marine Policy Statement](#), Section 3.4.7). This policy also complements the [National Policy Statement for Ports](#), setting

provisions for port growth in the context of the management and development of other activities, including the growth of short sea shipping.

Decision-makers

419. Decision-makers will take have regard to of a range of relevant considerations including compliance with legislation, regulations and environmental assessment.
420. Figure 10 shows important areas where this policy should be applied. It includes navigational approaches, statutory harbour areas and anchoring areas. This should not be considered definitive. For example, in understanding where future port or harbour growth in short sea shipping may need to be accommodated, developments and other activities should also have regard to access and approach channels into ports and harbours.

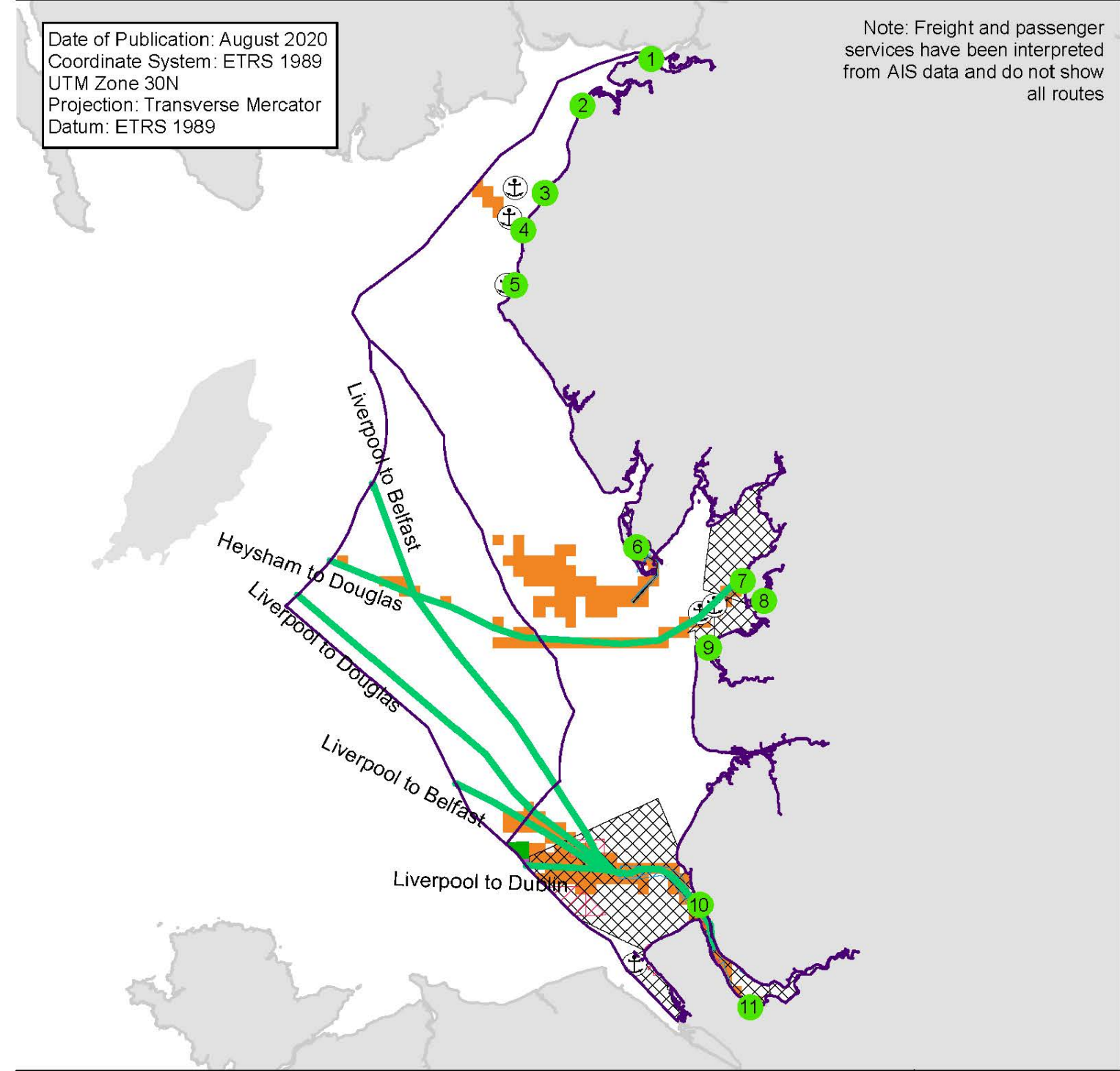
Figures 12 and 13 show short sea shipping routes in the north west inshore marine plan areas.



Figure 10 | Ports and Shipping

Date of Publication: August 2020
 Coordinate System: ETRS 1989
 UTM Zone 30N
 Projection: Transverse Mercator
 Datum: ETRS 1989

Note: Freight and passenger services have been interpreted from AIS data and do not show all routes



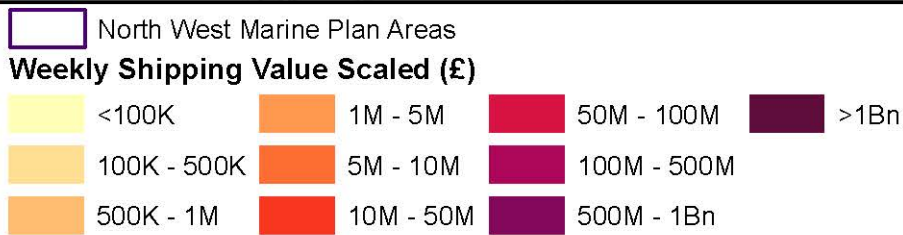
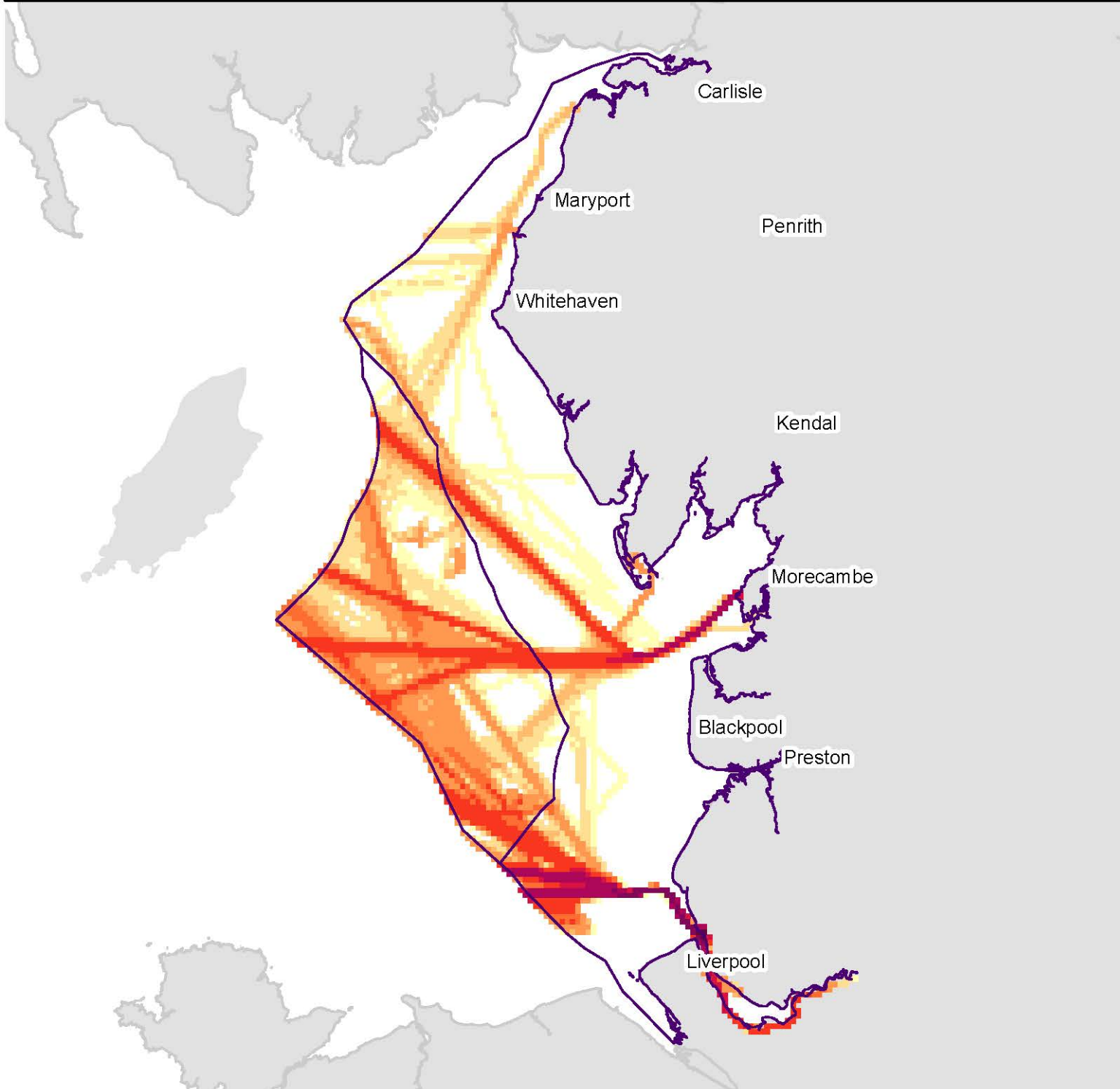
North West Marine Plan Areas	Navigational Approaches	Vessel Transit within IMO Routeing Systems
Anchorage area	Statutory Harbour Authority areas	IMO Routeing Systems
Anchoring Area	High Density Navigation Routes	Freight and passenger services

Ports	Maryport	Barrow-in-Furness	Fleetwood
Port Carlisle	Workington	Heysham	Seaforth
Silloth	Whitehaven	Glasson Dock	Ellesmere Port

Policy map
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Figure 11 | Economic Value of Shipping Routes



Policy map
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Figure 12 | Short Sea Shipping Routes

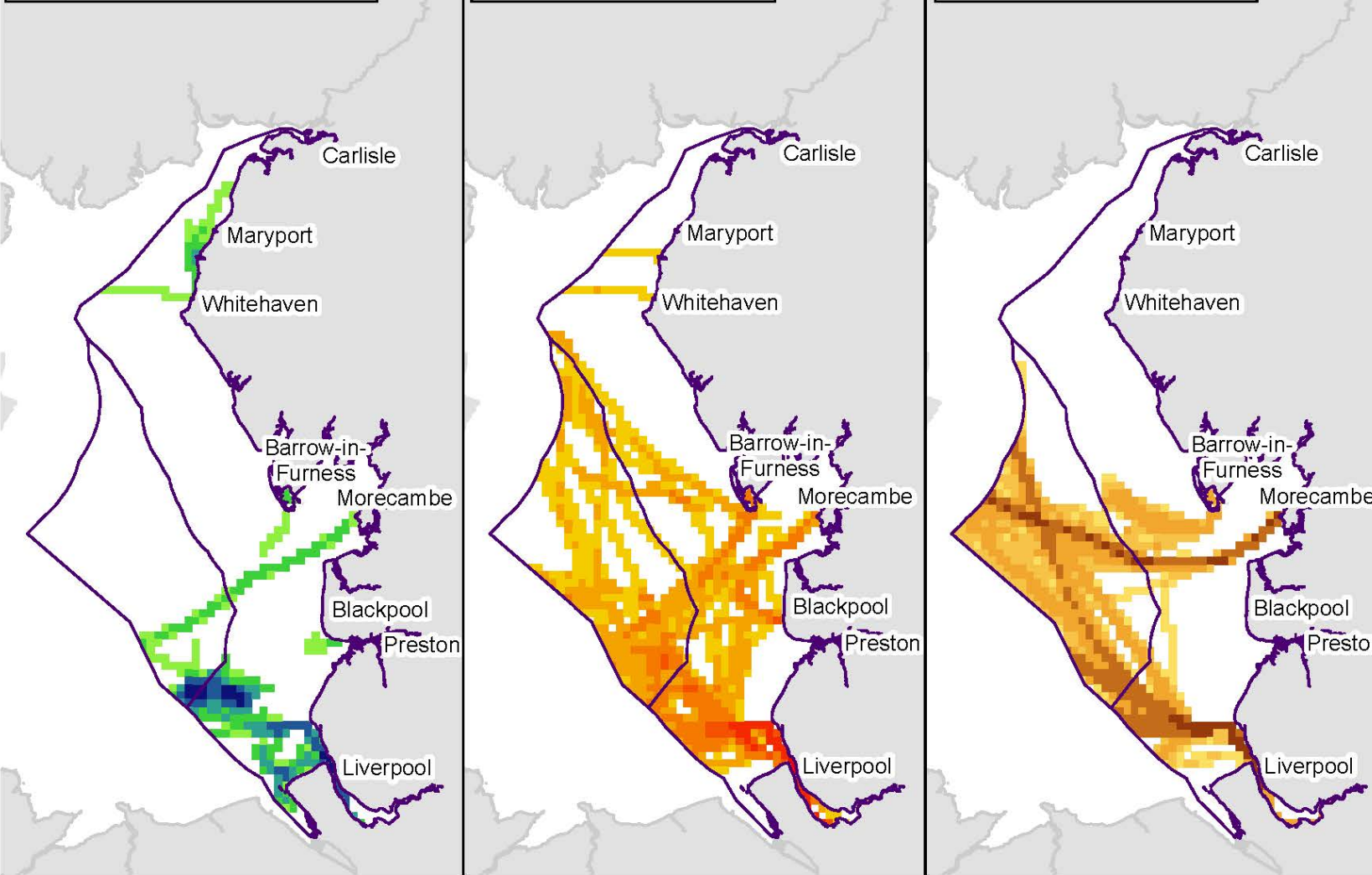
AIS Ship type groups (STG) 1, 2 and 6

Indicative map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

(a) Non-Port Service Craft

(b) Port Service Craft

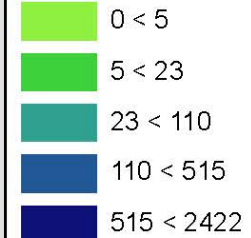
(c) Passenger Vessels



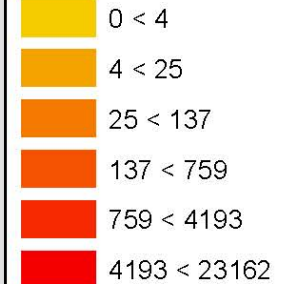
North West Marine Plan Areas

No. Vessels (Annual Average Estimated - AIS Density 2015)

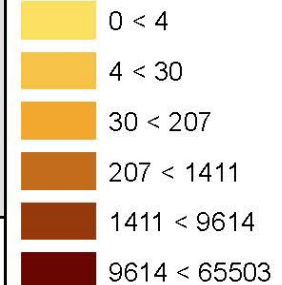
Non-Port Service Craft



Port Service Craft



Passenger Vessels



Date: August 2020
Coordinate System: ETRS 1989 UTM
Zone 30N
Projection: Transverse Mercator
Datum: ETRS 1989

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Figure 13 | Short Sea Shipping Routes

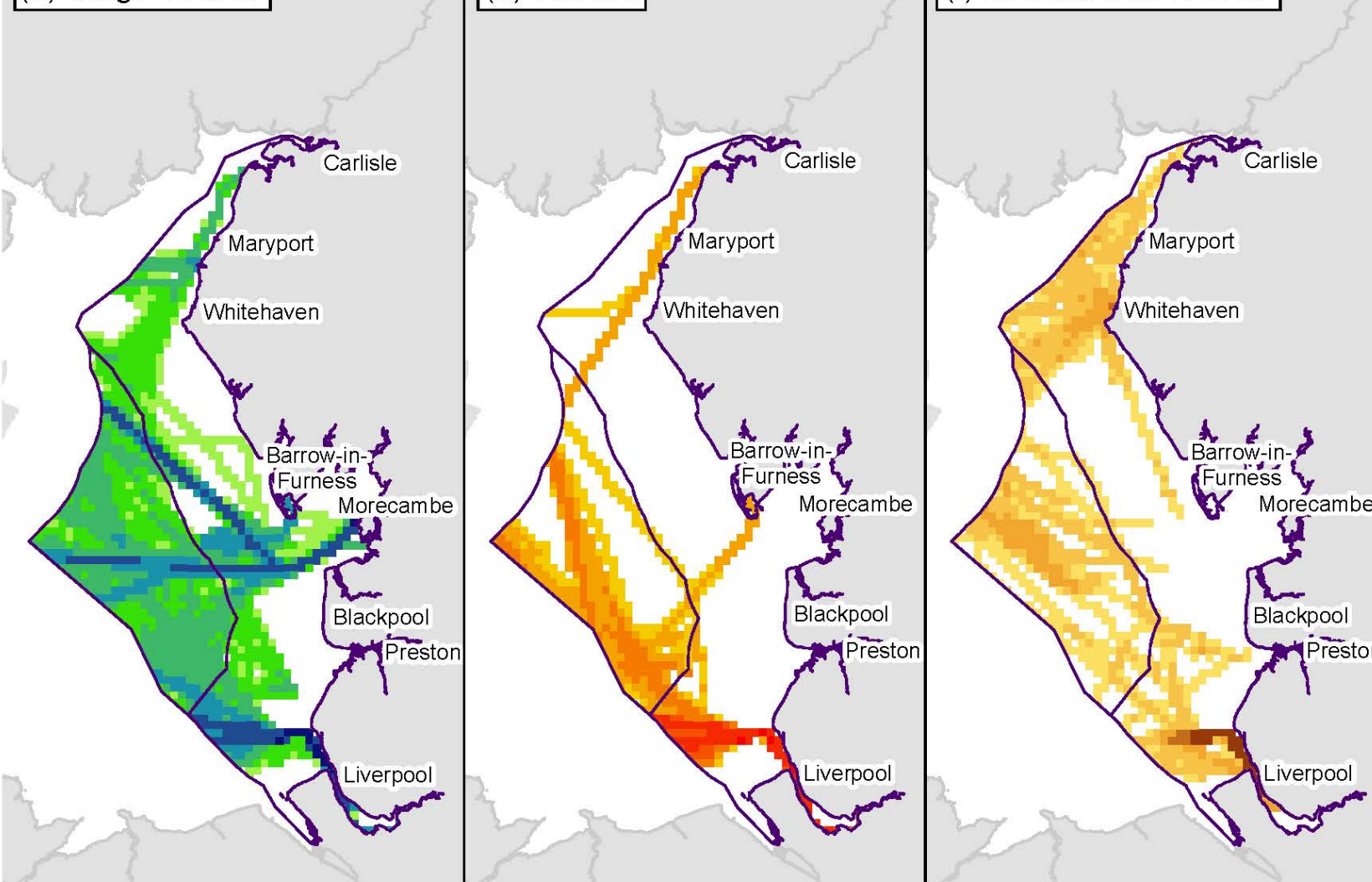
AIS Ship type groups (STG) 7, 8 and 10

Indicative map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

(d) Cargo Vessels

(e) Tankers

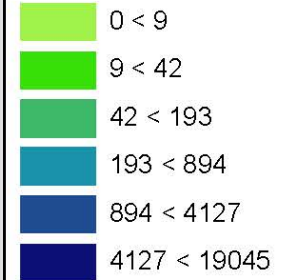
(f) Recreational Vessels



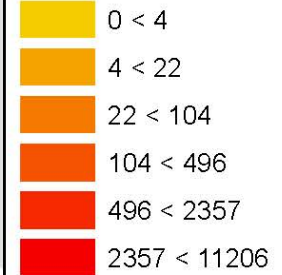
North West Marine Plan Areas

No. Vessels (Annual Average Estimated - AIS Density 2015)

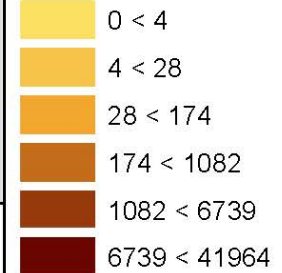
Cargo Vessels



Tankers



Recreational Vessels



Date: August 2020
Coordinate System: ETRS 1989 UTM
Zone 30N
Projection: Transverse Mercator
Datum: ETRS 1989

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5.9 Renewables

Policy Code	Policy Wording
NW-REN-1	Proposals that enable the provision of renewable energy technologies and associated supply chains, will be supported.
NW-REN-2	Proposals for new activity within areas held under a lease or an agreement for lease for renewable energy generation should not be authorised, unless it is demonstrated that the proposed development or activity will not reduce the ability to construct, operate or decommission the existing or planned energy generation project.
NW-REN-3	Proposals for the installation of infrastructure to generate offshore renewable energy, inside areas of identified potential and subject to relevant assessments, will be supported.

What are renewables?

421. Renewable energy is generated from resources that are naturally replenished. There are several technologies and associated supply chains at various stages of the development lifecycle within the English marine area that could achieve commercial-scale deployment within the 20-year vision of the North West Marine Plans. Examples of such technologies are listed below.
422. **Fixed foundation offshore wind** is the use of wind turbines constructed in bodies of water to harvest wind energy to generate electricity. The term offshore wind is used to describe this technology in both the inshore and offshore marine plan areas. [The Crown Estate](#) owns almost the entire seabed out to 12 nautical miles and has powers to lease areas in the UK (with the exception of Scotland) Exclusive Economic Zone to generate electricity from wind. The Crown Estate has run a number of offshore wind leasing rounds using its powers under the [Energy Act 2013](#). Round 1 and 2 were leased in December 2000 and July 2003, respectively. In 2009, The Crown Estate invited developers to bid for exclusive rights to develop offshore wind farms in nine zones around the UK. Projects have since entered the planning process within the Round 3 zones. Within the north west marine plan areas, there are three operational Round 1 sites (Barrow, Ormonde and Burbo Bank), three Round 2 sites (Walney 1, Walney 2 and West of Duddon Sands) and three extensions (Burbo Bank, Walney 3 and Walney 4). A Round 4 bidding area has been identified in both the north west inshore and offshore marine plan areas: see Figure 14. Additionally, the 'offshore wind high potential future development areas' data layer identifies areas within the plan area which may be included in future leasing rounds (Figure 15).
423. **Floating offshore wind** has the potential for deployment in deeper water sites where fixed bottom offshore wind is either not technically feasible or uneconomic, and where wind speed can be higher. This creates potential to diversify supply by providing opportunity away from the traditional clusters of fixed foundation offshore wind, decoupling the dependency on weather patterns in areas such as the North Sea. Although the various technologies utilised in floating offshore wind projects (turbines, floating structures, etc.) are relatively well-established, their use together to create a stable operational platform in deeper water remains novel. This enables

the floating offshore wind sector to build on the existing fixed foundation supply chain, such as blade manufacturers in the Solent and Humber, service centres around the UK and trigger new technology clusters.

424. The Crown Estate also leases areas for **demonstration projects**. These developments aim to allow manufacturers to test and prove new wind farm technologies. The aim of these demonstration projects is help reduce costs to the offshore wind industry.
425. **Tidal stream** devices capture the kinetic energy embodied in fast-flowing tidal streams to generate electrical energy. The best sites are mostly where tidal currents are increased by the funnelling effect of the local coastal topography, such as the space between mainland and islands. Tidal stream devices have been prototyped and deployed in other parts of the UK, but none have been commercially deployed in the north west.
426. **Tidal range** technology captures the potential energy available from the rise and fall of the tides in locations where there is a large tidal range. Electrical energy can be generated from both ebb and flow tides by creating an impoundment wall in which turbines (such as bulb turbines which are used in river hydro-power installations) are installed. There are currently no tidal range energy generating stations in the north west.
427. **Wave energy** is captured by devices on or below the sea surface that use the energy inherent in waves to generate electricity. Energy generation is dependent on wave height, speed and length. A range of different technologies have been proposed; however, commercial deployment has not yet occurred in the north west.
428. **Supply chains** are important to the development life cycle of renewable energy generation. Supply chains support the construction, operation and maintenance of renewable energy generation infrastructure. Access to a robust, competitive supply chain is crucial in reducing the overall costs of energy generation and promoting innovation and skill development. Projects over 300MW that are applying for a [Contract for Difference](#) are required to apply for a [supply chain certificate](#).

Why are renewables important?

429. The government's [Clean Growth Strategy](#) sets out an ambition to reduce emissions from the power sector to zero by 2050 and to grow renewables and nuclear energy to over 80% of electricity generation. The UK has committed to reducing greenhouse gas emissions to net zero by 2050. The [Offshore Wind Sector Deal](#) seeks to maximise the wider benefits of offshore wind with an ambition to build up to 30GW of offshore wind by 2030, subsequently amended to 40GW as part of the [2019 Conservative Party manifesto commitment](#). The [Sector Deal](#) also seeks to boost investment in the wider supply chain, with an increase to 60% UK content by 2030.
430. The [UK Marine Policy Statement](#) Section 3.3.5 requires marine planning to take account of preferred areas for the development of different energy sources and their generation and distribution infrastructure. In England, consent for offshore wind energy projects is granted by the Marine Management Organisation (projects

<100MW) and the Secretary of State's Representative for the Department of Business, Energy and Industrial Strategy (projects >100MW). Developers also require a seabed lease from The Crown Estate.

431. More information on the leasing and consenting process for renewable energy can be found in the [National Policy Statement for energy infrastructure](#) EN-1, EN-3 and EN-5. These documents provide the primary basis for decision-making in relation to offshore wind farms over 100MW, including assessment of impacts on biodiversity, other activities and social receptors on land and offshore.
432. The UK supply chain plays an important role in developing technology, driving down associated costs of infrastructure and realising the economic and social benefits of renewable energy to the UK economy. The [UK Marine Policy Statement](#) Section 3.3.19 states that “expansion of the offshore wind [energy] supply is likely to require significant investment in new high-value manufacturing capability with the potential to regenerate local and national economies and provide employment”. The marine energy sector could be worth more than £4 billion cumulatively to UK gross domestic product by 2050, so a significant and long-term supply chain base is vital ([Wave and Tidal Energy in the UK - Capitalising on Capability](#)). The value of supply chains to cost reduction is identified in the [Clean Growth Strategy](#). Building an effective supply chain will be essential to enabling novel technologies, such as floating offshore wind, to be cost-competitive. The Offshore Renewable Energy Catapult manages the [Marine Energy Supply Chain Gateway](#), which is a database of suppliers supporting the UK's marine energy industry.
433. The [Electricity Market Reform](#) recognises the role of Nationally Significant Infrastructure Projects in influencing supply chains and encourages greater competition and diversification in the supply chain by identifying important tender dates for all projects over 300MW through a [supply chain plan](#).
434. The Offshore Renewable Energy Catapult report, Floating Offshore Wind Constraint Mapping in the Celtic Sea (available on request from the Catapult), identifies an optimum depth range of between 60m and 200m for floating offshore wind development. This limits large-scale development in England to the Celtic Sea between Cornwall, Pembrokeshire and the southern part of the Republic of Ireland. Although the north west marine plan areas are relatively shallow, there is potential for businesses within the area to contribute to supply chains. The [Contracts for Difference for Low Carbon Electricity Generation: Consultation on proposed amendments to the scheme](#) report proposes defining floating offshore wind projects separately from fixed foundation and providing a distinct strike price. This could help accelerate the path from pre-commercial pilots to commercial deployment at scale. In addition, there is a large, global opportunity to export UK products and services from a successful floating offshore wind market.
435. In 2016 The Crown Estate report [UK Wave and Tidal Key Resource Areas Project](#) identified that the total theoretical generating capacity was 27GW for wave, 32GW for tidal stream and 59GW for tidal range (barrages and lagoons). The total theoretical tidal energy capacity in the English Channel region is nearly 4GW.

436. The Marine Management Organisation and The Crown Estate work collaboratively to identify appropriate spatial areas for renewable energy that inform and support marine plan policies. The Marine Management Organisation has been actively engaged in the development of the “offshore wind high potential future development areas” layer, which informed the characterisation studies and was used to identify the Round 4 bidding areas and is also an active participant in the engagement around the design of offshore renewable energy leasing areas.
437. Key resource areas for floating offshore wind are currently in development and will be informed by a collaborative evidence project between The Crown Estate and the Marine Management Organisation. Once complete, this layer will be added to [Explore Marine Plans](#) and will support the implementation of NW-REN-3.
438. Key resource areas for wave and tidal stream were identified by The Crown Estate in 2012, with a time horizon to 2030, and are based on the technical constraints of available technology. No further constraints analysis has been undertaken on this data. Although test devices have been deployed in other parts of the UK, commercial-scale deployment has not yet occurred in the north west.

Policy NW-REN-1 Renewables

Proposals that enable the provision of renewable energy technologies and associated supply chains, will be supported.

Policy aim

439. Supply chains play an important role in developing technology, reducing the associated costs of infrastructure and realising the economic and social benefits of renewable energy to the UK economy. NW-REN-1 recognises the importance of the supply chain within the lifecycle of renewable energy projects. NW-REN-1 enables public authorities to support proposals that will reduce costs, ensuring that businesses are operating competitively and with a long-term strategy. Developing a strong supply chain will not only support the domestic installation of offshore wind but could contribute to establishing a successful export market, particularly in relation to the emerging floating offshore wind industry.
440. The [Offshore Wind Sector Deal](#) outlines a commitment to increase UK supply chain content to 60% by 2030. This policy supports proposals that indicate how they will draw on and develop the UK supply chain as part of their development.
441. Policy NW-REN-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

442. Proposals should demonstrate that they will contribute to the development or creation of supply chains associated with renewable energy. For example, the development of blade manufacturing plants or the provision of facilities or services to test emerging technologies.

443. Proposals could include community-owned installations and should ensure that local needs and resource availability have been assessed. Proposals could also reference supply chain plans drafted by renewable energy infrastructure developers.
444. The above is dependent on the ability of the location to capture wider elements of the supply chain processes within the local economy. Appropriate technology is also dependent on resource availability (Figure 14) and should be implemented in accordance with the requirements identified in local plans. Numerous sub-national policy documents offer differing levels of support for renewable energy and associated industries, including the [Blackpool Local Plan](#), [South Lakeland Local Plan](#) and [Liverpool Local Plan](#). This policy should be applied alongside relevant local planning authority plan policies and does not supersede any within a terrestrial plan. This policy should be applied alongside relevant local planning authority plan policies and does not supersede any requirements set out in a terrestrial plan.
445. Proposals will still be required to comply with relevant legislation and regulations, including [Habitats Regulations Assessment](#), [Environmental Impact Assessment](#) and with relevant [National Policy Statements for energy infrastructure](#).

Decision-makers

446. Decision-makers should ensure that support is given to proposals demonstrating that they enable the provision of renewable energy technologies and the associated supply chains.
447. A demonstration of this may include, but is not limited to:
- assessment of local needs and resource availability
 - evidence of a contribution to, or the development of, supply chains associated with renewable energy
 - provision of test facilities for emerging technologies
448. Proposals will still be required to comply with relevant legislation and regulations, including [Habitats Regulations Assessment](#), [Environmental Impact Assessment](#) and with relevant [National Policy Statements for energy infrastructure](#).
449. Figure 14 shows areas of identified high potential for renewable energy infrastructure, based on technical feasibility considerations and additional constraints analysis. See NW-REN-3 policy for further details on the methodology this mapping is based on.
450. Figure 15 shows areas identified as under lease or agreement for lease for renewable energy generation in the north west marine plan areas.
451. The following layers on the [Explore Marine Plans](#) digital service may support the implementation of this policy:
- offshore wind farm locations
 - potential future offshore wind areas

Policy NW-REN-2 Renewables

Proposals for new activity within areas held under a lease or an agreement for lease for renewable energy generation should not be authorised, unless it is demonstrated that the proposed development or activity will not reduce the ability to construct, operate or decommission the existing or planned energy generation project.

Policy aim

452. Renewable energy technologies contribute to the diversification and decarbonisation of the electricity grid. NW-REN-2 protects areas identified for energy developments from other activities that could affect the sites' ability to generate energy. It enables the development of safe, profitable and efficient marine businesses.
453. Policy NW-REN-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

454. Areas identified in Figure 15 have already received either a lease or agreement for lease. Any new activities within these areas are required to demonstrate that they will not reduce the areas' ability to construct, operate or decommission the planned energy generation project in a safe, profitable and efficient manner. Supporting evidence to demonstrate this could include, but is not limited to:
- consultation with all relevant stakeholders, asset and landowners (frequently The Crown Estate in England)
 - evidenced justification that the proposed activity will be compatible with the form of renewable energy generation for which the lease or agreement for lease has been granted – this may include consideration of existing or emerging projects
 - evidence showing the footprint of the proposal will not have a negative impact on the renewable energy sites ability to generate energy
 - undertaking the conflicting activity during periods of no energy generation with the permission of the rights holder
455. Activities more likely to impact upon an areas' ability to generate renewable energy include, but are not limited to, hard infrastructure that is installed at any point through the water column either on or under the seabed.

Decision-makers

456. Decision-makers should consider the location of activities against areas of renewable energy resource potential, as seen in Figure 15, to determine whether the proposal has correctly identified the policy as applicable.
457. Where proposals are within areas identified in Figure 15 (and the policy is therefore applicable), consideration should be given to whether the proposal demonstrates compatibility with renewable energy generation. This means that the new proposal will not reduce the areas' ability to construct, operate or decommission the planned

energy generation project in a safe, profitable and efficient manner. Supporting evidence to demonstrate this could include, but is not limited to:

- evidenced justification that the proposed activity will be compatible with the form of renewable energy generation for which a lease or agreement for lease has been granted
- evidence showing the footprint of the proposal will not have a negative impact on the renewable energy sites ability to generate energy
- evidence of pre-application consultation with relevant public authorities or project developers
- undertaking the conflicting activity during periods of no energy generation with the permission of the rights holder

458. Figure 14 shows areas of identified high potential for future offshore wind. This data is subject to review as new technologies and new information regarding technical feasibility and constraints becomes available.
459. Figure 15 shows areas identified as under lease or agreement for lease for energy generation in the north west marine plan areas. This data is subject to review as new projects move through the consenting process.
460. The following layers on the [Explore Marine Plans](#) digital service may support implementation of this policy:
- agreement for lease locations
 - key potential offshore wind areas
 - renewable energy generation (including test/demonstration) project locations

Policy NW-REN-3 Renewables

Proposals for the installation of infrastructure to generate offshore renewable energy, inside areas of identified potential and subject to relevant assessments, will be supported.

Policy aim

461. Offshore wind is the current favoured offshore renewable energy generating technology in the UK. The “offshore wind high potential future development areas” layer highlights areas of least constraint for fixed foundation offshore wind energy generation and indicates potential future areas for leasing. This dataset reflects the latest understanding of areas with high potential, incorporating the original technical constraints analysis (see the “Resource and Constraints Assessment Methodology Report” available on the [Marine Data Exchange](#)). NW-REN-3 supports the identification of future leasing rounds and provides a level of certainty for other activities as to where future development may occur. Figure 14 identifies the portion of the plan areas that has a high potential for the future development of offshore wind.
462. NW-REN-3 is in place to facilitate the identification of sites for future offshore renewable energy development. Spatial areas for all technology types will be updated, as required, based on improved understanding of constraints and technical

advancements in new technology. Proponents and decision-makers should refer to [Explore Marine Plans](#) for the most up-to-date data.

463. NW-REN-3 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

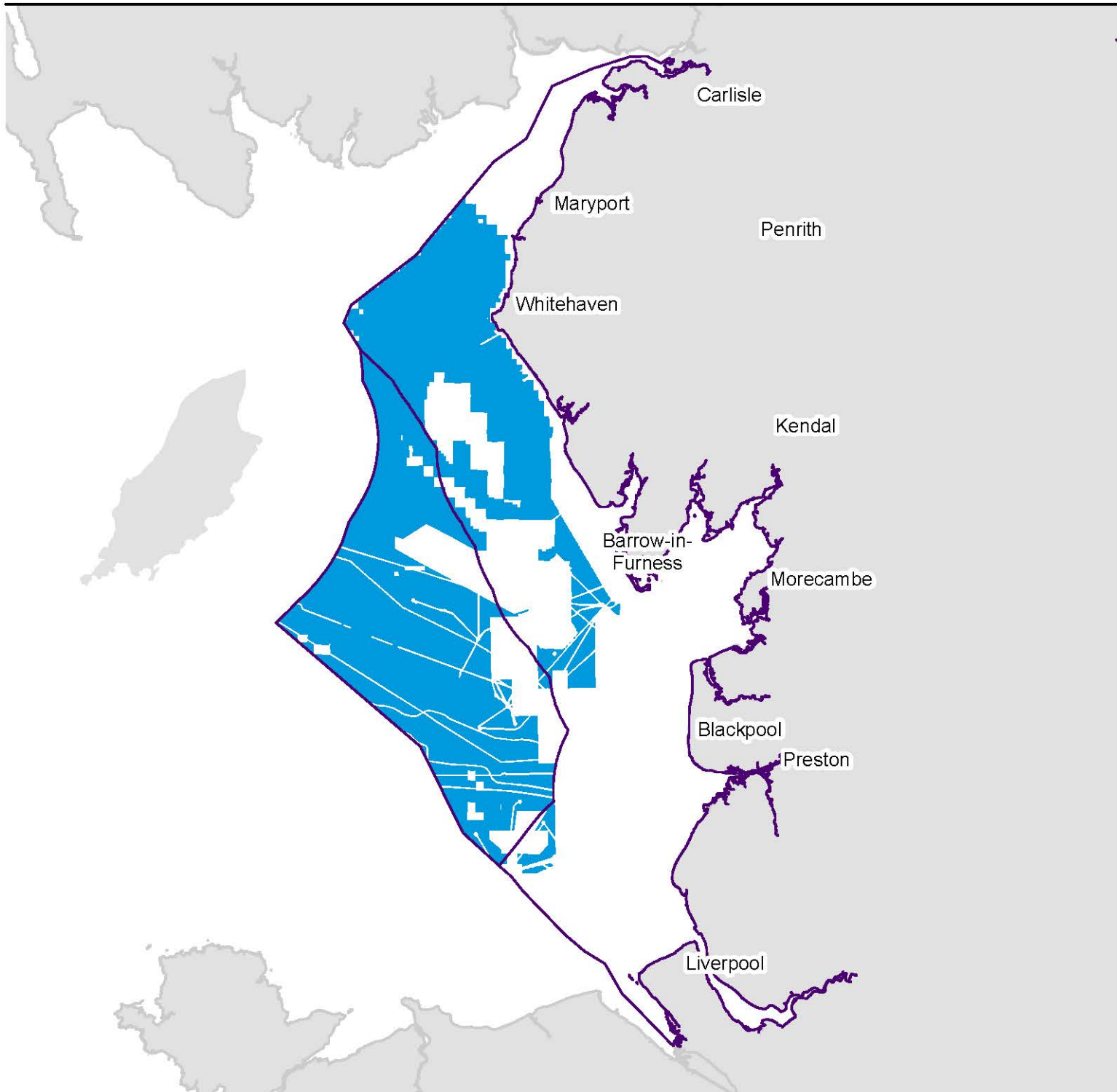
464. Proponents with proposals for offshore renewable energy should identify whether they are inside an area of identified potential. To do so, consideration against Figure 14 should be given.
465. Proponents should consider consulting [The Crown Estate](#) for site-specific enquires or the [Department for Business, Energy and Industrial Strategy](#) for queries on [Contracts for Difference](#) or other funding mechanisms.
466. Relevant assessments include, but are not limited to, [Habitats Regulations Assessment](#), [Environmental Impact Assessment](#) and [National Policy Statements for Energy Infrastructure](#). Prospective proponents should consider consulting Natural England and the Joint Nature Conservation Committee regarding potential compatibility of planned proposals with marine and coastal conservation objectives. Proposals will also still be required to comply with relevant legislation such as the [Climate Change Act 2008](#), [The Infrastructure Planning \(Environmental Impact Assessment\) Regulations 2017](#), [The Promotion of the Use of Energy from Renewable Sources Regulations 2011](#) and [The Renewable Transport Fuel Obligations Order 2007](#).
467. In addition, proposals must demonstrate that they meet the requirements set out by NW-SCP-1. There is also a duty placed on all relevant authorities to have regard to the purposes for which National Parks and Areas of Outstanding Natural Beauty are designated (under the National Parks and Access to the Countryside Act 1949 Section 11A and the Countryside and Rights of Way Act 2000 Section 85, respectively).

Decision-makers

468. This policy will be applied by decision-makers to ensure that the large potential for offshore wind farms and the ambitions of the government for renewable energy are realised.
469. Decision-makers should support proposals for the development of offshore renewable energy and any supporting projects, including the associated infrastructure, inside areas identified as high potential for offshore renewable energy (see Figure 14 for resource location). However, this does not preclude the possibility that it may be appropriate to support a proposal for a project located outside this area.
470. This does not preclude other activities from applying for seabed leases in this area (the area identified by the polygon is not exclusively for offshore renewable energy).

471. Public authorities should work in conjunction with the offshore renewable energy developer, the [Department for Business, Energy and Industrial Strategy's](#) Secretary of State (who will determine proposals over the 100MW threshold) and the [Planning Inspectorate](#).
472. Proposals will still be required to comply with relevant legislation and regulations, including [Habitats Regulations Assessment](#), [Environmental Impact Assessment](#), [the Infrastructure Planning \(Environmental Impact Assessment\) Regulations 2017](#) and relevant [National Policy Statements for Energy Infrastructure](#). Proposals must also demonstrate that they meet the requirements set out by NW-SCP-1.
473. Figure 14 shows areas of future potential offshore renewable energy.
474. Decision-makers and proponents should refer to the renewable energy, areas of potential category on the [Explore Marine Plans](#) for data layers that spatially define this policy. This includes layers for:
- offshore wind – fixed foundation
 - offshore wind – floating
 - tidal
 - wave

Figure 14 | Offshore Renewable Energy Areas of Potential





- North West Marine Plan Areas
- Offshore Wind High Potential Future Development Areas (fixed foundation)

Policy map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Figure 15 | Areas under Lease Agreement for Renewable Energy Generation



 North West Marine Plan Areas
 Wind Lease Areas

Policy map
 This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Date of Publication: August 2020
 Coordinate System: ETRS 1989 UTM
 Zone 30N
 Projection: Transverse Mercator
 Datum: ETRS 1989

Not to be used for Navigation. These datasets show the extent of live wave agreements in UK waters, the extent of live tidal agreements in UK waters and all offshore wind farms in pre-planning, planning, construction and operational phases in United Kingdom waters. UK Hydrographic Office © [2019]. The Crown Estate © [2018]. Ordnance Survey data © copyright and database right [2018]. National Oceanic and Atmospheric Administration © copyright and database right [2015]. Marine Management Organisation © [2020].

Ensuring a strong, healthy and just society

5.10 Heritage assets

Policy Code	Policy Wording
NW-HER-1	<p>Proposals that demonstrate they will conserve and enhance the significance of heritage assets will be supported.</p> <p>Where proposals may cause harm to the significance of heritage assets, proponents must demonstrate that they will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate - any harm to the significance of heritage assets.</p> <p>If it is not possible to mitigate, the public benefits for proceeding with the proposal must outweigh the harm to the significance of heritage assets.</p>

What are heritage assets?

475. **Heritage assets** are the aspects of the historic environment, such as buildings, monuments, sites, places, areas or landscapes, that have a degree of significance meriting consideration in decision-making.
476. These heritage assets can include wreck sites, the setting of an asset and areas of archaeological or historic interest. Further definitions are listed below.
477. **Archaeological or historic interest** includes all traces of human existence having a cultural, historical or archaeological character such as:
- sites, structures, buildings, artefacts and human remains, together with their archaeological and natural context
 - vessels, aircraft, other vehicles or any part thereof, their cargo or other contents, together with their archaeological and natural context; and objects of prehistoric character
478. **Wreck site** means the location of any aircraft or vessel lying wrecked on or in the seabed or of any objects contained or formerly contained in it lying on or in the seabed near the wreck.
479. **Setting** is the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.
480. **Significance** is the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence but also from its setting.
481. The [UK Marine Policy Statement](#) Section 2.6.6.1 states that “The historic environment includes all aspects of an area that are the result of an interaction

between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged”.

482. Some heritage assets have a level of interest that justifies statutory designation, to ensure that they are protected and conserved for the benefit of this and future generations. In the English marine area, designated heritage assets include:
- items listed under the [Planning \(Listed Buildings and Conservation Areas\) Act 1990](#)
 - protected places and controlled sites designated under the [Protection of Military Remains Act 1986](#)
 - restricted areas designated under the [Protection of Wrecks Act 1973](#)
 - scheduled monuments designated under the [Ancient Monuments and Archaeological Areas Act 1979](#)
 - World Heritage Sites maintained by the World Heritage Committee of UNESCO under [UNESCO World Heritage Convention \(1972\)](#)
483. [Heritage Coasts](#) are ‘defined’ rather than designated and should be considered a heritage asset in their own right.
484. The [UK Marine Policy Statement](#) Section 2.6.6.5 further states that “Many heritage assets with archaeological interest in these areas are not currently designated as scheduled monuments or protected wreck sites but are demonstrably of equivalent significance. The absence of designation for such assets does not necessarily indicate lower significance and the marine plan authority should consider them subject to the same policy principles as designated heritage assets (including those outlined) based on information and advice from the relevant regulator and advisors”.
485. The [UK Marine Policy Statement](#) Section 2.6.6.8 goes on to state that “The marine plan authority, working with the relevant regulator and advisors, should take account of the desirability of sustaining and enhancing the significance of heritage assets and should adopt a general presumption in favour of the conservation of designated heritage assets within an appropriate setting. The more significant the asset, the greater should be the presumption in favour of its conservation. Substantial loss or harm to designated assets should be exceptional and should not be permitted unless it can be demonstrated that the harm or loss is necessary to deliver social, economic or environmental benefits that outweigh the harm or loss”.
486. The [National Planning Policy Framework](#) Paragraph 193 states “when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance”.

Why are heritage assets important?

487. The north west marine plan areas have many significant cultural assets. Some of these assets are protected through existing statutory designations. Non-designated heritage assets can also be very important for their historic value and their

significance. Both make an important contribution to the character, economy and sense of place of the north west marine plan areas.

488. Heritage assets provide many social benefits for coastal communities, such as improved physical and mental health and well-being and an increased sense of place. An increased understanding and awareness of the historic environment, its heritage assets and culture can provide benefits to conservation management and the quality of life, health and well-being of coastal communities.
489. Historic wrecks are spread widely across the north west marine plan areas and are mapped in more detail in the inshore marine plan area. Wreck sites are more prevalent in the approaches to the Mersey and Ribble estuaries and Morecambe Bay. The PS Lelia, located in Liverpool Bay, was designated in 2019 for its historic interest.
490. The [UNESCO English Lake District World Heritage Site](#) and [UNESCO Hadrian's Wall World Heritage Site](#) is adjacent and, in some areas, overlaps the north west inshore marine plan area. Piel Castle, located on Piel Island in the shallow waters to the west of Morecambe Bay, has protected the harbour approach since the 14th century. Assets like these are important for their setting and should be protected from damage caused by footfall and other sources of disturbance.
491. At Formby Point, coastal erosion of the foreshore has revealed preserved human, animal and wading bird footprints dating from the Mesolithic Period (7,000–5,000 years ago). Proposals for access and tourism and recreation activities in these areas should, therefore, give greater consideration to their adverse impacts on such assets.
492. [The River Mersey, with its historic waterfront \(designated as a UNESCO World Heritage Site\)](#) and its diverse maritime history, is at the heart of Liverpool's strong sense of place and its importance as a tourist destination.

Policy NW-HER-1 Heritage assets

Proposals that demonstrate they will conserve and enhance the significance of heritage assets will be supported.

Where proposals may cause harm to the significance of heritage assets, proponents must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - any harm to the significance of heritage assets.

If it is not possible to mitigate, the public benefits for proceeding with the proposal must outweigh the harm to the significance of heritage assets.

Policy aim

493. This policy aims to conserve and enhance marine and coastal heritage assets by considering the potential for harm to their significance. This consideration will not be

limited to designated assets and extends to those non-designated assets that are, or have the potential to become, significant. The policy will ensure that assets are considered in the decision-making process and will make provisions for those assets that are discovered during developments.

494. Policy NW-HER-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

495. This policy applies to all heritage assets throughout the north west inshore and offshore marine plan areas, in coastal, intertidal zones and inshore and offshore waters when considering the significance of a designated or non-designated heritage asset.

496. Proposals must comply with requirements under relevant legislation including the [Planning \(Listed Buildings and Conservation Areas\) Act 1990](#), the [Protection of Military Remains Act 1986](#), the [Protection of Wrecks Act 1973](#), the [Ancient Monuments and Archaeological Areas Act 1979](#), [UNESCO World Heritage Convention \(1972\)](#) and the [Marine and Coastal Access Act 2009](#).

497. Proposals must comply with requirements set out in the [UK Marine Policy Statement](#) and the [National Planning Policy Framework - Proposals affecting heritage assets Sections 189-202](#) to ensure consistency across both marine and terrestrial planning regimes.

498. Historic England provides the following guidance for users of the marine environment, which should be considered by those undertaking activities that may impact on the historic environment:

- [Conservation Principles, Policies and Guidance](#)
- [Managing Significance in Decision-Taking in the Historic Environment](#)
- [Marine Licensing and England's Historic Environment](#)
- [The Setting of Heritage Assets \(2nd Edition\)](#)

499. There are a range of existing measures that support the implementation of this policy including:

- Historic England [Heritage Protection Guide](#)
- Historic England [Ships and Boats: Prehistory to Present Selection Guide](#)
- [Historic Environment Records](#) provides detailed information on historic assets at a local level

500. Proposals must first demonstrate how they will avoid harm to the significance of heritage assets. Where adverse impacts cannot be avoided, proposals must demonstrate how they will minimise harm to the significance of heritage assets. Where adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate remaining harm to the significance of heritage assets. Where adverse impacts cannot be mitigated, proposals must state the case for proceeding, explaining why the benefits of the proposal outweigh the adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate

harm to the significance of heritage assets. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.

Proponents

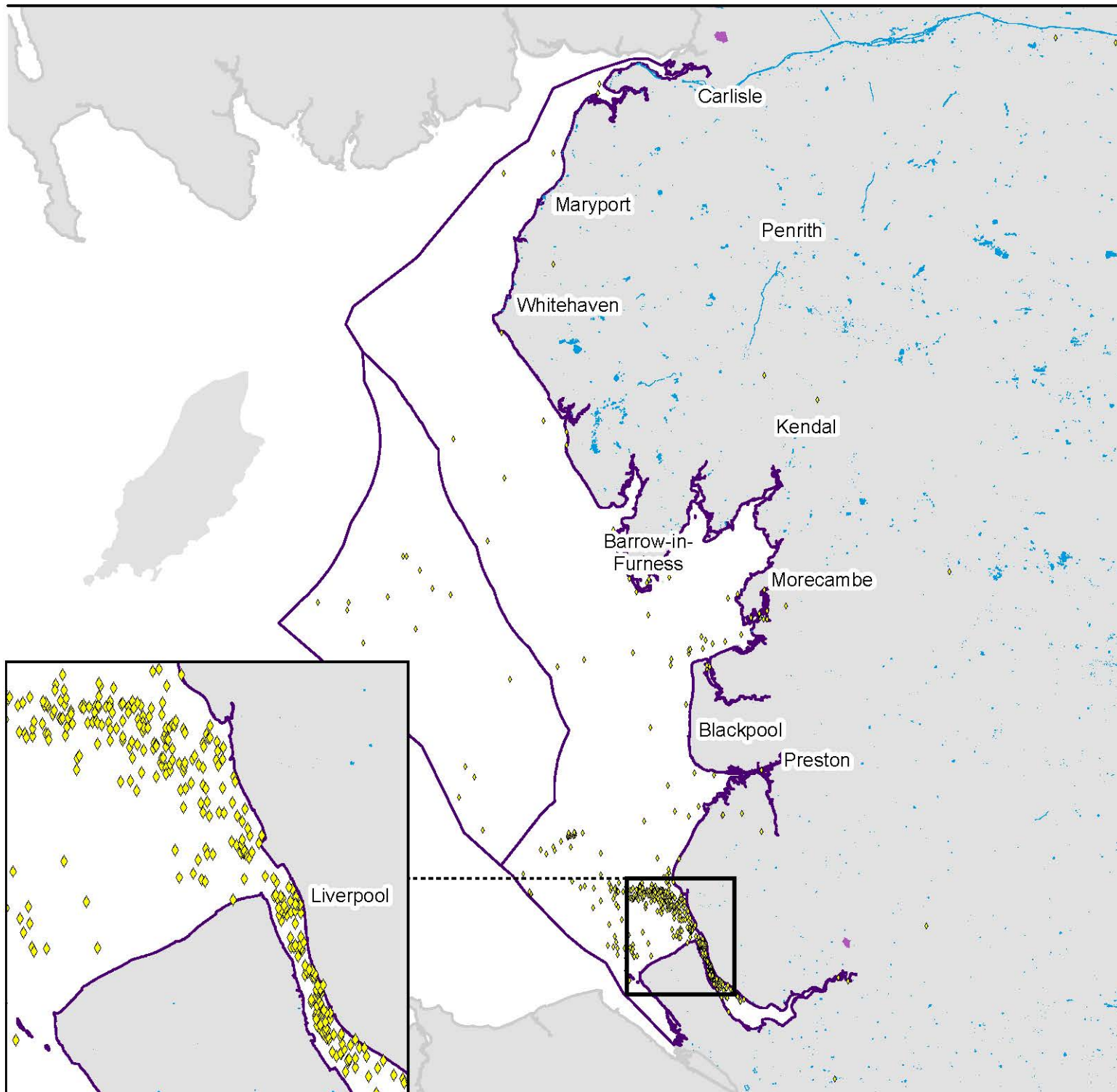
501. Designated heritage assets should be conserved and enhanced in accordance with statutory purposes. Proposals should consider the potential impact on heritage assets having regards to the risk of damage to, or degradation of, assets.
502. Proposals should, therefore, seek to avoid locations where heritage assets may be located. Where such locations cannot be avoided, proposals should seek to minimise harm, including through the use of less invasive construction techniques and in consultation with Historic England.
503. The [National Planning Policy Framework](#) paragraph 194 states that “any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification”.
504. The [National Planning Policy Framework](#) paragraph 199 also states that “Local planning authorities should require proponents to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible”.
505. Historic England and/or the local authority may seek to catalogue assets as appropriate for the Historic Environment Record
506. The public benefits for proceeding with the proposal must outweigh the harm to the significance of the heritage asset. In assessing public benefits, relevant tests set out in the [National Planning Policy Framework](#) should be considered. Inclusion of this information does not indicate that approval of the proposal will follow by default. That will also depend on other material considerations to be have regards by the decision-maker which may include, for example, other plans.

Decision-makers

507. Decision-makers should consult with the relevant regulators and advisors, local authorities and other bodies (such as local civic societies) to make sure that heritage assets, with cultural, social or economic value, are considered in the decision-making process.
508. Decision-makers should consider evidence for the level of significance of a heritage asset, including information and advice from relevant regulators and advisors and how they are managed. It is recommended that assessment be undertaken by a qualified and experienced heritage professional to support delivery of this policy.
509. The [National Planning Policy Framework](#) Paragraph 195 states that “Proposals that lead to substantial harm to (or total loss of significance of) a designated heritage asset, decision-makers should refuse consent unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss”.

510. The [National Planning Policy Framework](#) Paragraph (196) goes on to state “Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use”.
511. Decision-makers should consider all heritage assets, in or adjacent to the north west inshore and offshore marine plan areas, including the effect of a proposal on the significance of a non-designated heritage asset or assets newly identified during the development. In weighing proposals that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.
512. Decision-makers should have regard to the historic character of the north west marine plan areas, with particular attention paid to the landscape, seascape and groupings of assets that give it a distinctive identity. A national [Historic Seascape Characterisation](#) has been carried out by Historic England. This characterisation mapped and described the historic cultural influences of the north west marine plan areas and contributed to the [North West Seascape Assessment \(MMO1134\)](#). Further information can be obtained from NW-SCP-1, a related policy.
513. In examining and determining proposals for Nationally Significant Infrastructure Projects, examining authorities and the Secretary of State for The Ministry of Housing, Communities and Local Government must have regard to this policy for Nationally Significant Infrastructure Projects that may have significant adverse impacts on elements contributing to the significance of heritage assets.
514. Sites designated under the [Protection of Wrecks Act 1973](#), the [Ancient Monuments and Archaeological Areas Act 1979](#) and the [Protection of Military Remains Act 1986](#) are subject to consent processes that are determined by the Secretary of State. Sites designated under the [Planning \(Listed Buildings and Conservation Areas\) Act 1990](#) are subject to consent processes that are determined by the relevant local planning authority. These processes do not form part of the marine planning system but operate in parallel to it.
515. Designated wreck sites can be found in Figure 16. It should be noted that Figure 16 does not include all wreck data for the north west marine plan areas as such data is incomplete, especially for the offshore area. Further information can be obtained from Historic England and the UK Hydrographic Office.
516. Figure 17 shows protected landscapes, including heritage coasts, situated in or adjacent to the north west marine plan areas.

Figure 16 | Historic Environment



- North West Marine Plan Areas
- Protected Wreck Sites and War Graves
- Registered Battlefields
- Scheduled Ancient Monuments
- MOD Military Protected Wrecks
- Historically Significant Shipwrecks

Indicative map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

5.11 Seascape and landscape

Policy Code	Policy Wording
NW-SCP-1	<p>Proposals should ensure they are compatible with their surroundings and should not have a significant adverse impact on the character and visual resource of the seascape and landscape of the area.</p> <p>The location, scale and design of proposals should take account of the character, quality and distinctiveness of the seascape and landscape.</p> <p>Proposals that may have significant adverse impacts on the seascape and landscape of the area should demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <ul style="list-style-type: none"> - adverse impacts so they are no longer significant. <p>If it is not possible to mitigate, the public benefits for proceeding with the proposal must outweigh significant adverse impacts to the seascape and landscape of the area.</p> <p>Proposals within or relatively close to nationally designated areas should have regard to the specific statutory purposes of the designated area. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks and Areas of Outstanding Natural Beauty.</p>

What are seascape and landscape?

517. **Seascapes** and **landscapes** are addressed in the [UK Marine Policy Statement](#) Section 2.6.5.1 as follows: “There is no legal definition for seascape in the UK but the European Landscape Convention 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 document, 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.”
518. **Seascape** can be broken down into its constituent parts of visual resource and marine character. Visual resource can be interpreted primarily as views of the coast and sea from the land. Views from the sea to land, and from sea to sea are also relevant. In addition to the European Landscape Convention definition, seascape character includes a combination of characteristics above the surface, within the water column and on or below the seabed.

Why are seascape and landscape important?

519. The [UK Marine Policy Statement](#) Section 2.6.5.2 states that “When developing Marine Plans, marine plan authorities should consider at a strategic level visual, cultural, historical and archaeological impacts not just for those coastal areas that

are particularly important for seascape, but for all coastal areas, liaising with terrestrial planning authorities as necessary. In addition, any wider social and economic impacts of a development or activity on coastal landscapes and seascapes should be considered.”

520. The [UK Marine Policy Statement](#) Section 2.6.5.3 goes on to state that “In considering the impact of an activity or development on a seascape, the marine plan authority should take into account the existing character and quality, how highly it is valued and its capacity to accommodate change specific to any development.”
521. Further Section 2.6.5.4 states that “For any development proposed within or relatively close to nationally designated areas, the marine plan authority should have regard to the specific statutory purposes of the designated areas. The design of a development should be taken into account as an aid to mitigation.”
522. For terrestrial and intertidal development the [National Planning Policy Framework](#) paragraph 170 states that Planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) protecting and enhancing valued landscapes in a manner commensurate with their statutory status or identified quality in the development plan
 - b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services, and
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate.
523. Paragraph 172 goes on to state that “Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:
- a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
 - b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and
 - c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.”
524. Further, the [National Planning Policy Framework](#) paragraph 173 states that “within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 172), planning policies and decisions should be consistent with the special character of the area and the importance of its

conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.”

525. Seascapes and landscapes are extremely important and form part of our cultural heritage. Whether in areas designated for their special qualities, or areas that are undeveloped or even degraded, seascapes and landscapes provide benefits to those who perceive them. These include quality of life, sense of place, community cohesion, and improved health and well-being. They have intrinsic value in their own right but are also assets that attract investment and stimulate economic activity, including tourism and recreation. If managed well, they can support the conservation and enhancement of biodiversity, cultural heritage, and the protection of natural resources.
526. Seascapes and landscapes have been shaped by natural and cultural processes and are understood in people’s minds by combining with their interests to create feelings of a place’s distinctiveness. People attach strong values to seascapes which vary with their many differing perspectives. Seascapes reflect people’s personal connectivity with the coast and marine areas.
527. There are several statutory designated landscapes and World Heritage Sites in or adjacent to the north west inshore marine plan area, including:
 - [Arnside and Silverdale Area of Outstanding Natural Beauty](#)
 - [Hadrian's Wall World Heritage Site](#)
 - [Liverpool Maritime Mercantile City UNESCO World Heritage Site](#)
 - [Solway Coast Area of Outstanding Natural Beauty](#)
 - [The Lake District National Park and UNESCO World Heritage Site](#)
528. Statutory designated landscapes and defined Heritage Coasts are mapped in Figure 17 and can be found in the [North West Seascape Assessment](#).
529. Views from the north west marine plan areas are famous for their proximity to Scotland, Wales, Isle of Man and the Irish Sea. Likewise, this area of sea is highly visible from land. There are the Arnside and Silverdale and Solway Coast Areas of Outstanding Natural Beauty. The Lake District National Park, renowned for its landscapes, enjoys vistas from the fells stretching towards the Solway Firth to the north and Morecambe Bay, the Isle of Man and the Irish Sea to the south and west.
530. International designations reflect the importance of the intertidal habitats, including sand dunes, vegetated shingle, saltmarsh and lagoons, supporting a rich birdlife. Hadrian’s Wall terminates at Ravenglass, which is recognised as part of the Frontiers of the Roman Empire World Heritage Site.
531. The maritime mercantile City of Liverpool is located at the tidal mouth of the River Mersey where it meets the Irish Sea. Liverpool was a pioneer in the development of modern dock technology, transport systems and port management, and building construction.
532. A major tourist destination is the seaside town of Blackpool. Blackpool has a number of prominent landmarks such as its tower, piers and illuminations.

- 533. The seascape provides many social benefits for coastal communities, such as improved health (mental and physical) and well-being and an increased sense of place.
- 534. New developments, such as increased access, diversification towards the tourist industry or a new coastal path, provide opportunities for those visiting the coast to enjoy and appreciate its seascape and landscape.

Policy NW-SCP-1 Seascape and landscape

Proposals should ensure they are compatible with their surroundings and should not have a significant adverse impact on the scenic beauty and character of the seascape and landscape of the area.

The location, scale and design of proposals should take account of the character, quality and distinctiveness of the seascape and landscape.

Proposals that may have significant adverse impacts on the seascape and landscape of the area should demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant.

If it is not possible to mitigate, the public benefits for proceeding with the proposal must outweigh significant adverse impacts to the seascape and landscape of the area.

Proposals within or relatively close to nationally designated areas should have regard to the specific statutory purposes of the designated area. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks and Areas of Outstanding Natural Beauty.

Policy aim

- 535. The aim of the policy is to manage significant adverse impacts on the seascape and landscape of the north west inshore and offshore marine plan areas. It will make sure that an area's value, quality and its capacity to accommodate change is considered and that the scale and design of a proposal is compatible with its surroundings. The policy's primary aim is to make provisions for those areas of seascape without statutory designation. The policy also supports those areas with existing statutory designation, such as National Parks, Areas of Outstanding Natural Beauty and World Heritage Sites. Defined Heritage Coasts are also supported although they do not hold statutory designation.
- 536. This policy applies to the inshore and offshore marine plan areas.
- 537. This policy ensures that all seascapes and landscapes are considered in decisions for proposals on developments, activities or management measures in the north west inshore and offshore marine plan areas.

How will this policy be implemented?

538. Proposals must comply with requirements and guidance including the [European Landscape Convention](#), the [National Parks and Access to the Countryside Act 1949](#), [Countryside and Rights of Way Act 2000](#) and the [Marine and Coastal Access Act 2009](#).
539. Proposals within or relatively close to nationally designated areas should have regard to the specific statutory purposes of the designated area.
540. For terrestrial and intertidal development, great weight should be given to conserving and enhancing the landscape and scenic beauty in National Parks and Areas of Outstanding Natural Beauty.
541. To ensure compatibility with their surroundings, proposals should make use of the best available evidence.
542. Studies carried out on behalf of the Marine Management Organisation that support the implementation of this policy include:
- the [North West Seascape Assessment](#), which describes and maps the visual resource and marine character of the north west marine plan areas
 - [An approach to seascape sensitivity assessment \(MMO1204\)](#)
 - [Baseline Social Information for Marine Planning: Seascape value, quality and links with sense of place \(MMO1132\)](#)
543. There are a range of existing assessments and guidance that support the implementation of this policy, including:
- [An approach to seascape character assessment, NECR 105, Natural England](#)
 - [An approach to visual resource mapping held within the South Seascape Assessment \(MMO 1037\)](#)
 - [An approach to landscape sensitivity assessment \(Natural England\)](#)
 - [Historic Seascape Characterisation \(Historic England\)](#)
 - [Historic Landscape Characterisation \(Historic England\)](#)
 - [The Setting of Heritage Assets \(2nd Edition\) \(Historic England\)](#)
 - [National Character Area Profiles \(Natural England\)](#)
 - [Guidelines for Landscape and Visual Impact Assessment, Edition 3, \(GLVIA 3\) Landscape Institute and Institute of Environmental Management and Assessment, 2013](#)
544. Further information can be found in local seascape and landscape assessments prepared by local authorities and designated landscape management plans.
545. Other documents that inform understanding of seascape and, in particular, how it may accommodate renewable energy, especially offshore wind development, include:
- [UK Offshore Energy Strategic Environmental Assessment 2, DECC, March 2011](#)

- [UK Offshore Energy Strategic Environmental Assessment 3, DECC, March 2016](#)
- [An assessment of the sensitivity and capacity of the Scottish seascape in relation to offshore windfarms \(Scottish Natural Heritage commissioned report 103, 2005\)](#)
- [Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance. Stages 1-3. NRW Evidence Series. Report No: 315, NRW, Bangor, 2019 - suited to large-scale wind farms and relevant to NPS EN-1 and EN-3](#)

546. The seascape and landscape of the north west marine plan areas comprises a complex mosaic of overlapping natural, cultural and built heritage components. In many cases, these components benefit from their own statutory protections, ranging from large landscape designations such as National Parks and Areas of Outstanding Natural Beauty, marine protected areas (including for geodiversity), down to individually listed buildings or scheduled archaeological sites. Where a proposal may potentially impact an individual component of the seascape or landscape, other relevant marine plan policies and legislation may apply which may require stronger levels of protection than that afforded by SCP-1 alone. For example, where seascape or landscape contributes to the significance of a heritage asset (see SW-HER-1), proposals must demonstrate they have considered the setting of heritage assets within the seascape or landscape, and the management of any harm caused (and not just the management of significant adverse impacts).
547. The significance of an adverse impact of a proposal should be determined on a case-by-case basis. Assessing significant adverse impacts enables decisions to be made proportionately across the plan areas. Decisions should be made by assessing those factors that determine a significant adverse impact, including the location, quality and distinctiveness that make up the character and visual resource of the area. Legislation relating to designated areas and their management plans should be used in determining the significance of an adverse impact on an area.
548. Proposals must first demonstrate how they will avoid significant adverse impacts on the seascape and landscape of an area. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated, proposals must state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b) and so on.

Proponents

549. Proposals should demonstrate that they have considered how highly the seascape and landscape of an area are valued, its quality, and the area's capacity to accommodate change.

550. Proposals should demonstrate how the scale and design of the proposal are compatible with its surroundings, and how this mitigates all significant adverse impact on the seascape and landscape of an area.
551. Proponents should seek advice from a qualified and experienced seascape or landscape professional to determine any significant adverse impacts on the seascape or landscape of an area.
552. There are a range of statutory policies, definitions and measures already in place that have regard to nationally designated areas and their setting, such as the [National Parks and Access to the Countryside Act 1949](#) for National Parks, the [Countryside and Rights of Way Act 2000](#) for Areas of Outstanding Natural Beauty and Heritage Coasts and [World Heritage Sites designated by UNESCO](#).
553. When preparing proposals in the marine area, proponents must demonstrate that they have complied with these statutory and non-statutory measures.
554. Where it is not possible to minimise or mitigate significant adverse impacts, proposals should state the case for proceeding, including how the proposal supports the North West Marine Plan vision, objectives and other plan policies.
555. The public benefits for proceeding with the proposal must outweigh the significant adverse impacts on the seascapes and landscapes of an area. To assess public benefits in relation to proposals that may result in significant adverse impacts on the seascapes and landscapes of an area, relevant tests set out in the [National Planning Policy Framework](#) should be considered. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations that decision-makers will have regard to, which may include, for example, other plans.

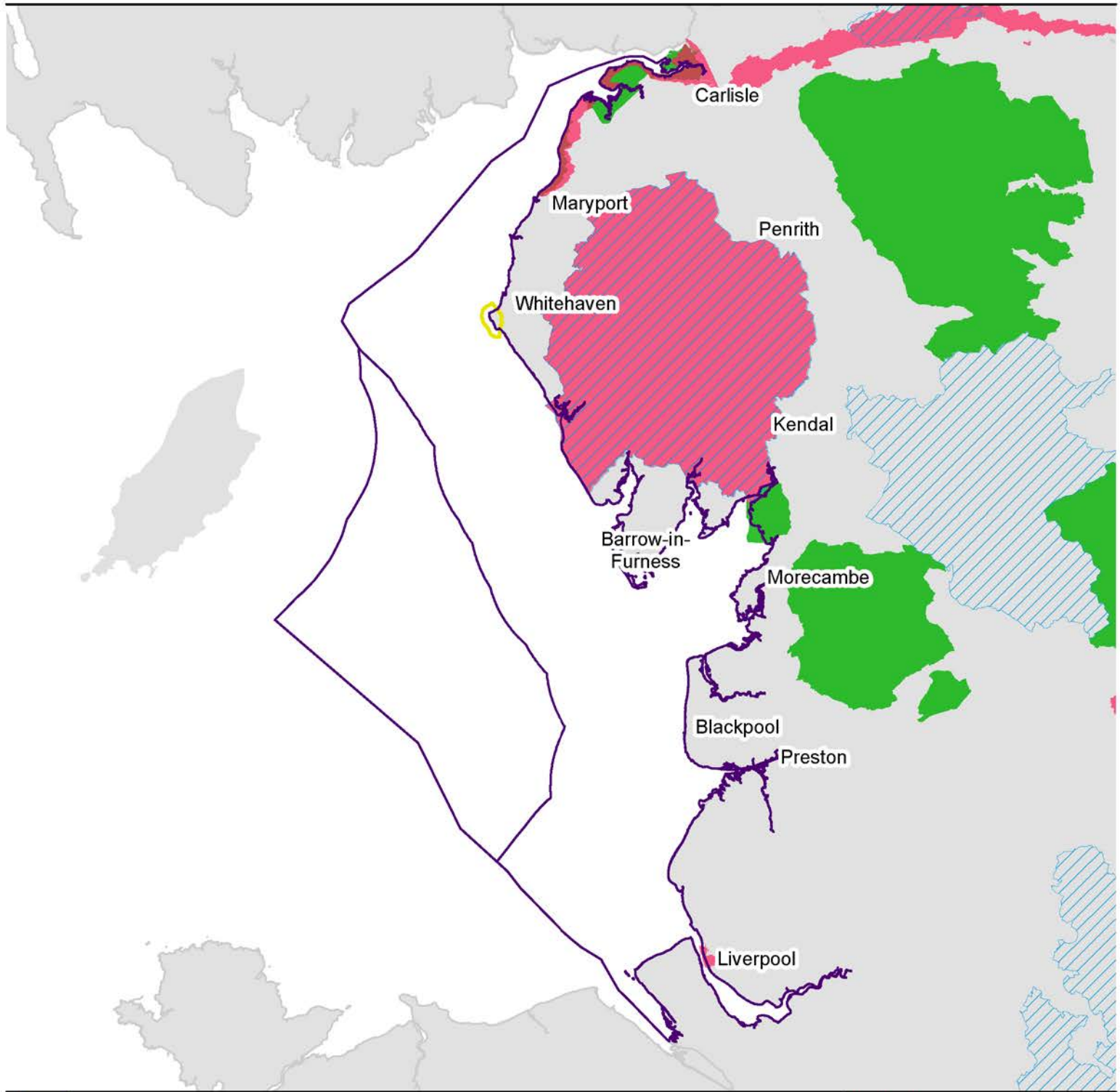
Decision-makers

556. Decision-makers should consider if a proposal has sought to avoid locations where significant adverse impacts on the seascape or landscape of the area may occur. Where such locations cannot be avoided, decision-makers should ensure that significant adverse impacts on the seascape and landscape of the areas have been minimised or mitigated.
557. On a case-by-case basis, decision-makers should assess a proposal's impact on seascape and landscape, taking into account views to and from the sea, existing marine character and quality, the area's special qualities, how highly it is valued and its capacity to accommodate change specific to any proposal.
558. Decision-makers should consider if a proposal contributes to a change in the significance of a heritage asset, such as a building or a monument, or the seascape or landscape itself.
559. Consideration of potential impacts should have regard to visibility, prevailing weather conditions, angle of views and the temporal or permanent nature of a structure, including its scale, design or proposed activity.

560. Where it is not possible to minimise or mitigate significant adverse impacts, decision-makers should consider the case for proceeding, including how the proposal supports the North West Marine Plan vision, objectives and other plan policies. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations to be taken into account by the decision-maker.
561. In examining and determining proposals for Nationally Significant Infrastructure Projects, examining authorities and the Secretary of State for The Ministry of Housing, Communities and Local Government, Department for Transport, and the Department for Environment, Food and Rural Affairs and Local Government must have regard to this policy for Nationally Significant Infrastructure Projects that may have significant adverse impacts on seascapes and landscapes.
562. Decision-makers should consult with the relevant regulators and advisors, local authorities and other bodies (such as local civic societies) to make sure that seascape and landscape, with cultural, social or economic value, are considered in the decision-making process. It is recommended that assessment be undertaken by a qualified and experienced seascape or landscape professional to support the delivery of this policy.
563. Figure 17 shows statutory designated landscapes and defined heritage coasts, Figure 18 shows marine character areas and Figure 19 shows the visual resource of the north west inshore marine plan area.



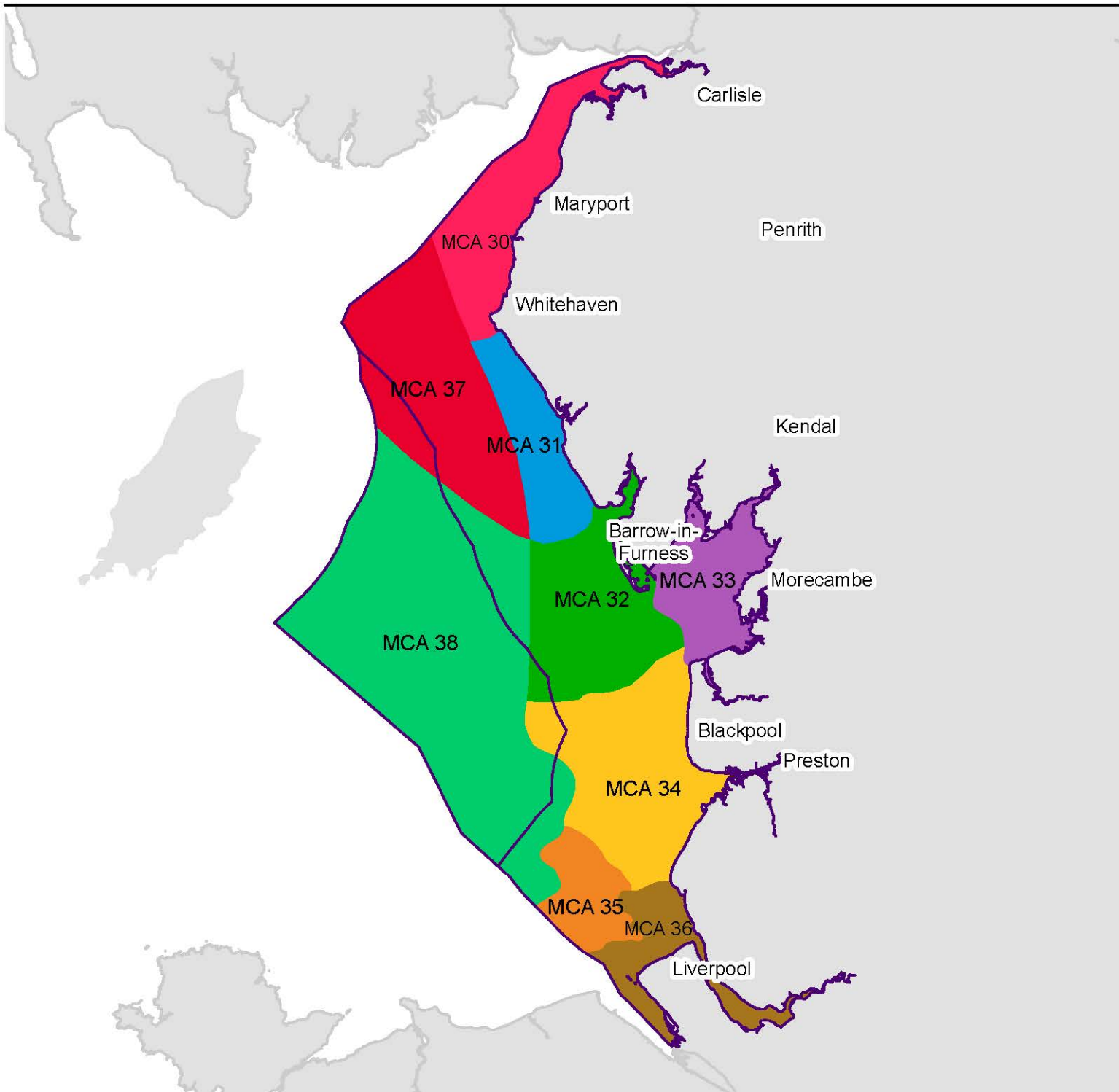
Figure 17 | Protected Landscapes



-  North West Marine Plan Areas
-  Heritage Coast
-  National Parks
-  World Heritage Sites
-  Areas of Outstanding Natural Beauty

Indicative map
 This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Figure 18 | Marine Character Areas



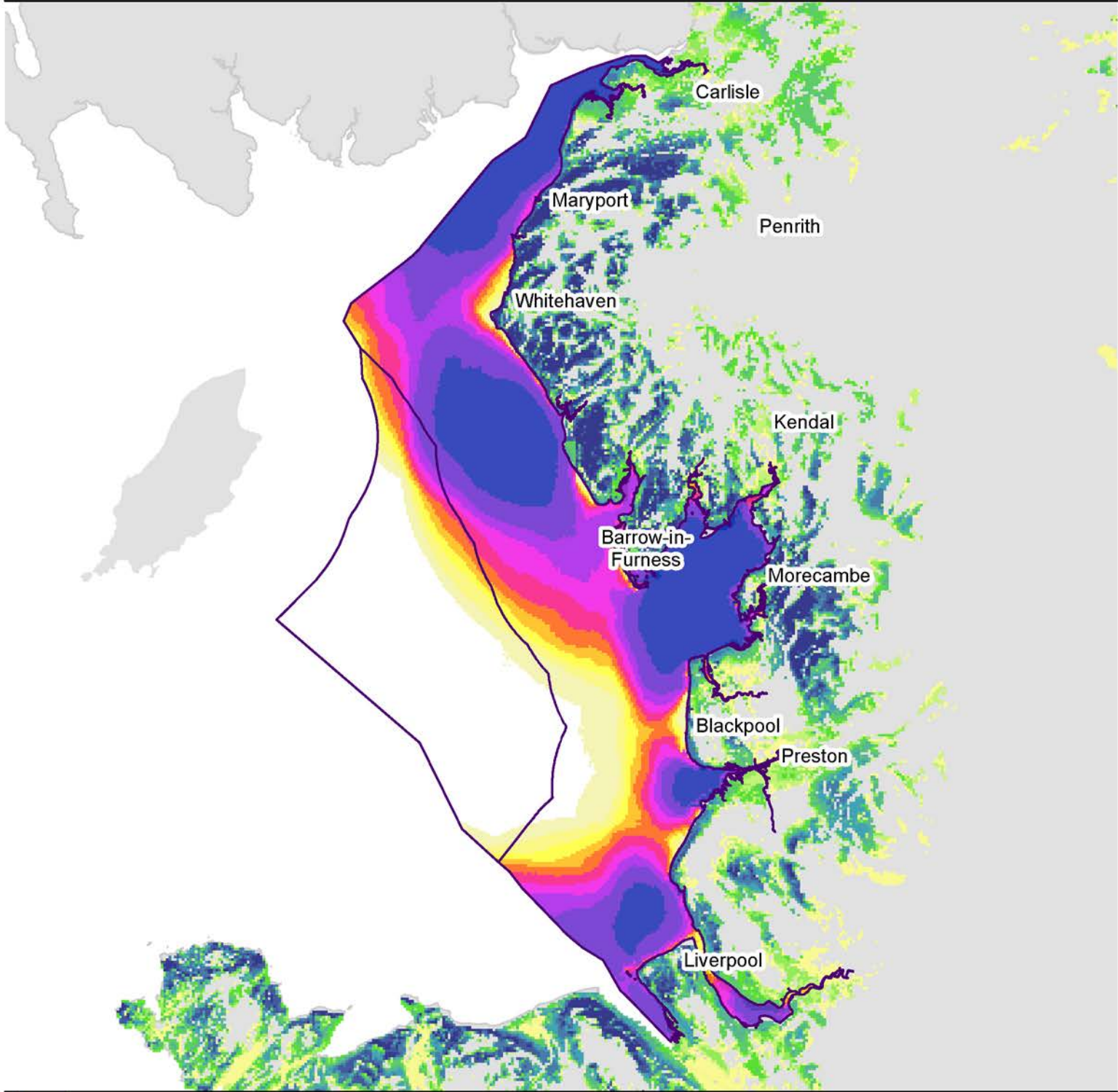
 North West Marine Plan Areas


Marine Character Areas

- | | |
|---|---|
|  30: Solway Firth (England) |  34: Blackpool Coastal Waters and Ribble Estuary |
|  31: St Bees to Haverigg Coastal Waters |  35: Inner Liverpool Bay |
|  32: Walney Coastal Waters and Duddon Estuary |  36: Dee and Mersey Estuaries and Coastal Waters |
|  33: Morecambe Bay |  37: Irish Sea North (England) |
| |  38: Irish Sea South (England) |

Indicative map
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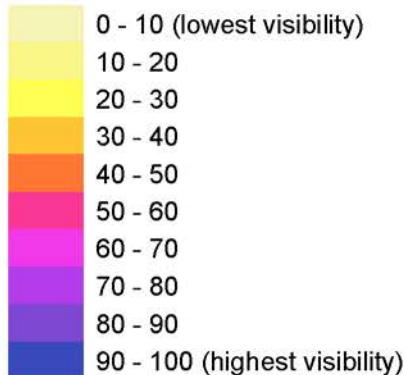
Figure 19 | Visual Resource Mapping



 North West Marine Plan Areas

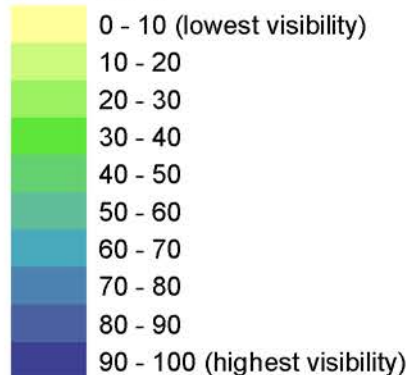
Visibility of Sea from Land

Percentile %



Land with Sea Views

Percentile %



Indicative map

This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Date of Publication: August 2020

Coordinate System: ETRS 1989 UTM Zone 30N

Projection: Transverse Mercator

Datum: ETRS 1989

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5.12 Fisheries

Policy Code	Policy Wording
NW-FISH-1	Proposals that support a sustainable fishing industry, including the industry's diversification, should be supported.
NW-FISH-2	<p>Proposals that enhance access for fishing activities should be supported.</p> <p>Proposals that may have significant adverse impacts on access for fishing activities must demonstrate that they will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate - adverse impacts so they are no longer significant.</p> <p>If it is not possible to mitigate significant adverse impacts, proposals should state the case for proceeding.</p>
NW-FISH-3	<p>Proposals that enhance essential fish habitat, including spawning, nursery and feeding grounds, and migratory routes, should be supported.</p> <p>Proposals that may have significant adverse impacts on essential fish habitat, including spawning, nursery and feeding grounds, and migratory routes, must demonstrate that they will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate - adverse impacts so they are no longer significant.</p>

What are fisheries?

564. **Fisheries** refer to the capture of wild marine organisms (fish and shellfish); commercial fishing can use a variety of mobile and static gear, vessels and locations. A sustainable fishing industry provides benefits to coastal communities and contributes to UK food security. The management framework for sustainable commercial fisheries is set out the [Fisheries Act 2020](#). For the purposes of the marine plans, recreational fishing falls under the tourism and recreation category.
565. A sustainable fishing industry is reliant on many environmental, social and economic factors. For example, environmental factors include healthy fish stocks, and appropriate weather and sea conditions to allow fishing. Social factors include a supply of labour to work on vessels and in the subsequent supply chains, and customers to purchase the fish. Economically, the industry's operating costs need to be affordable to allow fishing to continue in the future, and the industry needs infrastructure for processing and transport. A sustainable fishing industry can also be achieved by providing a diverse and wide range of fish and shellfish.
566. **Diversification** facilitates adaptation to change and is one way the fishing industry can increase its sustainability, response to changing markets and resilience to

climate change. Diversification includes changes within the fishing sector, for example new fishing techniques and gear that alter how or what species are targeted, or within the processing and fish value chain, for example direct sales, or marketing that adds value to fish products. Diversification also includes the industry undertaking multiple activities, for example, in addition to generating income from fishing, complementary activities such as tourism, for vessels where this is appropriate, can represent diversification into other sectors. Climate change resilience refers to the ability of the fishing industry to withstand and recover from the effects of climate change, and so support its sustainability. Enhancing resilience includes considering the diversification of fishing techniques and gear used, the type of vessels and also shoreside infrastructure. Fisheries are also dependent on a healthy ecosystem to provide habitats and support for fish. Ecosystem resilience is therefore fundamental to help ensure resilience of the fishing industry.

567. **Access** for fisheries includes physical access to resource sites and the wider ability to undertake activities, including travel to and from shoreside facilities (such as processing, storage and distribution) and onward sale to the customer. Enhancing access refers to developments that make it more efficient for the operation of the fishing sectors. For example, a new port or marina could include additional berthing or landing infrastructure for the fishing sector to use for unloading their catch and mooring vessels. Access to fishing opportunities relies on vessels being able to safely and efficiently navigate to and from their home port. Reduced, impeded or prevented access may result from physical obstruction, for example, the presence of structures at sea or on the seafloor, closed areas resulting from other uses, and loss of access through transit restrictions, or poor provisioning of berthing or landing infrastructure. Displacement of fishing vessels to areas of lower fish density can occur as a result of reduced, impeded or prevented access. Such displacement may reduce the efficiency of fishing activities by requiring fishing to take place over greater areas or for longer periods. There is a temporal and seasonal element to access for fisheries activities, and fishers' access will be dependent on them being able to fish at appropriate times of the day, or during the appropriate seasons, depending on the species being targeted.

568. **Essential fish habitats** are areas of intertidal and subtidal water, seabed, riverbed, and the associated water column necessary to fish and shellfish for spawning, breeding, feeding or growth to maturity. Essential fish habitats also encompass migration routes, such as estuaries or channels that connect essential fish habitats throughout their life cycle. These habitats enhance breeding success, survival and growth of a wide range of fish, and ultimately increase stock yields.

Why are fisheries important?

569. Fisheries (including shellfisheries) are important to the north west marine plan areas as they provide employment in communities where alternative opportunities may be limited and they can form an important part of the cultural heritage in coastal communities. Within the north west marine plan areas, there are several commercial fishing ports and areas that support historic shellfisheries.

570. The north west marine plan areas include borders with Scottish, Northern Irish, Manx and Welsh marine areas. The inshore plan area stretches from the Scottish border (Solway Firth) to the Welsh border (River Dee). This includes 1,280km of coastline and 4,900km² of sea. The offshore plan area extends from 12nm to the limit of the Exclusive Economic Zone, representing 2,200km² of sea. Commercial fishing activity occurs across the north west marine plan areas. There are a number of specific areas that support historic shellfisheries, including:

- Dee
- Duddon Estuary
- Morecambe Bay
- Ribble
- Solway
- Wirral

571. There are also several commercial fishing ports in the north west inshore marine plan area, including:

- Barrow
- Fleetwood
- Lancaster
- Liverpool
- Maryport
- Preston
- Runcorn
- Silloth
- Workington
- Whitehaven

572. A variety of species (eg cockles, mussels, whelks, scallops, nephrops, brill and plaice) are caught in the north west marine plan areas, using static and mobile gears. Up-to-date landing values for these areas can be found in the [UK sea fisheries annual statistics report](#). The relevant regional [Inshore Fisheries and Conservation Authority](#) may also hold data for fisheries activity regulated by them and should also be consulted in the early stages of proposal development, to gain a better understanding of local fisheries activities.

573. The ability to maintain a viable sustainable fleet of smaller fishing vessels operating in the north west marine plan areas is important for the future of traditional fishing communities and cultural heritage in this area. The importance of smaller vessels is highlighted in [Futures analysis for the North East, North West, South East and South West marine plan areas \(MMO1127\)](#). Increases in unsettled weather under predicted climate change scenarios represent an operational challenge for such smaller vessels, while restricted ranges limit the ability of a fleet from a particular port to adjust to stock distribution changes.

574. Climate change is expected to increase storminess and water temperatures. Unsettled weather and increased storminess (for example increased wave heights,

strong winds) reduce the number of days on which vessels can safely operate at sea, particularly during winter months when storms are more prevalent. Water temperature increases may alter the distribution and movement of fish species, meaning some species that an industry relies on may reduce in numbers, while different species may become more prevalent. The operational challenges presented by unsettled weather as a result of climate change often present a greater risk for smaller vessels which are less able to fish in stormy seas. Smaller vessels are more restricted in the distance they can travel, meaning they are less able to adapt to changes in fish distributions than larger vessels with a greater range.

575. Diversification of the fishing industry, and its promotion, can help support sustainability of the fishing industry in the north west marine plan areas by allowing flexibility for businesses to expand into other sectors. Diversifying into other sectors or different, sustainable fisheries (for example expanding into other sectors such as tourism, or fishing for alternative species, where appropriate) can help support a core fishing industry to continue operating into the future, ensuring the fishing industry remains part of the local identity and culture in the north west marine plan areas.
576. Encouraging the local fishing industry's diversification and adaptation to climate change can help promote its sustainability. Climate change has significant potential to affect the sustainability of fisheries in the north west marine plan areas. The effects of climate change may alter the availability and growth rates of specific fish populations as they redistribute according to temperature preferences. Climate change may significantly alter the location of essential fish habitat, particularly spawning, nursery and feeding areas due to environmental and oceanographic change. Therefore, there may be some loss of existing fisheries. Likewise, there may be opportunities for new fisheries, as some species may redistribute into the north west marine plan areas.
577. The [Marine Climate Change Impacts Partnership Science Review on Fisheries \(2017\)](#) describes evidence relating to the anticipated effects of climate change on UK fisheries. Climate change projections predict warming seas and increased acidification around the UK. These changes will affect many fisheries, including scallop and nephrops (important commercial species in the north west marine plan areas). This evidence indicated that nephrops displayed some resilience to increasing acidity. For scallops, the impact of acidification on populations is more uncertain.
578. Access for fisheries activities is important because the fisheries sector relies on safe access to seek out and fish the stocks, and land the catch, at appropriate times. Once onshore, processing and logistics businesses in the north west ensure the distribution and supply of fish and shellfish to local, national and international markets. These businesses are reliant on access to a transport network.
579. Fishing activity is highly linked to the spatial and temporal distribution of sustainable fish stocks; displacement of fishing activities can affect access to these stocks, efficiency of commercial fisheries and industry sustainability. Target fish may not be present in the areas where fishing is displaced to, or during periods when fishing activities have been displaced. Proposals that reduce, impede or prevent access to

fishing sites may displace fishing activity. Impeding or preventing access can relate to the loss of access to traditional fishing grounds. Displacement could require fishing to take place over a larger area at a greater cost to the sector.

580. Smaller vessels have less range, and as such are particularly vulnerable to displacement, loss of access, lengthy alternative routes and/or alternative fishing grounds a long way from traditional grounds, all of which may mean the loss of any viable industry for them. A lot of smaller vessels will typically already be taking the most efficient, cost-effective and safest route. Displacement can also increase pressure on other fishing grounds, specific stock components like juveniles, or increase environmental impacts, particularly if displacement is to suboptimal grounds or previously unfished areas.
581. Healthy essential fish habitats are important to maintain an overall healthy marine ecosystem. Essential fish habitats are necessary for spawning, breeding, feeding, and the survival of early life stages and subsequent growth of fish to maturity. These habitats enhance breeding success, survival and growth of fish, and ultimately increase stock yields. Healthy, productive fish populations rely upon a healthy marine ecosystem and essential fish habitats which, in turn, underpins a sustainable fishing industry. It is important to note that essential fish habitat does not only occur within marine protected areas. Enhancement and protection of essential fish habitats outside of marine protected areas ensure that an ecosystem approach is applied to decision-making.
582. Many commercial fish species spend their early years in inshore areas, migrating into offshore waters when they reach adulthood and only returning inshore again to spawn. Nursery areas are places with suitable food and environmental conditions for juvenile fish, which often require different food and conditions to adults, and also provide shelter to protect them from predation. Protecting juvenile fish in these distinct nursery areas increases the chance of survival to adulthood when they are able to reproduce and contribute to future populations, which enhances harvestable offshore stocks of fish.
583. The north west marine plan areas contain a number of both inshore and offshore marine protected areas. Up-to-date information on their location can be found on the Joint Nature Conservation Committee [Marine Protected Area mapper](#), which is an interactive resource containing information on the marine protected areas designated in UK waters, and on the Natural England [Magic Map](#) for information of marine conservation zones within 12nm of the coast. Marine protected areas contain habitats for a variety of native wild flora and fauna species which can support a healthy ecosystem and fish populations as a whole. Some areas were designated specifically to protect fish species, such as the protection of smelt in the Ribble Estuary Marine Conservation Zone, the Wyre-Lune Marine Conservation Zone and the Solway Firth Marine Conservation Zone. The Solway Firth is also an important nursery ground for bass, pollack and some flatfish species, as some other protected areas may be. Estuaries are especially important for the growth and development of juvenile fish. Estuaries are highly productive and offer a range of smaller prey that

young fish can feed on; they also provide cover from predators, the open seas and storms.

584. The North Western Inshore Fisheries and Conservation Authority have designated an area around Heysham as a [bass nursery area](#), which is protected from any fishing activity under the local [Heysham Bass Nursery Area Prohibition of Fishing byelaw](#). Other species are protected by [North Western Inshore Fisheries and Conservation Authority Byelaws](#) designed to protect them in specific geographic areas.
585. Proposals can adversely impact the availability or quality of essential fish habitats and fish stock sustainability through removal, change to hydrodynamic regimes, pollution or numerous other mechanisms.
586. The [UK Marine Policy Statement](#) Sections 3.8.6 and 3.8.7 recognises the national importance of fisheries and identifies the value of prosperous, efficient and effective sustainable fishing industries in providing “social, cultural and economic benefits to often fragile coastal communities”, including reduction in emigration and maintenance of traditions, culture and identity. Fish and shellfish are an important part of the delivery of UK food security. Supporting a sustainable fishing industry and enhancing access for fishing activities will contribute to the [Seafood 2040 Strategic Framework](#). The Department for Environment, Food and Rural Affairs’ [A Green Future: Our 25 Year Plan to Improve the Environment](#) recognises the importance of providing sustainable fisheries, to ensure food security and uphold social and cultural well-being since “unsustainable fishing practices do not just deplete fish stocks; they threaten the environment and marine ecology and can also have an impact on coastal communities”.
587. Enhancement of essential fish habitat contributes to the [Marine Strategy Part Three: UK programme of measures](#) to achieve Good Environmental Status in UK waters under [The Marine Strategy Regulations 2010](#)⁴⁰ by contributing to the preservation of biological diversity (descriptor 1) and by having important consequences for seafloor integrity (descriptor 6), wider elements of marine food webs (descriptor 4) and the commercial resources they sustain (descriptor 3). Commitments to achieving Good Environmental Status are reinforced in the Department for Environment, Food and Rural Affairs’ [A Green Future: Our 25 Year Plan to Improve the Environment](#). It sets out the government’s aims to leave the environment in a measurably better state, and one of its goals is: “Using resources from nature more sustainably and efficiently”. The [National Planning Policy Framework](#) includes commitments to conserving and enhancing the natural environment, stating that “planning policies and decisions should contribute to and enhance the natural and local environment by: (...) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.” Supporting the long-term existence of the fisheries sector through

⁴⁰ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

support of stock recruitment contributes to the aims of the [UK Marine Policy Statement](#) Section 3.8.1.

Policy NW-FISH-1 Fisheries

Proposals that support a sustainable fishing industry, including the industry's diversification, should be supported.

Policy aim

588. Commercial fisheries can be affected by changes to fish abundance, growth, distribution or behaviour. NW-FISH-1 supports long-term strategic proposals that enable the fishing industry to diversify or build in resilience to manage climate change risks and maximise opportunities for sustainable use of marine resources.
589. Policy NW-FISH-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

590. Proponents with proposals that maintain or support sustainable fishing or the industry's diversification are encouraged.
591. In the early stages of proposal development, proponents should consult with the fishing industry, their local [Marine Management Organisation coastal office](#), and their relevant regional [Inshore Fisheries and Conservation Authority](#), to enable understanding of industry requirements and identify where they can support its sustainability. Support could include, for example, providing the flexibility and opportunity for the fishing industry to diversify into other business areas, or supporting the industry to adapt to the impacts of climate change, such as increased storminess which reduces fishing opportunities, and lack of alternative employment. Proponents could also consider the potential for scoping sustainability accreditation.
592. Examples of how a proposal could support a sustainable fishing industry could include, but are not limited to:
- supporting infrastructure provision, including onshore processing facilities for novel species that move into the north west marine plan areas with changing sea temperature
 - developing complementary skills or employment opportunities outside of the fishing industry
 - creating employment opportunities outside of the fishing industry that make use of existing skills, for example using vessels as guard ship vessels, to undertaking surveys, or within the tourism sector
 - supporting diversifying markets into locally caught fishery products
 - supporting methods to encourage new entrants from younger generations into fishing, thus rejuvenating the industry and potentially allowing for more modern skills and knowledge about climate change to be applied to fishing
 - supporting technological advances (such as more selective fishing gear or fish sorting facilities)

- supporting the industry’s ability to adapt by avoiding significant adverse impacts on areas where fishing can occur
593. Climate change and the impact of other activities in the marine environment can affect commercial fisheries’ sustainability by altering local fish abundance, growth, distribution, or behaviour. Proponents should demonstrate how they have considered these impacts at an appropriate spatial and temporal scale, thus supporting a sustainable fishing industry. Proponents should also demonstrate how they have considered these impacts at the scale of local stocks, which may be discrete and distinctive from larger-scale stock considerations. These local stocks, particularly of fish with small home range sizes, limited movements, or site fidelity during particular life stages, are likely to be more vulnerable to local stressors than would be detected through impacts on large-scale stocks.
594. Guidance and other material which relate to and may support the implementation of this policy include good practice guidelines promoting co-existence (eg the offshore renewable energy sector has created a guidance document with [Recommendations for Fisheries Liaison](#) to promote co-operation and co-existence between both industries; or the [European Subsea Cables Association, Fishing Liaison Guidelines](#)). International maritime law is also in place and, in particular, the [United Nations Convention on the Law of the Sea](#) in relation to safe navigation. The Marine Guidance Note [MGN 543 Offshore Renewable Energy Installations Safety Response](#), provides information issues to consider when assessing navigational safety and emergency response, caused by offshore renewable energy installations. Information on how to keep fishers up-to-date on the latest hazards, planned developments and offshore activities can also be found in the [Seafish Kingfisher Bulletin](#) for example.
595. Inclusion of support for the sustainable fishing industry and/or the fishing industry’s diversification does not indicate that approval of the proposal will follow by default. That will also depend on other material considerations to be taken into account by the decision-maker which may include, for example, other plans. Proposals must still comply with requirements under relevant legislation. Relevant statutory assessments must be carried out for marine conservation zones in accordance with the [Marine and Coastal Access Act 2009](#), sites of special scientific interest in accordance with the [Wildlife and Countryside Act 1981](#), special protection areas, special areas of conservation and Ramsar sites in accordance with [The Conservation of Habitats and Species Regulations 2017](#)⁴¹ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁴².

Decision-makers

596. Decision-makers should approve proposals that support a sustainable fishing industry and/or the fishing industry’s diversification. Inclusion of support for the sustainable fishing industry and/or the fishing industry’s diversification does not

⁴¹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁴² As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

indicate that approval of the proposal will follow by default. That will also depend on other material considerations to be taken into account by the decision-maker which may include, for example, other plans. Proposals must still comply with requirements under relevant legislation. Relevant statutory assessments must be carried out for marine conservation zones in accordance with the [Marine and Coastal Access Act 2009](#), sites of special scientific interest in accordance with the [Wildlife and Countryside Act 1981](#), special protection areas, special areas of conservation and Ramsar sites in accordance with [The Conservation of Habitats and Species Regulations 2017](#)⁴³ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁴⁴.

597. Decision-makers should assess whether the implications and impacts of proposals support fishing industry sustainability, including its diversification and resilience to the effects of climate change. Local Planning Authorities must have regard to NW-FISH-1 in the development of their local plans in supporting a sustainable fishing industry and/or the fishing industry's diversification. Diversification will need to be carefully managed, particularly where habitats, areas, or species that were previously unaffected by fisheries or other activities could become newly-targeted, and conservation and regulation measures will need to be complied with.
598. Factors that decision-makers should take account of include, but are not limited to, how proposals could:
- support infrastructure provision, including onshore processing facilities for novel species that move into the north west marine plan areas with changing sea temperature
 - develop complementary skills or employment opportunities outside of the fishing industry
 - create employment opportunities outside of the fishing industry that make use of existing skills, for example using vessels as guard ship vessels, to undertake surveys, or use within the tourism sector
 - support diversifying markets into locally-caught fishery products
 - support methods to encourage new entrants from younger generations into fishing, thus rejuvenating the industry and potentially allowing for more modern skills and knowledge about climate change to be applied to fishing
 - support technological advances (such as more selective fishing gear or fish sorting facilities)
 - support industry's ability to adapt by avoiding significant adverse impacts on where fishing can occur
599. In examining and determining proposals for Nationally Significant Infrastructure Projects, examining authorities and the relevant secretary of state should support

⁴³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁴⁴ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

Nationally Significant Infrastructure Projects that support a sustainable fishing industry and/or fishing industry diversification.

600. Climate change projections predict warming seas and increased acidification around the UK, as well as deoxygenation, sea level rise and increased storminess, which all could affect the fisheries industry's ability to operate. Climate change may affect fisheries by altering fish abundance, growth, distribution, or behaviour. The [Parliamentary Office of Science and Technology POSTnote 604 on Climate Change and Fisheries](#) provides more information on the possible impacts of climate change on fisheries. These predicted changes may result in changes to spatial distribution of fisheries, although it is challenging to say exactly what fisheries will be affected and in what way in the north west marine plan areas.
601. Decision-makers should engage with fisheries management authorities, such as their local [Marine Management Organisation coastal office](#) and their relevant regional [Inshore Fisheries and Conservation Authority](#), to better understand how fisheries measures are impacting the industry currently and into the future.

Policy NW-FISH-2 Fisheries

Proposals that enhance access for fishing activities should be supported.

Proposals that may have significant adverse impacts on access for fishing activities must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant.

If it is not possible to mitigate significant adverse impacts, proposals should state the case for proceeding.

Policy aim

602. A sustainable fishing industry provides benefits to coastal communities and contributes to UK food security. Fisheries activities are restricted in where and when they can operate, making the access to these activities vulnerable. NW-FISH-2 supports enhanced access for sustainable fishing activities and seeks to limit significant adverse impacts from other marine activities on access for fishing activities, enabling continued sustainable marine resource use and generating prosperous, resilient and cohesive coastal communities. This policy covers not only fishing activity, but also the transit routes to and from sites and any berthing/beaching or landing/loading points.
603. Policy NW-FISH-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

604. NW-FISH-2 seeks to support access to fishing activities and ensures considerations are made concerning the impacts upon fisheries from other marine activities.

Proposals that enhance access to fishing activities may also indirectly increase recreational access to the marine environment.

605. Limiting disturbance from enhanced access is important to help support the conservation objectives of marine protected areas. Relevant statutory assessments must be carried out for marine conservation zones in accordance with the [Marine and Coastal Access Act 2009](#), sites of special scientific interest in accordance with the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites in accordance with [The Conservation of Habitats and Species Regulations 2017](#)⁴⁵ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁴⁶. A Habitats Regulations Assessment must be conducted where disturbance from increased access is a consideration of the conservation objectives of a special protection area, special area of conservation or Ramsar site. Where enhanced access may lead to a likely significant effect on the protected features of these sites, an Appropriate Assessment will be required. It is government policy for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to Special Protection Areas.
606. For the purpose of implementing the mitigation hierarchy, avoid is defined as acting at source to plan, design and deliver proposals that result in no significant adverse impacts occurring. To achieve this, where significant adverse impacts are identified, the proposal should be altered so that it no longer exerts a pressure, or the pressure produced can no longer be received by an identified receptor, for example, changing the location of a proposal to avoid conflict with an existing user.
607. Minimise is defined as acting at source to plan and design proposals to reduce significant adverse impacts to the smallest possible amount or degree. Minimisation reduces the level of pressure generated. An example may be a reduction in the scale of the proposal to decrease the potential area of impact.
608. Where significant adverse impacts from pressures cannot be avoided or minimised at source, and receptors are exposed to those pressures, action should be taken to make the consequences of the impacts less severe. Mitigation is a reduction of how a given pressure level is experienced by the receptor, for example, provision of an alternative area or facility to support an existing activity.
609. Where significant adverse impacts from pressures cannot be avoided or minimised at source, and receptors are exposed to those pressures, action should be taken to make the consequences of the impacts less severe. Mitigation is a reduction of how a given pressure level is experienced by the receptor, for example, provision of an alternative area or facility to support an existing activity.
610. Proposals must first demonstrate how they will avoid significant adverse impacts on fishing activities. Where significant adverse impacts cannot be avoided, proposals

⁴⁵ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁴⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

must demonstrate how they will minimise significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.

611. Where significant adverse impacts cannot be mitigated, proposals must state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused to access for fishing activities.
612. Proponents must demonstrate evidence as to why the proposal should be approved. Inclusion of support for the sustainable fishing industry does not indicate that approval of the proposal will follow by default. That will also depend on other material considerations to be taken into account by the decision-maker which may include, for example, other plans. Proposals must still comply with requirements under relevant legislation. Relevant statutory assessments must be carried out for marine conservation zones in accordance with the [Marine and Coastal Access Act 2009](#), sites of special scientific interest in accordance with the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites in accordance with [The Conservation of Habitats and Species Regulations 2017](#)⁴⁷ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁴⁸.

Proponents

613. Potential proponents from a range of sectors could enhance access to or have significant adverse impacts on access to fishing activities, including, but not limited to:
- aquaculture
 - disposal at sea
 - marine aggregate extraction
 - new renewable energy infrastructure
 - ports and fishing harbours (eg capital dredging)
 - subsea cabling
 - tourism and recreation
614. Proposals that demonstrate how they enhance access for fishing activities are encouraged. These can include, for example, improvements to landing facilities for fishing activities. Opportunities to enhance access can also include co-location, for example, by developing shared use of landing facilities available to fishing where none were previously present, thereby generating increases in the economic and social potential of such facilities for the local community. Proposals should include

⁴⁷ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁴⁸ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

proportionate supporting information, illustrating how they will enhance access for fisheries.

615. Proposals will identify potential significant adverse impacts on access to fishing activities. Significant adverse impacts on access include the impediment or loss of access resulting from a proposal that blocks or affects transit routes to and from an area, and also the impediment or loss of access to the area where the proposal is located. The [Explore Marine Plans](#) digital service provides data layers which indicate fishing vessel activity. These data layers should be used to guide assessment of whether a proposal may have a significant adverse impact on access for fishing activities. Additional sources of information may be required, including data on smaller vessels, for which there were gaps at the time of publication. Proponents should liaise with the local fishing community, as well as the relevant regional [Inshore Fisheries and Conservation Authority](#), or the local [Marine Management Organisation coastal office](#), to gain a better understanding of where these smaller vessels' fishing activity takes place. Additionally, areas fished in the future may be different to areas fished in the past, given the mobile nature of fish populations, and anticipated changes to the extent and distribution of fish populations resulting from climate change. As such, proposals must provide suitable alternative assessment of impacts as outlined above.
616. Where fishing activities occur, proposals should demonstrate that they have assessed the extent to which these activities could operate in the vicinity of the same footprint proposed by the development and demonstrate opportunities to enhance access. Proposals that may have significant adverse impacts on access for fishing activities must first demonstrate how they will avoid significant adverse impacts on access to fisheries. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise adverse impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated, proposals should state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.
617. Measures implemented to avoid, minimise and mitigate significant adverse impacts will vary depending on the proposed activity. Proponents should consult the fishing industry when deciding on measures to implement. Proponents should also consult their local [Marine Management Organisation coastal office](#), as well as their relevant regional [Inshore Fisheries and Conservation Authority](#), to seek advice. In order to avoid and minimise significant adverse impacts on fishing activities, proposals that involve construction at sea should include consultation with the fishing sector to identify the most appropriate navigation routes for construction vessels to and from the site being developed, or to identify the most appropriate time of year for the works to occur.

618. Avoidance of significant adverse impacts will require proposals to demonstrate an understanding of the fishing sector's navigation routes (eg for unloading, processing and transporting fish), or an understanding of the seasonality of different fisheries, in order to make informed proposals on how to avoid significant adverse impacts by undertaking activities in a different place or at a different time of year from fishing activities.
619. Minimisation could include:
- co-location achieved with the development of co-existence and fisheries liaison plans (see also NW-CO-1)
 - demonstration of consultation with the fishing community, to support co-operation and minimise conflict between sectors
 - demonstration of how the development would minimise physical obstruction to current and planned shoreside fishing processing and distribution activities
 - proposal design that avoids the majority of core or historical fishing grounds
620. Mitigation could include:
- identification and/or provision of reasonable alternative access options
 - providing other benefits to the fishing industry and community that will be affected by significant adverse impacts to access (eg training, provision of facilities)
621. Where significant adverse impacts cannot be mitigated, proposals must state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused to access for fishing activities. In addition, proposals should set out how the proposal supports the North West Marine Plan vision, objectives and other plan policies. Inclusion of this information does not indicate that approval of the proposal will follow by default. That will also depend on other material considerations to be taken into account by the decision-maker which may include, for example, other plans.
622. Proponents should determine whether there is potential for significant displacement of commercial fishing from proposed activities, and whether (if co-existence is unlikely) the appropriate measures to reduce displacement have been proposed.

Decision-makers

623. Decision-makers should support marine activities and land-based activities if they enhance access for fishing activities, providing they are in accordance with requirements under relevant legislation.
624. In other public authority strategic plan-making and policy-drafting activities, decision-makers should have regard to NW-FISH-2, unless material consideration indicates otherwise.
625. Decision-makers must assess potential significant adverse impacts (direct and indirect, permanent and temporary, as well as cumulative effects) on access to fishing activities. Significant adverse impacts may include restricting access to areas where fishing activities take place, reducing the length of the season within which

fishing may take place or any actual physical impact. Decision-makers must also assess potential significant displacement impacts on fishing activities. Decision-makers should also refer to policy NW-CO-1 for more guidance on co-existence.

626. In determining a proposal, decision-makers must take account of a range of relevant considerations including compliance with legislation, regulations and environmental assessment. Decision-makers must have regard to evidence of consultation with the fishing industry, the outcome of those discussions and any mitigation required.
627. Decision-makers should consider whether there is potential for significant displacement of commercial fishing from proposed activities, and whether (if co-existence is unlikely) the appropriate measures to reduce displacement have been proposed.
628. In examining and determining proposals for Nationally Significant Infrastructure Projects, examining authorities and the relevant secretary of state must have regard to this policy for Nationally Significant Infrastructure Projects that may have significant adverse impacts on access to fishing activities.
629. The fisheries sectors are reliant on safe and effective sites to land their catch. Once onshore, processing and logistics businesses in the north west ensure the distribution and supply of fish and shellfish to local, national and international markets. These businesses are reliant on an efficient transport network.

Policy NW-FISH-3 Fisheries

Proposals that enhance essential fish habitat, including spawning, nursery and feeding grounds, and migratory routes, should be supported.

Proposals that may have significant adverse impacts on essential fish habitat, including spawning, nursery and feeding grounds, and migratory routes, must demonstrate that they will, in order of preference:

- a) avoid
 - b) minimise
 - c) mitigate
- adverse impacts so they are no longer significant.

Policy aim

630. Sustainable fish populations rely upon specific habitats throughout their life. NW-FISH-3 recognises that the protection of habitats and the services they provide can enhance fish populations, supporting the long-term existence of the fisheries and contributing to Good Environmental Status, as detailed in the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#). NW-FISH-3 encourages and supports proposals that deliver biodiversity gain for essential fish habitats. NW-FISH-3 enables sustainable use of marine resources within environmental limits, alongside productive fisheries, by requiring proposals to avoid impacts on essential fish habitats or, if avoidance of impacts is not possible, to manage impacts on essential fish habitats.
631. Policy NW-FISH-3 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

632. Proponents and decision-makers should refer to Figure 20 for spawning areas, Figure 21 for nursery grounds and Figure 22 for adult fish essential habitat in the north west marine plan areas. The maps provide only indicative information of modelled data at the point of publication, which does not show all species or areas that may be relevant to this policy. Limited evidence at the time of publication means that the areas identified in Figures 20, 21 and 22 may be subject to change as more evidence becomes available. Notably, evidence is lacking for marine areas that are positioned nearer the coast, where important essential fish habitats can be found. Should improved evidence become available, these data layers will be updated and/or added to the Marine Management Organisation's [Explore Marine Plans](#) digital service. Where data is limited, or impacts are unknown or poorly understood, decision-makers should apply a precautionary approach, with advice from the statutory nature conservation bodies.
633. Essential fish habitat is not always fixed to the same area, so it is important for proponents and decision-makers to use the best available evidence in proposals, and during decision-making. A wider range of evidence, gathered from [Environmental Impact Assessments](#), as per [The Marine Works \(Environmental Impact Assessment\) Regulations 2007](#), and local relevant bodies, such as the Inshore Fisheries and Conservation Agency, third sector fish surveys, or flood management schemes, or coastal partnerships, for example, must be demonstrated.
634. For the purpose of implementing the mitigation hierarchy, avoid is defined as acting at source to plan, design and deliver proposals that result in no significant adverse impacts occurring. To achieve this, where significant adverse impacts are identified, the proposal should be altered so that it no longer exerts a pressure, or the pressure produced can no longer be received by an identified receptor, for example, changing the location of a proposal, or redesigning materials or techniques so that they have no significant adverse impacts on essential fish habitat.
635. Minimise is defined as acting at source to plan and design proposals to reduce significant adverse impacts to the smallest possible amount or degree. Minimisation reduces the level of pressure generated. An example may be a reduction in the scale of the proposal to decrease the potential area of impact, or using materials or techniques that have a lower impact.
636. Where significant adverse impacts from pressures cannot be avoided or minimised at source, and receptors are exposed to those pressures, action should be taken to make the consequences of the impacts less severe. Mitigation is a reduction of how a given pressure level is experienced by the receptor, for example, applying timing restrictions to avoid sensitive periods, or introducing measures to reduce the distribution and spread of any impacts.
637. Proposals must first demonstrate how they will avoid significant adverse impacts on essential fish habitat. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be

minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.

638. Inclusion of this information does not indicate that approval of the proposal will follow by default. That will also depend on other material considerations to be taken into account by the decision-maker, which may include, for example, other plans. Proposals must still comply with requirements under relevant legislation. Relevant statutory assessments must be carried out for marine conservation zones in accordance with the [Marine and Coastal Access Act 2009](#), sites of special scientific interest in accordance with the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites in accordance with [The Conservation of Habitats and Species Regulations 2017](#)⁴⁹ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁵⁰.

Proponents

639. Proposals from a range of sectors could potentially enhance or have significant adverse impacts on essential fish habitat, including, but not limited to:
- aquaculture
 - disposal at sea
 - flood management schemes
 - marine aggregate extraction
 - new renewable energy infrastructure
 - ports and fishing harbours (eg capital dredging)
 - subsea cabling
 - tourism and recreation
640. Proposals that show how essential fish habitat, including spawning, nursery grounds, feeding grounds and migratory routes, will be enhanced are encouraged.
641. Enhancement refers to measures taken which have a positive impact. Such measures can include, but are not limited to, improving or creating new habitat such as estuarine sediments, upstream habitat, river restoration, intertidal habitat, natural flood management, or the improvement or creation of fish passages. Where positive impacts have been identified, proposals must also assess adverse impacts in line with relevant legislation. Enhancement is unlikely to have immediate positive impacts, is unlikely to be a like-for-like substitute for lost habitat, and is not a substitute for avoidance, minimisation or mitigation measures.
642. If proposals cannot enhance essential fish habitat, they must demonstrate that they will, in order of preference, avoid, minimise and mitigate the significant adverse impacts upon essential fish habitat. Proposals must first demonstrate how they will

⁴⁹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁵⁰ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

avoid significant adverse impacts on essential fish habitat. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on. Examples of avoidance, minimisation and mitigation include careful analysis of alternatives, design stipulations, and best management practices.

643. Avoidance of significant adverse impacts could be temporal or spatial. An example of measures used to avoid significant adverse impacts on essential fish habitat is for the proposed activity to take place in a different area or at a different time. This requires the proponent to demonstrate an understanding of the location and seasonal importance of essential fish habitat.
644. Minimisation of significant adverse impacts could involve reducing the spatial extent of a proposed activity, thereby reducing the area of impact. Temporal minimisation could involve operational activities taking place over a shorter period, thereby minimising the amount of time essential fish habitats are exposed to the source of the impact.
645. Mitigation of significant adverse impacts could involve the use of soft infrastructure solutions and innovative design to change the source of impact and reduce the area of impact.
646. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations to be taken into account by the decision-maker which may include, for example, other plans.
647. Proposals must comply with relevant legislation and regulations including, but not limited to, [The Conservation of Habitats and Species Regulations 2017](#)⁵¹, [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁵², the [Marine and Coastal Access Act 2009](#), and other national and local legislation, such as, for example, [Marine Management Organisation marine conservation byelaws](#), or the relevant regional [Inshore Fisheries and Conservation Authority byelaws](#).
648. For additional indicative information, proponents could refer to the [Environment Agency](#) estuarine and migratory fisheries surveys, or regular fisheries surveys and reports, undertaken by the [Centre for Environment, Fisheries and Aquaculture Science](#) (information is presented at the resolution of sub-rectangles of International Council for the Exploration of the Seas statistical rectangles). Surveys are also carried out by the relevant regional [Inshore Fisheries and Conservation Authority](#). The location of areas closed due to a high abundance of juvenile fish, either seasonal or 'real-time' closures, can be found on the [Marine Management](#)

⁵¹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁵² As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

[Organisation](#) commercial fishing and fisheries regulations, monitoring and enforcement webpages. Further essential fish habitat maps or updates may become available through the Marine Management Organisation's [Explore Marine Plans](#) digital service.

Decision-makers

649. Decision-makers should support proposals that enhance essential fish habitats where such proposals comply with other policies in this plan and other relevant legislation.
650. [Enabling a Natural Capital Approach](#) provides government advice to decision-makers to help them consider ecosystem services and the value of applying a natural capital approach.
651. The [Environment Bill](#) makes provision for biodiversity gain to be a condition of terrestrial planning permission in England. These provisions apply to intertidal areas in England. Policy NW-FISH-3 does not remove the obligations set out in the [Environment Bill](#) for terrestrial planning decisions.
652. It is not, at present, mandatory to deliver biodiversity net gain through the variety of decisions taken in the marine area, but decision-makers must continue to monitor and apply the most up-to-date government advice as it becomes available.
653. The high level objectives, targets and indicators contained in the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), particularly for descriptor 1: biodiversity, can be used to guide biodiversity priorities, alongside other plans or strategies relevant to the north west marine plan areas.
654. The Department for Environment, Food and Rural Affairs [Biodiversity Metric 2.0](#) includes intertidal habitats and is one tool that can be used to assess changes in biodiversity value brought about by activities.
655. Proposals that include measures to enhance essential fish habitats must comply with relevant environmental legislation including, but not limited to, [The Conservation of Habitats and Species Regulations 2017](#)⁵³, [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁵⁴, and the [Marine and Coastal Access Act 2009](#).
656. For more information on net gain obligations in the marine area, see Box 1 in Section 3.1 of the North West Marine Plan.
657. Decision-makers must ensure that assessment of essential fish habitat for all finfish and shellfish species are included during project-level assessments. This includes fully marine species, and those species with a marine element to their lifecycle, for

⁵³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁵⁴ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

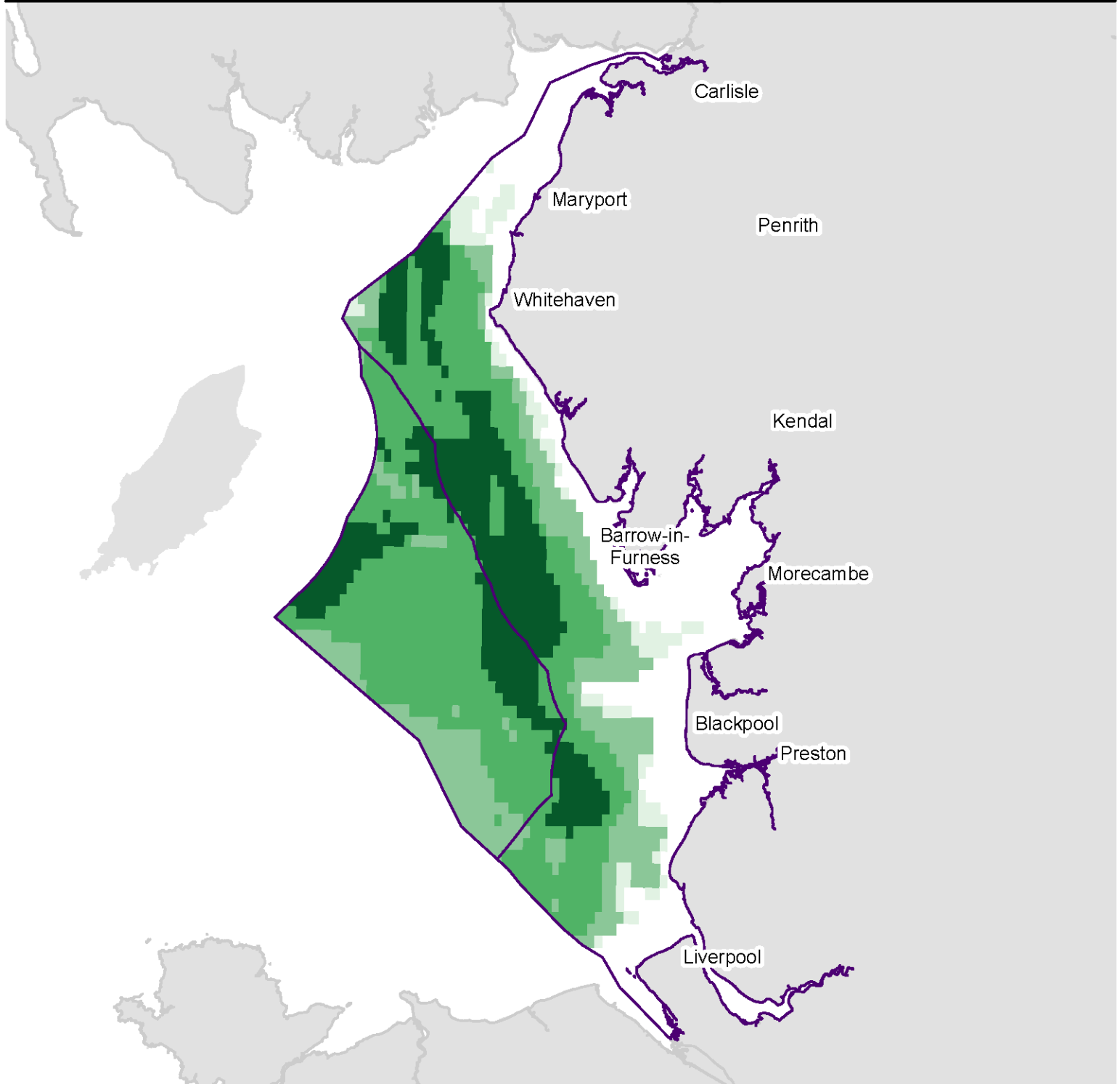
example salmon, trout and eel, where proposals could impact on migration routes and associated habitat during the transition from marine to freshwater or vice versa.

658. Decision-makers should refer to Figure 20 for spawning areas and Figure 21 for nursery grounds in the north west marine plan areas. The maps provide only indicative information of modelled data at the point of publication, which does not show all species or areas that may be relevant to this policy. Limited evidence at the time of publication means that the areas identified in Figures 20, 21 and 22 may be subject to change as more evidence becomes available. It is important for decision-makers to use the best available evidence, and they should review data collected for [Environmental Impact Assessments](#), as per [The Marine Works \(Environmental Impact Assessment\) Regulations 2007](#), as information will be current and at a more appropriate resolution than the data in Figures 20 and 21. For decision-makers to accurately assess any proposal's impact on essential fish habitats, they must also demonstrate their consideration of a wider range of best available evidence and consultation with the relevant regional [Inshore Fisheries and Conservation Authority](#) and other relevant bodies.
659. As essential fish habitats often co-occur in coastal and priority habitats, decision-makers should apply policy NW-FISH-3 in conjunction with the policies NW-BIO-1 and NW-BIO-3.
660. In examining and determining proposals for Nationally Significant Infrastructure Projects, examining authorities and the relevant secretary of state must have regard to this policy for Nationally Significant Infrastructure Projects that may have significant adverse impacts on essential fish habitat.
661. Figure 22 shows modelled data with essential adult fish habitat. It is important to note that the same limitations apply to the data in this map as to the data in Figure 20 and Figure 21, as explained above.



Figure 20 | Essential Fish Habitats

Spawning Hotspots



North West Marine Plan Areas

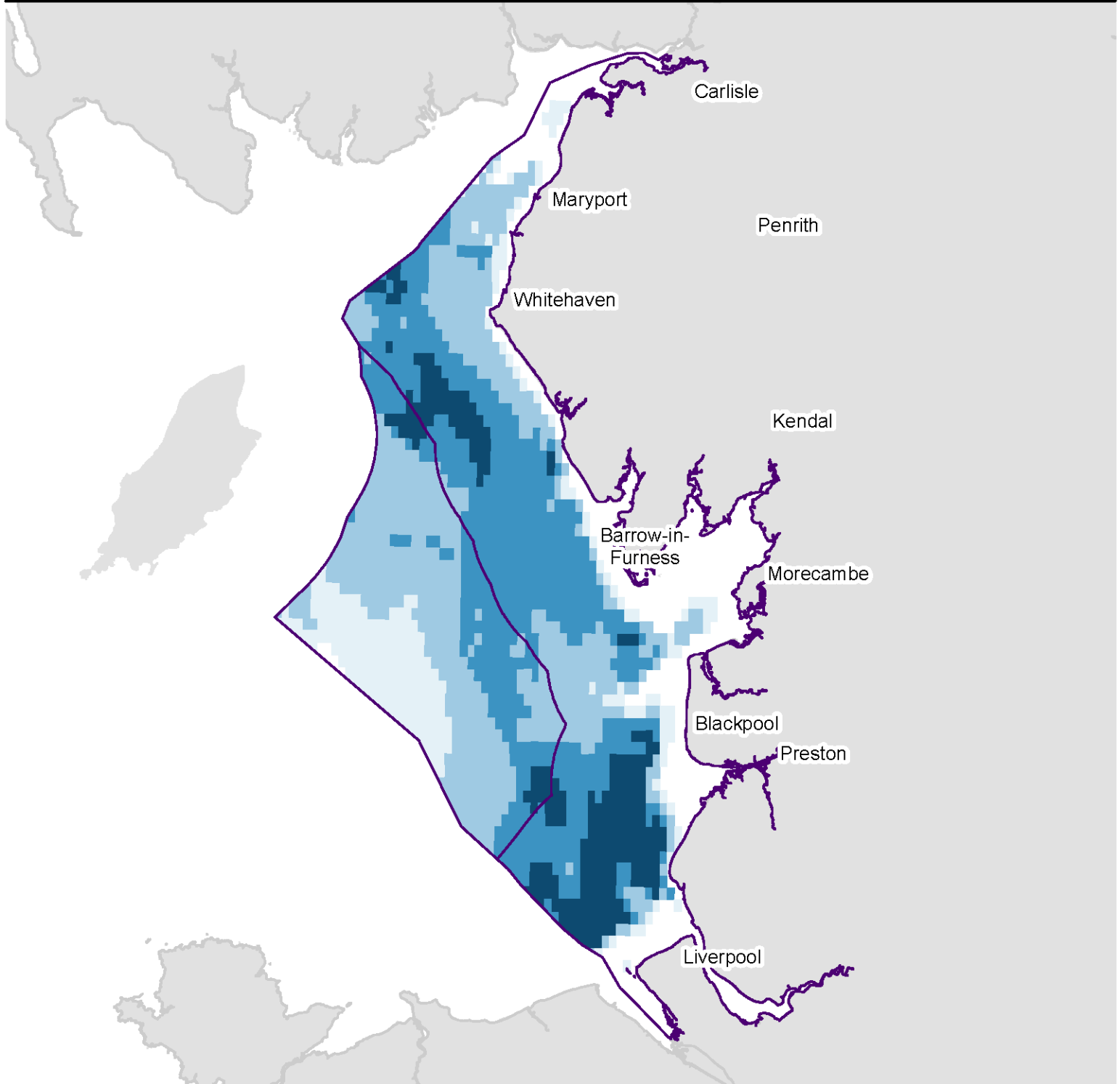
Number of Spawning Species Hotspots

- 1 - 2
- 3 - 5
- 6 - 7
- 8 - 12

Policy map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

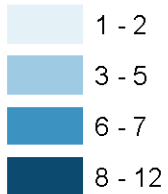
Figure 21 | Essential Fish Habitats

Juvenile Hotspots



 North West Marine Plan Areas

Number of Juvenile Species Hotspots

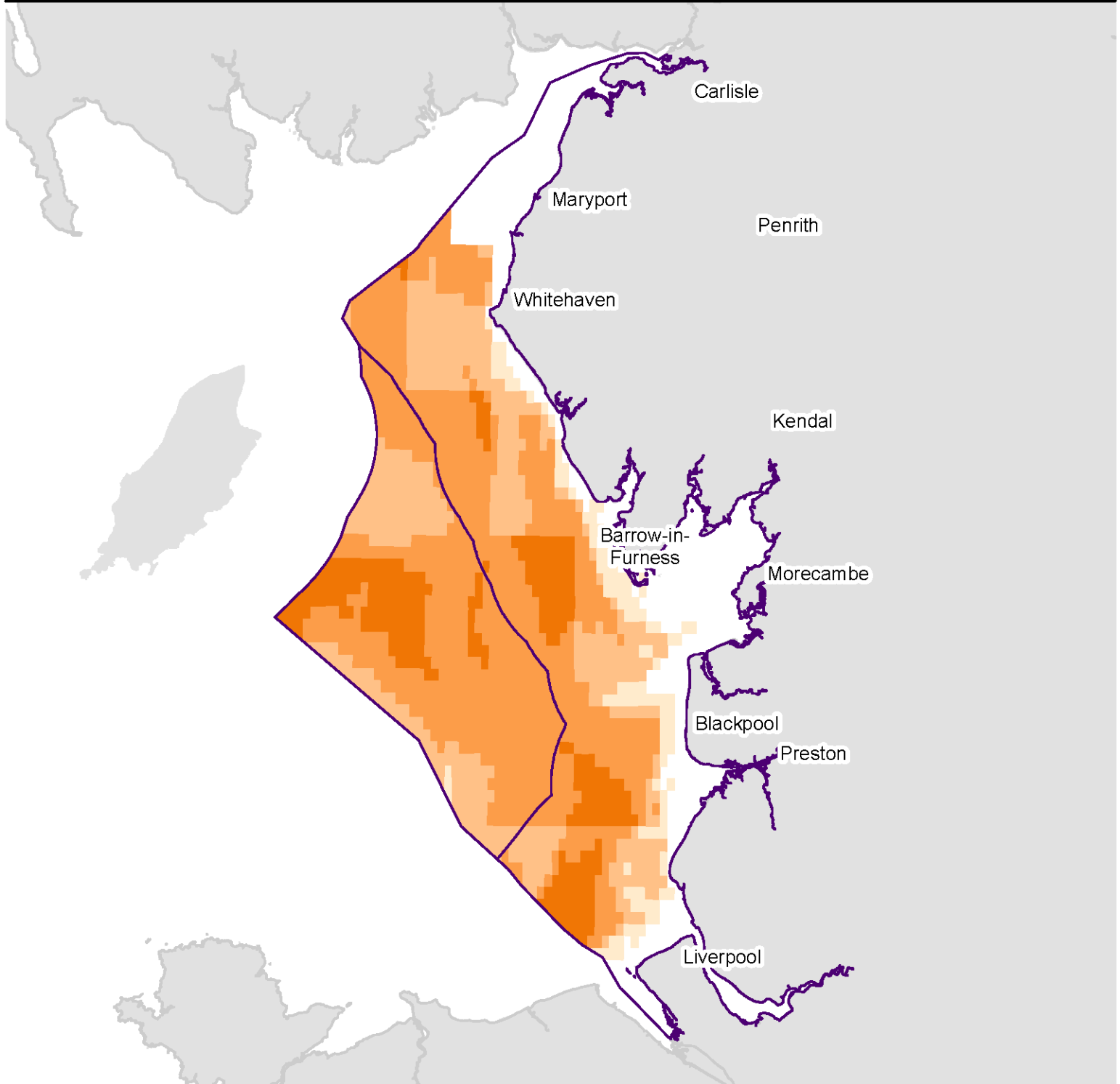


Policy map
 This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.



Figure 22 | Essential Fish Habitats

Adult Hotspots



North West Marine Plan Areas

Number of Adult Species Hotspots

- 1 - 3
- 4 - 5
- 6 - 7
- 8 - 14

Policy map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

5.13 Employment

Policy Code	Policy Wording
NW-EMP-1	<p>Proposals that result in a net increase in marine-related employment will be supported, particularly where they meet one or more of the following:</p> <ol style="list-style-type: none"> 1) are aligned with local skills strategies and support the skills available 2) create a diversity of opportunities 3) create employment in locations identified as the most deprived 4) implement new technologies <p>- in, and adjacent to, the north west marine plan areas.</p>

What is employment?

662. A **net increase in employment** is the additional employment benefit achieved after accounting for any negative impacts on other existing or planned activities, especially where employment can be accessed by those in localities within, or adjacent to, the north west marine plan areas.
663. Achieving sustainable net increases in marine-related employment is reliant upon the maintenance of existing and traditional employment opportunities, and the creation of new employment opportunities.
664. **Marine-related employment** encompasses both direct and indirect employment opportunities.
665. Direct marine-related employment opportunities are associated with activities that occur within the UK marine area. Examples of industry sectors with strong associations with direct marine-related employment include, but are not limited to:
- aquaculture
 - conservation (historic and natural)
 - fisheries
 - marine aggregates
 - oil and gas
 - ports and shipping
 - renewable energy
 - telecommunications
 - tourism and recreation
666. Indirect marine-related employment opportunities are associated with land-based activities that support marine activities, such as manufacturing and the provision of services to marine industries. Indirect marine-related employment may extend beyond the coast and into inland communities not traditionally associated with marine-related employment.
667. **Skills strategies** address skills issues inhibiting sustainable economic growth, while also helping inform negotiations with the government to secure support for activities that develop required skills. Skills strategies run parallel to existing education and

training guidance (eg [Liverpool City Region Combined Authority Skills Strategy 2018 -2023](#)).

668. Skills strategies provide a point of reference for organisations (including large employers) offering education or training relevant to businesses. Implementing skills strategies will help inform the work of strategic partners in developing terrestrial plans and can be used as a basis for ensuring that public funding and private investment in skills and employment supports local labour market requirements. Any strategic actions will reflect the needs and priorities of local economies. Local employer-led skills and economic groups, such as Local Enterprise Partnerships ([The Local Enterprise Partnership Network](#)), have an important role to play in ensuring that local skills strategies translate into positive change for learners and employers alike. Skills strategies may also be complemented by other strategies, such as the UK's [Industrial Strategy: building a Britain fit for the future](#) and Local Enterprise Partnership-led local industrial strategies.
669. **Diversity of opportunities** refers to proposals that provide new employment opportunities beyond those that are traditionally associated with the coastal and marine area. Local communities should be provided with training opportunities to enable them to fill new employment positions and access quality jobs.
670. **Locations identified as the 'most deprived'** are derived from local indices of relative deprivation in England ([English indices of deprivation 2019](#)). The local indices of relative deprivation data can be used to compare the relative deprivation ranks of different small areas across England. Local deprivation data may also be held by Local Planning Authorities and used to supplement local indices of relative deprivation data to gain further insight into the levels of deprivation in the north west region.
671. **Implementing new technology** aims to encourage investment in new technologies that would have a positive impact on marine-related employment, both direct and indirect.

Why is employment important?

672. Appropriately planned proposals, and associated supply chains, can help to encourage investment and stimulate demand for marine-based products and services. In turn, investment can create job opportunities which bring both primary and secondary socio-economic benefits through improved levels of employment and spending of wages, which may be particularly important to areas currently experiencing deprivation.
673. The [English indices of deprivation 2019](#) report identifies coastal towns as having a high concentration of deprivation. Specifically, England's north west region contained two coastal local planning authority districts (ie Liverpool and Wirral) in the report's top 20 most 'employment deprived' areas, defined as "the proportion of the working-age population in an area involuntarily excluded from the labour market". Liverpool was also identified as one of ten local planning authority districts with the highest proportion of deprived areas nationally, based upon the Index of Multiple Deprivation 2019.

674. A number of local communities within the north west of England rely on the economic benefits generated by marine activities. Notably, the oil and gas industry continues to be a significant provider of employment ([UK energy in brief 2019](#)). The north west region also supports major nuclear power facilities.
675. The [Offshore Wind Sector Deal](#) seeks to maximise the wider benefits of offshore wind with an ambition to build up to 30GW of offshore wind by 2030 and to increase investment in associated supply chains. The north west plan areas host a number of major offshore wind farms and are important for realising the government's aspirations for offshore wind energy production and growth.
676. Several sites within the north west marine plan areas have been identified as having potential for wave or tidal energy generation ([Futures analysis for the North East, North West, South East and South West marine plan areas \(MMO 1127\)](#)). Development of this sector may lead to an increase in demand for marine aggregates, technical skills, new technologies and, ultimately, an increase in marine-related employment opportunities.
677. Historically, commercial fisheries have been an important industry in the north west region. Commercial fishing remains both economically and socially important to the region ([Strategic Scoping Report for marine planning in England](#)). Commercial fisheries and their associated employment may be seasonal, following trends in fish stocks and species breeding cycles.
678. Ports and shipping is another historically important industry to the north west and remains a significant contributor to local and regional economies ([Futures analysis for the North East, North West, South East and South West marine plan areas \(MMO 1127\)](#)). In addition to providing direct employment opportunities, ports also support economic growth by encouraging innovation and the development of new business opportunities. Ports also provide important ferry connections between the Republic of Ireland and the Isle of Man.
679. The tourism and recreation sector is also an important provider of employment opportunities, with the north west inshore plan area hosting several popular tourist destinations, providing both direct and indirect employment benefits. While tourism and recreation-related employment can often be seasonal, peaking in the summer months when visitor numbers are highest, opportunities are activity-specific. For example, recreational boating activities occur year-round and may, therefore, support more permanent employment opportunities.
680. Employment provides wide-reaching and long-term benefits for both local and national economies. Employment also provides social benefits to those in work, such as improved health and well-being. The benefits of employment are recognised within Section 2.5 of the [UK Marine Policy Statement](#), which highlights the important role of marine-based activities in providing employment opportunities from both long-established and traditional industries (eg ports and shipping), as well as from new and developing industries (eg renewable energy and associated offshore electricity transmission).

681. There is a drive from the government to bring supply and demand in the skills/labour market closer together ([Plan for Growth](#)). Skills strategies help achieve this by ensuring skills providers make locally informed business decisions that will align the supply of skills and learning with the needs of employers. Ensuring that marine activities are considered within skills strategies contributes towards increasing alignment between marine and terrestrial plans while also accounting for the needs of marine activities during the development of future skills strategies.
682. The creation of new skills opportunities is crucial for overcoming employment barriers, such as low-quality jobs and skills deficits ([Local action on health inequalities: promoting good quality jobs to reduce health inequalities](#)). The expansion of new skills opportunities also contributes to the government's legislative goals, such as outlined in the [Plan for Growth](#) which aims to achieve "strong, sustainable and balanced growth that is more evenly shared across the country and between industries". This approach also supports other national aspirations including, but not limited to, the following plans and strategies:
- [A Green Future: Our 25 Year Plan to Improve the Environment](#)
 - [Clean Growth Strategy](#)
 - [Education and Employment Strategy 2018](#)
 - [Export Strategy: supporting and connecting businesses to grow on the world stage](#)
 - [Industrial Strategy: building a Britain fit for the future](#)
 - [Offshore Wind Sector Deal](#)

Policy NW-EMP-1 Employment

Proposals that result in a net increase in marine-related employment will be supported, particularly where they meet one or more of the following:

- 1) are aligned with local skills strategies and support the skills available
- 2) create a diversity of opportunities
- 3) create employment in locations identified as the most deprived
- 4) implement new technologies
 - in, and adjacent to, the north west marine plan areas.

Policy aim

683. The creation and maintenance of quality jobs is a key component to delivering sustainable economic growth, and for ensuring that everyone is able to access its associated opportunities ([Employment and Skills Strategies in England, United Kingdom](#)).
684. NW-EMP-1 supports existing national policies and strategies (eg the [UK Marine Policy Statement](#) and the UK's [Industrial Strategy: building a Britain fit for the future](#)) by encouraging decision-makers and proponents to deliver additional employment benefits from proposals, particularly those benefits associated with the listed policy criteria.

685. NW-EMP-1 seeks to maximise sustainable economic activity, prosperity and opportunities for all, both now and in to the future.

686. NW-EMP-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

687. Decision-makers and proponents may use the Marine Management Organisation report [Maximising the socio-economic benefits of marine planning for English coastal communities](#) to understand the employment, skill requirements and social issues associated with locations within, and adjacent to, the north west marine plan areas.

688. As acknowledged within the [UK Marine Policy Statement](#) Section 2.5, there is a presumption in favour of sustainable development within the marine planning system. Compliance with NW-EMP-1 alone is therefore not sufficient for the approval of a proposal. Rather, proposals must comply with all relevant economic, environmental and social marine plan policies (see Table 2) to ensure that they are compatible with the specific characteristics of the affected marine area, as well as with other existing or planned activities ([UK Marine Policy Statement](#) Section 2.4).

689. Proposals resulting in a net increase in marine-related employment should demonstrate how they meet one or more of the policy criteria. However, the policy criteria are not exhaustive. Indeed, some proposals may have minimal direct impact on marine-related employment opportunities while promoting significant indirect benefits by enabling economic activity. Proposals may also achieve other economic, environmental or social benefits. Proposals should, therefore, demonstrate any additional benefits not included within the policy criteria.

690. While the provision of new employment opportunities is crucial for increasing net marine-related employment, the maintenance of existing and traditional employment opportunities is equally important for achieving sustainable economic growth.

691. To identify the economic, environmental and social features relevant to a given proposal, decision-makers and proponents may wish to consult [Explore Marine Plans](#) and the relevant policy maps for the north west marine plan areas. [Explore Marine Plans](#) also allows decision-makers and proponents to identify other marine plan policies that may be relevant to a given proposal.

692. This policy applies to all new proposals, be they for the continuation of existing activities or relating to a new activity within, or adjacent to, the north west marine plan areas.

Proponents

693. Proponents should demonstrate the contribution of a given proposal to delivering a net increase to marine-related employment (both direct and indirect) in, and adjacent to, the north west marine plan areas. Demonstration should be proportional to the scale of the proposal and should include marine-related employment impacts across all relevant delivery phases (ie construction, operation and decommissioning phases).

694. Where proposals will create new employment opportunities, proponents should seek to provide training so that local communities have the chance to fill the new positions.
695. Where proposals will not result in a net increase in marine-related employment in, or adjacent to, the north west marine plan areas, proponents should justify why this is the case. Examples of when proposals may not contribute to a net increase in marine-related employment include, but are not limited to:
- where proponents are unable to source, or train, local communities to fill the required positions
 - where proposals are associated with different levels of employment during their lifespan
 - where proposals are small in scale and nature
696. Proponents should seek to engage with relevant stakeholders and public bodies to identify employment opportunities and address any specific issues associated with a given proposal.

Decision-makers

697. Decision-makers should support proposals that will result in a net increase (direct or indirect) in marine-related employment in, and adjacent to, the north west marine plan areas. Decision-makers should be particularly supportive of proposals that meet one or more of the policy criteria.
698. The policy criteria are not exhaustive, nor are they a prerequisite for support. Decision-makers may, therefore, support proposals based upon other beneficial and relevant economic, environmental and social outcomes.
699. Decision-makers should ensure that their decisions are in line with relevant employment and skills strategies. In so doing, decision-makers should also have regard to any adverse impacts (ie alone, cumulative, combined or synergistic) which proposals may have on other marine-related employment opportunities.
700. Decision-makers will have regard to a range of considerations, including compliance with relevant environmental assessments, legislation and regulations.
701. In determining proposals for Nationally Significant Infrastructure Projects, examining authorities and government departments acting on behalf of the Secretary of State will have regard to this policy.

5.14 Climate change resilience and adaptation

Policy Code	Policy Wording
NW-CC-1	<p>Proposals that conserve, restore or enhance habitats that provide flood defence or carbon sequestration will be supported.</p> <p>Proposals that may have significant adverse impacts on habitats that provide a flood defence or carbon sequestration ecosystem service must demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <ul style="list-style-type: none"> - adverse impacts so they are no longer significant d) compensate for significant adverse impacts that cannot be mitigated.
NW-CC-2	<p>Proposals in the north west marine plan areas should demonstrate for the lifetime of the project that they are resilient to the impacts of climate change and coastal change.</p>
NW-CC-3	<p>Proposals in the north west marine plan areas, and adjacent marine plan areas, that are likely to have significant adverse impacts on coastal change, or on climate change adaptation measures inside and outside of the proposed project areas, should only be supported if they can demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <ul style="list-style-type: none"> - adverse impacts so they are no longer significant.

What is climate change resilience and adaptation?

702. **Resilience** to climate change in relation to proposals, as per [Resilience: The emergence of a perspective for social-ecological systems analyses](#), is taken to be the ability of a proposal to respond or adapt to changes in climate so that it retains much of its original function and form, such as absorbing stresses including sea level rise and maintaining function in the face of external stresses imposed on it by climate change.
703. **Coastal change** is defined in the [UK Marine Policy Statement](#) Section 2.6.8.1 as “physical changes to the shoreline, for example erosion, coastal landslip, permanent inundation and coastal accretion”.
704. **Coastal squeeze** is defined by the joint Department for Environment, Food and Rural Affairs / Environment Agency / National Resources Wales / Welsh Government Flood and Coastal Erosion Risk Management Research and Development Programme as the loss of natural habitats or deterioration of their quality arising from anthropogenic structures, or actions, preventing the landward transgression of those habitats that would otherwise naturally occur in response to sea level rise in conjunction with other coastal processes. Coastal squeeze affects habitat on the seaward side of existing structures. The full definition, including further clarifications, is provided in ‘What is Coastal Squeeze?’ (Project FRS17187 awaiting publication).

705. **Climate change adaptation measures** help developments or activities to reduce or protect against the impact of climate change as outlined in the [UK Marine Policy Statement](#) Section 2.6.7. Terrestrial planning policy in the [National Planning Policy Framework](#) sets out how adaptation measures may be engineered to allow a proposal to work with natural processes. Engineered options include relocation of a development, reinforcement of existing dune structures or building a storm surge barrier. All of these adaptation measures increase a proposal's ability to cope with the adverse impacts of climate change. The North West Marine Plan aims to support these measures and not impede terrestrial adaptation and flood defence measures. A range of suggested adaptation methods is set out by the [International Panel on Climate Change](#).
706. **Ecosystem services** are the benefits people obtain from ecosystems according to the [UK National Ecosystem Assessment](#), Chapter 12. The classification of ecosystem services adopted by the [Millennium Ecosystem Assessment](#) categorises services as follows: provisioning, regulating, cultural and supporting services. Flood defence and carbon sequestration services (the process of capturing carbon dioxide from the environment) are regulating services.
707. The Exception Test outlined in the government's [Flood Risk and Coastal Change](#) guidance suggests the **lifetime** of a non-residential development depends on the characteristics of that development. Proponents would be expected to justify why they have adopted a given lifetime for the development, for example, when they are preparing a site-specific flood risk assessment. [The impact of climate change](#) needs to be taken into account in a realistic way and proponents, the local planning authority and decision-makers should discuss and agree what allowances are acceptable.
708. Habitats such as saltmarshes, sand dunes, seagrass beds and mudflats provide a variety of ecosystem services. Saltmarshes and mudflats play an important natural role in protecting the coast from flood events by reducing wave energy and buffering flood waters. Well-developed sand dune systems act to stabilise sediments, therefore reducing coastal erosion.
709. The habitats that provide these ecosystem services also provide a natural carbon sequestration service. Saltmarsh habitat is one of the most productive ecosystems in the world and it can sequester a large amount of carbon. Importantly, due to the anoxic (without oxygen) nature of this habitat, the carbon is often shifted from the short-term to the long-term carbon cycle. This capability is a valuable asset of many of the world's ecosystems. Seagrass beds are also considered to be an important carbon sink and sediment stabilising habitat within the marine environment. According to [Natural England's Carbon Storage by Habitat Review](#), peat bogs are also an important source of carbon sequestration when in good condition, highlighting the need to protect and conserve them.

Why is climate change resilience and adaptation important?

710. Climate change resilience and adaptation are important, given the impacts of climate change on the marine environment are wide-ranging. Climate change impacts

include, but are not limited to, sea level rise, coastal flooding, increased storminess and rising sea temperatures. [The UK Climate Projections 2018](#) (UKCP18) provides the most up-to-date assessment of how the climate of the UK may change over the 21st century. The [Climate Change Act 2008](#) sets out the UK's target of bringing all greenhouse gas emissions to net zero by 2050.

711. Climate change adaptation measures help to reduce proposals' vulnerability, and that of other developments and activities, to the adverse impacts of climate change within the north west marine plan areas. The links made to terrestrial measures, such as flood defence, help to align new proposals to fit with existing measures that help local areas adapt to climate change.
712. Successful adaptation to climate change will improve the resilience of developments, activities and ecosystems within the north west marine plan areas. It will make sure proposals properly consider, and where required, build in resilience to the effects of climate change. It will also make sure proposals do not compromise other developments, activities and ecosystems in meeting the challenges of climate change.
713. Coastal change is an important issue in the north west inshore marine plan area because a large proportion of the coastline is subject to, or vulnerable to, change. Coastal change can impact on the people, assets and resources (including natural flood defences such as saltmarsh) in, or dependent on, the north west inshore marine plan area. [Shoreline management plans](#) identify what is at risk of coastal change and flooding, such as property and nature conservation. Marine plans play an important part in the management of coastal change, including ensuring decisions in the marine areas avoid exacerbating detrimental coastal change and do not compromise, and preferably complement, existing measures. The effects of coastal change processes impact the north west inshore plan areas due to sea level rise, and changes in waves, wind and tide, which alter dominant coastal processes influencing landforms.
714. A range of existing plans, including local plans, contain assessments and measures to address coastal change. There is one [shoreline management plan](#) that is relevant to the north west inshore marine plan area which includes projections of coastal change over three epochs (20, 50 and 100 years) and how management can respond to these impacts. NW-CC-3 complements these plans, particularly for locations identified as [Coastal Change Management Areas](#). Coastal Change Management Areas are identified in local authority local plans as areas likely to be affected by coastal change (physical change to the shoreline through erosion, coastal landslip, permanent inundation or coastal accretion). NW-CC-3 ensures that marine-based proposals do not have significant adverse impacts on coastal change. NW-CC-3 also co-ordinates related cross-boundary issues across marine plan areas, or from the sea to land, ensuring that cross-boundary proposals are properly planned. Collaborative working within catchment partnerships or flood risk management groups will help to provide this co-ordination.
715. As demonstrated in the [Benyon Review into Highly Protected Marine Areas](#), healthier marine ecosystems are more resilient to the effects of climate change

because they are more biologically diverse, which facilitates better adaptation to change. Furthermore, they provide natural resilience for coastal communities and provide greater ability to provide carbon sequestration, which is important for the natural carbon cycle and provides a natural carbon sink. NW-CC-1 enables these habitats to continue to provide these valuable ecosystem services by encouraging their conservation, restoration and enhancement. Potential future residential and industrial development within and adjacent to the north west inshore plan area could conflict with habitats and species important for coastal resilience and carbon sequestration. According to the [Marine Planning: Evidence Issues Database](#), parts of mudflat and saltmarsh habitats in the north west inshore marine plan area are in poor condition and declining. Effective management of marine ecosystems can be considered a climate change adaptation measure necessary to deal with the potential impacts of climate change. Preventing significant adverse impacts of proposals on habitats that provide natural flood defences can also reduce the need for additional artificial and costly flood defences, as outlined in the [UK Climate Change Risk Assessment Report](#).

716. The [Environment Bill](#) makes provision for biodiversity gain to be a condition of terrestrial planning permission in England. These provisions apply to intertidal areas in England. The [National Planning Policy Framework](#) Section 174 (b) requires proposals to “promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.” Section 174 (d) states that “development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”
717. NW-CC-1, NW-CC-2 and NW-CC-3 give effect to the [UK Marine Policy Statement](#) and support climate change adaptation measures. The policies also respond to the requirements set out in [A Green Future: Our 25 Year Plan to Improve the Environment](#) which has targets focussing on reducing the risks of harm from environmental hazards and mitigating and adapting to climate change. Furthermore, policies will aid in the achievement of Good Environmental Status under the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and contribute to the UK’s high level marine objectives for living within environmental limits.
718. Alongside this, the [Clean Growth Strategy](#) sets out a range of approaches to decarbonise the UK while growing the economy. [A Green Future: Our 25 Year Plan to Improve the Environment](#) and the [Clean Growth Strategy](#) work together to set out a framework for mitigating climate change, and the policies are linked to the ambitions in both strategies.
719. The policies also align with the guiding framework for terrestrial planning in England, the [National Planning Policy Framework](#), with respect to managing coastal change and planning for climate change.

Policy NW-CC-1 Climate change resilience and adaptation

Proposals that conserve, restore or enhance habitats that provide flood defence or carbon sequestration will be supported.

Proposals that may have significant adverse impacts on habitats that provide a flood defence or carbon sequestration ecosystem service must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant
- d) compensate for significant adverse impacts that cannot be mitigated.

Policy aim

720. Proposals that conserve, restore or enhance habitats that provide flood defence or carbon sequestration will be supported. Habitats that provide flood defence and carbon sequestration contribute to natural resilience for coastal communities that are vulnerable to coastal erosion and change. NW-CC-1 requires proposals to manage impacts, enabling these important habitats to continue to provide this valuable service. Proposals that cannot avoid, minimise and mitigate or, as a last resort, compensate for significant adverse impacts, will not be supported.
721. Policy NW-CC-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

722. Saltmarsh, sand dunes, seagrass beds and mudflats exist in the north west inshore marine plan area. Please see the habitats and species layers on the [Explore Marine Plans](#) digital service for their distribution. There is also evidence that impacts to offshore habitats, particularly to the seabed, can affect the carbon cycle and, by extension, the ability of habitats to sequester carbon ([Monitoring the sedimentary carbon in an artificially disturbed deep-sea sedimentary environment](#)). Where relevant, proponents and public authorities must take into account all current publicly available evidence relating to habitats providing relevant ecosystem services, for example, but not limited to, the seagrass cover, using [Explore Marine Plans](#) or [Historic England's Intertidal and Coastal Peat Database](#).

Proponents

723. Where proposals conserve, restore or enhance the size, extent, connectivity and/or the quality of functioning habitats that provide a flood defence or carbon sequestration service, they will be supported where they comply with other policies in this plan and relevant legislation. For information on beneficial use of dredge material, including habitat restoration, please see the report [Alternative use of dredge material in the north east, north west, south east and south west marine plan areas \(MMO1190\)](#).
724. Proposals must demonstrate that they have considered available evidence and identified any significant adverse impacts on habitats, both within or adjacent to the

north west marine plan areas, that provide flood defence and/or carbon sequestration ecosystem services.

725. Proposals must first demonstrate how they will avoid significant adverse impacts on habitats that provide a flood defence or carbon sequestration ecosystem service. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated, proposals must demonstrate how they will compensate for such impacts. Proposals will likely apply a mixture of measures to avoid, minimise, mitigate and compensate for significant adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.
726. Measures may include, for example:
- avoid – finding alternative locations
 - minimise – minimising the size of structures or the amount of time work is undertaken to make sure natural processes can continue
 - mitigate – innovative engineering design, alternative, less impactful construction methods, sediment bypassing to avoid sediment loss or reductions to the overall size and scope of a project
 - compensate - compensation will be considered on a case-by-case basis by decision-makers for significant adverse impacts that cannot be avoided, minimised or mitigated; compensation will only be acceptable when in line with the provisions present in primary legislation and regulations
727. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations to be taken into account by the decision-maker, which may include, for example, other plans.
728. The [Explore Marine Plans](#) digital service contains information showing habitats of conservation importance and species and habitats that are particularly threatened, rare, or declining. The information also indicates the location of several habitats highlighted within this policy, including coastal saltmarsh and seagrass bed habitats. The absence of evidence does not mean absence of habitats that provide flood defence and carbon sequestration ecosystem services.
729. Additional proposal-specific evidence may be required. Where new evidence emerges that improves or changes the evidence provided here, this must be taken into account in applying the policy.
730. Proposals must comply with relevant legislation and regulations, including [The Conservation of Habitats and Species Regulations 2017](#)⁵⁵, [The Conservation of](#)

⁵⁵ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

[Offshore Marine Habitats and Species Regulations 2017](#)⁵⁶, [The Town and Country Planning \(Environmental Impact Assessment\) Regulations 2017](#)⁵⁷, [The Marine Works \(Environmental Impact Assessment\) Regulations 2007](#), [The Infrastructure Planning \(Environmental Impact Assessment\) Regulations 2017](#), [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁵⁸ and [National Policy Statements](#), where they apply. Proposals within European sites within the UK national site network will require additional assessment measures.

731. For marine protected areas, the assessment of adverse impacts must take account of the conservation objectives set out by the statutory nature conservation bodies and comply with the statutory assessments for marine conservation zones under the [Marine and Coastal Access Act 2009](#), sites of special scientific interest under the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites under [The Conservation of Habitats and Species Regulations 2017](#)⁵⁹ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁶⁰. Where proposals have been determined to have a likely significant effect on a special protection area, special area of conservation or Ramsar site through a Habitats Regulations Assessment, an Appropriate Assessment will be required.
732. Where proposals have adverse impacts on a marine protected area, policies MPA-1, MPA-2, MPA-3 and MPA-4 apply. Such proposals must first demonstrate that they have avoided adverse impacts. Avoidance is the preferred measure due to the difficulty of mitigating impacts in the marine environment. Advice should be sought from the statutory nature conservation bodies on the suitability of mitigation measures. Where such proposals cannot avoid, minimise and mitigate adverse impacts, compensation may not be appropriate and the provisions for derogations that are present in primary legislation and regulations must be applied.
733. Biodiversity net gain is an emerging approach to measure and quantify the biodiversity value of an area before and after a proposal. It can be used to measure the impact, positive or negative, that a proposal may have on biodiversity value. The Department for Environment Food and Rural Affairs [Biodiversity Metric 2.0](#) is one tool in development that can be used to assess changes in biodiversity value brought about by activities in the intertidal area.
734. There are, as yet, no mandatory requirements to deliver biodiversity gain through offshore activities seaward of the intertidal area, and there are no metrics available at the current time to quantify or measure the impact of activities on offshore biodiversity. Decision-makers and proponents are, however, reminded of the

⁵⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁵⁷ As amended by [The Environmental Assessments and Miscellaneous Planning \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Waste \(Circular Economy\) \(Amendment\) Regulations 2020](#)

⁵⁸ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

⁵⁹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁶⁰ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

provisions set out in [The Marine Strategy Regulations 2010](#)⁶¹ to achieve Good Environmental Status of UK seas, and the [Natural Environment and Rural Communities Act 2006](#) Section 40 for decision-makers to have regard to the purposes of conserving biodiversity.

Decision-makers

735. The government has made a long-term commitment to leave the environment in a measurably better state as set out in [A Green Future: Our 25 Year Plan to Improve the Environment](#). This aim is reinforced in the marine area by the government's commitment to achieving Good Environmental Status in UK seas through provisions in [The Marine Strategy Regulations 2010](#)⁶².
736. Decision-makers will support proposals that conserve, restore or enhance habitats that provide flood defence or carbon sequestration where such proposals comply with other policies in this plan and other relevant legislation.
737. The [Environment Bill](#) makes provision for biodiversity gain to be a condition of terrestrial planning permission in England. These provisions apply to intertidal areas in England. Policy NW-CC-1 does not remove the obligations set out in the [Environment Bill](#) for terrestrial planning decisions.
738. Local Authorities may be aided in their decisions by the Royal Town Planning Institute's [Guide for Local Authorities on Planning for Climate Change](#).
739. It is not, at present, mandatory to deliver biodiversity net gain through the variety of other types of decisions taken in the marine area, but decision-makers must continue to monitor and apply the most up-to-date government advice as it becomes available.
740. The high level objectives, targets and indicators contained in the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), particularly for descriptor 1: biodiversity, can be used to guide biodiversity priorities, alongside other plans or strategies relevant to the north west marine plan areas.
741. The Department for Environment, Food and Rural Affairs [Biodiversity Metric 2.0](#) includes intertidal habitats and is one tool that can be used to assess changes in biodiversity value brought about by activities.
742. Proposals that include measures to conserve, restore or enhance habitats that provide flood defence or carbon sequestration must comply with relevant environmental legislation including, but not limited to, [The Conservation of Habitats](#)

⁶¹ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

⁶² As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

[and Species Regulations 2017](#)⁶³, [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁶⁴, and the [Marine and Coastal Access Act 2009](#).

743. For more information on net gain obligations in the marine areas, see Box 1 in Section 3.1 of the North West Marine Plans.
744. Decision-makers must apply this policy where the best available evidence indicates that it is appropriate to do so.
745. Decision-makers must apply this policy proportionally for proposals that will interact with habitats that provide the listed ecosystem services (flood defence and carbon sequestration).
746. Decision-makers must request the required information where it is judged that this policy has not been sufficiently addressed before proceeding. For example, in cases where inadequate information has been provided to make an informed assessment.

Policy NW-CC-2 Climate change resilience and adaptation

Proposals in the north west marine plan areas should demonstrate for the lifetime of the project that they are resilient to the impacts of climate change and coastal change.

Policy aim

747. The effects of climate change are wide-ranging and can include sea level rise, coastal flooding and rising sea temperatures. NW-CC-2 adds provision to enable enhanced resilience of developments, activities and ecosystems within the north west marine plan areas to the effects of climate change and coastal change.
748. NW-CC-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

749. Any development or proposal that is located on or around mean high water springs is potentially at risk of flooding or other adverse impacts of climate change. As sea levels rise, mean high water springs may advance inland in certain locations. Areas at risk have been mapped by the Environment Agency and are available through their [flood map for planning](#). This map also contains information showing existing flood defences that may inform the location of developments or proposals to benefit from those defences. Some of these areas are already protected by existing measures through terrestrial planning, which includes [Coastal Change Management Areas](#) outlined in local plans. The North West Marine Plan aims to support these existing measures, such as the [National Flood and Coastal Erosion Risk Management Strategy for England](#), and not impede existing adaptation and flood defence measures, while ensuring that new proposals fit effectively with the existing measures.

⁶³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁶⁴ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

Proponents

750. This policy is of interest to those developing proposals in the north west marine plan areas, such as energy installations and wharves. Proposals should demonstrate that they are resilient to the effects of climate change for the lifetime of the proposal.
751. Proposals should demonstrate that they have consulted with public authorities⁶⁵ on matters identified in this policy at the earliest opportunity, particularly in relation to considering how proposals avoid adverse impacts on existing adaptation measures.
752. Proposals by risk management authorities that relate to the requirements of [National Flood and Coastal Erosion Risk Management strategies](#) are likely to meet the requirements of this policy through their obligations under the [Flood and Water Management Act 2010](#). Climate change projections should be considered to make sure the design and operation of a given marine activity and/or proposed management measure (such as a marine protected areas designation) are as resilient as possible to the effects of climate change, such as coastal change and flooding.
753. The Environment Agency must be consulted on any development in coastal areas with a greater than 0.5% chance of flooding. To identify these areas, proposals should refer to the Environment Agency's [flood map for planning](#).

Decision-makers

754. NW-CC-2 is of interest to public authorities making decisions that affect the north west marine plan areas directly, including local planning authorities and those authorities granting permits or licences for activity in those areas.
755. Decision-makers should request information from the proponent to enable an informed assessment of compliance with policy NW-CC-2. Decision-makers will determine on a case-by-case basis the information that may be required to determine whether the proposal includes measures to reduce the need for additional coastal protection over the lifetime of the proposal, for example through good design, consideration of natural processes, and alignment with local coastal management policies.
756. Decision-makers must request the required information where it is judged that this policy has not been sufficiently addressed before proceeding. For example, in cases where inadequate information has been provided to make an informed assessment.
757. Proposals by risk management authorities that relate to the requirements of [National Flood and Coastal Erosion Risk Management strategies](#) are likely to meet the requirements of this policy through their obligations under the [Flood and Water Management Act 2010](#).

⁶⁵ Public authorities are likely to include, but are not limited to, the Environment Agency, local authorities, and regional flood and coastal committees.

Policy NW-CC-3 Climate change resilience and adaptation

Proposals in the north west marine plan areas, and adjacent marine plan areas, that are likely to have significant adverse impacts on coastal change, or on climate change adaptation measures inside and outside of the proposed project areas, should only be supported if they can demonstrate that they will, in order of preference:

- a) avoid
 - b) minimise
 - c) mitigate
- adverse impacts so they are no longer significant.

Policy aim

758. Large areas of the north west inshore marine plan area coastline are subject to or vulnerable to change. NW-CC-3 ensures proposals do not exacerbate coastal change, enabling communities to be more resilient and better able to adapt to coastal erosion and flood risk where identified. NW-CC-3 also supports proposals that do not compromise existing adaptation measures, which will enable an improvement in the resilience of coastal communities to coastal erosion and flood risk. Proposals that cannot avoid, minimise and mitigate significant adverse impacts will not be supported.
759. NW-CC-3 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

760. NW-CC-3 is relevant to public authorities with an interest in coastal protection or flood risk management, and those developing proposals that may affect coastal change.
761. NW-CC-3 recognises that changes to the coastline (for example, managed realignment) can be beneficial for flood risk management, communities and biodiversity. It does not, therefore, look to restrain coastal defence or flood risk management proposals that will stabilise, reinforce or purposefully alter the coastline with the express aim of reducing vulnerability to coastal change.
762. There are existing measures through terrestrial planning that identify potential areas of risk, which include [Coastal Change Management Areas](#) outlined in local plans or Neighbourhood Development Plans. The North West Marine Plan aims to support these existing measures and not impede existing adaptation and flood defence measures while ensuring that new proposals fit effectively with the existing measures.

Proponents

763. Proposals should demonstrate that they have consulted with relevant public authorities on matters identified in this policy at the earliest opportunity, particularly in relation to considering how proposals avoid adverse impacts upon existing

adaptation measures^{66 67 68}. Relevant public authorities include, but are not limited to, the Environment Agency, local authorities, catchment partnerships, relevant coast protection authorities, Inshore Fisheries and Conservation Authorities, coastal groups and/or lead local flood authorities. Consultation should be carried out at the earliest opportunity, particularly in relation to considering how proposals might help support existing coastal adaptation policies.

764. Proposals should demonstrate that they have taken into account existing plans, such as [shoreline management plans](#), estuary management plans and other local-level plans including [coastal change management areas](#), local flood risk management plans and strategies, as well as beach management plans, where applicable.
765. Proposals by risk management authorities that relate to the requirements of [National Flood and Coastal Erosion Risk Management strategies](#) are likely to meet the requirements of this policy through their obligations under the [Flood and Water Management Act 2010](#). Wider improvements to resilience could be considered mitigating factors to demonstrate that certain coastal management schemes will not have an overall significant adverse impact on coastal change.
766. Proposals that are likely to be at risk from climate change and do not include appropriate adaptation measures to make them resilient should identify existing measures that would currently provide resilience to any adverse impacts such as flood defences, providing resilience to any adverse impacts of climate change.
767. Proposals should first demonstrate how they will avoid significant adverse impacts on coastal change, or on climate change adaptation measures, inside and outside of the proposed project areas. Where significant adverse impacts cannot be avoided, proposals should demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals should demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals should demonstrate how they have satisfied a) before moving to b), and so on.
768. Measure may include, for example:
 - avoid – through alternative locations
 - minimise – minimising the size of structures, offset carbon emissions from delivering the proposal, engineering green infrastructure into the proposal
 - mitigate – innovative engineering design

⁶⁶ Coastal groups comprise all key partners in coastal management, principally those from the Environment Agency, maritime local authorities and port authorities.

⁶⁷ In two-tier local government, the district council remains responsible for coast protection, while flooding is managed by the county.

⁶⁸ Management of coastal change and flood risk management is the responsibility of the Environment Agency, lead local authorities and others, as indicated by relevant shoreline, estuary or river basin management plans.

769. Inclusion of this information does not indicate that approval of the proposal will follow by default. This will also depend on other material considerations to be taken into account by the decision-maker which may include, for example, other plans.

Decision-makers

770. Public authorities should consider this policy when assessing proposals that are likely to have a significant adverse impact on coastal change. This may include large proposals such as those requiring an [Environmental Impact Assessment](#) or a [strategic environmental assessment](#). This includes when a proposal affects the vulnerability of other users, or if change is on a scale of, or above, that of [shoreline management plan](#) units (where a coastal management decision has been taken).

771. Public authorities should not give consent for proposals which could cause significant adverse impacts to areas at risk, or those of high probability of coastal change⁶⁹.

772. Future proposals in the adjacent marine plan areas may have potential significant adverse impacts on coastal change and consideration should be given on a case-by-case basis as to whether they should be supported.

773. In applying this policy, the term 'adjacent' is taken to mean close by, by the side of, or bordering on the marine plan areas.

⁶⁹ Areas at risk include [Coastal Change Management Areas](#) in addition to other locations that may be identified in relevant local plans or by relevant local authorities and/or Environment Agency coastal managers.

5.15 Carbon capture, usage and storage

Policy Code	Policy Wording
NW-CCUS-1	Decommissioning programmes for oil and gas facilities should demonstrate that they have considered the potential for re-use of infrastructure.
NW-CCUS-2	Carbon capture, usage and storage proposals incorporating the re-use of existing oil and gas infrastructure will be supported.
NW-CCUS-3	Proposals associated with the deployment of low carbon infrastructure for industrial clusters should be supported.

What is carbon capture, usage and storage?

774. Carbon capture, usage and storage is a technology that can capture carbon dioxide emissions from industrial processes and combustion of fossil fuels for electricity generation, to be used or stored. The process involves:
- capturing carbon dioxide from industrial processes or electricity production
 - transporting compressed (liquid) carbon dioxide by trunk pipeline or ship to a storage site
 - safely and permanently storing the carbon dioxide in very deep subsurface rock formations; suitable storage sites include, but are not limited to, depleted oil and gas fields, and saline aquifers
 - utilisation of the captured carbon dioxide in some instances
775. Carbon capture, usage and storage can prevent carbon dioxide emissions produced from the use of fossil fuels in electricity generation and industrial processes from entering the atmosphere and contributing to atmospheric climate change.
776. The storage of carbon dioxide is licensed through the [Energy Act 2008](#).
777. Carbon capture, usage and storage projects will require the development and construction of a large amount of infrastructure to create a carbon dioxide transport and storage network. For some projects, there may be opportunities to re-use existing oil and gas infrastructure in a carbon dioxide transport and storage network once it is no longer used for hydrocarbon-related activities.
778. The decommissioning of offshore oil and gas installations and pipelines on the UK Continental Shelf is controlled through the [Petroleum Act 1998](#). The responsibility for ensuring that the requirements of the [Petroleum Act 1998](#) are complied with rests with the Offshore Petroleum Regulator for Environment and Decommissioning, which sits within the Department for Business, Energy and Industrial Strategy.
779. Owners of oil and gas installations and pipelines are required to decommission their offshore infrastructure at the end of a field's economic life. The [Petroleum Act 1998](#) requires owners to set out the measures to decommission disused installations and/or pipelines in a decommissioning programme. A **decommissioning programme** must identify all the items of equipment, infrastructure and materials that have been installed or drilled and describe the decommissioning solution for each.

780. The **re-use of oil and gas infrastructure** involves repurposing existing oil and gas infrastructure for alternative use. The infrastructure referred to can include wells, trunk pipelines or platforms which, through re-use, can facilitate the transport and storage of captured carbon dioxide.
781. If assets are identified as having potential for re-use (such as for carbon capture, usage and storage), they might need to be maintained or preserved in a state that supports later re-use. These assets would, however, ultimately need to undergo decommissioning in accordance with the [Energy Act 2008](#) and the [Petroleum Act 1998](#).
782. **Industrial clusters** are groupings of industrial businesses that have the potential to share low-carbon infrastructure and other agglomeration benefits to achieve decarbonisation, which are detailed in the [Delivering clean growth: CCUS Cost Challenge Taskforce report](#).

Why is carbon capture, usage and storage important?

783. Carbon capture, usage and storage may be beneficial to the north west marine plan areas by supporting regional economic growth through creating new jobs and supporting new markets. It may also encourage investment in local and regional skills and infrastructure; [The Potential Value of CCUS to the UK Economy](#) report estimates that for the whole UK, “the economy would be £30 billion per annum (approximately 1% of GDP) better off in 2050 and beyond if carbon capture, usage and storage is fully integrated into the power and industrial sectors”.
784. Carbon capture, usage and storage has the potential to contribute to decarbonising the economy, helping the UK reach its emissions targets by 2050. The Climate Change Committee report, [Net Zero – The UK’s contribution to stopping global warming](#), describes carbon capture, usage and storage as necessary for reaching these net zero targets. The Climate Change Committee report notes that carbon capture, usage and storage is regarded internationally as a key abatement technology for limiting the impact of climate change, helping to reduce the amount of carbon dioxide entering the atmosphere through the sequestration of carbon dioxide in geological formations. This can benefit the marine environment by reducing the drawdown of carbon dioxide into the ocean, thereby reducing ocean acidification.
785. As part of the National Policy Statements for energy infrastructure, the [Overarching National Policy Statement for Energy \(EN-1\)](#) states that “all commercial scale (at or over 300 megawatts electrical output) combustion power stations (including gas, coal, oil or biomass) have to be constructed carbon capture ready”. Carbon capture, usage and storage can help decarbonise energy-intensive industries, such as chemical processing, cement or energy production. The [UK Marine Policy Statement](#) Section 3.3.33 states that “there are also possibilities to re-use existing infrastructure” to provide access to carbon dioxide storage sites. The preservation and re-use of existing oil and gas infrastructure can deliver cost savings to carbon capture, usage and storage projects as the amount of new infrastructure to be installed can be reduced. Re-use can also be beneficial to oil and gas operators, who might be able to transfer or defer decommissioning costs by selling the

infrastructure for re-use and/or extending the life of the asset. The carbon storage project would likely become the primary duty holder with responsibility for decommissioning. Infrastructure re-use can extract more usage and, therefore, cost efficiency from individual assets, as well as reducing the environmental impacts and carbon footprint associated with new construction⁷⁰.

786. As outlined in the [UK Marine Policy Statement](#) Section 3.3.31, the UK Continental Shelf is considered to be one of the most promising locations anywhere in the world to permanently store carbon dioxide. The government's ambition is for the UK to become a global technology leader in carbon capture, usage and storage. The [Clean Growth Strategy](#), published in 2017, sets out the range of actions, domestically and internationally, needed to unlock its potential.
787. This was followed by [The UK carbon capture, usage and storage \(CCUS\) deployment pathway: an action plan](#), which set out the next steps that industry and government need to take to enable the development of the first carbon capture, usage and storage facility in the UK. The action plan aims to start commissioning projects from the mid-2020s, to achieve the government's ambition to have the option to deploy carbon capture, usage and storage at scale during the 2030s, subject to costs coming down sufficiently.
788. The [UK Marine Policy Statement](#) Section 3.3.33 states that "for storage to take place it will be necessary to install associated infrastructure such as pipelines and well-heads". Re-using existing oil and gas infrastructure may not be a viable or suitable option for some carbon capture, usage, and storage projects. In these cases, the construction of new transport and storage infrastructure will be required. Where re-use of infrastructure is not a viable option, industrial clusters may share infrastructure, which can also reduce costs.
789. [The UK carbon capture, usage and storage \(CCUS\) deployment pathway: an action plan](#) outlines the approach to creating industrial clusters for carbon capture, usage and storage deployment. These are regional groupings where several industrial facilities can co-operate, sharing infrastructure and knowledge. This is to aid reduction of costs and benefit local economies.
790. In November 2020, the government announced [The Ten Point Plan for a Green Industrial Revolution](#). This set out the government's aim to establish carbon capture, usage and storage in two industrial clusters by the mid-2020s and a further two by 2030. The government's [Energy White Paper: Powering our net zero future](#) reaffirmed the aim to introduce industrial clusters and the ambition to capture 10Mt of carbon dioxide a year by 2030.
791. The [Budget 2020](#) announced the creation of an £800 million Carbon Capture and Storage Infrastructure Fund. This was increased to £1 billion at the [Comprehensive Spending Review 2020](#) with the objective of establishing carbon capture, usage and storage in at least two UK clusters by the mid-2020s and a further two by 2030.

⁷⁰ [Infrastructure Reuse and Decommissioning](#)

792. There is one industrial cluster which may operate in the north west marine plan areas: the Merseyside cluster. Storage sites associated with the Merseyside industrial cluster are likely to be in the eastern Irish Sea. There may be cross-border considerations for carbon dioxide transport and storage projects, such as in the territorial sea adjacent to Wales and Scotland. Clusters in the Welsh national marine plan area may utilise storage sites in the east Irish Sea.
793. The [UK Marine Policy Statement](#) Section 3.3.33 acknowledges the need for suitable locations that provide for the permanent storage of carbon dioxide, recognising that research and development projects may be proposed, with evidence gathering and reviews required to support future policy. Additional evidence will also help to inform the role of carbon dioxide, usage and storage, as well as underpin opportunities for co-location with other energy technologies.
794. The [UKCS Energy Integration - Final Report](#) was published by the Oil and Gas Authority in collaboration with the Department for Business, Energy and Industrial Strategy, the Office of Gas and Electricity Markets, and The Crown Estate. The Energy Integration Report highlights that integrating offshore energy systems could “contribute to deliver approximately 30% of the UK’s total carbon reduction requirements needed to meet the 2050 net zero target”. Annex 2 focusses on carbon capture and storage, identifying economic and regulatory hurdles. The report recommends approaches to realise the value of carbon capture and storage technologies, which will support the decarbonisation of industrial clusters.

Policy NW-CCUS-1 Carbon capture, usage and storage

Decommissioning programmes for oil and gas facilities should demonstrate that they have considered the potential for re-use of infrastructure.

Policy aim

795. The re-use of existing oil and gas infrastructure may bring cost savings for carbon capture, usage and storage projects. Re-using oil and gas infrastructure for carbon capture, usage and storage may also potentially benefit existing owners and operators of these oil and gas assets through maximising the economic life of their asset, as well as offering wider benefits supporting decarbonisation of the UK economy. This policy encourages the consideration of infrastructure re-use by oil and gas operators prior to decommissioning. The policy notes that re-use of infrastructure may not be a viable or realistic option, the aim is for the potential to be considered.
796. Policy NW-CCUS-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

797. Carbon dioxide can only be safely stored where geology and infrastructure are suitable; this is reflected in the locations of some existing oil and gas installations which have the same locational requirements. The Energy Technologies Institute have highlighted potential carbon dioxide storage sites in their [Strategic UK CCS Appraisal](#), while [CO2 Stored](#) provides an online map of potential carbon dioxide storage sites alongside other activities in the offshore marine area.

798. Many of the major storage sites for carbon dioxide in the UK marine area are available in the eastern Irish Sea. The offshore regions are prioritised for storage as they are known to have suitable geology. Onshore oil and gas fields are likely to be too small to store the large amounts of carbon dioxide needed to reduce emissions.
799. The government ran a consultation, [Carbon capture, usage and storage \(CCUS\) projects: re-use of oil and gas assets](#), which closed in September 2019. This included consulting on a list of oil and gas assets with potential for re-use, and on a policy framework. The government response to the consultation identifies opportunities for and barriers to the re-use of oil and gas assets for carbon capture, transport and storage. The response also outlines oil and gas assets expected to have the greatest potential for re-use for carbon capture, usage and storage. The publication of new policies and evidence will be kept under review for relevance to the implementation of this policy.

Proponents

800. Owners of oil and gas assets (operators) are required to decommission their offshore infrastructure at the end of a field's economic life, and the [Petroleum Act 1998](#) requires owners to set out the measures to decommission disused assets in a decommissioning programme. A decommissioning programme must identify all the items of equipment, infrastructure and materials that have been installed or drilled, and describe the decommissioning solution for each.
801. Operators can reach compliance with NW-CCUS-1 by demonstrating that they have considered the potential for re-use of each asset prior to submitting a decommissioning programme. The operator should consult with the Oil and Gas Authority for more information.

Decision-makers

802. The decommissioning of offshore oil and gas installations and pipelines on the UK Continental Shelf is controlled through the [Petroleum Act 1998](#). The responsibility for ensuring that the requirements of the [Petroleum Act 1998](#) are complied with rests with the Offshore Petroleum Regulator for Environment and Decommissioning which sits within the Department for Business, Energy and Industrial Strategy. The Offshore Petroleum Regulator for Environment and Decommissioning would approve any decommissioning programmes for oil and gas installations and pipelines as well as assessing any associated environmental permits.

Policy NW-CCUS-2 Carbon capture, usage and storage

Carbon capture, usage and storage proposals incorporating the re-use of existing oil and gas infrastructure will be supported.

Policy aim

803. The re-use of oil and gas infrastructure can be economically beneficial for both oil and gas, and carbon capture, usage and storage operators, as well as offering wider economic and environmental benefits. This policy encourages re-use by supporting new carbon capture, usage and storage proposals that utilise still viable oil and gas infrastructure.

804. This policy does not mean proposals that do not incorporate the re-use of existing oil and gas infrastructure will be disadvantaged or rejected in the proposal process. Although the re-use of infrastructure can be beneficial, there are many complicated considerations to have regard to, and the suitability of each individual piece of infrastructure for re-use must be considered on a case-by-case basis.
805. Policy NW-CCUS-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

806. This policy applies to any location where there are existing oil and gas assets that have reached the end of their commercial life for producing hydrocarbons.
807. The government ran a consultation, [Carbon capture, usage and storage \(CCUS\) projects: re-use of oil and gas assets](#), which closed on 16 September 2019. This included consulting on a list of oil and gas assets with potential for re-use, and on a policy framework. The government response to the consultation identifies opportunities and barriers to the re-use of oil and gas assets for carbon capture, transport and storage. The publication of new policy and evidence will be kept under review for relevance to the implementation of this policy.

Proponents

808. Carbon capture, usage and storage proponents should demonstrate how infrastructure re-use has been considered in their proposals. Such consideration could include an assessment of the environmental and economic benefits of re-using existing infrastructure as opposed to installing new infrastructure, and why any given piece of infrastructure would be suitable for re-use in relation to the carbon store of interest and the relevant onshore facilities. An assessment could also be conducted of other infrastructure within the vicinity of the project with analysis of the routeing options in terms of cost, and the minimising of disruption to other users of the sea and the environment. If the existing infrastructure is unable to be used for a potential development, then this should be detailed within the proposal, along with reasons.
809. In addition to applying for a licence, proponents must obtain a grant of the appropriate rights from The Crown Estate (or the Scottish Crown Estate in the territorial sea adjacent to Scotland, which is authorised by Scottish ministers).

Decision-makers

810. The Oil and Gas Authority is the licensing authority for certain offshore storage of carbon dioxide activities under the [Energy Act 2008](#), approving and issuing storage permits, and maintaining the carbon storage public register for [UK carbon dioxide storage](#). Offshore storage within the territorial sea adjacent to Scotland is authorised by Scottish ministers.
811. When reviewing proposals, the decision-maker should ensure that carbon capture, usage and storage projects demonstrate the potential for infrastructure co-location and re-use as early as possible and that this has been detailed in proposals, as per the considerations listed in the section for proponents. The decision-maker should support all proposals that re-use oil and gas infrastructure as part of carbon capture,

usage and storage projects. Those that do not incorporate infrastructure re-use if unviable may still be supported, though not directly under this policy.

812. The Oil and Gas Authority may also be involved in discussing re-use options with the operators of offshore oil and gas infrastructure before decommissioning, including the development and use of facilities for the storage of carbon dioxide.
813. The Offshore Petroleum Regulator for Environment and Decommissioning, which sits within the Department for Business, Energy and Industrial Strategy, approve any decommissioning programmes for oil and gas installations and pipelines as well as assessing any associated environmental permits as per the [Petroleum Act 1998](#). Decommissioning plans for CCUS are considered under the [Energy Act 2010](#) and Petroleum Act 1998.

Policy NW-CCUS-3 Carbon capture, usage and storage

Proposals associated with the deployment of low carbon infrastructure for industrial clusters should be supported.

Policy aim

814. The government identified potential regional clusters which can be utilised for low carbon development in the [Delivering clean growth: CCUS Cost Challenge Taskforce report](#) and the subsequent plan, [The UK carbon capture, usage and storage \(CCUS\) deployment pathway: an action plan](#). NW-CCUS-3 supports the development of low carbon industrial clusters where low carbon infrastructure, including carbon capture, usage and storage technologies could be deployed. Encouraging developments associated with industrial clusters aims to reduce the capital costs of deploying carbon capture, usage and storage, maximising the economies of scale.
815. The Energy Technologies Institute [Strategic UK CCS Appraisal](#) provides a comprehensive review of likely carbon dioxide storage sites in the UK. [Figure 1 - Map of UK offshore infrastructure and potential carbon dioxide storage sites](#) from the Department of Business Energy and Industrial Strategy consultation on [Carbon capture, usage and storage \(CCUS\) projects: re-use of oil and gas assets](#) shows the Merseyside (Point of Ayr) areas of existing industrial infrastructure and potential storage sites which would support industrial clusters in the north west marine plan areas.
816. Supporting development associated with industrial clusters also aims to enhance connectivity between marine operations and land infrastructure, which will ensure the opportunities for carbon capture, usage and storage are realised. This policy will also benefit employment in coastal communities near industrial clusters, supporting the NW-INF1 and NW-EMP-1 policies.
817. As carbon capture, usage and storage are at the early stages of deployment in the UK, the government guidance may change over the lifetime of the North West Marine Plan. This policy should be considered alongside the most recent government guidance, reflecting the current approach to the deployment of carbon capture, usage and storage.

818. Policy NW-CCUS-3 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

819. The [Energy Act 2008](#) provides a licensing regime that governs the offshore storage of carbon dioxide, with [The Storage of Carbon Dioxide \(Licensing etc.\) Regulations 2010](#) detailing the requirements of applying for a storage licence. Current leased activities can be viewed on [The Crown Estate Offshore Activity](#) map. One site has currently been applied for in the north west marine plan areas, but it is anticipated that further carbon, capture, usage and storage sites and associated new infrastructure will be developed within the 20 year vision of the marine plan. This policy supports proposals for low carbon infrastructure associated with these industrial clusters.

820. This policy may also apply to proposals at other stages of the carbon capture, usage and storage process, such as transport via ship to a storage site, or the utilisation of carbon dioxide. These proposals associated with industrial clusters are also supported by this policy.

Proponents

821. Proposals should demonstrate that they will contribute to the deployment of low carbon infrastructure for carbon capture, usage and storage associated with industrial clusters; for example, the development of new infrastructure or services to transport carbon dioxide to a storage site which is associated with a cluster.

822. Proponents will need to apply for a Carbon Storage Licence from the Oil and Gas Authority. The Oil and Gas Authority is the licensing authority for certain offshore storage of carbon dioxide activities under the [Energy Act 2008](#) Section 18, approving and issuing storage permits, and maintaining the carbon storage public register for [UK carbon dioxide storage](#). Offshore storage within the territorial sea adjacent to Scotland is authorised by Scottish ministers.

823. In addition to applying for a licence, proponents must obtain a grant for an Agreement for Lease from The Crown Estate (or the Scottish Crown Estate in the territorial sea adjacent to Scotland, which is authorised by Scottish ministers). The Crown Estate has information regarding its role in licensing available ([Energy – Carbon Capture, Usage and Storage](#)), where it outlines proposals it will consider which are associated with a full-chain carbon dioxide, usage and storage project as part of an industrial cluster.

824. Relevant assessments and legislation that proponents may need to consider include, but are not limited to, [The Offshore Oil and Gas Exploration, Production, Unloading and Storage \(Environmental Impact Assessment\) Regulations 2020](#), [The Offshore Petroleum Activities \(Conservation of Habitats\) Regulations 2001](#)⁷¹, [The Conservation of Habitats and Species Regulations 2017](#)⁷², [The Conservation of](#)

⁷¹ As amended by [The Offshore Petroleum Activities \(Conservation of Habitats\) \(Amendment\) Regulations 2007](#) and [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁷² As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

[Offshore Marine Habitats and Species Regulations 2017](#)⁷³, [National Policy Statements for energy infrastructure, Planning Act 2008, Energy Act 2008, Petroleum Act 1998, and The Storage of Carbon Dioxide \(Licensing etc.\) Regulations 2010](#). Further guidance is available on [Oil and gas: offshore environmental legislation](#) provided by the Offshore Petroleum Regulator for Environment and Decommissioning, which sits within the Department for Business, Energy and Industrial Strategy.

Decision-makers

825. There is one industrial cluster, the Merseyside cluster, which may benefit the north west marine plan areas. Proposals associated with this cluster should be supported.
826. The Oil and Gas Authority is the licensing authority for certain offshore storage of carbon dioxide activities under the [Energy Act 2008](#) Section 18, approving and issuing storage permits, and maintaining the carbon storage public register for [UK carbon dioxide storage](#). Offshore storage within the territorial sea adjacent to Scotland is authorised by Scottish ministers.
827. An Agreement for Lease will be granted by The Crown Estate (or the Scottish Crown Estate in the territorial sea adjacent to Scotland, which is authorised by Scottish ministers). The Crown Estate has information regarding its role in licensing available ([Energy – Carbon Capture, Usage and Storage](#)), where it outlines proposals it will consider which are associated with a full-chain carbon dioxide, usage and storage project as part of an industrial cluster.
828. Other decision-makers may include the Planning Inspectorate, who may grant a Development Consent Order as per the [Planning Act 2008](#) Section 14 and Section 21. A Development Consent Order may also include a Deemed Marine Licence in co-operation with the Marine Management Organisation. Multiple stages of the carbon capture, usage and storage process may need to be consented by the Planning Inspectorate, such as capturing carbon dioxide, and onshore transportation through a pipeline. The Offshore Petroleum Regulator for Environment and Decommissioning, which sits within the Department for Business, Energy and Industrial Strategy, is the offshore environmental regulator and responsible for issuing relevant environmental approvals relating to the offshore pipeline, storage site and infrastructure. This may fulfil the requirements to apply as a ‘full chain’ project, including marine and terrestrial operations.
829. Decision-makers should ensure proposals are compliant with relevant legislation and regulations such as [The Offshore Oil and Gas Exploration, Production, Unloading and Storage \(Environmental Impact Assessment\) Regulations 2020](#), [The Offshore Petroleum Activities \(Conservation of Habitats\) Regulations 2001](#)⁷⁴, [The](#)

⁷³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁷⁴ As amended by [The Offshore Petroleum Activities \(Conservation of Habitats\) \(Amendment\) Regulations 2007](#) and [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

[Conservation of Habitats and Species Regulations 2017](#)⁷⁵, [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)⁷⁶, [National Policy Statements for energy infrastructure](#), [Planning Act 2008](#), [Energy Act 2008](#), [Petroleum Act 1998](#), and [The Storage of Carbon Dioxide \(Licensing etc.\) Regulations 2010](#).

⁷⁵ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

⁷⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

5.16 Air quality and emissions

Policy Code	Policy Wording
NW-AIR-1	<p>Proposals must assess their direct and indirect impacts upon local air quality and emissions of greenhouse gases.</p> <p>Proposals that are likely to result in increased air pollution or increased emissions of greenhouse gases must demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <ul style="list-style-type: none"> - air pollution and/or greenhouse gas emissions in line with current national and local air quality objectives and legal requirements.

What is air quality?

830. **Air quality** is a term used to describe how polluted the air is. When air quality is poor, pollutants in the air may be hazardous to people, particularly those with lung or heart conditions. Further information on air quality is provided in the government policy paper [Air quality: explaining air pollution at a glance](#). The Department for Environment, Food and Rural Affairs' [Clean Air Strategy 2019](#) identifies that poor air quality also has direct impacts on the natural environment, contributing to climate change, reducing crop yields and polluting oceans
831. **Air pollution** is a mixture of gases and particles that have been emitted into the atmosphere by man-made processes. Many substances can pollute the air, a number of which are subject to UK-wide ambient air quality standards. An overview of air pollutants is provided in the Department for Business, Energy and Industrial Strategy's; [National Atmospheric Emissions Inventory](#). Some of these pollutants are very harmful and their sale and use are strictly regulated. Others are not immediately harmful, but are released in thousands or millions of tonnes per year nationally as by-products of transport, energy production, chemicals manufacture, domestic combustion and farming. The [Clean Air Strategy 2019](#) sets out emissions reduction targets for five harmful pollutants: fine particulate matter (PM_{2.5}), ammonia (NH₃), nitrogen oxides (NO_x), sulphur dioxide (SO₂) and non-methane volatile organic compounds (NMVOCs).
832. **Greenhouse gas emissions** contribute to climate change by trapping heat in the atmosphere. There are several greenhouse gases; however, the largest contributor is carbon dioxide. Greenhouse gases may contribute to climate change directly or indirectly. The pollutants listed above are also examples of indirect contributors to climate change. An overview of greenhouse gases is provided in the Department for Business, Energy and Industrial Strategy's [National Atmospheric Emissions Inventory](#). This highlights the complex interrelation that exists between air quality and climate change. Further information is available in the Department for Environment, Food and Rural Affairs' paper, [Air Quality and Climate Change: A UK Perspective](#).
833. **Indirect air pollution**, including greenhouse gas emissions, can result unintentionally from another activity, which can occur outside of a proposal's direct

footprint. Indirect or unintended emissions could occur as and when there is an interaction between marine transport (including shipping and fishing vessels) and another constraint upon that form of transport. For example, a proposal seeking to construct static sea surface infrastructure might find a suitable location between the coast and fishing grounds. Construction works associated with the project may affect fishing activity, causing vessels to navigate around the development, resulting in an increase in fuel consumption and associated emissions, as well as affecting the economic viability of the fishing operation.

Why is air quality important?

834. Clean air is a basic requirement for human health and a healthy environment. Improved air quality will directly benefit animals and habitats as well as human health. Air quality has improved significantly in recent decades, but there are areas across some parts of the UK where air pollution can accumulate, depending on prevailing weather conditions, to reach high concentrations that can affect people's health, particularly those with lung or heart conditions. While most areas of the UK are compliant with existing statutory limit values, there are hotspots where nitrogen oxide concentrations exceed limits, requiring urgent action to control. Fine particulate matter is produced from friction and combustion and is a key pollutant in the UK that causes significant long-term health impacts; the government has committed to action to reduce concentrations to reduce impacts on the nation's health. Ammonia, generally released from agriculture, has a significant effect on the environment through deposition of excess nitrogen.
835. The Environment Agency's report, [The state of the environment: air quality](#), discusses how air pollution can negatively affect natural habitats, ecosystems, plants and animals. Nitrogen deposition, acid deposition and direct toxic effects of pollutants in the air can influence the functions of coastal or marine habitats. The [Air Pollution Information System](#) details how these negative processes may lead to processes such as over-stabilisation of dune systems and ultimately lead to serious environmental impacts such as the loss of biodiversity.
836. Emissions of greenhouse gases, including indirect contributors that also degrade air quality, can negatively contribute towards climate change and, therefore, pose a risk to human health and the health of the environment. The Marine Climate Change Partnership's [Marine Climate Change Impacts: Report Card 2020](#) details these substantial risks, including higher land and sea temperatures, rising sea levels, extreme weather patterns and ocean acidification. Actions to promote and enhance resilience and adaptation to climate change are integrated throughout various policies within the North West Marine Plan and the supporting Technical Annex. However, direct steps to reduce emissions are fundamental to reducing and slowing the pressures caused by climate change, as recommended within the Department for Environment, Food and Rural Affairs' paper, [Air Quality and Climate Change: A UK Perspective](#).
837. Evidence shows that the majority of air pollution in the north west marine plan areas comes from adjacent terrestrially-based sources including from industry and areas of busy road traffic. There are several population centres close to the coasts along the

inshore north west marine plan area, including Liverpool, Blackpool and Lancaster. Liverpool is the largest industrialised settlement, with several large ports. Road transport is a significant contributor of emissions to air pollution, so local authorities assess and review air quality in their area. The Department for Environment, Food and Rural Affairs' website, [UK Air Information Resource, Air Quality Management Areas \(AQMAs\)](#), sets out that if national air quality objectives will not be achieved, local authorities must declare an air quality management area and develop a local air quality action plan for the area. This can be carried out in line with guidance available from the Department for Environment, Food and Rural Affairs website, [Local Air Quality Management \(LAQM\) Support](#).

838. Some of these air quality management areas are coastal and require consideration by marine developments (Figure 23). The north west has a large air quality management area in Liverpool and the surrounding area. There are also air quality concerns in Blackpool, Lancaster and busy road links between Liverpool and Manchester, which would need to be considered regarding any marine developments.
839. Increased use of short sea shipping and rail freight transportation can support a reduction in road traffic, thereby improving air quality in adjacent towns through reduced congestion. However, shipping itself can also be a contributor to air pollution and greenhouse gas emissions and, therefore, should still seek to reduce its impacts through appropriate measures.
840. The main sectors where the North West Marine Plan can have an impact on reducing air pollution and greenhouse gas emissions are:
- developments in the marine plan areas
 - ports and shipping
 - renewable energy
841. Large ports which may impact on air quality in the north west inshore marine plan area include:
- Barrow – ship work and energy sector
 - Fleetwood – fishing
 - Heysham – ferry to Isle of Man and freight
 - Port of Liverpool – bulk, containers, energy and ferries to Isle of Man and Ireland
 - Manchester - bulk liquids and dry bulk cargo
842. There are also numerous smaller ports servicing smaller vessels all along the inshore area. The Irish Sea is a busy shipping area and includes International Maritime Organisation traffic separation schemes in the plan area near to the entrance to Liverpool and Mersey ports. Liverpool is ranked the sixth busiest port in the UK and has potential to double its capacity.
843. The variety of potential development within the north west marine plan areas has the ability to affect vessel transits. Without consideration of other users and existing activity, such as a variety of fishing grounds, important shipping and ferry routes and

tourism and recreation activities, proposals may increase indirect or unintended emissions, resulting in adverse impacts on climate change.

844. The International Convention for the Prevention of Pollution from Ships, [MARPOL Annex VI](#), first adopted in 1997, sets limits for progressive reductions in emissions from shipping. [MARPOL Annex VI](#) limits the main air pollutants contained in ships' exhaust gases, including sulphur oxides and nitrous oxides, and prohibits deliberate emissions of ozone-depleting substances.
845. Following on from the governments' policy paper [Maritime 2050: navigating the future](#) and the [Clean Air Strategy 2019](#), the [Clean Maritime Plan](#) was developed stating that major ports must develop air quality strategies. Major ports were defined as any port handling cargo volumes of at least one million tonnes annually. [Port Air Quality Strategies guidance](#) was published alongside the [Clean Maritime Plan](#). Major ports in the north west inshore marine plan area which are required to submit and review air quality strategies include Heysham, Liverpool and Manchester.
846. The [Clean Maritime Plan](#) aims to:
- deliver clean growth opportunities from green shipping for the UK
 - improve air quality on and around our waterways, ports and shipping lanes
 - reduce greenhouse gas emissions from the maritime sector
847. Alongside this, the [Clean Growth Strategy](#) depicts a range of approaches to decarbonise the UK while growing the economy. The government's targets for clean air and greenhouse gas emissions are set out in [A Green Future: Our 25 Year Plan to Improve the Environment](#).
848. The Department for Environment, Food and Rural Affairs' [A Green Future: Our 25 Year Plan to Improve the Environment](#) and the [Clean Growth Strategy](#) work together to provide a framework for mitigating climate change. In addition, the [Climate Change Committee](#) sets out policy action to reduce emissions. This policy supports delivery within this framework by reducing emissions which will mitigate climate change.
849. The [Climate Change Act 2008](#) Section 1(1) sets an updated target for the UK's net emissions of greenhouse gases to be reduced by 100% relative to 1990 levels by 2050.
850. This policy is in line with the [UK Marine Policy Statement](#) Sections 2.6.2 and 2.6.7 and the [National Planning Policy Framework](#), promoting efficient and effective use of marine space and the reduction of conflicts arising from unintended consequences of proposals, such as through displacement, as well as being in line with specific climate change policies.

Policy NW-AIR-1 Air quality and emissions

Proposals must assess their direct and indirect impacts upon local air quality and emissions of greenhouse gases.

Proposals that are likely to result in increased air pollution or increased emissions of greenhouse gases must demonstrate that they will, in order of preference:

- a) avoid
 - b) minimise
 - c) mitigate
- air pollution and/or greenhouse gas emissions in line with current national and local air quality objectives and legal requirements.

Policy aim

851. Clean air is essential for life, health, the environment and the economy. Air pollution and greenhouse gas emissions must be reduced to protect health, habitats and species and reduce the impacts of climate change. NW-AIR-1 ensures that proposals consider and address where they may cause direct or indirect air pollution or greenhouse gas emissions and manage these accordingly.
852. Proposals that cannot avoid, minimise or mitigate air pollution and or greenhouse gas emissions in line with current national or local air quality objectives and legal requirements must not be supported.
853. Policy NW-AIR-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

854. This policy applies to any organisation or individual putting forward a proposal, including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity or a change to an existing activity that is subject to management by public authorities.
855. Proposals must assess the direct and indirect impacts on air quality and/or greenhouse gas emissions as part of the proposal, considering the scope of activities and receptors affected. The effects should be considered across the proposal's lifetime, rather than at a singular specific point in time. Cumulative impacts upon air quality must also be considered in line with NW-CE-1.
856. Large-scale developments, such as those associated with energy infrastructure, are likely to be subject to [Environmental Impact Assessment](#) and may consider their impacts within the scope of a wider suite of assessments.
857. Proposals should demonstrate that they have considered the interaction between sectors, particularly in relation to indirect consequences on air pollution, such as, but not limited to:
 - developments to increase coastal shipping (there is a modal shift towards coastal shipping from terrestrial haulage to reduce overall net air pollution)

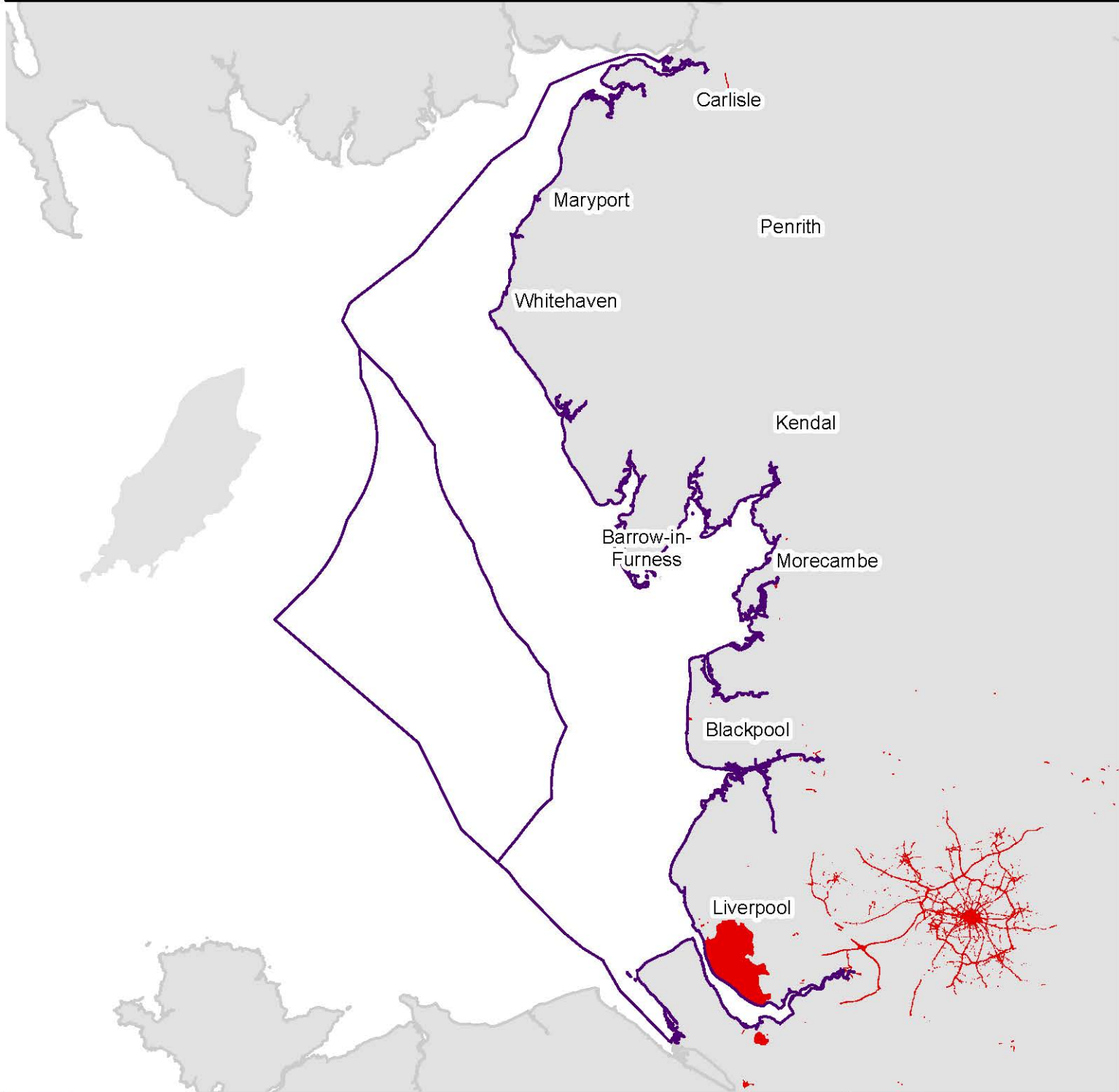
- greater travelling distances of vessels from placement of new marine infrastructure resulting in increased fuel consumption and, in turn, air pollution
 - indirectly increasing road or vessel transit
 - port developments to attract more vessels
858. Transboundary effects should be considered in line with NW-CBC-1; this may include demonstrated adherence to any measures or targets set out within relevant port or local authority air quality strategies or adjacent local air quality management areas.
859. Port and local authority air quality strategies are public-facing documents that are updated regularly and can be accessed through individual authorities. Figure 23 shows the location of local air quality management areas in the north west to assist with the application of this policy.
860. A proposal that will result in, or facilitate, increased air pollution and/or greenhouse gas emissions, must demonstrate it will, in order of preference, avoid, minimise or mitigate air pollution or greenhouse gas emissions, in line with current national and local air quality objectives and legal requirements.
861. Proposals must first demonstrate how they will avoid increased air pollution or emissions of greenhouse gases. Where increased air pollution or emissions of greenhouse gases cannot be avoided, proposals must demonstrate how they will minimise adverse impacts upon local air quality and emissions of greenhouse gases. Where adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate the remaining adverse impacts. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts so as to align with national and local air quality objectives and legal requirements. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.
862. Proposals should include supporting information that is proportionate to the proposal. Proposals should consider the best available evidence and guidance to avoid or reduce air pollution and emissions of greenhouse gases. Air pollution and emissions of greenhouse gases must be considered across the lifetime of the proposal, including construction, operation and decommissioning phases.
863. Actions that can be carried out to avoid, minimise or mitigate adverse impacts on local air quality and emissions of greenhouse gases will be specific to the proposal under consideration.
864. Measures to avoid adverse impacts on air quality and greenhouse gas emissions may include, but are not limited to, siting a proposal away from busy vessel transit routes or coastal Air Quality Management Areas.
865. Measures to minimise adverse impacts on air quality and greenhouse gas emissions may include, but are not limited to, erection of screens or barriers, use of new and low emission technologies, low emission fuels used on water, road and rail transport or sustainable travel plans and vehicle booking systems for ports.

866. Measures to mitigate adverse impacts on air quality and greenhouse gas emissions may include, but are not limited to, regular on-site and off-site monitoring, low carbon investments, integration of green infrastructure into proposals, improved grid facilities to support port developments of shoreside energy.
867. Ports should follow the [National Policy Statement for Ports](#) when considering air quality and emissions. Terrestrial developments should also consider the [National Planning Policy Framework](#) paragraph 181.
868. Inclusion of this information does not indicate that approval of the proposal will follow by default. That will also depend on other material considerations to be taken into account by the decision-maker which may include, for example, other plans.

Decision-makers

869. Decision-makers must satisfy themselves that a proposal includes an adequate assessment of its direct and indirect impacts on air quality and the emissions of greenhouse gases.
870. Decision-makers should determine a proportionate approach to assessment of proposals on a case-by-case basis, considering the scope of activities and receptors affected. The effects should be considered across the proposal's lifetime so that air pollution and greenhouse gas emissions are considered across the commissioning, operational and decommissioning phases of the proposal rather than at a singular specific point in time. This may require monitoring of air quality or greenhouse gas emissions.
871. Where proposals will result in or facilitate increased air pollution and/or greenhouse gas emissions, decision-makers should only support proposals that incorporate measures to avoid, minimise or mitigate air pollution or greenhouse gas emissions in line with current national and local air quality objectives and legal requirements.
872. Decision-makers must satisfy themselves that proposals have first demonstrated how they will avoid increased air pollution or emissions of greenhouse gases. Where increased air pollution or emissions of greenhouse gases cannot be avoided, proposals must demonstrate how they will minimise their adverse impacts. Where adverse impacts cannot be minimised, proposals must then demonstrate how they will mitigate remaining adverse impacts. It is likely that proposals will apply a mixture of measures to avoid, minimise and mitigate adverse impacts to align with national and local air quality objectives and legal requirements. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.
873. Figure 23 shows the location of local air quality management areas in the north west to assist with the application of this policy.

Figure 23 | Air Quality Management Areas (AQMA)



-  North West Marine Plan Areas
-  Air Quality Management Areas (AQMA)

Indicative map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Date of Publication: August 2020
Coordinate System: ETRS 1989
UTM Zone 30N
Projection: Transverse Mercator
Datum: ETRS 1989

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5.17 Marine litter

Policy Code	Policy Wording
NW-ML-1	Public authorities must make adequate provision for the prevention, re-use, recycling and disposal of waste to reduce and prevent marine litter. Public authorities should aspire to undertake measures to remove marine litter within their jurisdiction.
NW-ML-2	Proposals that facilitate waste re-use or recycling to reduce or remove marine litter will be supported. Proposals that could potentially increase the amount of marine litter in the marine plan areas must include measures to, in order of preference: a) avoid b) minimise c) mitigate - waste entering the marine environment.

What is marine litter?

874. **Marine litter** is any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment. Marine litter consists of items that have been made or used by people and deliberately discarded into the sea or rivers or on beaches; brought indirectly to the sea with rivers, sewage, storm water or winds; accidentally lost, including material lost at sea in bad weather (fishing gear, cargo); or deliberately left by people on beaches and shores ([United Nations Environment Programme 'Marine Litter an Analytical overview'](#)).
875. **Waste**, as defined by [Guidance on the legal definition of waste and its application](#), is “any substance or object which the holder discards or intends or is required to discard.” Solid waste in the marine environment is commonly referred to as marine litter. Marine litter includes processed food items and excludes seaweed, twigs or other biological debris which contribute to maintaining the local ecosystem. The term marine litter also excludes man-made archaeological materials.
876. The **waste hierarchy** ranks waste management options according to what is best for the environment in order of prevention, re-use, recycling, recovery then disposal. To dispose of waste correctly to avoid it becoming litter, the [Guidance on applying the waste hierarchy](#) should be applied.
877. An increase in waste created by human use, the growing dependence upon plastics and poor waste management has led to a rise in litter in the marine environment. Though marine litter can come from both marine and land-based sources, the [Litter Strategy for England 2017](#) states that “some 80% of man-made debris in the marine environment originated on land.” Supported by recent research and evidence, the issue of marine litter has risen on the global platform and is being debated at many levels.
878. The lack of ownership of marine litter means a collective responsibility needs to be applied. An aspiration of this policy is that public authorities will undertake measures to remove marine litter within their jurisdiction. Areas of public authority jurisdiction

mean the territory or sphere of activity over which their legal authority extends. Effective avoidance and removal of marine litter requires a collaborative approach between public authorities, the private sector and the voluntary sector.

Why is marine litter important?

879. There are a number of negative impacts caused by marine litter in the north west marine plan areas, including:
- clean-up costs
 - cost to tourism
 - damage to vessels and structures
 - impact on wildlife through entanglement and ingestion, including mortality
 - lost catch
 - public safety
 - navigational safety
 - the appearance of our coast and beaches
 - transportation of invasive non-native species
 - transferring toxic chemicals through the food chain
880. Marine litter is unsightly and can cause harm to marine wildlife through entanglement and ingestion, and through smothering of the seabed. Litter also causes economic effects through clean-up costs to local communities, lost tourism and costs to fishermen through lost catch and damaged gear. It can also pose a hazard to seafarers through fouling of ship propellers and can provide a pathway for non-native species to spread to new areas. Reducing litter in towns, cities, rivers, estuaries and at the coast will aid in the overall reduction of marine litter
881. Specific data about the distribution and sources of marine litter is improving; however, it is not currently sufficient enough to provide detailed spatial information about where marine litter occurs in the north west marine plan areas. Limited data for the north west inshore marine plan area indicates the beaches in the north west have a higher than average concentration of food and drink packaging ([Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen-science data](#)).
882. Abandoned, lost or otherwise discarded fishing gear is a component of marine litter in the north west marine plan areas and can have substantial economic and environmental impacts. Plastic pellets (nurdles) also feature on many beaches; [Operation Clean Sweep](#) is an international initiative from the plastics industry to reduce plastic pellet loss to the environment.
883. With an increase in housing development in the north west over the next 20 years, along with other coastal developments, tourism, increased access and recreational use will likely result in corresponding increases in waste and potentially litter levels in the north west marine plan areas.
884. A number of policies in the North West Marine Plan support activities that could also indirectly increase the amount of litter generated (NW-ACC-1, NW-EMP-1, NW-INF-

1, NW-TR-1); therefore, this policy demands that all proposals consider their contribution of marine litter and how they intend to address it.

885. Plastics are the main type of litter found both on beaches and offshore, including increasing quantities of microscopic pieces of plastic resulting from degradation of larger plastic products in the sea. These may act as a vector for transferring toxic chemicals to the food chain. There is, therefore, widespread recognition that current and future measures to reduce marine and coastal litter will bring ecological, economic and social benefits ([Marine Strategy Part One: UK updated assessment and Good Environmental Status](#)).
886. These policies support the intent of the [Litter Strategy for England](#). The Litter Strategy makes particular reference to marine litter and “the need to work together to reduce the amount of litter entering the marine environment and remove litter that is already there.” NW-ML-1 also supports the aims of the [Resources and waste strategy for England](#) by promoting improvements in waste management, re-use and recycling of waste to support a circular economy.
887. [The Marine Strategy Regulations 2010](#)⁷⁷ are part of a set of policies to help the UK meet our aim to achieve clean, healthy, safe, productive and biologically diverse oceans and seas. The [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) describes Good Environmental Status in 11 main points, which cover all the important aspects of the marine ecosystem and all the main human pressures on them. From this, a programme of measures for achieving Good Environmental Status was developed in three parts. Marine planning was recognised in the [Marine Strategy Part Three: UK programme of measures](#) as a measure of addressing marine litter.
888. [The Marine Strategy Regulations 2010](#)⁷⁸ do not include transitional waters (estuaries, rias and rivers) and [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁷⁹ do not address the issue of marine litter. Marine plans are, therefore, a tool to apply a consistent approach towards addressing marine litter issues across all of the English marine plan areas.
889. Reducing marine litter will also help to support the aims of marine protected areas. “The presence of sensitive marine features may mean that some marine protected areas are at greater potential risk from the impacts of plastic pollution than some non-protected sites.” ([Investigating the distribution and regional occurrence of anthropogenic litter in English marine protected areas using 25 years of citizen-science beach clean data](#)).
890. The discharge of litter into the sea is prohibited by the International Convention for the Prevention of Pollution from Ships ([MARPOL Annex V](#)) and the [Environmental](#)

⁷⁷ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

⁷⁸ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

⁷⁹ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

[Protection Act 1990](#) Section 146. The Maritime and Coastguard Agency provide [Guidance to prevent pollution and reduce harmful emissions at sea](#) and port waste management planning.

891. [A Green Future: Our 25 Year Plan to Improve the Environment](#) states that “The UK is committed to leading efforts to protect the marine environment. To tackle marine pollution, we will pursue a sustainable, international and transboundary approach that prioritises reducing global reliance on plastics, increases economically viable recycling processes, and promotes maritime practices that prevent harmful matter entering the seas.”

Policy NW-ML-1 Marine Litter

Public authorities must make adequate provision for the prevention, re-use, recycling and disposal of waste to reduce and prevent marine litter.

Public authorities should aspire to undertake measures to remove marine litter within their jurisdiction.

Policy aim

892. Litter at sea often originates on land. Increase in development, access, recreation and tourism in the north west marine plan areas may result in increased litter, and an adverse impact on the environment on which these activities rely. Preventing marine litter through effective waste management is vital. Addressing marine litter along the coastline is also an important step towards dealing with this problem.
893. Policy NW-ML-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Decision-makers

894. Policy NW-ML-1 aligns with the [UK Marine Policy Statement](#) Sections 2.5.9 - 2.5.14 and the [Marine and Coastal Access Act 2009](#) Section 58(3). Reducing waste at source in accordance with [The Waste \(England and Wales\) Regulations 2011](#) would contribute towards reducing marine litter. Measures to facilitate the re-use and recycling of waste before it becomes marine litter must be implemented. [Guidance on applying the waste hierarchy](#) must be applied to ensure public authority functions capable of affecting the marine area include measures to avoid the introduction of litter to the marine environment.
895. [Guidance on applying the waste hierarchy](#) ranks waste management options according to what is best for the environment. It gives top priority to preventing waste in the first place. When waste is created, it gives priority to preparing it for re-use, then recycling, then recovery, and last of all disposal (eg landfill). This guidance is produced under Regulation 15(1) of [The Waste \(England and Wales\) Regulations 2011](#) and any person subject to Regulation 12 must have regard to it.
896. According to [Guidance on waste](#), the waste planning authority is generally the county council, the unitary authority, or the national park authority, who manage and run waste developments and operations. Local planning authorities must have

regard to the [National planning policy for waste](#) in preparing their local plans and are expected to help deliver the waste hierarchy.

897. Avoiding littering and inappropriate disposal of waste is the best way to reduce the amount of debris getting into the environment. Public authorities as defined in Section 89(1) of the [Environmental Protection Act 1990](#), have a duty in keeping their land free from litter, which includes beaches, waterside land and public open spaces as described in the [Code of practice on litter and refuse](#). This can include the provision of waste bins and other infrastructure (for example signage and information boards), as appropriate, and provides local authorities with powers to take enforcement action against littering. Public authorities must focus their efforts to support the aims of the [Litter Strategy for England](#) by improving education, enforcement and infrastructure to reduce littering.
898. The [Code of practice on litter and refuse](#) states that public authorities, when carrying out their duties under the [Environmental Protection Act 1990](#) Sections 89(1) and (2), should, as a minimum, keep amenity beaches clear of all types of litter and refuse between 1 May and 30 September inclusive. Due to the warming climate, beaches are increasingly being used outside of the traditional bathing season between May and September. It is recommended as good practice that authorities are aware of the different nature of beaches within their area and that they carry out a regular monitoring programme of those beaches and develop an appropriate cleansing regime. Through collaborative working with the voluntary sector, public authorities should aim to increase the litter removal provision for non-amenity beaches as required.
899. Collaborative working covers a variety of ways that two or more organisations can work together. Collaborative working between charities, local organisations, public authorities and waste planning authorities can play an important role in helping to encourage reduction, re-use and recycling initiatives and to remove marine litter. Groups such as [LovemyBeach](#) and [Fix the Firth](#) demonstrate how collaborative working can help with the issues of marine litter. Collaborative working can also help to create a circular economy for abandoned, lost or otherwise discarded fishing gear. Public authorities play a key role in facilitating collaboration at a local and cross-border level and advising other groups on best practice.
900. In accordance with the most recent [The Merchant Shipping and Fishing Vessels \(Port Waste Reception Facilities\) Regulations 2003](#)⁸⁰, port and harbour authorities must provide waste reception facilities adequate to meet the needs of ships normally using the harbour or terminal in question. Port and harbour authorities should also support efforts, where appropriate, to remove marine litter (avoiding organic detritus) from within their defined harbour limit. Through applying NW-ML-1, by working collaboratively with local authorities and the voluntary sector, port and harbour authorities could improve their waste management processes, making them more

⁸⁰ As amended by [The Merchant Shipping and Fishing Vessels \(Port Waste Reception Facilities\) \(Amendment\) Regulations 2016](#)

sustainable, and cut costs by reducing the amount of waste they have to send to landfill.

901. Public authorities, including local authorities and port and harbour authorities, should consider all potential sources of marine litter and have regard to NW-ML-1 when developing or approving waste management plans or any plan which enables activities that generate waste or litter in the north west marine plan areas. Such activities include development, regeneration, commercial fishing, access and tourism.
902. Public authorities responsible for approving waste management plans and strategic plans that could result in an increase of marine litter or litter at the coast should also have regard to NW-ML-1. This includes the Planning Inspectorate when approving local authority plans, and the Maritime and Coastguard Agency when approving waste management plans for ports, harbours and vessels.
903. Public authorities developing [River Basin Management Plans](#) and land or waste water management plans (including water companies) that are capable of affecting the north west marine plan areas must also have regard to NW-ML-1 and build in measures to avoid the introduction of litter to the marine area. Also, see NW-WQ-1.
904. Inshore Fisheries and Conservation Authorities have duties under the [Marine and Coastal Access Act 2009](#) Section 153 to protect the marine environment from the effects of sea fisheries and seek to ensure the conservation objectives of any marine conservation zones are furthered in their district, and should therefore have regard to NW-ML-1 when carrying out these functions.

Policy NW-ML-2 Marine Litter

Proposals that facilitate waste re-use or recycling to reduce or remove marine litter will be supported.

Proposals that could potentially increase the amount of marine litter in the marine plan areas must include measures to, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - waste entering the marine environment.

Policy aim

905. The natural landscapes, wildlife and recreational opportunities on offer in the marine plan areas attract visitors to the area. An increase in visitors and in coastal and marine development could lead to an increase in litter.
906. NW-ML-2 makes sure proposals avoid, minimise or mitigate waste entering the marine environment and encourages support for improvements in waste management and removal of marine litter, during construction and over the lifetime of the development. Proposals that cannot avoid, minimise or mitigate waste entering the marine environment will not be supported.

907. Policy NW-ML-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

908. Proposals should demonstrate that they have considered the potential for the introduction of litter. Proposals must first demonstrate how they will avoid waste entering the marine environment. Where waste entering the marine environment cannot be avoided, proposals must demonstrate how they will minimise waste entering the marine environment. Where waste entering the marine environment cannot be minimised, proposals must demonstrate how they will mitigate waste entering the marine environment. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on. Proposals that cannot avoid, minimise or mitigate waste entering the marine environment will not be supported.
909. Proposals should demonstrate that they will, in order of preference, avoid, minimise or mitigate introductions of litter to the inshore and offshore marine areas throughout the lifetime of the proposal, ie during construction, operation and decommissioning. Proposals cannot proceed to (b) unless they have first demonstrated why they cannot meet (a), etc.
910. If there is potential from the proposal for waste to become marine litter, then a waste management approach should be outlined, including measures to minimise the risk of litter escape. This should include unavoidable and accidental litter.
911. Measures could include:
- avoid – taking measures to avoid the discharge of any items of marine litter during development and, once operational, via methods outlined in a thorough waste management approach as part of the proposal, such as capture measures and effective waste management, ie a closed system that does not contribute marine litter
 - minimise – taking measures to monitor and remove any items of marine litter from the proposal and other sources in the surrounding area during development and, once operational, outlined in a thorough waste management approach as part of the proposal, such as capture measures, effective waste management and clean-ups
 - mitigate – taking measures to avoid and minimise marine litter from the proposal, or other sources in the surrounding area, as well as mitigation measures such as, but not limited to:
 - adopting novel approaches or creative technologies to remove marine litter
 - extending the marine litter removal operation to cover a wider area and supporting a re-use or recycling scheme for waste
 - supporting coastal / marine clean-up groups
912. All of the above measures can be outlined in a thorough waste management approach as part of the proposal.

913. Proposals should include an explanation or evidence of a plan to manage waste during construction and once operational. Licensed marine activities will need to demonstrate consideration of [The Waste \(England and Wales\) Regulations 2011](#) and its [waste hierarchy](#). Proposals should include information about how they will provide well-designed, functional and accessible refuse and recycling storage space which allows for ease of collection.
914. [Guidance on applying the waste hierarchy](#) must be applied to ensure developments capable of affecting the marine plan areas include measures to reduce waste and avoid the introduction of marine litter. [Guidance on applying the waste hierarchy](#) ranks waste management options according to what is best for the environment. It gives top priority to preventing waste in the first place. When waste is created, it gives priority to preparing it for re-use, then recycling, then recovery, and last of all disposal (eg landfill). Measures to facilitate the re-use and recycling of waste before it becomes marine and coastal litter, and once removed from the marine and coastal area, should be implemented, where appropriate.
915. Proposals or activities that help to reduce or remove marine litter may include:
- coastal clean-up groups / operations
 - creative technologies to remove marine litter
 - dive clean-up groups / operations - [Guidance for divers who wish to remove abandoned, lost and discarded fishing gear](#)
 - education and awareness of the issue
 - improvements to sewage treatment works
 - re-use or recycling schemes

Decision-makers

916. This policy is of interest to public authorities making decisions that affect the north west marine plan areas directly or indirectly, including local planning authorities and those authorities granting permits or licences for activity in those areas.
917. Decision-makers should support proposals that seek to reduce marine litter through preventative or litter removal measures where they comply with other policies in the North West Marine Plan.
918. Public authorities making any authorisation for proposals that are capable of introducing litter into the north west marine plan areas must make their decision in accordance with NW-ML-2.
919. Decision-makers must consider the possible introduction of litter to the marine area throughout the lifetime of the proposal during construction, operation and decommissioning. Public authorities must review the proponent's waste management approach as part of the proposal. Public authorities should request relevant information before proceeding further if it is judged that a proposal has not provided the required information, for example, where inadequate information has been provided to make an informed assessment.

5.18 Water quality

Policy Code	Policy Wording
NW-WQ-1	<p>Proposals that protect, enhance and restore water quality will be supported.</p> <p>Proposals that cause deterioration of water quality must demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none">a) avoidb) minimisec) mitigate <p>- deterioration of water quality in the marine environment.</p>

What is water quality?

920. **Water quality** is a measure of the condition of water and its suitability to sustain a range of uses for both biotic and human benefits. Good water quality is important in meeting the government's vision for clean, healthy, safe, productive and biologically diverse seas and oceans ([UK Marine Policy Statement](#)).
921. Inshore water quality in respect of [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁸¹ is defined by specific biological, physio-chemical and hydromorphological criteria.
922. Water quality in the marine environment is also measured by descriptors of Good Environmental Status relevant to water quality, as defined in the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), which include contaminants, contaminants in seafood, eutrophication and hydrographical conditions.
923. **Deterioration of water quality** refers to the presence of pollutants in water. These pollutants may include oil, sedimentation, sewage, nutrients and heavy metals. Poor water quality also refers to increases (or decreases) in water temperature, dissolved oxygen or salinity, and changes in flow. Eutrophication is when a body of water becomes overly enriched with nutrients, which may reduce the oxygen content of the water body and can cause algal blooms, some of which can be harmful to habitats and species.
924. Water pollution can come from either diffuse (run-off - mostly unlicensed sources) or point sources (regulated sources). Diffuse sources can include:
- accidental chemical and oil spills
 - agricultural run-off / land management
 - contaminated run-off from roads
 - discharge from vessels (unlicensed)
 - drainage from housing estates
 - microplastics
 - pollution from abandoned mines

⁸¹ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

925. Point sources can include:
- aggregate extraction
 - developments within the marine area
 - discharge from vessels (licensed)
 - industrial waste
 - sewage treatment
 - storm overflows
 - waste water
926. This policy supports the aim of [A Green Future: Our 25 Year Plan to Improve the Environment](#) to have clean and plentiful water and make sure that all those with a role to play take action to improve water quality.

Why is water quality important?

927. Water quality affects and is affected by many sectors, including health, energy, environment, agriculture, aquaculture, leisure and food. Water is a key part of the natural environment and provides essential ecosystem services.
928. Rivers, lakes, estuaries, coastal areas, wetlands and water under the ground provide many different benefits to society, from supplying drinking water and supporting fisheries to providing an essential resource for business and agriculture, transport routes and a source of recreation that promotes well-being.
929. Water keeps us alive, drives our economy and sustains wildlife. Having good water quality, managed in a way that makes sure the country is more resilient to flood and drought, is essential. Protecting, enhancing and restoring water quality is important to support biodiversity and achieve the conservation objectives of marine protected areas.
930. In accordance with [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁸², [The Nitrate Pollution Prevention Regulations 2015](#) and [The Bathing Water Regulations 2013](#)⁸³, good water quality at coastal locations is required for shellfish and fish, to protect nutrient-sensitive areas and maintain bathing waters.
931. [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁸⁴ has two aims: to prevent the deterioration of the status of all water bodies, and to protect, enhance and restore those water bodies. In terms of water quality, this means protecting the status of all water quality parameters for individual water bodies.
932. Water quality in the north west marine plan areas is especially important in rivers, estuaries and coastal waters, which play a vital role in the areas' economy through providing essential fish habitats and supporting commercial shell fisheries, while providing safe and attractive bathing waters for residents and tourists alike.

⁸² As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

⁸³ As amended by [The Bathing Water \(Amendment\) \(England\) Regulations 2018](#)

⁸⁴ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

933. The Environment Agency and Centre for Environment Fisheries and Aquaculture Science monitor water quality in designated [shellfish protected areas](#). At certain times of the year, naturally occurring algae in the sea can give rise to blooms, which may not necessarily be noticeable. Algae in these blooms may produce potent biotoxins. These can accumulate in filter-feeding bivalve molluscs and sometimes in other shellfish, such as grazing gastropods. Eating shellfish contaminated with marine biotoxins may pose risks for those consuming the food, as well as for the seafood industry ([Harmful Algal Blooms Surveillance Programmes and Monitoring](#)).
934. While scientists understand the many factors that can lead to algal blooms, how these factors come together to create harmful algal blooms is an emerging science. Increased nutrients (eutrophication - mainly phosphorus and nitrogen), pollution, water flow, coastal conditions and climate change all contribute. Increasing sea surface temperatures as a result of climate change may increase the potential for blooms of species that are not currently found in UK waters through range expansion or human-mediated introduction ([Impacts of climate change on harmful algal blooms](#)).
935. Good water quality is essential for shellfisheries and aquaculture. Production areas where shellfisheries or aquaculture are currently supported include:
- cockles and mussels – Duddon Estuary
 - cockles and mussels - Morecambe Bay
 - razor clams – Leasowe
 - Pacific oysters - Morecambe Bay
 - Pacific oysters – Solway Firth
936. In designated [shellfish protected areas](#) there is a requirement to ensure no deterioration in water quality, to observe [The Food Safety \(Fishery Products and Live Shellfish\) \(Hygiene\) Regulations 1998](#)⁸⁵. The microbial standard in shellfish flesh is monitored by the Centre for Environment, Fisheries and Aquaculture Science on behalf of the [Food Standards Agency](#), which is the competent authority directly responsible for decisions in relation to the classification and official control monitoring of shellfish.
937. As well as supporting commercial and recreational fishing, shellfisheries and aquaculture, good water quality in the north west is also important for the increasing tourism industry. Blackpool, Liverpool and the Lake District attract the most coastal tourism in the area. There are also several clubs in the north west offering dingy sailing, kayaking and other water sports which rely on good water quality.
938. Water quality is monitored at coastal locations popular for swimming to ensure that beach users are protected from pollution at designated bathing waters. [Designated bathing waters](#) are classified by the Environment Agency to help people decide where it is safe to swim. There are currently 26 beaches in the north west inshore marine plan area that have designated bathing waters ([Bathing Water Quality](#)). [The](#)

⁸⁵ As amended by [The Food Safety \(Fishery Products and Live Shellfish\) \(Hygiene\) Amendment \(No. 2\) Regulations 1999](#)

[state of the environment: water quality](#) states that bathing water quality has improved in the UK over the last 30 years, with [bathing water quality statistics](#) highlighting that 98% passed minimum standards and 71% met the excellent standard in 2019.

939. There are a number of challenges to maintaining good water quality in the north west inshore marine plan area, notably from run-off from agricultural land towards the north of the plan area, including from sheep grazing on saltmarsh, and from diffuse pollution and waste water management from the large catchment areas such as Liverpool, Preston and Blackpool. All the above can also be exacerbated by periods of heavy rainfall, which can put pressure on the sewage systems, resulting in combined sewer overflows operating more frequently. Heavy rainfall is also more likely to flush pollutants from agricultural and urban land into rivers and the sea.
940. The location of the north west marine plan areas in the Irish sea and their proximity to Ireland and Wales means as well as being busy marine plan areas, the semi-enclosed nature of the Irish sea implies that measures to improve water quality require a co-ordinated effort between England, Wales, The Isle of Man, The Republic of Ireland, Northern Ireland and Scotland.
941. Water quality is also affected by:
- changes to the natural flow and level of water
 - erosion of historic coastal landfill sites ([potential contamination of the coastal zone by eroding historic landfills](#))
 - extreme weather, such as drought followed by intense rainfall
 - negative effects of invasive non-native species
 - physical modifications to waterways
 - resuspension of sediment
 - seasonal population variation (high levels of tourism)
 - vessels with sea toilets discharging waste too close to the shore
942. Physical modifications to waterways, including flood defences and weirs, and changes to the size and shape of natural river channels for land drainage and navigation all alter natural flow levels. These modifications can cause an excessive build-up of sediment in surface water bodies and the loss of habitats and recreational uses. In many cases, the uses and associated physical modifications need to be maintained. In these circumstances, it may not be possible to achieve good ecological status in affected bodies of water ([North West river basin district river basin management plan](#)).
943. The International Convention for the Prevention of Pollution from Ships ([MARPOL](#)) is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. Additionally, in accordance with the Marine Management Organisation [Guidance on Deposits](#), the following types of waste may be disposed of at sea, based on a detailed assessment of risks and a marine licence: inert materials of natural origin, fish waste (including shellfish and any part of a fish) and dredged material. Maintenance dredging is a requirement of ports and harbours to maintain safe navigational access. Any

localised temporary impacts to water quality are managed through marine licensing conditions.

944. Developments within the north west marine plan areas could also cause a deterioration in water quality. A number of policies in the North West Marine Plan support activities that could have adverse impacts upon water quality, including NW-CAB-1, NW-DD-3, NW-INF-1, NW-PS-1 and NW-TR-1.
945. The objectives of [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁸⁶ to protect and improve water quality set ambitious environmental goals and actions which are implemented by [River Basin Management Plans](#). This policy seeks to complement these objectives and River Basin Management Plan implementation. The Environment Agency works in partnership with a wide range of organisations and takes action to improve water quality by targeting point and diffuse sources of water pollution.
946. There are three River Basin Management Plan areas within the north west inshore marine plan area: the [Dee river basin district](#) (led by Natural Resources Wales), the [North West river basin district](#) (led by the Environment Agency) and [Solway Tweed river basin district](#) (led by Scottish Environment Protection Agency). Through these river basin management plans, the lead Environment Agency's maintain, review and keep an up-to-date register of the protected areas of water lying within each district. These include;
- areas designated for the protection of habitats or species where water quality is an important factor in their protection
 - bodies of water designated as recreational waters
 - drinking water protected areas
 - nutrient sensitive areas
 - shellfish waters (commercial shellfish harvesting)
947. The expected increase in the number and diversity of developments and marine users within the north west inshore marine plan area poses additional risk towards meeting good status for ecological and chemical objectives in accordance with [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁸⁷ and Good Environmental Status in accordance with [The Marine Strategy Regulations 2010](#)⁸⁸.
948. This policy supports the aims of [A Green Future: Our 25 Year Plan to Improve the Environment](#) for clean and plentiful water which includes:
- minimising the harmful bacteria in our designated bathing waters and continuing to improve the cleanliness of our waters

⁸⁶ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

⁸⁷ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

⁸⁸ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

- reaching or exceeding objectives for rivers, lakes, coastal and ground waters that are specially protected, whether for biodiversity or drinking water, as per our River Basin Management Plans
- increasing the proportion of protected and well-managed seas, and better managing existing protected sites

Policy NW-WQ-1 Water Quality

Proposals that protect, enhance and restore water quality will be supported.

Proposals that cause deterioration of water quality must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - deterioration of water quality in the marine environment.

Policy aim

949. Much of the economic and cultural prosperity of the north west marine plan areas is reliant on water quality. Activities can place stress on water bodies such that, in parts of the north west marine plan areas, water quality requires improvement. NW-WQ-1 supports activities with a primary objective to protect, enhance and restore water quality.
950. NW-WQ-1 also manages activities that may cause deterioration of water quality by ensuring that adverse impacts from proposals must be avoided, minimised and mitigated. With the exception of the derogations⁸⁹ identified in Section 17 and 19 of [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁹⁰, there should be no residual adverse impacts on inshore water bodies. From one nautical mile out to the outer limit of the UK Exclusive Economic Zone, there should be no adverse impacts on water quality in line with [The Marine Strategy Regulations 2010](#)⁹¹.
951. Policy NW-WQ-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

952. The North West Marine Plan builds on existing measures consistent with the [UK Marine Policy Statement](#) Section 2.5.8 and addresses water quality issues through ensuring proposals and public authorities consider impacts on water quality (NW-WQ-1), and habitats and species of benefit to water quality that provide water

⁸⁹ Derogations are a mechanism by which developments which are beneficial to society can still be progressed even if they are likely to cause deterioration in water body status in certain circumstances.

⁹⁰ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

⁹¹ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

filtration, nutrient assimilation, and hazardous chemical sequestration services (NW-BIO-4).

Proponents

953. This policy is of interest to all those developing proposals in the north west marine plan areas including, but not restricted to, those applying for an authorisation decision.
954. All inshore water bodies, including estuarine (transitional waters) up to one nautical mile from shore, are protected under [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁹², which requires that the licensed project or activity does not cause or contribute to deterioration in water body status or jeopardise the water body achieving good status.
955. In coastal waters out to one nautical mile, an overlap exists between [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁹³ and [The Marine Strategy Regulations 2010](#)⁹⁴. To achieve Good Environmental Status in accordance with [The Marine Strategy Regulations 2010](#)⁹⁵, NW-WQ-1 applies to both the inshore and offshore marine plan areas.
956. Application of [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁹⁶ for inshore waters is enacted through [River Basin Management Plans](#) and the [Catchment Based Approach](#) through catchment partnerships, as well as current water company controls and regulations. Other regulations should also be taken into consideration, where appropriate, such as [Nitrate Vulnerable Zones](#) in accordance with [The Nitrate Pollution Prevention Regulations 2015](#) and [designated bathing waters](#) in accordance with [The Bathing Waters Regulations 2013](#)⁹⁷.
957. Consideration must be given to [shellfish water protected areas](#) and their objectives to improve or protect water quality in these areas to support shellfish life and growth and contribute towards high-quality shellfish products suitable for human consumption.
958. All proposals within one nautical mile should demonstrate they have considered any effects the proposal may have upon water quality in the catchment area through a [Catchment Based Approach](#). The [Catchment Data Explorer](#) can be used to identify which water body the proposal is in and any linked water bodies it could affect. Proposals should clearly outline baseline classification status for local waterbodies which may be influenced by the activity and demonstrate that any impacts will not

⁹² As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

⁹³ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

⁹⁴ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

⁹⁵ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

⁹⁶ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

⁹⁷ As amended by [The Bathing Water \(Amendment\) \(England\) Regulations 2018](#)

cause a deterioration from this baseline classification. Impacts should be assessed in terms of direct impacts, and in-combination and cumulative impacts, in line with NW-CE-1.

959. Using the [Clearing the Waters for All](#) guidance, proponents can assess the impact of the proposal on estuarine (transitional) and coastal waters for [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁹⁸. This assessment helps proponents and decision-makers to understand:
- the impact an activity may have on the immediate water body and any linked water bodies
 - potential cumulative impacts on any linked water bodies
 - whether an activity complies with the [river basin management plan](#)
960. Proposals may be required to undertake any relevant assessments as required by [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)⁹⁹ as part of obtaining regulatory consent for their activity. Being exempt from the need to undertake an assessment does not exempt proposals from policy NW-WQ-1.
961. A water regulations assessment may contribute to demonstrating compliance with this policy. However, there may be impacts outside of the requirements of [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)¹⁰⁰ that still need to be addressed to demonstrate compliance with policies NW-WQ-1.
962. From one nautical mile out to the outer limit of the UK Exclusive Economic Zone, including the offshore marine plan area, [The Marine Strategy Regulations 2010](#)¹⁰¹ aim to achieve Good Environmental Status of water quality with regards to the following elements (descriptors) described in the [Marine Online Assessment Tool](#):
- [contaminants](#)
 - [contaminants in seafood](#)
 - [eutrophication](#)
 - [hydrographical conditions](#)
963. Proposals located out to one nautical mile must consider the objectives of [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)¹⁰² and adverse impacts upon water quality, alongside [The Marine Strategy Regulations](#)

⁹⁸ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

⁹⁹ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

¹⁰⁰ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

¹⁰¹ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

¹⁰² As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

[2010](#)¹⁰³. Beyond one nautical mile from the coast, proponents must consider the objectives of [The Marine Strategy Regulations 2010](#)¹⁰⁴.

964. Proposals should demonstrate how they will avoid, minimise, or mitigate deterioration of water quality during the construction period, and throughout the lifetime of the proposal and decommissioning phase. Short-term impacts upon water quality also need to be considered.
965. Proposals must first demonstrate how they will avoid adverse deterioration of water quality. Where adverse impacts cannot be avoided, proposals must demonstrate how they will minimise adverse impacts. Where adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate the remaining adverse impacts. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.
966. In cases where a detailed assessment indicates that activities will have a significant adverse impact on water quality within one nautical mile from the mean high water mark, then the proposed activity will only be acceptable where the conditions identified in the derogations set out in Sections 17 and 19 of [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)¹⁰⁵ are satisfied. The Environment Agency may be able to advise on meeting those requirements.
967. The following aspects of any proposal need to be considered at the planning stage:
- duration of the activity
 - location
 - mitigation measures that could reduce any potential adverse impacts
 - physical footprint with respect to the water body size
 - presence of contaminated sediments
 - presence of sensitive habitats
 - scale of impact
 - water body (or bodies) potentially affected, including adjacent water bodies
968. Examples of how to avoid, minimise or mitigate significant adverse impacts include, but are not limited to:
- avoid - identify and avoid siting proposals at locations where adverse impacts might occur, ensuring that the outputs of the proposal do not indirectly impact these locations
 - minimise - limiting the overall development footprint or the amount of time taken by activities that disturb sediments, including utilising the state of the tide

¹⁰³ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

¹⁰⁴ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

¹⁰⁵ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

- mitigation - using silt curtains or bioremediation around developments (such as mussel ropes or microbial mats)

969. Developments or activities that can benefit water quality may include:

- actions taken by farmers and landowners, including minimising diffuse water pollution through applying guidance on [Rules for farmers and land managers to prevent water pollution](#) and other measures
- creating or enhancing marine habitats that improve water quality, such as seagrass beds or saltmarsh
- creating or enhancing terrestrial habitats that improve water quality, such as woodlands, wetland or grassland
- following ecological design guidance, such as [Estuary Edges](#)
- improvements to sewage treatment works
- natural flood management
- sustainable drainage systems
- water efficiency measures

970. Proponents should consider the inclusion of water efficiency measures in the design of new buildings. New development can become more resilient to climate change by encouraging water efficiency measures, including water-saving and recycling measures to minimise water usage. Such a proactive approach is designed to mitigate and adapt to climate change, taking into account the long-term implications for water supply.

971. Proposals must also consider their impacts on habitats and species beneficial to water quality in consideration of NW-BIO-4. Restoring and enhancing water quality is important to help support the conservation objectives of marine protected areas. Relevant statutory assessments must be carried out for marine conservation zones in accordance with the [Marine and Coastal Access Act 2009](#), sites of special scientific interest in accordance with the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites in accordance with [The Conservation of Habitats and Species Regulations 2017](#)¹⁰⁶ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁰⁷. A Habitats Regulations Assessment must be conducted where water quality is a consideration of the conservation objectives of a special protection area, special area of conservation or Ramsar site. Where impacts on water quality may lead to a likely significant effect on the protected features of these sites, an Appropriate Assessment will be required. It is government policy for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to Special Protection Areas.

¹⁰⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹⁰⁷ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

972. Proposals in the north west marine plan areas that may impact transboundary areas must show evidence of consultation with the relevant public authorities in line with NW-CBC-1.

Decision-makers

973. Decision-makers will support proposals that protect, enhance and restore water quality where they comply with other policies in this plan and other relevant legislation.

974. For the inshore marine plan area out to one nautical mile, the Catchment Based Approach embeds collaborative working at a river catchment scale, bringing a range of partners together to support integrated catchment management, pool knowledge and expertise, and deliver cross-cutting environmental improvements. Decision-makers should only support proposals that incorporate measures to avoid, minimise or mitigate deterioration of water quality in the marine plan area. All proposals within one nautical mile are best considered through a [Catchment Based Approach](#). The Catchment Partnerships in the north west inshore marine plan area are:

- Alt / Crossens
- Douglas
- Eden
- Kent / Leven
- Lower Mersey
- Lune
- Middle Dee
- Ribble
- South Cumbria
- Tidal Dee
- West Cumbria
- Wyre

975. The environmental objectives summarised in [River Basin Management Plans](#) are legally binding under regulations 12 and 13 of [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)¹⁰⁸. Policy NW-WQ-1 aligns with the [UK Marine Policy Statement](#) Sections 2.6.4.1 - 2.6.4.4 and the [Marine and Coastal Access Act 2009](#) Section 58(3) which states public authorities must have regard to this policy in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. It complements the actions of [The Marine Strategy Regulations 2010](#)¹⁰⁹ and [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)¹¹⁰.

¹⁰⁸ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

¹⁰⁹ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

¹¹⁰ As amended by [The Floods and Water \(Amendment etc.\) \(EU Exit\) Regulations 2019](#)

976. Public authorities must ensure proponents build in measures to avoid, minimise or mitigate any adverse impacts to the marine area caused by, but not limited to:
- agricultural run-off
 - increased inputs of nutrients, especially to nitrate vulnerable zones
 - plastics, including microplastics (See NW-ML-1 and NW-ML-2)
 - pollution
977. Proposals and activities, such as recreation, not covered by the [Clearing the Waters for All](#) guidance also have the potential to adversely impact water quality.
978. Confined estuaries with low flushing rates are subject to many pressures on water quality from agriculture, industrial and urban run-off, and discharge from vessels. In areas of high use or where it is considered an issue, local authorities or harbour authorities can use legislation implemented through local byelaws to impose restrictions upon disposal of waste water and the location of polluting vessels (this includes houseboats). Guidance for such activities includes The Maritime and Coastguard Agency's [MGN 599 Pleasure vessels - Regulations and exemptions - Guidance and best practice advice](#) and the Royal Yachting Association's [The Green Blue guidance on Black water](#).

5.19 Access

Policy Code	Policy Wording
NW-ACC-1	<p>Proposals demonstrating appropriate enhanced and inclusive public access to and within the marine area, including the provision of services for tourism and recreation activities, will be supported.</p> <p>Proposals that may have significant adverse impacts on public access should demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none">a) avoidb) minimisec) mitigate <p>- adverse impacts so they are no longer significant.</p>

What is access?

979. **Public access** includes physical access to the marine area to participate in recreational activities, or associated land-based facilities and infrastructure that support activities in the marine area. Examples of physical public access include, but are not limited to:
- dive trails
 - marinas
 - paths
 - slipways
980. Public access also embraces both interpretative and virtual access that serves to increase public awareness and understanding of the marine area. Examples of interpretative and virtual public access include, but are not limited to:
- films
 - interpretation boards
 - literature
 - signage
 - viewpoints
 - web-based interpretation tools (eg virtual dive trails)
981. **Appropriate public access** is defined by what can be demonstrated as reasonable in the context of the location, nature and scale of a proposal. Appropriate public access should avoid, minimise or mitigate significant adverse impacts on existing public access (eg common land or public rights of way), marine character and visual resources.
982. In some circumstances, access restrictions may be required. Proposals for new public access routes may, therefore, be inappropriate in locations where existing or proposed access restrictions are in place. For example, access restrictions may be required to ensure:
- compliance with health, safety and security requirements, including the maintenance of existing access routes required by public bodies

- the protection of heritage and natural assets

983. **Enhanced public access** refers to proposals for the improvement of existing public access infrastructure and services. Examples of enhanced public access include, but are not limited to:

- the alleviation of access pressures on natural habitats and species
- the provision and maintenance of safety equipment (eg escape ladders, grab chains and lifebuoys)
- the provision of additional infrastructure (eg benches and waste bins)
- the removal of unsuitable access arrangements, such as those representing a risk to health and safety and/or inclusive access

984. **Inclusive public access** refers to proposals that promote “equitable access for those who want to use and enjoy the coast, seas and their wide range of resources and assets” ([UK Marine Policy Statement](#) Section 2.2) through the improvement of existing, or development of new, access routes and their associated services. Inclusive public access also encapsulates financial access. For example, where access costs are required, they should be justifiable and not prohibitive.

985. **Services for tourism and recreation** refers to facilities and infrastructure that support public access to, and enjoyment of, the marine area. Examples of services for tourism and recreation activities include, but are not limited to:

- cycle infrastructure
- hospitality services
- jetties
- parking
- provision of transportation (public and private)
- recreational clubs
- slipways
- toilet facilities

Why is access important?

986. The north west marine plan areas are important for tourism and recreation. In 2015 coastal tourism and recreation trips in the north west marine plan areas were estimated to have generated approximately £600 million of Gross Value Added, with the number of visitor days projected to increase between 2022 and 2036 ([Futures analysis for the North East, North West, South East and South West marine plan areas \(MMO 1127\)](#)).

987. While tourism and recreation occur throughout the north west inshore marine plan area, activities tend to be more prevalent in, and around, coastal population centres. Indeed, the north west inshore marine plan area includes a number of prominent urban coastal attractions, including the famous Blackpool Tower.

988. The north west inshore marine plan area hosts a number of area designations, including, but not limited to:

- Arnsdale and Silverdale Area of Outstanding Natural Beauty

- Hadrian's Wall World Heritage Site
 - Lake District National Park
 - Liverpool Maritime Mercantile City World Heritage Site
 - Solway Coast Area of Outstanding Natural Beauty
989. Sandy beaches, with good water quality, are recreation and tourism attractions. A total of 55 beaches can be found within north west inshore plan area, including the expansive beaches at Morecambe Bay, Formby and Ravenglass. A number of caravan parks can be found along the sandier stretches of the foreshore.
990. In addition to urban and beach-based tourism, the north west coast is popular for wildlife watching and hosts a number of nature reserves (national and local) providing facilities for visitors. Indeed, a range of protected species is present in the north west marine plan areas throughout the year. For example, the entirety of Svalbard's population of barnacle geese over-winters in the Solway Firth ([Solway Firth European Marine Site Original Regulation 33 Conservation Advice Package](#)). Harbour porpoise and dolphin (ie bottlenose, common and short-beaked dolphin) are also regularly observed in the region. The north west coast also offers the opportunity to watch grey seals, which are present year-round at some locations in Cumbria and seasonally at others, such as at the Dee Estuary.
991. Public access plays an important role in supporting social benefits for local people and visitors to the north west marine plan areas, particularly in support of recreation and tourism. Improved public access to the coast through the [England Coast Path: improving public access to the coast](#) programme led by Natural England is expected to bring significant benefits to local economies and communities, recreational users, and to public health. The England Coast Path runs between the Scottish and Welsh borders, skirting the Lake District and passing through Morecambe Bay, Blackpool and Liverpool city. Other notable public rights of way include, but are not limited to:
- Coast to Coast cycle route, which connects the coasts of Cumbria and Northumbria
 - Trans Pennine Trail, which runs from the east coast of Yorkshire to Southport
992. Public access is an important component for the realisation of the economic, environmental and social benefits of tourism and recreation activities within the UK marine plan areas ([UK Marine Policy Statement](#) Section 3.11.5). The benefits of public access are recognised within Section 96 of the [National Planning Policy Framework](#), which acknowledges that the provision of "a network of high-quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities". Section 118 of the [National Planning Policy Framework](#) also provides that Local Planning Authorities should "improve public access to and enjoyment of the coast".
993. The marine area hosts a number of features which attract recreational users, including coastal paths, heritage and natural assets, recreation opportunities and seaside towns ([Strategic Scoping Report for marine planning in England](#)). The provision of physical and virtual access to such features can serve to increase public

appreciation and understanding of the marine area, as well as providing social benefits, such as cultural identity, sense of place and quality of life.

994. It is recognised that the extent to which people are attracted to an area is heavily dependent on the visual appearance and health of the marine and coastal environment ([Strategic Scoping Report for marine planning in England](#)). The maintenance and enhancement of local landscapes and seascapes, as well as heritage and natural assets, are therefore important to encourage sustainable recreational access to the marine area.

Policy NW-ACC-1 Access

Proposals demonstrating appropriate enhanced and inclusive public access to and within the marine area, including the provision of services for tourism and recreation activities, will be supported.

Proposals that may have significant adverse impacts on public access should demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant.

Policy aim

995. The provision of appropriate public access is essential for realising the economic, environmental, and social benefits associated with the growth of sustainable tourism and recreation within the north west marine plan areas. NW-ACC-1 supports proposals for appropriate enhanced and inclusive public access to, and within, the marine area, including those providing services for tourism and recreation activities.
996. NW-ACC-1 also provides clarity on how public access should be protected, and ensures that proposals do not have a significant adverse impact on existing public access. Where proposals cannot avoid, minimise or mitigate significant adverse impacts to public access, they should not be supported.
997. While NW-ACC-1 supports and protects public access to the marine area, in some circumstances, access restrictions may be required. Where they are incompatible with existing or proposed access restrictions, proposals for the provision of new public access should not be supported.
998. Policy NW-ACC-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

999. Proposals for new, or enhanced, public access should demonstrate that they are appropriate in the context of the existing economic, environmental and social activities within the north west marine plan areas across all relevant development phases (ie construction, operation and decommissioning). Examples of potential environmental pressures associated with increased public access and recreational activities include, but are not limited to:

- damage and degradation to heritage assets
- damage and degradation to coastal habitats, such as sand dunes and saltmarsh, due to trampling and off-road vehicle use
- disturbance and displacement of existing economic and recreation activities
- disturbance to breeding and overwintering shorebirds/seabirds, as well as to other highly mobile species such as fish and marine mammals
- visual deterioration of local landscapes and seascapes

1000. Proposals should also demonstrate regard to the impacts of climate-induced and natural coastal change on public access and vice versa, for example coastal erosion and flood risk.

1001. Limiting disturbance from enhanced and new access is important to help support the conservation objectives of marine protected areas. Relevant statutory assessments must be carried out for marine conservation zones in accordance with the [Marine and Coastal Access Act 2009](#), sites of special scientific interest in accordance with the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites in accordance with [The Conservation of Habitats and Species Regulations 2017](#)¹¹¹ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹¹². A Habitats Regulations Assessment must be conducted where disturbance from increased public access is a consideration of the conservation objectives of a special protection area, special area of conservation or Ramsar site. Where enhanced or new access may lead to a likely significant effect on the protected features of these sites, an Appropriate Assessment will be required. It is government policy for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to special protection areas.

1002. To identify the location of existing activities in relation to a given proposal, decision-makers and proponents may wish to use the [Explore Marine Plans](#) digital service and other relevant policy maps for the north west marine plan areas. The [Explore Marine Plans](#) digital service also allows decision-makers and proponents to identify other marine plan policies that may be relevant to a given proposal.

1003. Proposals will likely require a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals should demonstrate how they have satisfied a) before moving to b), and so on.

1004. In the context of the mitigation hierarchy outlined above, avoid is defined as acting at source to plan, design and deliver proposals that result in no significant adverse impact occurring. To achieve this, where the potential for significant adverse impacts is identified, proposals should be amended so that they either no longer exert a pressure, or make sure that the pressure produced can no longer be received by the

¹¹¹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹¹² As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

identified receptor, for example, relocating part, or all, of the proposal so that it will no longer interfere with existing public access infrastructure.

1005. Minimise is defined as acting at source to plan and design proposals to reduce adverse impacts to the smallest possible amount, or degree. Minimisation reduces the level of pressure generated, for example, reducing the scale of the proposal to lower the magnitude of interference with existing access users and public access infrastructure.
1006. Where significant adverse impacts from pressures cannot be avoided or minimised at source, and receptors are exposed to those pressures, action should be taken to make the consequences of the impacts less severe. Mitigation is a reduction of how a given pressure is experienced by the receptor, for example, implementing timing restrictions to avoid conflicts with other activities.
1007. Demonstration of the appropriateness of a proposal for new, or enhanced, public access and/or the satisfaction of the mitigation hierarchy does not predetermine the approval of the proposal by the decision-maker. Indeed, the decision to approve a proposal will also depend on other material considerations to be taken into account by the decision-maker. Examples of wider social and economic considerations may include, but are not limited to:
- access inclusivity
 - adverse impacts on existing economic activities
 - adverse impacts on protected heritage and natural assets
1008. Other guidance, legislation and strategies that may support the implementation of this policy include, but are not limited to:
- [Countryside and Rights of Way Act 2000](#)
 - [England Coast Path: manage your land in the coastal margin](#)
 - [National Parks and Access to the Countryside Act 1949](#)
 - [Sport England: Towards an Active Nation Strategy 2016-2021](#)

Proponents

1009. The delivery of positive impacts from a proposal does not negate the need to assess any significant adverse impacts. Enhancement is not a substitute for impact avoidance, minimisation or mitigation.
1010. Proposals should demonstrate regard to any existing public access infrastructure and/or services that may be significantly impacted (direct and indirect, permanent and temporary), including cumulative impacts. Where proposals may have a significant adverse impact on existing public access, they should demonstrate how they have satisfied the mitigation hierarchy, as outlined in the section above. Proponents should also demonstrate compliance with other relevant plans and strategies. Examples of other relevant plans and strategies include, but are not limited to:
- Local Plans
 - Recreational Disturbance Avoidance and Mitigation Strategies

- Rights of Way Improvement Plans
- Strategic Access Management and Monitoring Strategies

1011. Public access infrastructure should be maintained to a suitable standard, and as required by relevant legislation, to ensure safe access is available to as wide a range of users as practical. For example, proponents must ensure that appropriate lifesaving equipment is provided and maintained, where required.
1012. Public access may be subject to restrictions at certain locations due to existing public access management measures. For example, public access restrictions may be required for public health, safety and security reasons, or for the purposes of maintaining the integrity of protected sites (eg designated heritage or natural assets).
1013. Landowner consent may be required for proposals related to public access. Proponents should, therefore, seek to engage with the relevant landowners and to ensure that all necessary consents are obtained.
1014. Proponents should seek to engage with relevant stakeholders and public bodies to identify and resolve any potential issues associated with any given proposal prior to the submission of a proposal.

Decision-makers

1015. Decision-makers should determine whether a proposal for new or enhanced public access is appropriate in the context of the location, nature and scale of a given proposal.
1016. Decision-makers should ensure that proposals that may have a significant adverse impact on existing public access demonstrate that they have satisfied the criteria of the mitigation hierarchy, as outlined in the section above. Significant adverse impacts (direct and indirect, permanent and temporary) may include physically excluding public access to parts of the marine area. Decision-makers should have regard to all significant adverse impacts associated with construction, operation and decommissioning phases, as appropriate, including cumulative impacts.
1017. Where proposals may impact existing access restrictions or management measures, decision-makers should consult with the relevant stakeholders to evaluate the implications for public health, safety, security and/or site integrity.
1018. Decision-makers will have regard to a range of considerations, including compliance with relevant environmental assessments, legislation and regulations.
1019. In determining applications for Nationally Significant Infrastructure Projects, examining authorities and government departments acting on behalf of the Secretary of State must have regard to this policy.

5.20 Tourism and recreation

Policy Code	Policy Wording
NW-TR-1	<p>Proposals that promote or facilitate sustainable tourism and recreation activities, or that create appropriate opportunities to expand or diversify the current use of facilities, should be supported.</p> <p>Proposals that may have significant adverse impacts on tourism and recreation activities must demonstrate that they will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate</p> <p>- adverse impacts so they are no longer significant.</p>

What are tourism and recreation?

1020. **Tourism** is a general term that encompasses any time spent away from home to pursue leisure or relaxation activities. The United Nations World Tourism Organisation defines tourism as “a social, cultural or economic experience that involves the movement of people to countries or places outside their usual environment for personal (or professional) purposes”.
1021. **Sustainable tourism** is defined by the United Nations World Tourism Organisation as “tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities”.
1022. **Recreation** refers to leisure activities undertaken by individuals within their usual living environment (ie near to where they live).
1023. Tourism and recreation are two distinct but intrinsically linked sectors, which share many similar challenges and issues. Recreational activities represent one element of tourism, which also includes other associated services (eg accommodation, entertainment and transport). Although interconnected, some subtle distinctions between tourism and recreation are recognised, for example, seasonality; tourism typically displays a peak during the summer months in the UK, whereas recreational activities may occur throughout the year.
1024. The coastal-marine environment supports numerous tourism and recreation activities (detailed in [Modelling marine recreation potential in England \(MMO1064\)](#)), the majority of which occur onshore, or within three nautical miles of the coast. These vary between different locations, and range from passive interaction with the natural environment, such as bird watching, to more direct contact with the sea, for example, scuba diving. Other popular activities include pleasure boating, sailing, sea angling, kayaking and surfing, as well as exploration of underwater and coastal heritage assets. The coast can provide opportunities for casual walking, hiking and wildlife watching. The coast can inspire a range of artistic and cultural activities and offers opportunities for culinary tourism and diverse forms of sustainable eco-tourism.

1025. Tourism and recreation can generate a considerable amount of income and are often a mainstay for many coastal towns, supporting their economy, improving quality of life for residents, and providing many health and well-being benefits, with many local businesses relying on the coastal-marine environment for their livelihood.
1026. All tourism and recreation activities are underpinned by a healthy and well-managed natural and historic marine environment. Attractive and well-maintained beaches that are free from litter, support a biodiverse seashore, provide clean and unpolluted bathing water, with protected cultural and heritage assets and diverse seascape characters are vital to support a sustainable tourism and recreation sector.

Why are tourism and recreation important?

1027. Tourism and recreation are important, well-established sectors within the north west marine plan areas. In terms of direct Gross Value Added, the north west region received around £5.8 billion from tourism in 2013 ([The regional value of tourism in the UK: 2013](#)). In 2018 there were around 1.9 million domestic visits to the seaside in the north west, with the tourism industry in the region supporting an estimated 208,809 jobs ([Tourism employment by region, 2018](#)). Beaches and iconic seaside towns along the north west coast are some of the key attractions in the area, offering local residents and visitors numerous leisure, sport and recreation activities.
1028. There is scope to diversify tourism and recreation ventures across the region to capitalise on a changing travel and leisure market. The over seven million residents and large urban populations with access to the coast provide excellent and enduring prospects for the future of the visitor economy of the north west's coastal communities ([Understanding the coastal communities of the north west](#)). This policy supports proposals that promote and facilitate diversification, which will provide a greater range of employment opportunities in the tourism and recreation sector and improve resilience in times of economic uncertainty. Increasing the options available to visitors may also help reduce potential adverse impacts of tourism and recreation on the natural and historic heritage assets on which they depend, and improve the overall visitor experience.
1029. The potential economic impact of marine tourism and recreation is exemplified by recreational sea angling, which is a popular activity around the coast, including many locations in the north west marine plan areas. The sector was estimated to generate a total spend of £1.9 billion, supporting over 16,300 jobs across the UK and almost £850 million of Gross Value Added to the economy, once indirect and induced effects are considered ([Participation, catches and economic impact of sea anglers resident in the UK in 2016 and 2017: Final report of the Sea Angling 2016 and 2017 project](#)). Coastal communities can gain direct benefits when good fishing attracts anglers. Important sea angling sites in the north west marine plan areas were identified as part of the [Mapping recreational sea anglers in English waters \(MMO1163\)](#) study; the data can be viewed on [Explore Marine Plans](#).
1030. Recreational boating is another key sector, providing various socio-economic benefits to coastal communities throughout England. The Royal Yachting Association and the Seabed User and Development Group estimate that the industry

contributes between £1.5 and £2 billion in Gross Value Added annually to the UK economy and provides almost 34,000 jobs ([Study of the socio-economic benefits of marine industries included in the Seabed User and Developer Group](#)). Results from the [Watersports Participation Survey](#) indicate that over 3.9 million adults in the UK took part in boating activities in 2018. In addition, involvement in recreational boating activities also provides numerous health and well-being benefits to local residents and visitors. Recreational sailing sites are abundant in the north west marine plan areas, with a mixture of medium and light-use ports and harbours located across the region. Sailing between local ports is popular, and more widely, sailing routes link harbours on the English, Welsh and Isle of Man coasts.

1031. The [UK Marine Policy Statement](#) Section 3.11.2 recognises that tourism can offer numerous benefits, and also costs, to individuals and coastal communities, specifically in terms of development, town characteristics and well-being effects. Any potential impacts, positive or negative, can help inform the types of marine activities that could be encouraged and used to attract tourism to coastal locations, with a focus on the development of innovative, sustainable activities that balance local and regional economic, social and environmental needs. In addition, the north west of England contains a disproportionately high extent of the country's designated coastal habitat and also hosts many of the region's important landscape and historic designations.
1032. Tourism and recreation provide many social benefits for coastal communities, such as improved health (mental and physical) and well-being and job creation ([National Planning Policy Framework](#)). With tourism forecast to increase by 4% annually till 2025 ([Economic contribution of the tourism economy in the UK](#)), it is essential that tourism and recreation development is managed sustainably with a focus on diversification and eco-tourism.
1033. The north west region includes a number of prominent coastal landmarks: the iconic tower at Blackpool, Liverpool's historic waterfront that is designated as a World Heritage Site, the expansive beach at Morecambe Bay, Ravenglass, and the western endpoint of Hadrian's Wall. Tourism and recreation use occurs along the full length of the north west coast, although activities tend to be more prevalent around large coastal towns. The Lake District National Park, local and national nature reserves and award-winning sandy beaches, attract tourists and local residents to the coast.
1034. In addition to urban and beach-based tourism, the north west coast is popular for wildlife watching. There are various national and local nature reserves in the region, several of which provide facilities for visitors and local residents. Coastal reserves are often open year-round, offering potential for 'out of season' recreational use by local residents and other diversification options.
1035. A range of protected species are present in the north west marine plan areas at different times throughout the year, for example, the entire population of Svalbard barnacle geese overwinter in the Solway Firth ([The Solway Firth: a special place for birds](#)). Harbour porpoise and dolphin are regularly observed in the region, and some

locations in Cumbria and the Wirral offer opportunities to watch grey seals year-round.

1036. In the north west region, the [England Coast Path](#) runs between the Scottish and Welsh borders, edging around the Lake District, passing Morecambe Bay, iconic Blackpool, the stunning sand dunes around Formby, and the famous city of Liverpool.
1037. Possible diversification options might include promotion of recreational activities focused on local residents. This can increase support for local businesses such as equipment hire, food and drink sales, transport and fuel service, especially outside the peak tourist season. For local residents particularly, involvement in recreational pursuits can result in greater social cohesion and a sense of place. Use by local residents can also raise awareness of the importance of the coast and marine areas as the setting for their activity. This engenders a sense of pride and 'ownership', which can encourage local action to protect areas and the services they provide ([UK Marine Policy Statement](#) Section 3.11.5).
1038. In addition to the numerous positive benefits resulting from tourism and recreation, there is also potential for adverse impacts on coastal-marine ecosystems, heritage assets and coastal communities. Ineffective regulation of activities, excessive visitation at sensitive locations or inadequate facilities can all have detrimental social, environmental and economic consequences. Over-visitation can result in antisocial or illegal behaviour (eg littering), cause disturbance to vulnerable species, or lead to habitat degradation. NW-TR-1 aims to address these potential issues by promoting the development of sustainable activities, at appropriate locations throughout the north west marine plan areas.
1039. Development of sustainable tourism and recreation in the north west marine plan areas complements objectives outlined in the government's [Industrial Strategy: Tourism Sector Deal](#). This policy will help address some of the key challenges that have been identified for the nation's tourism industry, and aligns with strategies outlined to tackle these issues and promote the sector, for example, the development of Tourism Zones that aim to improve the local tourism economy. It is hoped that a range of areas across the country - including coastal, rural, and urban - will bid to become Tourism Zones.
1040. The [Industrial Strategy: Tourism Sector Deal](#) builds on government investment initiatives developed to aid coastal communities – many of which are reliant on tourism and recreation – that have been recognised as suffering economic decline. The [Coastal Communities Fund](#) and the [Coastal Revival Fund](#) have supported numerous tourism projects on the north west coast, including Connecting Cumbria's Hidden Coast, a project to improve the visitor experience at the coast, and LightPool, a project to enhance the iconic Blackpool Illuminations.

Policy NW-TR-1 Tourism and recreation

Proposals that promote or facilitate sustainable tourism and recreation activities, or that create appropriate opportunities to expand or diversify the current use of facilities, should be supported.

Proposals that may have significant adverse impacts on tourism and recreation activities must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant.

Policy aim

1041. Tourism and recreation are widely recognised as important sectors within the north west marine plan areas, providing numerous economic and social benefits to coastal communities and visitors to the region. NW-TR-1 supports these established industries through promotion of sustainable tourism and recreation at appropriate locations. It also encourages diversification of activities – for example, through extension of operating seasons or development of alternative uses for facilities – to create additional employment opportunities, while reducing adverse impacts on natural resources and heritage assets.
1042. To minimise stakeholder conflict, this policy also addresses the potential impact of proposals on existing tourism and recreation use, or future potential activities; those proposals that cannot avoid, minimise and mitigate significant adverse impacts on tourism and recreation activities are unlikely to be supported.
1043. Policy NW-TR-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1044. For the purpose of implementing the mitigation hierarchy presented in policy NW-TR-1 above, avoid is defined as acting at source to plan, design and deliver proposals that result in no adverse impact occurring. To achieve this, where adverse impacts are identified, the proposal should be altered so that it no longer exerts a pressure, or the pressure produced can no longer be received by an identified receptor, for example, making temporal or spatial changes to the proposal to avoid established tourist seasons or known recreational ‘hotspots’.
1045. Minimise is defined as acting at source to plan and design proposals to reduce adverse impacts to the smallest possible amount or degree. Minimisation reduces the level of pressure generated. An example may be a reduction in the scale of the proposal to decrease the potential area of impact.
1046. Where adverse impacts from pressures cannot be avoided or minimised at source, and receptors are exposed to those pressures, action should be taken to make the consequences of the impacts less severe. Mitigation is a reduction in how a given pressure level is experienced by the receptor, for example, provision of an

alternative area or facility to support tourism and recreation activities that generate similar social benefits.

1047. Proposals must first demonstrate how they will avoid significant adverse impacts on tourism and recreation activities. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.

1048. It is not possible to define sustainable tourism and recreational activities. Sustainability will be determined on a case-by-case basis and will depend on various factors including, but not limited to, the:

- existing tourism and recreation activities
- location of the proposal
- presence of cultural or historic assets
- scale of the proposal
- type of proposal

1049. All relevant criteria pertaining to the potential sustainability of an activity or the suitability of a proposed location need to be considered by proponents and decision-makers. Sources of information include:

- [Explore Marine Plans](#) – provides information about tourism and recreation activities and facilities, and also identifies relevant marine plan policies at a given location
- Figure 13 – indicates short sea shipping routes for recreational vessels
- [Guidance on Environmental Impact Assessment of offshore renewable energy development on surfing resources and recreation](#)
- [Royal Yachting Association UK Coastal Atlas of Recreational Boating](#)

Proponents

1050. This policy applies to any proposal from an individual or organisation, which is related to tourism and recreation provision within the north west marine plan areas. Proposals can be for the development of new activities or facilities, an expansion of current activities, or to request a change of use for existing facilities that will incorporate tourism and/or recreational activities. Examples of how a proposal might create an opportunity to diversify the use of a facility include, but are not limited to:

- extension of the visitor season where feasible, to facilitate access for local residents during low season
- promoting alternative out-of-season use
- provision of mooring facilities for recreational watercraft at a quay previously used exclusively for fishing vessels, taking relevant safety issues into consideration

1051. Proposals should demonstrate how they will promote sustainable tourism and recreational use of the coastal-marine environment in the north west marine plan areas and identify how diversity of activities will strengthen the tourism and recreation industry (including addressing the challenges outlined in the [Industrial Strategy: Tourism Sector Deal](#)).
1052. Proposals must detail tourism and recreation activities or facilities in the area that might be disturbed, displaced or impacted (temporarily or permanently); for example, sailing routes or dive sites in the vicinity of a proposed renewable energy installation. All existing and planned activities should be considered.
1053. Inclusion of supporting information to demonstrate how significant adverse impacts have been avoided, minimised or mitigated does not guarantee approval of the proposal by default. Proponents need to demonstrate compliance with other policies in the North West Marine Plan and other relevant local, regional or national plans. Some proposals may also be subject to marine and/or terrestrial licences and permits, which have distinct application procedures.
1054. Where a proposal may cause significant adverse impacts on tourism and recreation activities, proponents should demonstrate how they have engaged with relevant stakeholders during early development stages of the proposal; this might include informal discussions and/or a formal consultation process if required by current legislation.
1055. Proposals should encourage and enable more frequent recreational use by local residents but should, at all times, consider impacts on the natural environment, seascape, and cultural and heritage assets, in accordance with relevant policies in the North West Marine Plan, the objectives of other plans (both terrestrial and marine) and to align with sustainability principles.
1056. Limiting disturbance from enhanced tourism and recreation activities is important to help support the conservation objectives of marine protected areas. Relevant statutory assessments must be carried out for marine conservation zones in accordance with the [Marine and Coastal Access Act 2009](#), sites of special scientific interest in accordance with the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites in accordance with [The Conservation of Habitats and Species Regulations 2017](#)¹¹³ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹¹⁴. A Habitats Regulations Assessment must be conducted where disturbance from increased tourism and recreation activities is a consideration of the conservation objectives of a special protection area, special area of conservation or Ramsar site. Where enhanced tourism and recreation activities may lead to a likely significant effect on the protected features of these sites, an Appropriate Assessment will be required. It is government policy for sites designated under the Convention on

¹¹³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹¹⁴ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to special protection areas.

1057. Proponents are advised that proposals at certain locations may be subject to restrictions on the scope of permitted use or development opportunities, to comply with management measures in place to ensure public health and safety, or to maintain the integrity of a particular site.

Decision-makers

1058. Decision-makers, in consultation with industry stakeholders, may have previously identified where opportunities to diversify tourism and recreation activity exist, which are outside established patterns of use and/or seasons; this information could help inform authorisation of proposals. Diversification options may include provision of additional green-space and recreational opportunities to minimise impacts on sensitive wildlife habitats. There is a need to consider challenges associated with balancing promotion of tourism and recreational activity against impacts on nature conservation interests, of particular importance in designated protected areas.
1059. Proposals should be assessed for compliance with all relevant environmental policies in the North West Marine Plan (for example, those covering marine protected areas, biodiversity or disturbance), relevant legislation, and any existing recreational disturbance avoidance and mitigation strategies.
1060. Decision-makers should evaluate the impact of proposals that promote recreational activities such as sea angling, to ensure that they do not adversely affect other marine users, for example, commercial fisheries.
1061. Determining the suitability of a location for a proposal is another important consideration for decision-makers, and the assessment may be influenced by potential impacts on navigational safety, the presence of cultural or heritage assets, or protected area designations.
1062. Decision-makers must assess the potential impacts of proposals on recreation and tourism activities in the north west marine plan areas; such impacts may be positive or negative, direct or indirect, permanent or temporary. It is important that new proposals do not result in significant adverse impacts on existing (in some cases seasonal) tourism and recreation use, restrict access to associated facilities (such as slipways or marinas), or prevent the future provision of activities.
1063. Significant adverse impacts may include restricting access to areas where recreation activities take place, reducing the length of the season within which tourists may visit a natural or historic heritage attraction, or any physical impact.
1064. When making an authorisation, decision-makers should consider evidence from consultation with representatives from the tourism and recreation industry and other relevant stakeholders, the outcome of those discussions and any suggested mitigation options.

1065. Decision-makers should also consider the appropriateness of proposals at sites that may require expert consultation with site operators to evaluate implications for public health and safety and/or site integrity.
1066. In line with their statutory duties, decision-makers may need to prioritise other proposals, for example, dredging to maintain safe navigation within harbour areas or to carry out emergency works in response to a marine incident. These activities take precedence and are also fundamental to the provision of many tourism and recreation activities.
1067. In examining and determining proposals for Nationally Significant Infrastructure Projects, decision-makers and the relevant secretary of state must consider this policy for projects that may have significant adverse impacts on tourism and recreation activities.

5.21 Knowledge, understanding, appreciation and enjoyment

Policy Code	Policy Wording
NW-SOC-1	Those bringing forward proposals should consider and demonstrate how their development shall enhance public knowledge, understanding, appreciation and enjoyment of the marine environment as part of (the design of) the proposal.

What are knowledge, understanding, appreciation and enjoyment?

1068. **Knowledge** includes access to, and interpretation of, information that increases understanding, appreciation and enjoyment of the natural environment, historic environment and socio-economic values that make up the marine environment of the north west marine plan areas.
1069. **Understanding** and **appreciation** of the marine environment, its natural processes, heritage assets, and social, economic and cultural values can provide social benefits for quality of life, physical and mental health and well-being, cultural identity and sense of place. Such benefits are gained directly by people living and working in coastal communities immediately adjacent to the north west inshore marine plan area (see Figure 24), but these benefits are also gained by visitors.
1070. **Enjoyment** of the marine environment generates public benefits that can be gained while undertaking activities including, but not limited to:
- recreational activities and physical exercise
 - simply viewing the coast
 - utilising health and well-being facilities and amenities that are located for their setting in and adjacent to the marine area.
 - benefits may continue to be gained after visitors return home
1071. **Understanding, appreciation** and **enjoyment** can also be derived by people who are aware of the north west marine environment but who may never have visited the area in person. They can be derived through virtual experiences or simply by learning more about the area's values and having awareness of marine planning and sustainable management.
1072. **Knowledge** and **understanding** are also important for conservation management, but that is more directly addressed through separate policies, such as those for biodiversity, marine protected areas, water quality, historic environment, and seascape.
1073. There is a recognised need to continue to gain more knowledge about the north west marine areas but also to gain better insights into understanding, appreciation and enjoyment, and the social benefits derived. This applies to all coastal areas, but especially to designated areas such as [National Parks](#), [Areas of Outstanding Natural Beauty](#), [Heritage Coasts](#) and UK [World Heritage Sites](#) (as listed by the United Nations Educational, Scientific and Cultural Organisation). The potential to secure enhanced understanding, appreciation and enjoyment, and the benefits it generates,

will be improved. This needs to extend to impacts¹¹⁵: positive and negative, direct and indirect, permanent and temporary, as well as those resulting from cumulative effects.

Why are knowledge, understanding, appreciation and enjoyment important?

1074. Sustainable development requires a balanced assessment of environmental, social and economic cumulative impacts. Consideration of social impacts is especially necessary as they are particularly problematic to measure due to being more qualitative, indirect and diffuse. The [UK Marine Policy Statement](#) Section 2.5.4 states that “The marine environment provides national economic and social benefits including for heritage assets, seascape and social value of coastal and marine activities, as well as directly contributing to the quality of life and well-being of coastal communities. Marine planning will also therefore make an important contribution towards ensuring vibrant and sustainable coastal communities, helping to build strong local economies and improving quality of life, access to, and enjoyment of their marine areas.”
1075. The [UK Marine Policy Statement](#) Section 3.11.4 also states that “Tourism can provide environmental benefits through helping to enhance understanding and appreciation of the marine environment through activities such as eco-tourism and nature watching. Socio-economic benefits include positive economic benefits through increased visitor numbers and improved access. Outdoor recreation and enjoyment of the coast can also provide benefits to physical and mental well-being.”
1076. The [National Planning Policy Framework](#) paragraph 185 states that “Plans should set out a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats.”
1077. Many benefits can be realised from increased knowledge and awareness of the marine environment (natural, historic and social value) for those who live, work and enjoy the north west marine plan areas.
1078. An appreciation of the area, including its landscape and seascape, can improve social factors such as health and well-being, and develop a sense of place, responsibility or ownership of an area. This fosters community cohesion, pride and passion for an area which raises aspirations and stimulates the local economy.
1079. An increased understanding and appreciation can benefit the natural environment and the many species that are native to the plan area. This may result in more effective conservation management schemes or a reduction in pollution (including plastics), litter on beaches and the disturbance to wildlife, including marine mammals and bird nesting sites.

¹¹⁵ [Social Impacts and Interactions between Marine Sectors](#) (MMO1060) and [Social Impacts of Fisheries, Aquaculture, Recreation, Tourism and Marine Protected Areas \(MPAs\) in Marine Plan Areas in England](#) (MMO1035).

1080. Heritage assets are also under threat from increased access from tourism and recreation activities. Impacts on historic buildings require great appreciation for their setting in the landscape so they can be conserved for future generations. Smaller but equally significant assets require greater awareness. The impact of increased numbers of people visiting an area, and the coastal erosion on buried or submerged heritage assets, result in assets being lost before they are discovered.
1081. The Marine Management Organisation developed “coastal typologies” published through the research report [Maximising the socio-economic benefits of marine planning for English coastal communities \(MMO1001\)](#). It provides an overview of the types of coastal communities and their social and economic characteristics, including current position and recent trends compared to the national average (see Figure 24). The typologies can provide indications of where communities may gain particular benefits from knowledge, understanding, appreciation and enjoyment in response to social issues they experience.
1082. The research report (see above) indicates that the most common typologies are Striving Communities and Structural Shifters. Many communities on Merseyside (in and around Liverpool, St Helens and Runcorn) and on the Cumbrian coast (such as Barrow) experience high levels of deprivation with particular social and economic challenges for a significant number of people in these areas. Some towns, including those again on the Cumbrian coast (such as Whitehaven and Workington), have lost their primary markets, and are facing the challenge to find new ones.
1083. New Towns and Ports (in the Merseyside hinterland) face challenges relating to poor skills and high levels of unemployment, but counterbalanced by a relatively strong economy and often located close to areas of economic growth. The north west also has significant numbers of affluent prosperous suburbia communities such as Southport and on the Wirral. Working Hard communities on the edge of towns and in satellite towns around larger coastal cities, such as Fleetwood and Cocker mouth, are also prevalent. This indicates strength in employment in industrial sectors and a stable population.
1084. All residents of coastal communities and visitors gain knowledge, understanding, appreciation and enjoyment (and the social benefits derived from them) from the north west marine plan areas at various times and to various degrees. Displacement of activities which produce social benefits, particularly ones that are important to coastal communities experiencing deprivation or other social challenges, is, therefore, a concern. As a consequence, it is important to manage significant negative impacts on activities with social benefits ([UK Marine Policy Statement](#) Section 3.11.2, [National Planning Policy Framework](#) Chapter 8 and [Monitoring Engagement with the Natural Environment](#)). The need to encourage co-existence is essential in minimising or mitigating the significant negative impacts of displacement on social benefits.
1085. Many social benefits are derived indirectly from employment (in many industries including fishing for example), having skills, access to and within the marine area, and recreation and tourism opportunities. Social benefits are also contingent on the natural and historic environment, the seascape, good water quality and reduced

marine litter. Social benefits will, therefore, be partly safeguarded as an indirect consequence of the effective implementation of relevant sector policies (see, eg NW-ACC-1, NW-TR-1, NW-SCP-1, NW-HER-1, NW-ML and NW-BIO policies) and external initiatives (eg [A Green Future: Our 25 Year Plan to Improve the Environment](#), the [Marine Strategy Part Three: UK programme of measures](#), [Sustainable Tourism in England: A framework for action](#) and [England Coast Path: improving public access to the coast](#)). However, as social benefits are derived from such a wide range of sources and are important to both residents and visitors who experience them in diverse ways, active intervention is required to ensure they continue to be provided.

Policy NW-SOC-1 Knowledge, understanding, appreciation and enjoyment

Those bringing forward proposals should consider and demonstrate how their development shall enhance public knowledge, understanding, appreciation and enjoyment of the marine environment as part of (the design of) the proposal.

Policy aim

1086. NW-SOC-1 seeks to increase the general knowledge, understanding, appreciation and enjoyment by people of the many values provided by the marine environment through encouraging proposals that incorporate these factors.
1087. Policy NW-SOC-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1088. To apply NW-SOC-1 successfully, proponents, consultants and decision-makers may wish to consult the Marine Management Organisation research report [Maximising the socio-economic benefits of marine planning for English coastal communities \(MMO1001\)](#). It describes the diversity between communities within the north west (see Figure 24) and their levels of deprivation, employment, education and health. This provides a spatially mapped indication of where social benefits (from knowledge, understanding, appreciation and enjoyment) are most needed to address challenges faced by local communities.
1089. The influence of a proposal in an area (including its effects on the marine environment, its wildlife, iconic views and cultural heritage) may not be constrained to the marine plan areas. The effects a development may have on an area may be felt more broadly, including on the area's sense of place, its visitor numbers, or the well-being of its coastal communities.

Proponents

1090. Proposals that enhance the knowledge, understanding, enjoyment and/or increase the awareness and appreciation of the marine environment (natural, historic and social value) are encouraged and will be supported. The social benefits that are derived from these activities include, but are not limited to:
- a sense of place
 - cultural identity
 - enjoyment

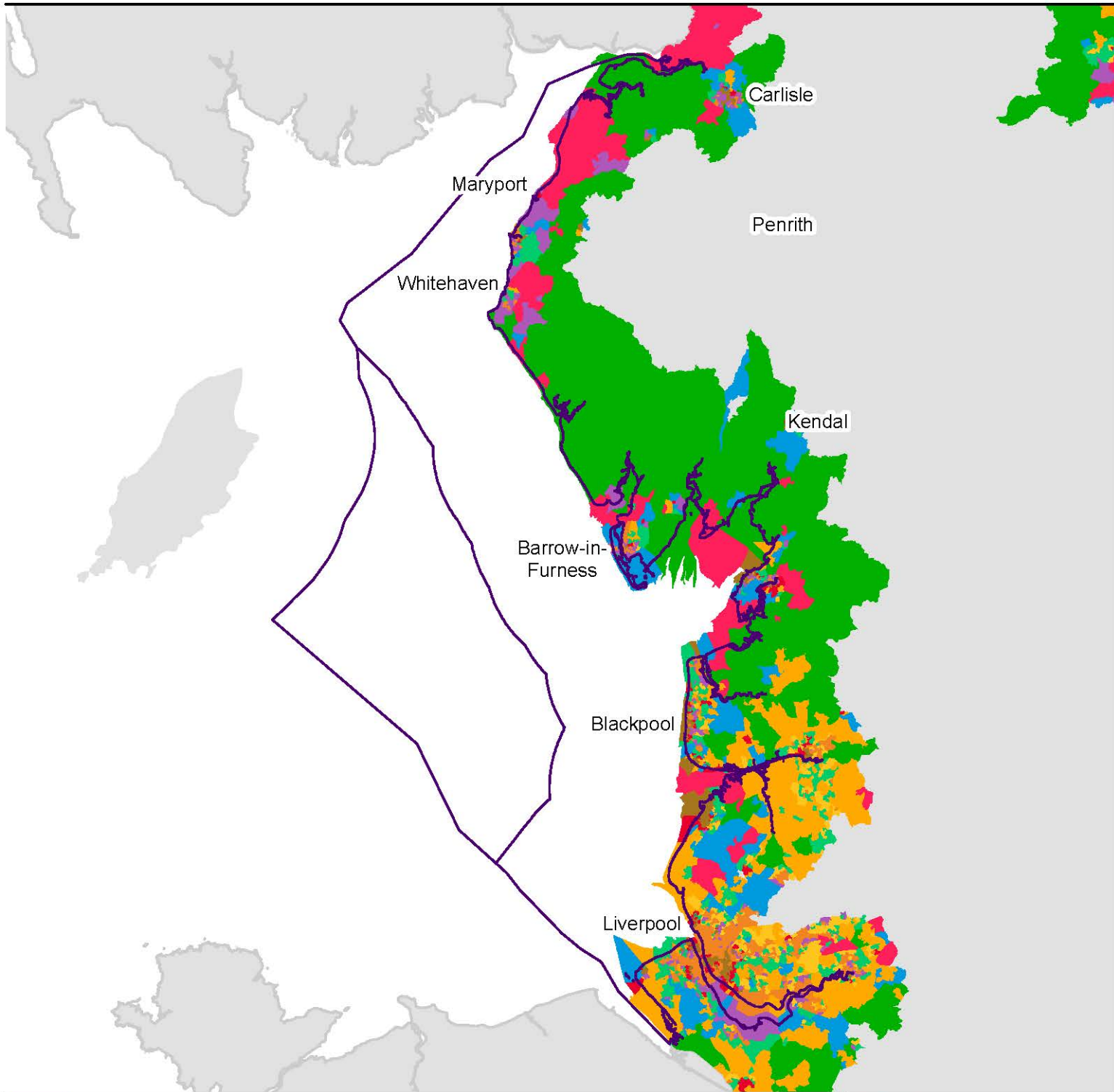
- health and well-being

1091. This can include the promotion of conservation management, education and the provision of skills. While conservation management processes will be administered directly through environmental and heritage marine plan policies, this policy contributes to the awareness of adverse impacts by enhancing awareness and understanding of the natural and historic environment.
1092. Proposals should demonstrate how knowledge and awareness can be delivered throughout their development, including construction, operation and the legacy left by the development or activity once it ceases to realise the benefits set out in the [UK Marine Policy Statement](#). This may include access to and within the marine area (eg footpaths or viewing platforms), recreation and tourism opportunities and facilities, admission to on-site archaeological excavations and information points describing the environment of the site and aiding the development of a sense of place, cultural heritage and well-being.
1093. Some existing activities supporting knowledge, understanding, appreciation and enjoyment can be identified via [Explore Marine Plans](#) (and the [Public Register](#)), local plans, [shoreline management plans](#), and heritage coast and coastal partnership plans. Proposals may demonstrate inclusion of consultation (with public authorities, coastal partnerships, and industry groups, including those representing the recreation and tourism sector, for example) to identify opportunities and displacement issues at the pre-planning stage and suggested measures to minimise or mitigate them.

Decision-makers

1094. Decision-makers must consider the mechanisms claimed by proponents to enhance knowledge, understanding, appreciation and enjoyment (both directly and indirectly). This can include the following with regard to the north west marine plan areas:
- activities that bring people into contact with the marine environment and so enhance their appreciation and enjoyment
 - gathering data and evidence about its environment, economy and social values to enhance knowledge and understanding
 - interpretative media to communicate the knowledge to local communities and visitors
 - proposals for physical access to the marine environment
1095. Decision-makers need to recognise the coastal typologies (Figure 24) that can provide indications of where communities may gain particular benefits from knowledge, understanding, appreciation and enjoyment in response to social issues they experience.

Figure 24 | Socio-economic Typologies of Coastal Communities



 North West Marine Plan Areas

Coastal Typology

- | | | |
|--|---|--|
|  A1 Silver Seaside |  B1 Structural Shifters |  C2 Coastal Professionals |
|  A2 Working Countryside |  B2 New Towns and Ports |  D1 Prosperous Suburbia |
|  A3 Rural Chic |  B3 Striving Communities |  D2 Working Hard |
| |  C1 Reinventing Resorts | |

Indicative map
 This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

5.22 Defence

Policy Code	Policy Wording
NW-DEF-1	Proposals in or affecting Ministry of Defence areas should only be authorised with agreement from the Ministry of Defence.

What is defence?

1096. The Ministry of Defence has the primary role of providing defence and security to the people of the UK and overseas territories. Within UK waters in peacetime, military activities are comprised of operational, practice and training activities, routine patrolling, transporting equipment and personnel in and out of the country, and communications, including using radar.
1097. There are a large number of defence activities and estates in the north west marine plan areas. Marine infrastructure can affect their continuity or future use. NW-DEF-1 will avoid conflict between defence activities and new proposals within the plan areas. It will ensure that defence interests are not impeded.

Why is defence important?

1098. There is a widespread presence in defence activities and estates in the north west marine plan areas. Marine infrastructure may have a cumulative or individual effect on their continuity or future use.
1099. The north west marine plan areas include over 2,000km² of military practice and exercise areas. The inshore and offshore areas contain extensive danger areas used for weapon test and evaluation activities. There are also a number of coastal sites with associated danger and exercise areas used for firing ranges and ordnance disposal. In addition, defence maritime navigational interests are also applicable.
1100. As stated in the [UK Marine Policy Statement](#) Section 3.2.1, “the Ministry of Defence 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](#), [Military Lands Act 1900](#) and the [Land Powers Defence Act 1958](#)”.
1101. The [UK Marine Policy Statement](#) Section 3.2.4 states that “defence activities that utilise the marine environment, directly or indirectly, in support of operational capability are diverse but include operational vessels and aircraft, HM naval bases, surface and subsurface navigational interests, underwater acoustic ranges, maritime and amphibious exercises, coastal training, test and evaluation ranges”.
1102. The [National Planning Policy Framework](#) Section 95 states that “planning policies and decisions should promote public safety and take into account wider security and defence requirements”.
1103. NW-DEF-1 supports the need for defence activities to take place in the north west marine plan areas for the purpose of national security.

Policy NW-DEF-1 Defence

Proposals in or affecting Ministry of Defence areas should only be authorised with agreement from the Ministry of Defence.

Policy aim

1104. There are a high number of defence activities and estates in the north west marine plan areas. Marine infrastructure can affect their continuity or future use. NW-DEF-1 aims to avoid conflict between defence activities and new proposals within the north west marine plan areas. This policy will ensure defence interests are not hindered.
1105. Policy NW-DEF-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1106. The [UK Marine Policy Statement](#) Section 3.2.2 states that “marine activities should not prejudice the interest of defence and national security and the Ministry of Defence should be consulted accordingly. The participation of the Ministry of Defence in the development of Marine Plans and their contribution to overall safety, security and resilience will ensure the effective use of marine resources whilst identifying mitigation measures, where possible, for incompatible activity or usage. Consulting with Ministry of Defence should reduce any negative impact on national security or defence”.
1107. The [UK Marine Policy Statement](#) Section 3.2.9 goes on to state that “the construction and operation of offshore marine infrastructure, installations and activities, as well as policies on conservation designations and the health of the wider environment, may impact on defence interests in certain areas. Marine plan authorities and decision makers should take full account of the individual and cumulative effects of marine infrastructure on both marine and land based Ministry of Defence interests. Marine plan authorities, decision makers and developers should consult the Ministry of Defence in all circumstances to verify whether defence interests will be affected”.

Proponents

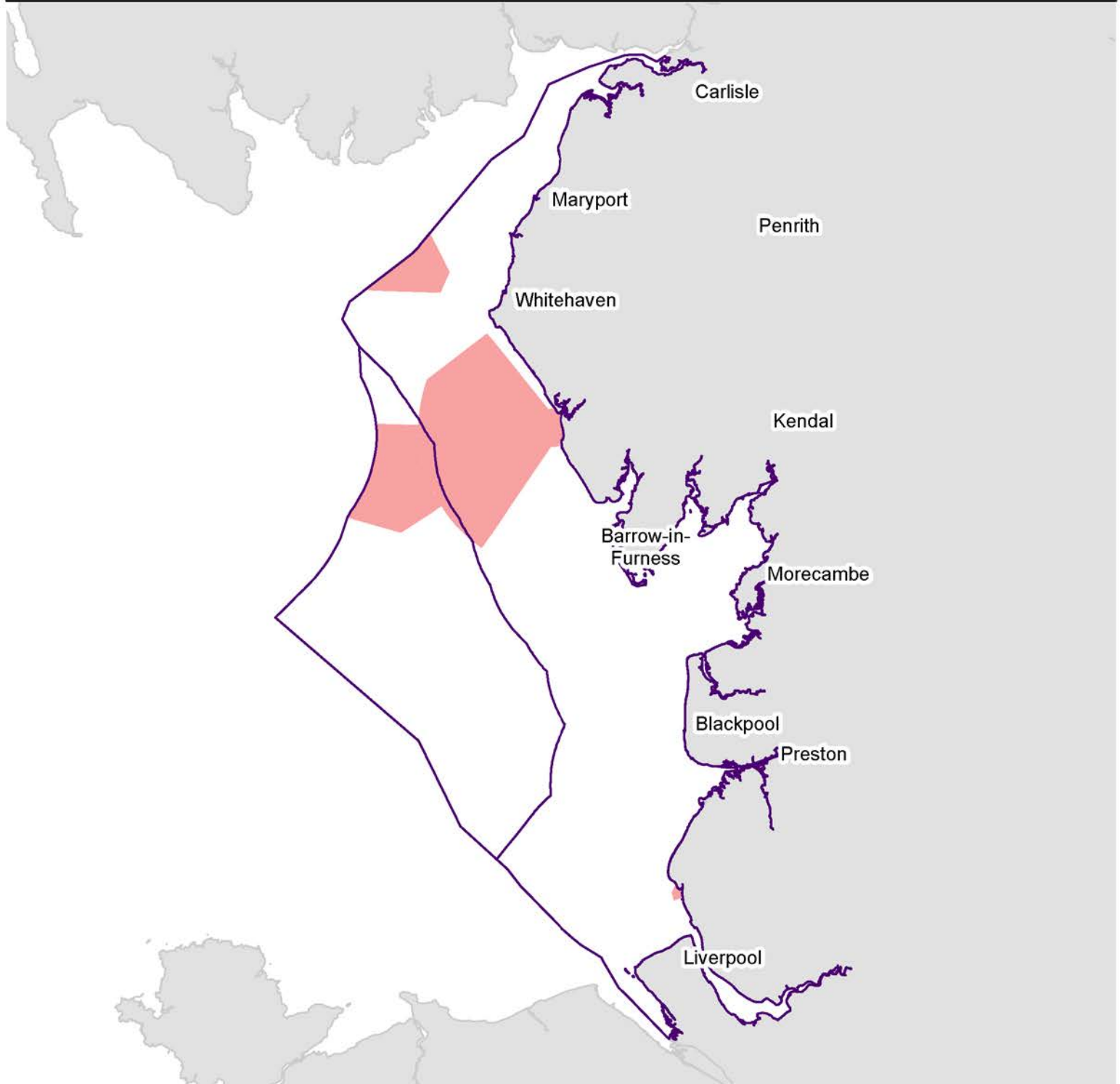
1108. The Ministry of Defence should be consulted in all circumstances to verify whether defence interests will be affected, and make sure that national defence capabilities and interests are not compromised. Permission from the Ministry of Defence is needed for any proposals that will have an adverse impact on defence activities or Ministry of Defence areas.
1109. Any proposal that impacts on the movement of vessels from Walney Channel to the Irish Sea would have an impact on defence. Proponents should, therefore, consult contractors who are responsible for the design, construction and delivery of royal naval vessels and submarines.
1110. In order to operate efficiently, reducing greenhouse gas emissions and costs to defence, Ministry of Defence transit routes cannot be impeded. The Ministry of Defence should be consulted on proposals that will add significantly to the transit time of military vessels.



Decision-makers

1111. Decision-makers should ensure that the Ministry of Defence has been consulted in all circumstances to verify whether defence interests will be affected and make sure that national defence capabilities and interests are not compromised.
1112. In examining and determining applications for Nationally Significant Infrastructure Projects, examining authorities and the Secretary of State for The Ministry of Housing, Communities and Local Government must have regard to this policy for Nationally Significant Infrastructure Projects that may have significant adverse impacts on Ministry of Defence areas.
1113. Figure 25 shows Ministry of Defence practice areas (some regulated by byelaws) within the north west inshore and offshore marine plan areas



Figure 25 | Ministry of Defence Areas



-  North West Marine Plan Areas
-  Military Practice Areas

Policy map
This map is to be used for reference only.

Living within environmental limits

5.23 Marine protected areas

Policy Code	Policy Wording
NW-MPA-1	<p>Proposals that support the objectives of marine protected areas and the ecological coherence of the marine protected area network will be supported.</p> <p>Proposals that may have adverse impacts on the objectives of marine protected areas must demonstrate that they will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate</p> <p>- adverse impacts, with due regard given to statutory advice on an ecologically coherent network.</p>
NW-MPA-2	<p>Proposals that enhance a marine protected area's ability to adapt to climate change, enhancing the resilience of the marine protected area network, will be supported.</p> <p>Proposals that may have adverse impacts on an individual marine protected area's ability to adapt to the effects of climate change, and so reduce the resilience of the marine protected area network, must demonstrate that they will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate</p> <p>- adverse impacts.</p>
NW-MPA-3	<p>Where statutory advice states that a marine protected area site condition is deteriorating or that features are moving or changing due to climate change, a suitable boundary change to ensure continued protection of the site and coherence of the overall network should be considered.</p>
NW-MPA-4	<p>Proposals that may have significant adverse impacts on designated geodiversity must demonstrate that they will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate</p> <p>- adverse impacts so they are no longer significant.</p>

What are marine protected areas?

1114. **Marine protected areas** are areas of the sea protected by law for nature conservation purposes. They protect geological features and habitats and species on the seabed, in the water column, on the sea surface, in the air above, or in the intertidal area.

1115. Marine protected areas in the north west marine plan areas include:

- Marine conservation zones (including recommended sites) – geological features, habitats and species typical of UK waters
- Ramsar sites – wetlands of international importance
- Sites of special scientific interest – geological features, flora and fauna of special interest

- Special areas of conservation (including candidate sites and sites of community importance) – habitats and species in need of conservation
- Special protection areas (including proposed sites) – rare, vulnerable or threatened birds and for regularly occurring migratory species

1116. Ramsar sites are designated and protected under the [Ramsar Convention on Wetlands of International Importance](#), especially as Waterfowl Habitat. Special protection areas and special areas of conservation are designated and protected under [The Conservation of Habitats and Species Regulations 2017](#)¹¹⁶ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹¹⁷. Marine conservation zones are designated and protected under the [Marine and Coastal Access Act 2009](#). Sites of special scientific interest are designated and protected under the [Wildlife and Countryside Act 1981](#) and the [Countryside and Rights of Way Act 2000](#).
1117. Marine conservation zones and sites of special scientific interest are national sites. Special areas of conservation and special protection areas are European sites within the UK national site network. Ramsar sites are international sites.
1118. For special protection areas and special areas of conservation, areas outside the designated area that are important to features for which a site has been designated are also protected, in so far as they support the integrity of the site.
1119. Ramsar sites receive the same protection as special areas of conservation and special protection areas.
1120. An **ecologically coherent network** includes well-managed, resilient, and adequately sized marine protected areas that are ecologically connected and that represent a range of replicated marine habitats and species. The designations listed above form the English contribution to a wider ecologically coherent network of marine protected areas in the North East Atlantic. They form the government's contribution to commitments under the [Convention for the Protection of the Marine Environment of the North East Atlantic](#) (OSPAR Convention). The UK principles of ecological coherence are laid out in the [Joint Administration Statement on an Ecologically Coherent MPA Network](#) and are based on [guidance on developing an ecologically coherent network](#) produced by the OSPAR Commission for the [OSPAR Convention](#).
1121. **Resilience** is defined in the OSPAR Commission [guidance on developing an ecologically coherent network](#) as “the ability of an ecosystem to recover from disturbances within a reasonable timeframe”. Resilient ecosystems can absorb, resist or recover from damage and disturbance caused by human activities and natural change, including climate change, and continue to provide ecosystem services. They are more likely to recover from or withstand environmental

¹¹⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹¹⁷ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

fluctuations and unexpected events, and can potentially replenish other damaged populations.

1122. **Site condition** is the condition of the qualifying features of a marine protected area. The condition may be reported as favourable (maintained or recovered), unfavourable (recovering, no change or declining), or destroyed (partially or completely). Sites are monitored by statutory nature conservation bodies that provide advice to the government and other public authorities in relation to marine protected areas. The most up-to-date information on the site condition for marine protected areas in the north west inshore marine plan area can be found on the [Designated Sites View](#) in the relevant Conservation Advice Packages. The condition for sites in the north west offshore marine plan area can be found through the [Site Information Centres](#).
1123. Climate change can affect and impact the condition of site features, particularly if the ability of habitats and species to shift their ranges in response to climate change is limited by human activities. The loss or movement of features from a site, or a decline in their condition due to climate change, may result in unfavourable condition. Boundary changes are an important consideration for adaptive management to maintain the integrity of the site.
1124. **Geodiversity** is the term used to describe the variety of landforms, rocks, minerals, fossils, soils and natural processes that underlie and determine the character of our landscape and seascape. The UK's rich geodiversity tells the story of Earth's complicated past, providing evidence of past life and environmental conditions stretching back over 2.8 billion years. The UK's changing coastline provides an unparalleled slice through our geodiversity as the action of the sea and waves continuously exposes new rocks and sediments.
1125. There is an intimate relationship between geodiversity and biodiversity. Geodiversity and the way it influences landscape, sediment and climate are fundamental to the distribution of habitats and species, for example, intertidal rocky shores and subtidal sands and gravels each support their own unique assemblages of marine plants and animals.
1126. Geodiversity receives statutory protection in the English marine area through the designation and protection of:
- marine conservation zones under the [Marine and Coastal Access Act 2009](#)
 - national parks under the [National Parks and Access to the Countryside Act 1949](#) and areas of outstanding natural beauty under the [Countryside and Rights of Way Act 2000](#)
 - sites of special scientific interest under the [Wildlife and Countryside Act 1981](#) and the [Countryside and Rights of Way Act 2000](#)
1127. Non-statutory conservation of geodiversity is provided through the designation and protection of [Regionally Important Geological/Geomorphological Sites](#). These sites are designated through local site selection procedures and are considered the most important places in the UK for earth science outside of the statutory sites. Heritage coasts are defined by the corporate report, [Heritage coasts: protecting undeveloped](#)

[coasts](#). Heritage coast designations are another non-statutory landscape designation that may include important geodiversity.

Why are marine protected areas important?

1128. **Resilient marine protected areas** in the north west marine plan areas are an important tool for protecting biodiversity, ecosystem services and natural capital assets, and to prevent habitat loss. They benefit rare, vulnerable and threatened habitats and species, as well as those typical to UK waters. They support the local economy, provide opportunities for research, health and well-being, and provide inspirational places to live, work and visit.
1129. The joint Department for Environment, Food and Rural Affairs / Environment Agency / National Resources Wales / Welsh Government Flood and Coastal Erosion Risk Management Research and Development Programme defines coastal squeeze as the loss of natural habitats or deterioration of their quality arising from anthropogenic structures or actions, preventing the landward transgression of those habitats that would otherwise naturally occur in response to sea level rise in conjunction with other coastal processes. Coastal squeeze affects habitat on the seaward side of existing structures. The full definition, including further clarifications, is provided in 'What is Coastal Squeeze?' (Project FRS17187 awaiting publication).
1130. The loss of coastal habitats through mechanisms such as coastal squeeze can impact the integrity of an individual marine protected area and the local ecosystem, but it can also impact the ecological coherence of the wider network, especially if the design principles of the network are compromised. This is particularly relevant for sensitive habitats that are not formally protected but that may need to be designated in the future to maintain the coherence of the network. Habitat loss could also have a direct impact on the species that rely on the habitat.
1131. In addition to protecting internationally significant marine biodiversity, marine protected areas in the north west marine plan areas provide natural capital assets and ecosystem services that offer social and economic benefits. Seagrass, saltmarsh and subtidal habitats absorb carbon from the atmosphere. Dunes, rocky reefs and sand, and mudflats offer natural coastal protection, while the rich diversity of wildlife and natural beauty of marine protected areas in the north west marine plan areas offer inspiring places to live, work and visit.
1132. A large proportion of the north west coastline is protected by numerous marine protected areas. Marine conservation zones protect intertidal, inshore and offshore habitats and species. The following examples demonstrate the variety of marine conservation zones in the north west. The Cumbria Coast Marine Conservation Zone protects some of the most extensive and important areas of intertidal rocky shore habitats in the otherwise generally sedimentary coastline of the north west. The Allonby Bay Marine Conservation Zone contains large living reefs of honeycomb worm which supports a wide range of other marine life. West of Walney and the Fylde make up two large offshore Marine Conservation Zones and both are designated for their extensive and productive subtidal sand and mud, typical of the north west marine plan areas.

1133. The north west marine plan areas contain a number of marine conservation zones providing vital habitats for smelt, such as feeding grounds and habitats for post-larval development, including the Ribble Estuary Marine Conservation Zone, the Solway Firth Marine Conservation Zone and the Wyre-Lune Marine Conservation Zone. Situated to the east of the Isle of Man is the West of Copeland Marine Conservation Zone which protects a seabed mix of subtidal sediments that support a variety of species, such as bivalve molluscs, worms, sea urchins and crabs.
1134. The north west marine plan areas also support internationally significant populations of seabird and waterfowl which feed on invertebrates living in the extensive intertidal sand and mudflats. The importance of the area for birds is recognised through Ramsar sites, special protection areas, and large stretches of the coast that are designated as special areas of conservation for a variety of habitats, including sand dunes and saltmarsh.
1135. A number of marine protected areas in the north west inshore marine plan area extend into adjacent marine plan areas. The Liverpool Bay Special Protection Area extends into Welsh waters up to Holy Island, protecting important seabird assemblages and species such as little tern and red-throated diver. In the north, the Upper Solway Flats and Marshes Special Protection Area extends into Scottish waters, also protecting assemblages of seabird including grey plover and whooper swan.
1136. As stated in the [Joint Administration Statement on an Ecologically Coherent MPA Network](#), linking the marine protected areas in the north west marine plan areas “together in an ecologically coherent network, supported by wider environmental management measures, will achieve benefits more effectively than individual marine protected areas can alone.”
1137. The marine protected areas in the north west marine plan areas play a significant role in achieving the government’s vision for clean, healthy, safe, productive and biologically diverse oceans and seas. They contribute to targets in the [United Nations Convention on Biological Diversity](#) to protect 10% of the world’s coastal and marine areas by 2020 and are part of the [Marine Strategy Part Three: UK programme of measures](#) to achieve Good Environmental Status in UK waters under [The Marine Strategy Regulations 2010](#)¹¹⁸. These commitments are reinforced in the [UK Marine Policy Statement](#) Section 3.1.2 through a commitment to “complete an ecologically coherent network as part of a broad-based approach to nature conservation”. The [National Planning Policy Framework](#) Paragraph 170(d) includes commitments to enhance the natural environment by “minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”. [A Green Future: Our 25 Year Plan to Improve the Environment](#) from the Department for Environment, Food and Rural Affairs, commits to increasing the proportion of protected and well-managed seas, and better management of existing protected sites.

¹¹⁸ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

1138. An ecologically coherent network includes well-managed marine protected areas. The management of marine protected areas is a shared responsibility across various management authorities. As recognised in regulation 38 of [The Conservation of Habitats and Species Regulations 2017](#)¹¹⁹, collaborative management schemes are a suggested management method for marine protected areas. [A Green Future: Our 25 Year Plan to Improve the Environment](#) from the Department for Environment, Food and Rural Affairs, commits to moving to an adaptive, whole-site approach for protecting sites of greatest biodiversity interest.
1139. Adapting to the effects of climate change is promoted through the Department for Environment, Food and Rural Affairs' [National Flood and Coastal Erosion Risk Management Strategy for England](#) and the [Climate Change Act 2008](#).
1140. The [Developing the evidence base to support climate-smart decision making on marine protected areas report](#) from the Joint Nature Conservation Committee identified that a considerable proportion of marine protected areas in Secretary of State waters have a role to play in climate mitigation and adaptation.
1141. **A flexible management approach** for marine protected area boundaries in response to climate change is important to the north west marine plan areas. A change in the natural range of habitats and species in one protected site will likely result in the displacement of another habitat or species that may be a protected feature either in this or in an adjacent protected site. Despite the high number of overlapping sites, many of which are large with extensive boundaries, marine protected areas in the north west marine plan areas are susceptible to feature migration or loss caused by climate change.
1142. Coastal habitats are particularly vulnerable to the impacts of climate change. Coastal squeeze resulting in loss of intertidal habitats and species, including birds, may affect the extent or quality of protected sites and/or the features for which they have been designated. This may require new compensatory habitat to be created and/or designated in coastal areas.
1143. Site condition monitoring is important to understand how the condition of a marine protected area and its qualifying features are changing over time and to inform adaptive management.
1144. The [UK Marine Policy Statement](#) Section 2.6.7.8 states that marine plans should build in "sufficient flexibility to take account of climate change impacts, for example by introducing appropriate criteria for selection or de-selection of protected marine areas, seeking the advice of statutory advisors, changing or moving current uses/spatial allocations, or safeguarding areas for future uses". Marine plans will endeavour to achieve this but will not seek to duplicate existing regimes, for example, the role of the Department for Environment Food and Rural Affairs in designating marine protected areas.

¹¹⁹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

1145. Responding to the effects of climate change requires global action. Adaptive management is important for the protection of habitats and species, and suitable site boundary changes, in response to the impacts of climate change, protect the integrity of the marine protected area network design principles. The design principles of the marine protected area network, as laid out in the [Joint Administration Statement on an Ecologically Coherent MPA Network](#), promote the resilience of marine ecosystems through:
- connectivity between sites
 - effective protection of features
 - ensuring sites are of a viable size
 - inclusion of replicates of representative habitats within the network
1146. It is too early to determine if the network in its current state is sufficient to achieve full resilience, for example, sites may be too far apart for some species depending on their dispersal strategies. Adaptive management is essential to help mitigate the effects of climate change and to maintain the coherence of the marine protected area network in the north west marine plan areas.
1147. **Geodiversity** is an important part of an ecologically coherent network of marine protected areas. For its size, the UK is regarded as one of the most geodiverse places in the world. The field of Earth science was developed in the UK, and many periods of geological time were first defined and named here. The north west inshore marine plan area is significant for the Island of Walney, the largest barrier island in England. During the post-glacial period, significant sand dune systems were also formed in this area as a result of the distribution of glacial material along the coast.
1148. Geodiversity is finite and sensitive to change. Understanding and valuing geodiversity is critical to understanding the planet and how the decisions made influence the future of our environment. Geodiversity in the north west marine plan areas has an important role to play in ensuring that the natural environment continues to provide important ecosystem services.
1149. Geodiversity supports our economy and influences where we live. Its sustainable use is critical to the future well-being of our environment and for the ecosystem services that it provides. Our geological past can be used to predict changes in our environment, offering insights into climate change and how it might affect our lives. Minerals and aggregates are a major economic resource. Protected landscapes are valued for tourism, while coastal processes influenced by geodiversity can provide natural protection from flood and coastal erosion, such as the sand dune systems in the north west inshore marine plan area. Geodiversity provides a wide range of habitats that in turn support a rich assemblage of marine life, including coastal cliffs, which support thousands of seabirds in the north west inshore marine plan area.
1150. The [UK Marine Policy Statement](#) Section 2.6.1.3 states that “development should aim to avoid harm to marine ecology, biodiversity and geological conservation interests (including geological and morphological features), including through location, mitigation and consideration of reasonable alternatives”. Section 2.6.1.4 also states that “development proposals may provide, where appropriate,

opportunities for building-in beneficial features for marine ecology, biodiversity and geodiversity as part of good design”.

1151. The [National Planning Policy Framework](#) paragraph 170 states that “Planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils”.
1152. The [UK Geodiversity Action Plan](#) provides an agreed framework for geodiversity action across the UK. Objective 6 seeks “to conserve and manage our geodiversity through appropriate recognition at international, national and local levels”. Objective 7 seeks “to maintain and enhance our geodiversity through the management of sites, areas and wider landscapes”.

Policy NW-MPA-1 Marine protected areas

Proposals that support the objectives of marine protected areas and the ecological coherence of the marine protected area network will be supported.

Proposals that may have adverse impacts on the objectives of marine protected areas must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts, with due regard given to statutory advice on an ecologically coherent network.

Policy aim

1153. Marine protected areas in the north west marine plan areas make a significant contribution towards the UK’s network of ecologically coherent marine protected areas. NW-MPA-1 encourages and supports proposals for activities that further the conservation objectives of marine protected areas. NW-MPA-1 also ensures proposals take account of adverse impacts on individual sites and the overall network, protecting important habitats, species and geological features, and enabling the successful and continued management of these sites.
1154. Proposals that cannot avoid, minimise or mitigate adverse impacts should not be supported.
1155. Policy NW-MPA-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1156. This policy applies to individual marine protected areas throughout the north west marine plan areas, and areas outside marine protected areas that are important to features for which a marine protected area has been designated.
1157. Consideration of impacts at the network level should also be undertaken at a strategic level, addressed through mechanisms such as:

- assessments and measures to achieve Good Environmental Status with regard to support of [The Marine Strategy Regulations 2010](#)¹²⁰
- [Environmental Impact Assessments](#)
- regional environmental assessments, eg [marine aggregate regional environmental assessments](#)
- [Strategic Environmental Assessments](#)

Proponents

1158. This policy applies to any organisation or individual putting forward a proposal including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity or a change to an existing activity that results in a change of authorisation or authorisation conditions and that is subject to management by public authorities.
1159. Proposals that support the objectives of marine protected areas should include information demonstrating how this will be achieved. The conservation objectives for individual sites are provided by the statutory nature conservation bodies through the [Designated Sites View](#) for sites within the territorial limit (12nm) and the [Site Information Centres](#) for sites beyond the territorial limit (12-200nm). The conservation objectives describe whether the condition of features for which the site is designated should be maintained or restored. Where positive impacts are identified, proposals must also assess adverse impacts in line with relevant legislation. Enhancement is not a substitute for avoidance, protection or mitigation measures.
1160. The assessment of adverse impacts must account for the conservation objectives set out by the statutory nature conservation bodies and comply with the statutory assessments for marine conservation zones under the [Marine and Coastal Access Act 2009](#), sites of special scientific interest under the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites under [The Conservation of Habitats and Species Regulations 2017](#)¹²¹ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹²². Where proposals have been determined to have a likely significant effect (as detailed in [The Conservation of Habitats and Species Regulations 2017](#)¹²³ Regulation 63) on a special protection area, special area of conservation or Ramsar site through a [Habitats Regulations Assessment](#), an Appropriate Assessment will be required. These assessments may satisfy the requirements of policy NW-MPA-1. Advice should be sought from the decision-maker on the information that is required from proponents under this policy.

¹²⁰ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

¹²¹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹²² As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹²³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

1161. Proposals must comply with requirements under the relevant legislation listed above, as well as the [Countryside and Rights of Way Act 2000](#), [The Town and Country Planning \(Environmental Impact Assessment\) Regulations 2017](#)¹²⁴, [The Marine Works \(Environmental Impact Assessment\) Regulations 2007](#) and other national legislation.
1162. Proposals must take into consideration the most up-to-date case law.
1163. Proposals must first demonstrate that they have avoided adverse impacts by altering the proposal so that it no longer exerts a pressure on the features of marine protected areas. Avoidance is the preferred measure due to the difficulty of mitigating impacts in the marine environment. Where adverse impacts cannot be avoided, proposals must demonstrate that they have minimised adverse impacts at source by altering the proposal to reduce the pressures placed on features of marine protected areas. Where adverse impacts cannot be minimised at source, proposals must demonstrate that they will mitigate the impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Advice should be sought from the statutory nature conservation bodies on the suitability of mitigation measures. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.
1164. Where proposals cannot avoid, minimise and mitigate adverse impacts, this policy does not remove the provisions for derogations that are present in primary legislation and regulations. Where a proposal cannot avoid, minimise and mitigate adverse impacts on sites protected by [The Conservation of Habitats and Species Regulations 2017](#)¹²⁵ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹²⁶ and where an overall adverse impact on site integrity cannot be ruled out, NW-MPA-1 does not remove the provision for derogation set out under the aforementioned regulations. Proposals wishing to proceed down the derogation route must do so in accordance with the process set out under the regulations, with advice from the relevant decision-maker and the statutory nature conservation body. This may be the case for navigational aids.
1165. Measures could include, but are not limited to:
- avoid - situating developments in a location that does not impact on the objectives of the marine protected area, particularly in cases of habitat loss
 - minimise - avoiding operational work during seasonal migrations of designated features or the use of temporary or floating structures
 - mitigate - innovative green infrastructure design or the use of soft infrastructure solutions

¹²⁴ As amended by [The Environmental Assessments and Miscellaneous Planning \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Waste \(Circular Economy\) \(Amendment\) Regulations 2020](#)

¹²⁵ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹²⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

1166. Proposals should demonstrate consideration of any existing management measures relevant to the marine protected area(s).
1167. Proposals should take the relevant byelaws for marine conservation and the management of activities into account, as described in [Understand marine conservation byelaws](#), [Managing fisheries in marine protected areas](#) and [Managing marine non-licensable activities in marine protected areas](#). Within 0-12nm the Marine Management Organisation has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws to further the conservation objectives of marine conservation zones and to make byelaws relating to the exploitation of sea fisheries resources for marine conservation purposes. For the management of inshore fishing activities, the Marine Management Organisation leads on the management between 6-12nm, and the Inshore Fisheries and Conservation Authorities lead in the 0-6nm area. For marine non-licensable activities the Marine Management Organisation leads on management between 0-12 nm. The Marine Management Organisation also has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws relating to the exploitation of sea fisheries resources beyond 12nm in English waters for marine conservation purposes.
1168. This policy should be implemented in line with the most up-to-date government policy on Highly Protected Marine Areas.
1169. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations taken into account by the decision-maker which may include, for example, other plans.

Decision-makers

1170. Public authorities will support proposals that support the conservation objectives of marine protected areas and the ecological coherence of the network where it complies with other policies in this plan and other relevant legislation.
1171. Public authorities will assess if the proposal affects the ecological coherence of the network on a case-by-case basis. Statutory nature conservation bodies may provide advice on how to consider the ecological coherence of the marine protected area network in decision-making. Where advice states that it is not possible to assess the impact on the ecological coherence of the network, there will be no further requirements for decision-makers to consider the network. Current guidance provides advice on how marine protected areas are considered in the decision-making process. The requirements on how to consider impacts on the ecological coherence of the marine protected network under policy NW-MPA-1 may change if new guidance is issued.
1172. This policy does not remove the provisions for derogations that are present in primary legislation and regulations. Where a proposal cannot avoid, minimise and mitigate adverse impacts on sites protected by [The Conservation of Habitats and](#)

[Species Regulations 2017](#)¹²⁷ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹²⁸ and where an overall adverse impact on site integrity cannot be ruled out, NW-MPA-1 does not remove the provision for derogation set out under the aforementioned regulations. Proposals wishing to proceed down the derogation route must do so in accordance with the process set out under the regulations with advice from the relevant decision-maker and the statutory nature conservation body.

1173. Public authorities must also consider the cumulative, combined or synergistic effects which their functions, authorisations and enforcement may have, taking account of advice issued by the statutory nature conservation bodies.
1174. The Joint Nature Conservation Committee [Marine Protected Area mapper](#) is an interactive resource containing information on the marine protected areas designated in UK waters. Natural England's [Magic Map](#) is a resource for marine conservation zones within 12nm of the coast. The network of marine protected areas is likely to change over the period of this plan, and the most up-to-date information should be used when applying this policy.
1175. Conservation advice packages and information on the condition of marine protected areas are provided by Natural England for inshore marine protected areas within 12nm through the [Designated Sites View](#). The Joint Nature Conservation Committee provides conservation advice and condition information for marine protected areas between 12-200nm through the [Site Information Centres](#). Conservation advice packages include statutory advice on the qualifying features of a site and their conservation objectives, including advice on seasonality of mobile features. They advise how to further the conservation objectives, and they identify activities that are capable of affecting the qualifying features and the processes they depend upon.
1176. Mobile species designated as a feature of special protection areas and special areas of conservation are also protected when they are outside the boundary of their site. Seabird and seal density maps are available on the [Explore Marine Plans](#) digital service. The evidence base for mobile marine species is continuously developing. The most up-to-date information and conservation advice should be used when applying this policy.
1177. The boundaries of marine protected areas in the north west marine plan areas may change in the future in response to natural range shifts caused by climate change, and additional marine protected areas may be designated. Policy NW-MPA-1 will apply to new and amended areas as they develop.
1178. [Managing marine recreational activities: a review of evidence](#) provides recommendations on the significance of impacts from recreational activities on designated features in marine protected areas.

¹²⁷ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹²⁸ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

1179. The relevant byelaws for marine conservation and the management of activities should be taken into account, as described in [Understand marine conservation byelaws](#), [Managing fisheries in marine protected areas](#) and [Managing marine non-licensable activities in marine protected areas](#). Within 0-12nm the Marine Management Organisation has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws to further the conservation objectives of marine conservation zones and to make byelaws relating to the exploitation of sea fisheries resources for marine conservation purposes. For the management of inshore fishing activities, the Marine Management Organisation leads on the management between 6-12nm, and the Inshore Fisheries and Conservation Authorities lead in the 0-6nm area. For marine non-licensable activities the Marine Management Organisation leads on management between 0-12 nm. The Marine Management Organisation also has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws relating to the exploitation of sea fisheries resources beyond 12nm in English waters for marine conservation purposes.
1180. Figure 26 shows the marine protected areas in the north west marine plan areas. This figure should not be considered definitive as more designations may have been made since the adoption of this plan.

Policy NW-MPA-2 Marine protected areas

Proposals that enhance a marine protected area’s ability to adapt to climate change, enhancing the resilience of the marine protected area network, will be supported.

Proposals that may have adverse impacts on an individual marine protected area’s ability to adapt to the effects of climate change, and so reduce the resilience of the marine protected area network, must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts.

Policy aim

1181. The effects of climate change on habitats and species poses a challenge to designated marine protected area sites in the north west marine plan areas. NW-MPA-2 ensures proposals account for adverse impacts on each impacted individual marine protected area’s ability to adapt to climate change, improving resilience and working towards a well-managed marine protected area network.
1182. Proposals that cannot avoid, minimise or mitigate adverse impacts should not be supported.
1183. Policy NW-MPA-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1184. This policy applies to marine protected areas throughout the north west marine plan areas and any areas required to support the adaptation of marine protected areas to the effects of climate change.
1185. The [UK Marine Policy Statement](#) Section 2.6.7.5 sets out that decisions on and proposals for marine and coastal developments should take account of climate change projections. There are a number of sources of advice available, including the [UK Climate Change Risk Assessment](#), [UK Climate Projections \(UKCP18\)](#) and [Marine Climate Change Impact Partnership](#) reports.

Proponents

1186. This policy applies to any organisation or individual putting forward a proposal including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity or a change to an existing activity that results in a change of authorisation or authorisation conditions, and that is subject to management by public authorities.
1187. Proposals that enhance the ability of a marine protected area to adapt to the effects of climate change should include information demonstrating how this will be achieved. Enhancement refers to measures taken which have a positive impact. An example of enhancement could include the removal of hard coastal defence structures in favour of soft engineering, which enables habitat rollback.
1188. Where positive impacts have been identified, proposals must also assess adverse impacts in line with relevant legislation. Enhancement is not a substitute for avoidance, minimisation or mitigation measures.
1189. The assessment of adverse impacts must account for the conservation objectives set out by the statutory nature conservation bodies and comply with the statutory assessments for marine conservation zones under the [Marine and Coastal Access Act 2009](#), sites of special scientific interest under the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites under [The Conservation of Habitats and Species Regulations 2017](#)¹²⁹ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹³⁰. Where proposals have been determined to have a likely significant effect (as detailed in [The Conservation of Habitats and Species Regulations 2017](#)¹³¹ Regulation 63) on a special protection area, special area of conservation or Ramsar site through a [Habitats Regulations Assessment](#), an Appropriate Assessment will be required.
1190. Proposals must comply with requirements under the relevant legislation listed above, as well as the [Countryside and Rights of Way Act 2000](#), [The Town and Country](#)

¹²⁹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹³⁰ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹³¹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

[Planning \(Environmental Impact Assessment\) Regulations 2017](#)¹³², [The Marine Works \(Environmental Impact Assessment\) Regulations 2007](#) and other national legislation.

1191. Proposals must take into consideration the most up-to-date case law.
1192. Proposals must first demonstrate how they will avoid adverse impacts on an individual marine protected area's ability to adapt to the effects of climate change. Where adverse impacts cannot be avoided, proposals must demonstrate how they will minimise adverse impacts. Where adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate the remaining adverse impacts. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.

This policy does not remove the provisions for derogations that are present in primary legislation and regulations. Where a proposal cannot avoid, minimise and mitigate adverse impacts on sites protected by [The Conservation of Habitats and Species Regulations 2017](#)¹³³ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹³⁴ and where an overall adverse impact on site integrity cannot be ruled out, NW-MPA-2 does not remove the provision for derogation set out under the aforementioned regulations. Proposals wishing to proceed down the derogation route must do so in accordance with the process set out under the regulations, with advice from the relevant decision-maker and the statutory nature conservation body.

1193. Where proposals cannot avoid, minimise or mitigate adverse impact but are in the public interest, they must state the case for proceeding, with details of how compensation of equal environmental benefit will be achieved.
1194. Measures to reduce adverse impacts could include:
- avoid - situating developments in a location that does not impact on the ability of a marine protected area to adapt to climate change
 - minimise - minimising the overall development footprint or amount of time activities occur that reduce a marine protected area's ability to adapt to climate change
 - mitigate - implementing innovative green infrastructure or green measures, such as creating or enhancing intertidal habitats that provide an ecosystem service to improve the ability of a marine protected area to adapt to climate change
1195. Adaptation could be recovery (where impact has occurred), opportunity for habitat migration if necessary (for example, due to sea level rise), or amendment to site

¹³² As amended by [The Environmental Assessments and Miscellaneous Planning \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Waste \(Circular Economy\) \(Amendment\) Regulations 2020](#)

¹³³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹³⁴ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

boundaries in response to climate-driven range shifts, which are enabled through policy NW-MPA-3.

1196. Proposals should demonstrate consideration of any existing management measures relevant to the marine protected area(s).
1197. Proposals should take the relevant byelaws for marine conservation and the management of activities into account, as described in [Understand marine conservation byelaws](#), [Managing fisheries in marine protected areas](#) and [Managing marine non-licensable activities in marine protected areas](#). Within 0-12nm the Marine Management Organisation has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws to further the conservation objectives of marine conservation zones and to make byelaws relating to the exploitation of sea fisheries resources for marine conservation purposes. For the management of inshore fishing activities, the Marine Management Organisation leads on the management between 6-12nm, and the Inshore Fisheries and Conservation Authorities lead in the 0-6nm area. For marine non-licensable activities the Marine Management Organisation leads on management between 0-12 nm. The Marine Management Organisation also has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws relating to the exploitation of sea fisheries resources beyond 12nm in English waters for marine conservation purposes.
1198. This policy should be implemented in line with the most up-to-date government policy on Highly Protected Marine Areas.
1199. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations to be taken into account by the decision-maker which may include, for example, other plans.

Decision-makers

1200. Public authorities will support proposals that enhance the ability of a marine protected area to adapt to the effects of climate change where it complies with other policies in this plan and relevant legislation.
1201. Public authorities must consider and account for adaptation in the face of potential impacts from climate change. Public authorities must also take into account other relevant projects, programmes and plans, and matters including those outlined in the [UK Marine Policy Statement](#) Section 2.6.8.
1202. Up-to-date information on the location of marine protected areas in the north west marine plan areas can be found on the Joint Nature Conservation Committee [Marine Protected Area mapper](#), which is an interactive resource containing information on the marine protected areas designated in UK waters, and on the Natural England [Magic Map](#) for information on marine conservation zones within 12nm of the coast. The network of marine protected areas is likely to change over the period of this plan, and the most up-to-date information should be used when applying this policy.
1203. Conservation advice packages and information on the condition of marine protected areas are provided by Natural England for inshore marine protected areas within

12nm through the [Designated Sites View](#). The Joint Nature Conservation Committee provides conservation advice and condition information for marine protected areas between 12-200nm through the [Site Information Centres](#). Conservation advice packages include statutory advice on the qualifying features of a site and their conservation objectives, including advice on seasonality of mobile features. They advise how to further the conservation objectives, and they identify activities that are capable of affecting the qualifying features and the processes they depend upon.

1204. Coastal habitats, including sand dunes, saltmarsh, sandflats, mudflats, shingle beaches and maritime cliffs are particularly sensitive to the effects of climate change and can be found throughout the north west inshore marine plan area. They experience changes in rainfall, temperature, storminess and wave energy, but also habitat loss due to erosion and sea level rise. These habitats support a rich assemblage of marine species and rely on natural sediment supply and transport to maintain their natural, dynamic state.
1205. The [Marine Climate Change Impacts Partnership](#) reports that natural sea defence provided by sand dunes, saltmarsh and shingle in the north west inshore marine plan area may face increasing erosional pressure due to sea level rise and an increase in storm events.
1206. Coastal habitats can, and do, adapt to change, but an increase in coastal flood and erosion events in the north west inshore marine plan area has led to a reliance on coastal protection assets. Where fixed landward assets prevent habitat migration or rollback, habitat loss is likely to occur due to coastal squeeze. Fixed structures within the marine area can also create barriers to species movement.
1207. The north west marine plan areas support internationally significant populations of breeding and over-wintering seabirds. The [Marine Climate Change Impacts Partnership 2017 Report Card](#) states that the breeding success of seabirds is strongly linked to temperature rises and changes in fish prey populations, such as sand eels. Short-term weather events, such as severe summer storms, are also having a severe negative effect on the breeding performance of some species. It is predicted that there will be a continuing shift northwards in habitat suitability and prey availability for many species over the coming century.
1208. Evidence of long-term shifts in the distribution and abundance of marine species due to higher temperatures is now discernible ([UK Climate Change Risk Assessment 2017](#)). These shifts are expected to continue and become more widespread, with some species potentially benefiting, but others losing suitable space.
1209. The relevant byelaws for marine conservation and the management of activities should be taken into account, as described in [Understand marine conservation byelaws](#), [Managing fisheries in marine protected areas](#) and [Managing marine non-licensable activities in marine protected areas](#). Within 0-12nm the Marine Management Organisation has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws to further the conservation objectives of marine conservation zones and to make byelaws relating to the exploitation of sea fisheries resources for marine conservation purposes. For

the management of inshore fishing activities, the Marine Management Organisation leads on the management between 6-12nm, and the Inshore Fisheries and Conservation Authorities lead in the 0-6nm area. For marine non-licensable activities the Marine Management Organisation leads on management between 0-12 nm. The Marine Management Organisation also has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws relating to the exploitation of sea fisheries resources beyond 12nm in English waters for marine conservation purposes.

1210. Figure 26 shows the marine protected areas in the north west marine plan areas. This Figure 26 should not be considered definitive, as more designations may have been made since the adoption of this plan.

Policy NW-MPA-3 Marine protected areas

Where statutory advice states that a marine protected area site condition is deteriorating or that features are moving or changing due to climate change, a suitable boundary change to ensure continued protection of the site and coherence of the overall network should be considered.

Policy aim

1211. Anthropogenic activities such as the burning of fossil fuels, deforestation, farming and methane release from animal farming have serious adverse impacts on the climate. These impacts include, but are not limited to, increased ocean acidity, temperature shifts, and increased storm activity. Climate change may result in marine protected area feature migration and/or feature displacement due to shifts in ranges of habitats and species. NW-MPA-3 ensures flexibility by supporting boundary changes to improve the resilience of the marine protected area network. NW-MPA-3 enables adaptive management to help mitigate the loss of features within sites, and support adaptation to climate change.
1212. Policy NW-MPA-3 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1213. This policy applies to marine protected areas throughout the north west marine plan areas and any areas required to support the adaptation of marine protected areas to the effects of climate change.

Decision-makers

1214. The statutory nature conservation bodies monitor marine protected areas and may determine that the condition of a feature is changing or deteriorating due to climate change. This policy should also be considered when recommending and designating new marine protected areas to ensure that boundaries allow for adaptive management if necessary.
1215. The Department for Environment, Food and Rural Affairs should consider this policy when designating, amending or de-selecting marine protected areas.

1216. Public authorities that manage and regulate the placement of hard constraints (such as coastal defences) in the marine area may also need to consider the future need for adaptive management in line with policy NW-MPA-2.
1217. One aspect of managing a marine protected area is enabling the features for which a site is designated to adapt to climate change, for example, through a boundary change or even a new site location. It is important to raise the potential for such changes as the process of identifying, designating and providing conservation advice for sites is still underway.
1218. The statutory nature conservation bodies may flag to appropriate authorities, condition assessments that show that a protected feature has changed its location due to a shift in range, or an increase or decrease in its extent, abundance or assemblage. If climate change is found to be the causing factor, a suitable boundary change should be considered. A boundary change will not be supported where the condition of a site has deteriorated due to pressures from human activities as this should be addressed through revised site management measures.
1219. Where it is not possible to alter a site boundary due to hard constraints (for example, a sea wall), public authorities should consider actions to remove barriers where possible to enable the features of the site to adapt. It will be necessary to consult relevant [Shoreline Management Plans](#).
1220. In certain cases, the removal of barriers will not be possible due to their usage as flood and coastal erosion protection. This policy supports the use of soft defences in preference to hard defences where coastal defence is necessary. Soft defences enable boundary changes, should the need arise, informed by condition assessments. Further consideration regarding the removal of barriers to enable range shifts and boundary changes to occur should be applied in light of policy NW-CC-3.
1221. This policy focuses on deterioration of site condition and the potential future requirement for suitable boundary changes. This should be considered alongside policy NW-MPA-2, which details the considerations required to ensure that individual marine protected areas can adapt to climate change.
1222. This policy should be implemented in line with the most up-to-date government policy on Highly Protected Marine Areas.
1223. Up-to-date information on the location of marine protected areas in the north west marine plan areas can be found on the Joint Nature Conservation Committee [Marine Protected Area mapper](#), which is an interactive resource containing information on the marine protected areas designated in UK waters, and on the Natural England [Magic Map](#) for information of marine conservation zones within 12nm of the coast. The network of marine protected areas is likely to change over the period of this plan, and the most up-to-date information should be used when applying this policy.
1224. Figure 26 shows the marine protected areas in the north west marine plan areas. This figure should not be considered definitive, as more designations may have been made since the adoption of this plan.

Policy NW-MPA-4 Marine protected areas

Proposals that may have significant adverse impacts on designated geodiversity must demonstrate that they will, in order of preference:

- a) avoid
 - b) minimise
 - c) mitigate
- adverse impacts so they are no longer significant.

Policy aim

1225. Geodiversity in the north west marine plan areas has formed over billions of years. With natural change happening slowly over a long timescale, geodiversity is particularly vulnerable to human impacts. NW-MPA-4 makes sure proposals account for significant adverse impacts on designated geodiversity, protecting important geological and geomorphological features that underlie and determine the character of our landscape and seascape.
1226. Proposals that cannot avoid, minimise or mitigate significant adverse impacts should not be supported.
1227. Policy NW-MPA-4 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1228. This policy applies to all statutory and non-statutory designated geodiversity sites throughout the north west marine plan areas.
1229. Consideration of impacts to geodiversity sites should also be undertaken at a strategic level, addressed through mechanisms such as:
- [Environmental Impact Assessments](#)
 - Regional environmental assessments, eg [marine aggregate regional environmental assessments](#)
 - [Strategic Environmental Assessments](#)

Proponents

1230. This policy applies to any organisation or individual putting forward a proposal including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity, or a change to an existing activity that results in a change of authorisation or authorisation conditions, or for an activity that is subject to management by public authorities.
1231. Proposals that have significant adverse impacts on geological features of sites of special scientific interest, marine conservation zones or regionally important geological sites must demonstrate that they have, in order of preference, avoided, minimised or mitigated such impacts in accordance with statutory monitoring requirements, such as [Marine Conservation Zone Assessment](#) (as required by the Marine and Coastal Access Act 2009 (Section 126)), [Sites of Special Scientific Interest Assessment](#) and the conservation objectives set out by the statutory nature conservation bodies.

1232. Proposals must first demonstrate how they will avoid significant adverse impacts on designated geodiversity. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant impacts so they are no longer significant. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.

1233. Measures could include:

- avoid- situating developments in a location that does not impact on designated geodiversity
- minimise- minimising the overall development footprint or amount of time activities occur that impact designated geodiversity
- mitigate- innovative infrastructure design that allows for sediment bypassing to avoid sediment loss

1234. Significant adverse impacts on designated geodiversity may impact areas outside of the north west plan areas, including areas on land.

1235. Proposals should demonstrate consideration of any existing management measures relevant to the marine protected area(s).

1236. Proposals should take the relevant byelaws for marine conservation and the management of activities into account, as described in [Understand marine conservation byelaws](#), [Managing fisheries in marine protected areas](#) and [Managing marine non-licensable activities in marine protected areas](#). Within 0-12nm the Marine Management Organisation has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws to further the conservation objectives of marine conservation zones and to make byelaws relating to the exploitation of sea fisheries resources for marine conservation purposes. For the management of inshore fishing activities, the Marine Management Organisation leads on the management between 6-12nm, and the Inshore Fisheries and Conservation Authorities lead in the 0-6nm area. For marine non-licensable activities the Marine Management Organisation leads on management between 0-12 nm. The Marine Management Organisation also has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws relating to the exploitation of sea fisheries resources beyond 12nm in English waters for marine conservation purposes.

1237. The policy should be implemented in line with the most up-to-date government policy on Highly Protected Marine Areas.

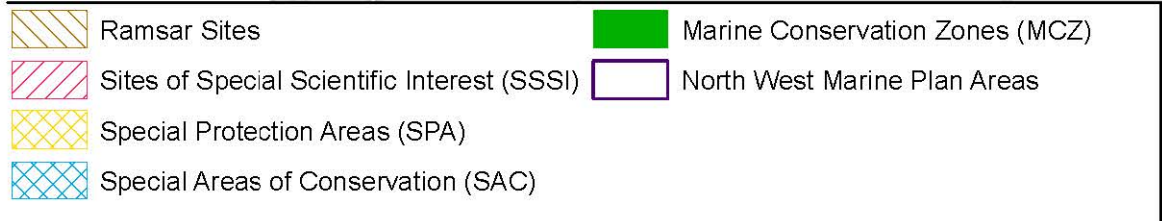
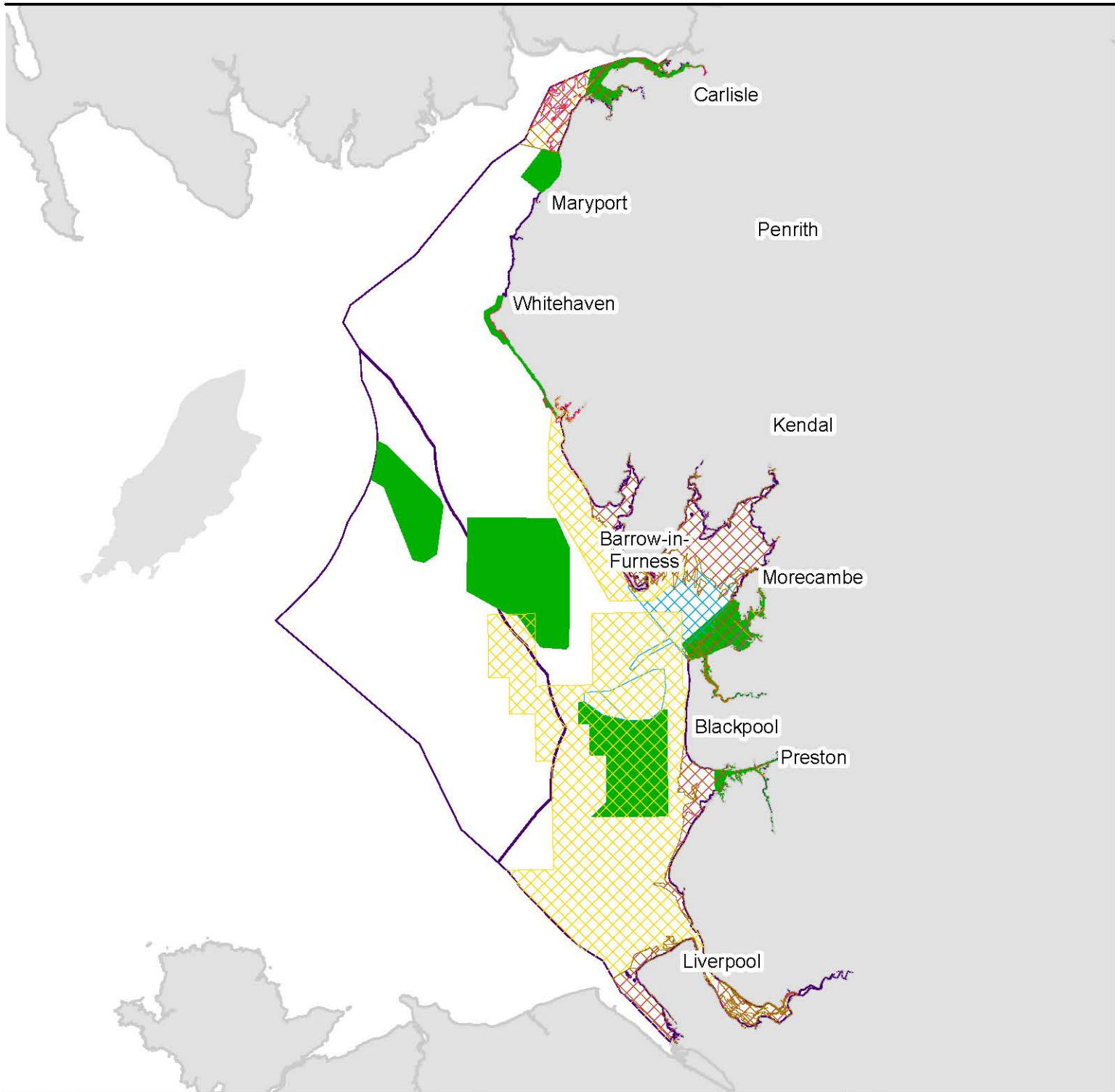
1238. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations taken into account by the decision-maker, which may include, for example, other plans.

Decision-makers

1239. Decision-makers will not support proposals that cannot avoid, minimise and mitigate impacts on designated geodiversity.

1240. [Cumbria Geoconservation](#) provides information about important geological features on the Cumbrian coast, and a [Local Geodiversity Action Plan for Cumbria](#) outlines the principle aims and objectives for Cumbria's geodiversity. The [Solway Firth Partnership's summary of Geology](#) provides a description of the geological features on both the English and Scottish side of the Solway Firth. The [Lancashire Geodiversity Action plan](#) discusses some of the geological history in the area, and further information is provided by the [GeoLancashire Group](#).
1241. The [Geological Conservation Review Series](#) is a public record of over 3,000 sites of special scientific interest that represent the range of geomorphological features in England, Scotland and Wales. The review is administered by the Joint Nature Conservation Committee. The Geological Conservation Review sites contain features of national and international importance that are considered to qualify for designation as sites of special scientific interest. The [Geological Conservation Database](#) is an inventory of each site which contains basic information and some full site reports. The [British Geological Society Geology of Britain Maps](#) is a further resource.
1242. The [Designated Sites View](#) provides information, including conservation objectives, on sites of special scientific interest and marine conservation zones, and the activities that are likely to cause damage. The [Site of Special Scientific Interest Impact Risk Zone and Marine Conservation Zone data](#) provides information to carry out an initial assessment of potential risks posed by a proposal.
1243. The relevant byelaws for marine conservation and the management of activities should be taken into account, as described in [Understand marine conservation byelaws](#), [Managing fisheries in marine protected areas](#) and [Managing marine non-licensable activities in marine protected areas](#). Within 0-12nm the Marine Management Organisation has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws to further the conservation objectives of marine conservation zones and to make byelaws relating to the exploitation of sea fisheries resources for marine conservation purposes. For the management of inshore fishing activities, the Marine Management Organisation leads on the management between 6-12nm, and the Inshore Fisheries and Conservation Authorities lead in the 0-6nm area. For marine non-licensable activities the Marine Management Organisation leads on management between 0-12 nm. The Marine Management Organisation also has the power, under the [Marine and Coastal Access Act 2009](#) (as amended by the [Fisheries Act 2020](#)), to make byelaws relating to the exploitation of sea fisheries resources beyond 12nm in English waters for marine conservation purposes.
1244. Figure 27 shows marine habitats in the north west marine plan areas to assist with the application of this policy. This figure should not be considered definitive as habitats may have changed since adoption of this plan.

Figure 26 | Marine Protected Areas



Policy map
 This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Date of Publication: August 2020
 Coordinate System: ETRS 1989 UTM Zone 30N
 Projection: Transverse Mercator
 Datum: ETRS 1989

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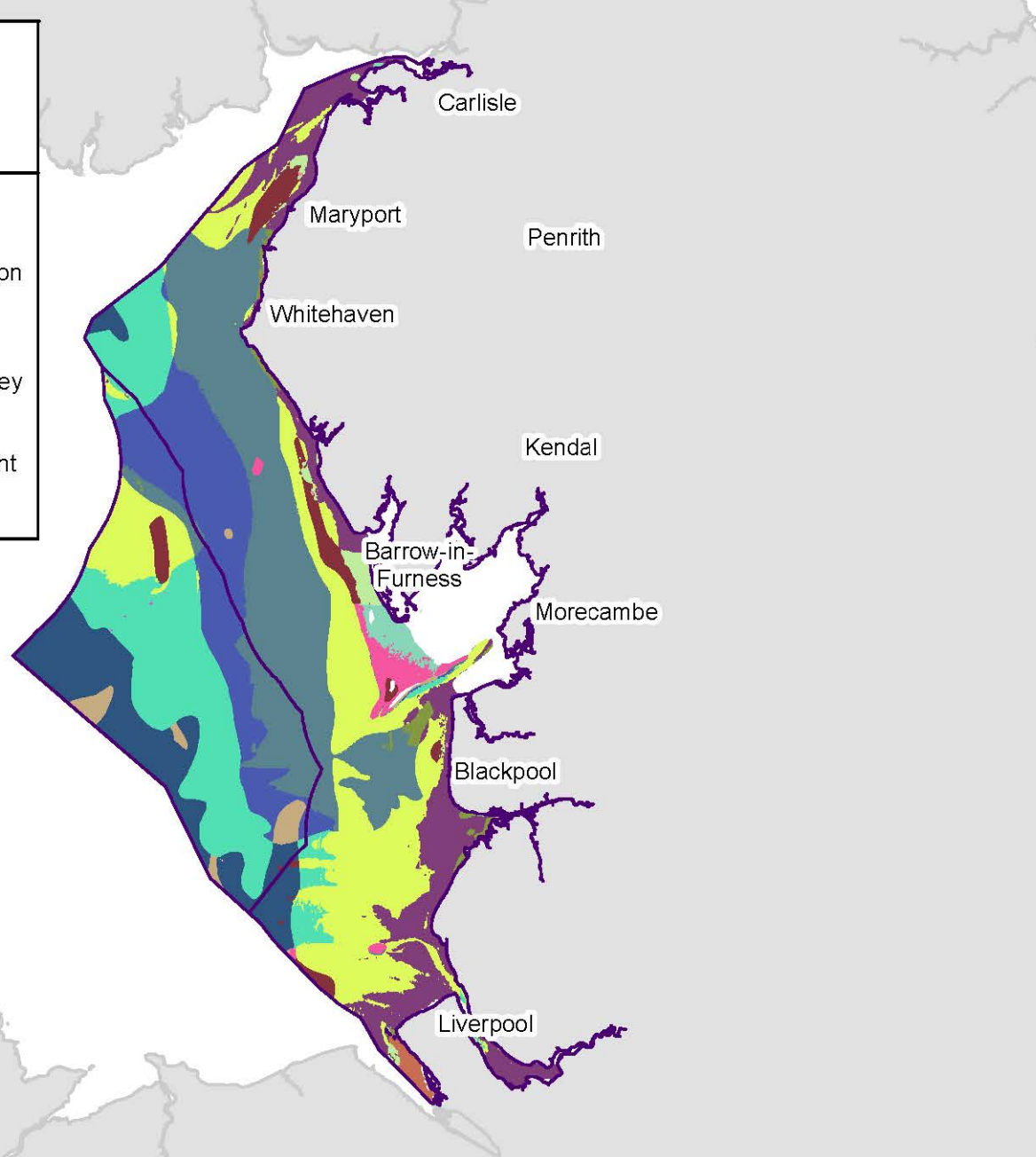


Figure 27 | Marine Habitats

Indicative map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Date: August 2020
Coordinate System: ETRS 1989 UTM Zone 30N
Projection: Transverse Mercator
Datum: ETRS 1989

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- North West Marine Plan Areas
- Survey/Modelled Habitat UK Sea Map**
- A3.1 Atlantic and Mediterranean High Energy Infralittoral Rock
- A3.2 Atlantic and Mediterranean Moderate Energy Infralittoral Rock
- A3.3 Atlantic and Mediterranean Low Energy Infralittoral Rock
- A4.1 Atlantic and Mediterranean High Energy Circalittoral Rock
- A4.27 Faunal Communities on Deep Moderate Energy Circalittoral Rock
- A4.2 Atlantic and Mediterranean Moderate Energy Circalittoral Rock
- A4.33 Faunal Communities on Deep Low Energy Circalittoral Rock
- A4.3 Atlantic and Mediterranean Low Energy Circalittoral Rock
- A5.13 Infralittoral Coarse Sediment
- A5.14 Circalittoral Coarse Sediment
- A5.15 Deep Circalittoral Coarse Sediment
- A5.23 or A5.24 Infralittoral Fine Sand or Infralittoral Muddy Sand
- A5.25 or A5.26 Circalittoral Fine Sand or Circalittoral Muddy Sand
- A5.27 Deep Circalittoral Sand
- A5.33 or A5.34 Infralittoral Sandy Mud or Infralittoral Fine Mud
- A5.33 Infralittoral Sandy Mud
- A5.35 or A5.36 Circalittoral Sandy Mud or Circalittoral Fine Mud
- A5.35 Circalittoral Sandy Mud
- A5.37 Deep circalittoral Mud
- A5.43 Infralittoral Mixed Sediments
- A5.44 Circalittoral Mixed Sediments
- A5.45 Deep Circalittoral Mixed Sediments

5.24 Biodiversity

Policy Code	Policy Wording
NW-BIO-1	<p>Proposals that enhance the distribution of priority habitats and priority species will be supported.</p> <p>Proposals that may have significant adverse impacts on the distribution of priority habitats and priority species must demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <ul style="list-style-type: none"> - adverse impacts so they are no longer significant d) compensate for significant adverse impacts that cannot be mitigated.
NW-BIO-2	<p>Proposals that enhance or facilitate native species or habitat adaptation or connectivity, or native species migration, will be supported.</p> <p>Proposals that may cause significant adverse impacts on native species or habitat adaptation or connectivity, or native species migration, must demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <ul style="list-style-type: none"> - adverse impacts so they are no longer significant d) compensate for significant adverse impacts that cannot be mitigated.
NW-BIO-3	<p>Proposals that conserve, restore or enhance coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services, will be supported.</p> <p>Proposals must take account of the space required for coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services, and demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate d) compensate for <ul style="list-style-type: none"> - net habitat loss.

What is biodiversity?

1245. **Biodiversity** is the variety of all life on earth, including the diversity within and between all plant and animal species and the diversity of ecosystems. Each of the components detailed in NW-BIO-1, NW-BIO-2 and NW-BIO-3 contribute to conserving, restoring and enhancing biodiversity in the north west marine plan areas.
1246. **Priority habitats and species** are those recognised as being of 'principal importance' for the conservation of biological diversity in England under the [Natural Environment and Rural Communities Act 2006](#) Section 41. Priority habitats comprise

coastal and offshore habitats including, but not limited to, intertidal mudflats, blue mussel beds, *Sabellaria alveolata* reefs, peat and clay exposures, sea grass beds and sheltered muddy gravels. Priority species include but are not limited to herring gull, spiny dogfish, Atlantic salmon, sea lamprey and smelt.

1247. **Priority habitats and species** have also been identified through additional organisations and legislation. Features of Conservation Importance, including marine habitats, are identified by the Joint Nature Conservation Committee and listed in the [Ecological Network Guidance. The Conservation of Habitats and Species Regulations 2017](#)¹³⁵ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹³⁶ require protection for [Annex I habitats and Annex II species](#). The [OSPAR Convention for the Protection of the North-East Atlantic](#) has developed a [list of threatened and/or declining species and habitats](#). The [Wildlife and Countryside Act 1981](#) requires protection for habitats and species identified by the accompanying [Schedules](#).
1248. **Distribution** describes how a species is spatially arranged over an area. Distribution can be viewed on various spatial scales, ie distribution of individuals, population distribution or the distribution of an entire species.
1249. **Adaptation** is the ability of habitats, species and populations to respond to changes in the environment. Adaptation includes the natural succession of habitats and range shifts in response to climatic and other environmental changes. The ability of habitats and species to adapt to climate change is also addressed by policies regarding climate change.
1250. **Species connectivity** allows the movement of individuals, juveniles, groups and propagules to maintain genetic exchange and thus prevent individual or group isolation. **Habitat connectivity** allows the movement of nutrients and supports species connectivity through the presence of continuous suitable habitat.
1251. **Species migration** is the seasonal movement of populations of animals, for example, for breeding or feeding purposes. Migration may occur over a small distance or a much larger international distance. Species can migrate within, to, from and through the north west marine plan areas.
1252. **Coastal habitats** occur where land meets sea. Coastal habitats in the north west inshore marine plan area include, but are not limited to, vegetated shingle, maritime cliffs and slopes, saltmarsh, sand dunes, sandflats, mudflats, seagrass beds, intertidal rocky reefs and intertidal sea caves.
1253. An **ecosystem** is the dynamic complex of plant and animal communities and the surrounding non-living environment that supports them in the north west marine plan areas.

¹³⁵ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹³⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

1254. **Ecosystem function** is the collective physicochemical, geochemical and biological processes that occur within the ecosystem. Ecosystem function is dependent on the relationship within, among and between species and the non-living environment, and the physical and chemical interactions within the environment. Effective ecosystem function can be reliant upon solar energy flow, for example through photosynthesis by phytoplankton, mineral and nutrient cycling, such as the absorption of carbon dioxide from the atmosphere, for example by saltmarsh, and water cycling. Ecosystem function can also include geomorphological processes that contribute towards geodiversity.
1255. **Ecosystem services** are the benefits people obtain from the natural environment. The classification of ecosystem services adopted by the [UK National Ecosystem Assessment](#) categorises services as follows:
- cultural services are non-physical and connected to human behaviours and values, for example, aesthetic values, cultural heritage values and tourism
 - regulating services such as flood defence, water purification and carbon sequestration services (the process of capturing carbon dioxide from the environment), for example sand dunes, which act as natural flood defences
 - provisioning services comprise products obtained from the environment such as food and resources, for example, fish stocks targeted by fisheries
 - supporting services are necessary for the function of all other ecosystem services. Impacts on humans from supporting services are likely to be indirect or occur over a long period of time. Examples include oxygen production through photosynthesis, soil formation and retention, and habitat provision

Why is biodiversity important?

1256. The UK has an obligation under the [United Nations Convention on Biological Diversity](#) to integrate consideration of the conservation of and sustainable use of biological resources into national decision-making, in addition to managing natural processes and activities that could threaten it. Biodiverse communities are typically more resilient to change than those dominated by fewer species. In biodiverse communities, different functions are carried out by multiple species, thus declines in a single species, for example due to disease, do not result in a loss of overall ecosystem function. This functional resilience is essential to the maintenance of healthy ecosystems required for the delivery of ecosystem services, such as clean air and water, healthy soil, and raw materials. Each of the components detailed in NW-BIO-1, NW-BIO-2 and NW-BIO-3 contribute to biodiversity in the north west marine plan areas and their importance is detailed below. Biodiversity in the north west marine plan areas can be impacted by overexploitation, habitat destruction, invasive species, disturbance, pollution and climate change.
1257. The government has made a long-term commitment to leave the environment in a measurably better state, as set out in [A Green Future: Our 25 Year Plan to Improve the Environment](#). This aim is reinforced in the marine area by the government's commitment to achieving Good Environmental Status in UK seas through provisions

in [The Marine Strategy Regulations 2010](#)¹³⁷, including the development of a marine strategy. The objective of the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) reflects the UK's vision for clean, healthy, safe, productive and biologically diverse oceans and seas. The [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) includes 11 qualitative descriptors to assess progress towards Good Environmental Status. NW-BIO-1, NW-BIO-2, and NW-BIO-3 support the delivery of the objectives associated with four descriptors directly:

- D1 Biological diversity (cetaceans, seals, birds, fish, pelagic and benthic habitats)
- D4 Food webs (cetaceans, seals, birds, fish and pelagic habitats)
- D6 Sea floor integrity (pelagic habitats and benthic habitats)
- D7 Hydrographical conditions

1258. By encouraging the protection and enhancement of biodiversity, NW-BIO-1, NW-BIO-2, and NW-BIO-3 support the aim set out in [A Green Future: Our 25 Year Plan to Improve the Environment](#) to achieve Good Environmental Status of our seas. Environmental enhancement is also supported through the [National Planning Policy Framework](#) Chapter 15, Sections 170 and 174 and the [UK Marine Policy Statement](#) Section 2.6.1, which detail biodiversity's essential role in enhancing quality of life.
1259. Priority species are important in their own right for their contribution to biodiversity, provisioning of ecosystem services, and can also encourage eco-tourism which brings economic prosperity to the north west region. An example of a priority species within the north west plan areas is Atlantic salmon, a diadromous species which migrates from freshwater to sea as a juvenile before returning to freshwater to breed as an adult. There are several Atlantic salmon rivers in the north west inshore marine plans area; thus, both juvenile and adult salmon are likely to occur in the north west marine plan areas as they migrate. The herring gull is another example of a priority species which occurs throughout the north west inshore marine plan area all year round.
1260. Priority habitats in the north west marine plan areas include but are not limited to, intertidal mudflats, sheltered muddy gravels and peat and clay exposures: for example, around Morecambe Bay, subtidal sands and gravels along much of the coast of the north west inshore marine plan area, and intertidal boulder communities off the coast of Rottington.
1261. Some priority habitats provide important ecosystem services, such as water purification: coastal saltmarsh, reed beds and intertidal mudflats aid in reducing turbidity and sedimentation and, in the longer term, removing hazardous chemicals and nutrients. Seagrass beds also play a role in the removal of nitrogen and hazardous chemicals from the water column providing benefits to water quality.

¹³⁷ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

1262. The rich diversity of wildlife and natural beauty of marine protected areas in the north west marine plan areas offer inspiring places to live, work and visit; however, not all priority habitats and species occur within designated sites. Some habitats and species that are recognised as internationally important are not always present to an internationally significant extent in the north west marine plan areas and are, therefore, not designated. These habitats and species may still be important at a local level but receive less protection compared to designated features, although are protected by UK legislation, including but not limited to the [Wildlife and Countryside Act 1981](#), the [Countryside and Rights of Way Act 2000](#) and the [Natural Environment and Rural Communities Act 2006](#). NW-BIO-1, NW-BIO-2, and NW-BIO-3 contribute to the protection of non-designated habitats that are important for protected species, contribute to the protection of non-protected species that are important for designated habitats, and support the government's commitments under the [OSPAR Convention for the Protection of the Marine Environment of the North East Atlantic](#) for an ecologically coherent network of marine protected areas (See NW-MPA-1).
1263. The ability of habitats to respond to and adapt to climatic and other environmental changes ensures resilience in the natural environment. Particular species may also need to adapt to changes in their habitats, predation or competition. The ability of habitats and species to adapt to change is important for biodiversity, both within and outside of marine protected areas. The [restoration of wetland habitats](#) for wading birds around Morecambe Bay is one example of increasing the ability of species to adapt to change.
1264. Migratory routes are essential to the success of key life stages of migratory species, such as breeding. Disruption to migratory pathways at one or more life stages can negatively affect the success of a population, potentially threatening long-term viability. Salmon is one migratory fish species which occurs in the north west marine plan areas, migrating from the River Derwent and River Eden as a juvenile and back as an adult to breed. The north west inshore marine plan area supports internationally significant populations of breeding and over-wintering seabirds, wading birds and waterfowl, St Bees Head, for example, is important for migratory seabirds which breed there from April to July.
1265. Connectivity between species, habitats and populations (both within and outside of the north west marine plan areas) is important for maintaining genetic diversity and allowing species to undergo seasonal breeding and foraging migrations. Habitat fragmentation and loss as a result of anthropogenic activities often has a negative impact, such as declining population numbers, or on the movement of individuals between increasingly isolated populations, which threatens species' long-term viability.
1266. Ensuring the connectivity of habitats and species within and outside of the north west marine plan areas is also important as it contributes to the maintenance and cohesion of the existing marine protected area network and surrounding seas.
1267. The coastal region of the north west inshore marine plan area is characterised by estuaries including the Solway Firth, Duddon and Esk estuaries in the north, Morecambe Bay, the largest intertidal area in the UK, in the centre and Ribble, Alt

Dee and Merseyside estuaries in the south. These estuarine habitats are associated with sandflats, mudflats and saltmarshes. The north west inshore marine plan area is also associated with extensive beaches and sand dune habitats. These habitats support a rich assemblage of species and rely on natural sediment supply and transport to maintain healthy ecosystem function.

1268. The joint Department for Environment, Food and Rural Affairs / Environment Agency / National Resources Wales / Welsh Government Flood and Coastal Erosion Risk Management Research and Development Programme defines coastal squeeze as the loss of natural habitats or deterioration of their quality arising from anthropogenic structures or actions, preventing the landward transgression of those habitats that would otherwise naturally occur in response to sea level rise in conjunction with other coastal processes. Coastal squeeze affects habitat on the seaward side of existing structures. The full definition, including further clarifications, is provided in 'What is Coastal Squeeze?' (Project FRS17187 awaiting publication).
1269. The loss of coastal habitats through mechanisms such as coastal squeeze can impact the integrity of biodiversity. The change to or loss of coastal habitats can impact the function of the local ecosystem and the provision of ecosystem services, as highlighted in the Joint Nature Conservation Committee report, [Exploring the Components and Processes of Marine Ecosystems Critical to Ecosystem Service Generation](#), which explores the marine ecosystem components and processes that influence potential ecosystem service delivery.
1270. There are frequent storm surges throughout the north west marine plan areas which, combined with high tides in the area, increase the risk of flooding. Coastal erosion affects some of the shoreline throughout the north west inshore marine plan area and man-made barriers are in place in some areas to protect the coast. [Shoreline Management Plans](#) detail the most sustainable approach to flood and coastal erosion risk. Where fixed landward assets prevent habitat migration or roll back, habitat loss is likely to occur due to coastal squeeze. Fixed structures in the marine area can also create barriers to species movement. Sand bars, dunes, sandflats and mudflats offer natural coastal protection throughout the north west inshore marine plan area, while mudflats, seagrass beds and saltmarsh habitat absorb carbon from the atmosphere.

Policy NW-BIO-1 Biodiversity

Proposals that enhance the distribution of priority habitats and priority species will be supported.

Proposals that may have significant adverse impacts on the distribution of priority habitats and priority species must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant
- d) compensate for significant adverse impacts that cannot be mitigated.

Policy aim

1271. Maintaining the distribution of priority habitats and priority species in the north west marine plan areas is important as it reduces habitat fragmentation, species isolation and supports strong, biodiverse communities which in turn provide ecosystem services. NW-BIO-1 encourages and supports proposals that enhance the distribution of priority habitats and priority species. NW-BIO-1 seeks to maintain the distribution of priority habitats and priority species through the management of significant adverse impacts. Proposals that cannot avoid, minimise and mitigate or, as a last resort, compensate for significant adverse impacts, will not be supported.
1272. Policy NW-BIO-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

1273. This policy applies to any organisation or individual putting forward a proposal including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity or a change to an existing activity that is subject to management by public authorities.
1274. Proposals whose primary objective is to enhance the distribution of priority habitats and priority species should demonstrate how this will be achieved. Enhancement refers to measures taken which have a positive impact. An example of enhancement could include the removal of hard coastal defence structures in favour of soft engineering, which enables habitat roll back.
1275. Where positive impacts have been identified, proposals must also assess adverse impacts in line with relevant legislation. Enhancement is not a substitute for avoidance, minimisation or mitigation measures.
1276. Proposals must first demonstrate how they will avoid significant adverse impacts on the distribution of priority habitats and priority species. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated adequately, proposals must demonstrate how they will compensate for such impacts. Proposals will likely apply a mixture of measures to avoid, minimise, mitigate and compensate for significant adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.
1277. Proposals should include supporting information that is proportionate to the proposal. Actions that can be carried out to avoid, minimise or mitigate significant adverse impacts on the distribution of priority habitats and priority species will be specific to the disturbance under consideration. Proposals that cannot avoid, minimise and mitigate or, as a last resort, compensate for significant adverse impacts will not be supported.

1278. Avoidance of significant adverse impacts could be temporal or spatial, for example, the activity could take place in a different area or at a different time to avoid significant adverse impacts on the distribution of priority habitats and species. Examples of how to avoid significant adverse impacts may include siting developments away from priority habitats or undertaking activities when the priority species is not present in the area because of migration.
1279. Minimisation of significant adverse impacts will involve a change to the source of the impact. Minimisation can also be temporal or spatial, for example reducing the area of impact and therefore reducing the extent of priority habitats or priority species that will be significantly adversely impacted by the activity. Temporal minimisation may involve activities taking place within the distribution of priority habitats or priority species but for a shorter period, thereby minimising the amount of time exposed to the source of the impact.
1280. Mitigation of significant adverse impacts will be specific to the proposal under consideration and could include, for example, the use of bubble or silt curtains during pile driving activities to reduce the severity of the impact.
1281. Compensation will be considered on a case-by-case basis by decision-makers for significant adverse impacts that cannot be avoided, minimised or mitigated. Compensation will only be acceptable when in line with the provision present in primary legislation and regulations.
1282. Off-site compensation may be appropriate in some circumstances, primarily where the compensation benefits the same priority habitat or priority species, for example supporting a different area of the same priority habitat or supporting a behaviour of the same population affected by the proposal.
1283. For marine protected areas, the assessment of adverse impacts must take account of the conservation objectives set out by the statutory nature conservation bodies and comply with the statutory assessments for marine conservation zones under the [Marine and Coastal Access Act 2009](#), sites of special scientific interest under the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites under [The Conservation of Habitats and Species Regulations 2017](#)¹³⁸ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹³⁹. Where proposals have been determined to have a likely significant effect on a special protection area, special area of conservation or Ramsar site through a Habitats Regulations Assessment, an Appropriate Assessment will be required.
1284. Where proposals have adverse impacts on a marine protected area, policies NW-MPA-1, NW-MPA-2, NW-MPA-3 and NW-MPA-4 apply. Such proposals must first demonstrate that they have, avoided adverse impacts. Avoidance is the preferred measure due to the difficulty of mitigating impacts in the marine environment. Advice

¹³⁸ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹³⁹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

should be sought from the statutory nature conservation bodies on the suitability of mitigation measures. Where such proposals cannot avoid, minimise and mitigate adverse impacts, compensation may not be appropriate and the provisions for derogations that are present in primary legislation and regulations must be applied.

1285. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations to be taken into account by the decision-maker, which may include, for example, other plans.
1286. Proponents could refer to Figure 28 and Figure 29, which show priority habitats and habitats of conservation importance respectively, to inform their proposals. Figures are accurate at the time of plan publication. Please see [Explore Marine Plans](#) for the most recent figures.

Decision-makers

1287. Decision-makers will support proposals that enhance the distribution of priority habitats and priority species in the north west marine plan areas where they comply with other policies in this plan and with relevant legislation.
1288. Decision-makers should apply these policies proportionately in respect of proposals that will interact with priority habitats and species. Decision-makers will assess if the proposal significantly adversely impacts the distribution of priority habitats and priority species on a case-by-case basis. Decision-makers will need to apply the best available evidence and the precautionary principle when considering the potential significant adverse impacts on the distribution of priority habitats and priority species.
1289. Decision-makers will manage activities that require authorisation, such as energy development or aggregates dredging, through existing assessments that are required under national legislation including, but not limited to, [Habitats Regulations Assessments](#), [Marine Conservation Zone Assessment](#) (as required by the [Marine and Coastal Access Act 2009](#) Section 126) and [Environmental Impact Assessments](#). These will identify conditions that need to be placed on a licence or permit.
1290. Figure 28 shows areas of priority habitats and Figure 29 shows habitats of conservation importance to assist the application of this policy. Figures are accurate at the time of plan publication. Please see [Explore Marine Plans](#) for the most recent figures.

Policy NW-BIO-2 Biodiversity

Proposals that enhance or facilitate native species or habitat adaptation or connectivity, or native species migration, will be supported.

Proposals that may cause significant adverse impacts on native species or habitat adaptation or connectivity, or native species migration, must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant
- d) compensate for significant adverse impacts that cannot be mitigated.

Policy aim

1291. Competition for space, increased levels of development, and predicted effects of climate change can affect the connectivity, adaptive ability and migration of habitats and species in the north west marine plan areas. NW-BIO-2 supports and encourages proposals that enhance or facilitate native species or habitat adaptation or connectivity, or native species migration. NW-BIO-2 requires proposals to manage negative effects which may significantly adversely impact the functioning of healthy, resilient and adaptable marine ecosystems. Proposals that cannot avoid, minimise and mitigate or, as a last resort, compensate for significant adverse impacts, will not be supported.
1292. Policy NW-BIO-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

1293. This policy applies to any organisation or individual putting forward a proposal including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity or a change to an existing activity that is subject to management by public authorities.
1294. Proposals whose primary objective is to enhance native species or habitat adaptation or connectivity, or native species migration, should demonstrate how this will be achieved. Enhancement refers to measures taken which have a positive impact. An example of enhancement could include the maintenance, expansion or connection of known habitat corridors important for native species migration or movement.
1295. Where positive impacts have been identified, proposals must also assess adverse impacts in line with relevant legislation. Enhancement is not a substitute for avoidance, minimisation or mitigation measures.
1296. Proposals must first demonstrate how they will avoid significant adverse impacts on native habitat and species adaptation or connectivity, and native species migration. Where significant adverse impacts cannot be avoided, proposals must demonstrate

how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals must demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated adequately, proposals must demonstrate how they will compensate for such impacts. Proposals will likely apply a mixture of measures to avoid, minimise, mitigate and compensate for significant adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.

1297. Proposals should include supporting information that is proportionate to the proposal. Actions that can be carried out to avoid, minimise or mitigate significant adverse impacts on the distribution on native habitat and species adaptation or connectivity, and native species migration, will be specific to the disturbance under consideration. Proposals that cannot avoid, minimise and mitigate or, as a last resort, compensate for significant adverse impacts, will not be supported.
1298. Avoidance of significant adverse impacts could be temporal or spatial, for example, the activity could take place in a different area or at a different time to avoid significant adverse impacts on native habitat and species adaptation or connectivity, and species migration. Examples of how to avoid significant adverse impacts may include siting developments away from native habitats or undertaking activities when the native species is not present in the area because of migration.
1299. Minimisation of significant adverse impacts will involve a change to the source of the impact. Minimisation can also be temporal or spatial, for example, reducing the area of impact within a migration corridor, thereby reducing the extent of native habitats or species that will be significantly adversely impacted by the activity, or the relocation of a hard structure that may have caused an obstruction between two connected habitats, to allow for movement of native species. Temporal minimisation may involve activities taking place within the distribution of native habitats or species but for a shorter period, thereby minimising the amount of time exposed to the source of the impact.
1300. Mitigation of significant adverse impacts will be specific to the proposal under consideration and could include, for example, the use of fish ladders on or around artificial barriers to allow for the migration of fish species between habitats.
1301. Compensation will be considered on a case-by-case basis by decision-makers for significant adverse impacts that cannot be avoided, minimised or mitigated. Compensation will only be acceptable when in line with the provision present in primary legislation and regulations.
1302. Off-site compensation may be appropriate in some circumstances, primarily where the compensation promotes the connectivity or ability to adapt of the same habitat or population affected by the proposal.
1303. For marine protected areas, the assessment of adverse impacts must take account of the conservation objectives set out by the statutory nature conservation bodies and comply with the statutory assessments for marine conservation zones under the [Marine and Coastal Access Act 2009](#), sites of special scientific interest under the

[Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites under [The Conservation of Habitats and Species Regulations 2017](#)¹⁴⁰ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁴¹. Where proposals have been determined to have a likely significant effect on a special protection area, special area of conservation or Ramsar site through a Habitats Regulations Assessment, an Appropriate Assessment will be required.

1304. Where proposals have adverse impacts on a marine protected area, policies NW-MPA-1, NW-MPA-2, NW-MPA-3 and NW-MPA-4 apply. Such proposals must first demonstrate that they have avoided adverse impacts. Avoidance is the preferred measure due to the difficulty of mitigating impacts in the marine environment. Advice should be sought from the statutory nature conservation bodies on the suitability of mitigation measures. Where such proposals cannot avoid, minimise and mitigate adverse impacts, compensation may not be appropriate and the provisions for derogations that are present in primary legislation and regulations must be applied.
1305. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations to be taken into account by the decision-maker, which may include, for example, other plans.
1306. Proponents could refer to Figure 28 and Figure 29 which show priority habitats and habitats of conservation importance respectively to inform their proposals, in addition to Figure 30 and Figure 31 which show areas of seabird density and grey and harbour seal distribution respectively. Figures are accurate at the time of plan publication. Please see [Explore Marine Plans](#) for the most recent figures.

Decision-makers

1307. Decision-makers will support proposals that enhance or facilitate native species or habitat adaptation or connectivity, or native species migration in the north west marine plan areas where they comply with other policies in this plan and with relevant legislation.
1308. Decision-makers should apply this policy proportionally in respect of proposals that will interact with native species or habitat adaptation or connectivity, or native species migration. Determination may be informed by a relevant assessment. An assessment to determine how a proposal can be beneficial to native habitat and species adaptation, migration and connectivity should ensure understanding of habitat types within and adjacent to the proposal area and ensure understanding of the importance of these habitats to species – important species are migratory, breeding or roosting birds, spawning and migratory fish, and mobile species such as marine mammals. Consideration should also be given to the ability for habitats to naturally migrate with changing climate and/or if the proposal could assist habitat and species migration.

¹⁴⁰ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹⁴¹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

1309. Decision-makers will need to apply the best available evidence and the precautionary principle when considering the potential significant adverse impacts on native species or habitat adaptation, or connectivity or native species migration.
1310. Figure 28 and Figure 29 show priority habitats and habitats of conservation importance respectively, and Figure 30 and Figure 31 show areas of seabird density and grey and harbour seal distribution respectively, to assist the application of this policy. Figures are accurate at the time of plan publication. Please see [Explore Marine Plans](#) for the most recent figures.

Policy NW-BIO-3 Biodiversity

Proposals that conserve, restore or enhance coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services, will be supported.

Proposals must take account of the space required for coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services, and demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
- d) compensate for
 - net habitat loss.

Policy aim

1311. In the north west inshore marine plan area, there are numerous important coastal habitats. Increased competition for space in and around these coastal habitats in the north west inshore marine plan area has resulted in coastal squeeze, a process where habitats have decreasing space between rigid coastal structures and rising sea level or coastal erosion. NW-BIO-3 encourages and supports proposals that deliver biodiversity gain by conserving, enhancing or restoring coastal habitats. NW-BIO-3 also requires proposals to manage net habitat loss as a result of coastal squeeze to support the functioning of healthy and resilient coastal and intertidal ecosystems. Proposals that cannot avoid, minimise and mitigate or, as a last resort, compensate for net habitat loss, will not be supported.
1312. Policy NW-BIO-3 applies to intertidal habitats down to mean low water in the inshore marine plan area only.

How will this policy be implemented?

Proponents

1313. This policy applies to any organisation or individual putting forward a proposal, including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity, or a change to an existing activity that is subject to management by public authorities.

1314. Proposals that conserve, restore or enhance coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services, should include information demonstrating how this will be achieved. Conservation refers to measures taken which maintain or preserve coastal habitat quality or distribution. Restoration refers to measures taken which repair degraded, damaged or destroyed coastal habitat. Enhancement refers to measures taken which have a positive impact on coastal habitats, for example coastal protection works that enhance fish habitat by creating additional saltmarsh. Where artificial structures are used to recreate habitat, these proposals must be in line with relevant policies.
1315. Where positive impacts have been identified, proposals must also assess adverse impacts in line with relevant legislation. Enhancement is not a substitute for avoidance, minimisation or mitigation measures.
1316. Proposals must first demonstrate how they will avoid net habitat loss of coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services. Where net habitat loss cannot be avoided, proposals must demonstrate how they will minimise net habitat loss. Where net habitat loss cannot be minimised, proposals must demonstrate how they will mitigate remaining net habitat loss. Where net habitat loss cannot be mitigated adequately, proposals must demonstrate how they will compensate for such net habitat loss. Proposals will likely apply a mixture of measures to avoid, minimise, mitigate and compensate for net habitat loss. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.
1317. Proposals should include supporting information that is proportionate to the proposal. Actions that can be carried out to avoid, minimise or mitigate net habitat loss of coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services, will be specific to the proposal under consideration. Proposals that cannot avoid, minimise and mitigate or, as a last resort, compensate for net habitat loss, will not be supported.
1318. Avoidance of net habitat loss could be spatial, for example the activity could take place in a different area to avoid net habitat loss of coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services.
1319. Minimisation of net habitat loss will involve a change to the source of the impact. Minimisation can be temporal or spatial, for example, reducing the area of impact, thereby reducing the net habitat loss of coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services. Temporal minimisation could involve minimising the amount of time in which work is undertaken to make sure natural processes can continue.
1320. Mitigation of net habitat loss will be specific to the proposal under consideration and could include a change in technology adopted to reduce the severity of the impact, for example, through innovative engineering design, sediment bypassing to avoid sediment loss, and use of silt curtains during pile driving activities.

1321. Compensation will be considered on a case-by-case basis by decision-makers for net habitat loss that cannot be avoided, minimised or mitigated. Compensation will only be acceptable when in line with the provision present in primary legislation and regulations.
1322. Off-site compensation may be appropriate in some circumstances, primarily where the compensation promotes coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services, affected by the proposal.
1323. For marine protected areas, the assessment of adverse impacts must take account of the conservation objectives set out by the statutory nature conservation bodies and comply with the statutory assessments for marine conservation zones under the [Marine and Coastal Access Act 2009](#), sites of special scientific interest under the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites under [The Conservation of Habitats and Species Regulations 2017](#)¹⁴² and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁴³. Where proposals have been determined to have a likely significant effect on a special protection area, special area of conservation or Ramsar site through a Habitats Regulations Assessment, an Appropriate Assessment will be required.
1324. Where proposals have adverse impacts on a marine protected area, policies NW-MPA-1, NW-MPA-2, NW-MPA-3 and NW-MPA-4 apply. Such proposals must demonstrate that they have, first, avoided adverse impacts. Avoidance is the preferred measure due to the difficulty of mitigating impacts in the marine environment. Advice should be sought from the statutory nature conservation bodies on the suitability of mitigation measures. Where such proposals cannot avoid, minimise and mitigate adverse impacts, compensation may not be appropriate and the provisions for derogations that are present in primary legislation and regulations must be applied.
1325. The [Environment Bill](#) makes provision for biodiversity gain to be a condition of terrestrial planning permission in England. These provisions apply to intertidal areas in England. Biodiversity net gain is an emerging approach to measure and quantify the biodiversity value of an area before and after a proposal. The [Biodiversity Metric 2.0](#) is one tool in development that can be used to assess changes in habitats' biodiversity value brought about by activities in the intertidal area and an updated version is due for publication in 2021.
1326. The government's approach to deliver environmental net gain in the marine area is being developed. There are, as yet, no mandatory requirements to deliver biodiversity gain through offshore activities seaward of the intertidal area, and there are no metrics available at the current time to quantify or measure the impact of activities on offshore biodiversity. Decision-makers and proponents are, however,

¹⁴² As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹⁴³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

reminded of the provisions set out in [The Marine Strategy Regulations 2010](#)¹⁴⁴ to achieve Good Environmental Status of UK seas, and the [Natural Environment and Rural Communities Act 2006](#) (Section 40) for decision-makers to have regard to the purpose of conserving biodiversity.

1327. Proposals that deliver biodiversity gain remain subject to existing environmental legislation, including the statutory assessment requirements for marine conservation zones under the [Marine and Coastal Access Act 2009](#), sites of special scientific interest under the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites under [The Conservation of Habitats and Species Regulations 2017](#)¹⁴⁵ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁴⁶.
1328. The Marine Management Organisation has produced an evidence project [Identifying sites suitable for marine habitat restoration or creation \(MMO1135\)](#), establishing a national dataset of sites that are suitable for habitat restoration or creation which may assist with the application of this policy.
1329. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations to be taken into account by the decision-maker, which may include, for example, other plans.
1330. Proponents could refer to Figure 28 and Figure 29, which show priority habitats and habitats of conservation importance respectively, to inform their proposals. Additionally, Figure 32 shows areas of potential habitat creation. Figures are accurate at the time of plan publication. Please see [Explore Marine Plans](#) for the most recent figures.

Decision-makers

1331. Decision-makers will support proposals that conserve, restore or enhance coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services, where it complies with other policies in this plan and other relevant legislation.
1332. [Enabling a Natural Capital Approach](#) provides government advice to decision-makers to help them consider ecosystem services and the value of applying a natural capital approach.
1333. The [Environment Bill](#) makes provision for biodiversity gain to be a condition of terrestrial planning permission in England. These provisions apply to intertidal areas in England. Policy NW-BIO-3 does not remove the obligations set out in the [Environment Bill](#) for terrestrial planning decisions.

¹⁴⁴ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

¹⁴⁵ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

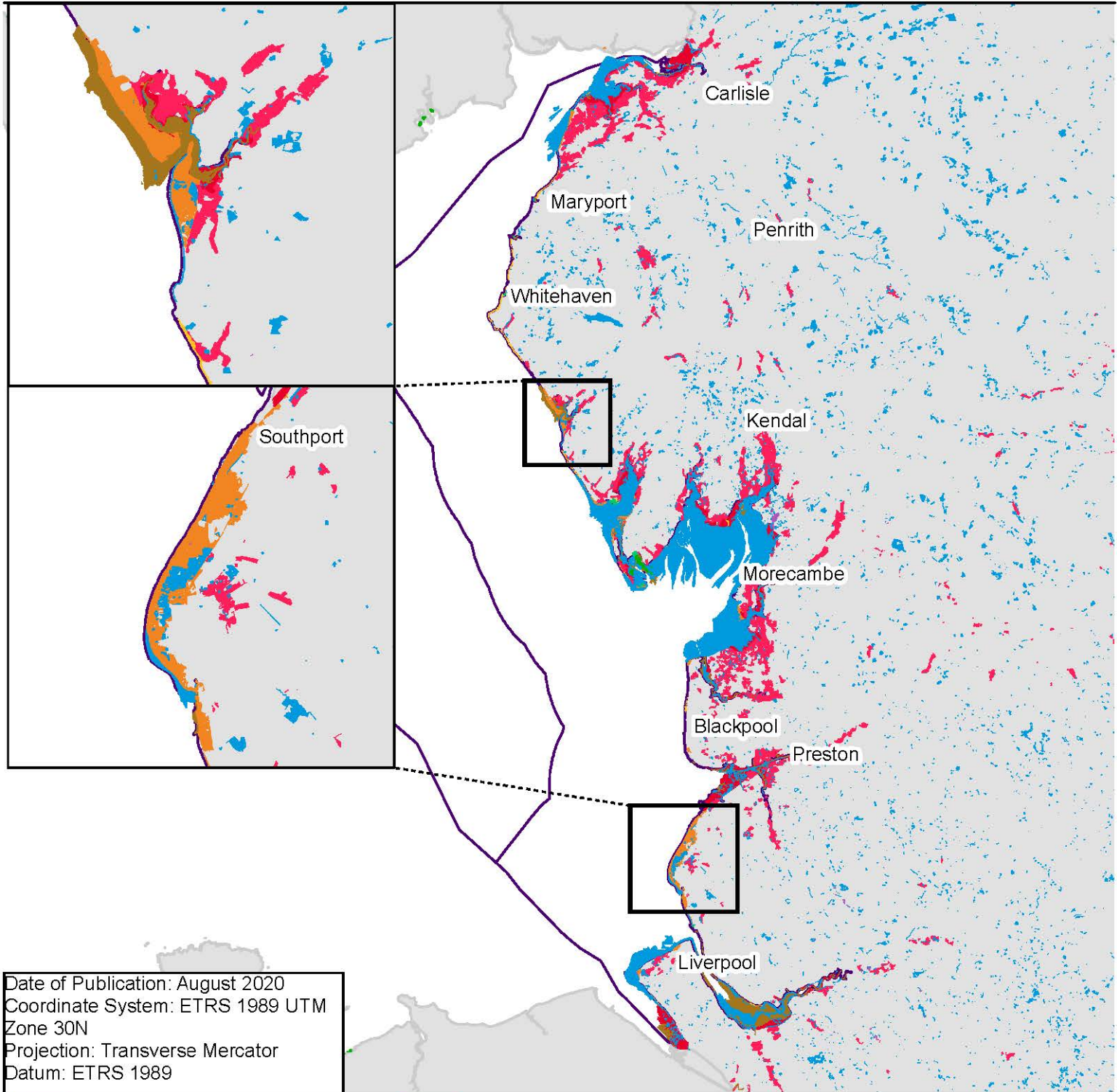
¹⁴⁶ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)












1334. It is not, at present, mandatory to deliver biodiversity net gain through the variety of other types of decisions taken in the marine area, but decision-makers must continue to monitor and apply the most up-to-date government advice as it becomes available.
1335. The high level objectives, targets and indicators contained in the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), particularly for descriptor 1: biodiversity, can be used to guide biodiversity priorities, alongside other plans or strategies relevant to the north west marine plan areas.
1336. The Department for Environment, Food and Rural Affairs [Biodiversity Metric 2.0](#) includes intertidal habitats and is one tool that can be used to assess changes in biodiversity value brought about by activities.
1337. Proposals that include measures to conserve, restore or enhance coastal habitats must comply with relevant environmental legislation including, but not limited to, [The Conservation of Habitats and Species Regulations 2017](#)¹⁴⁷, [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁴⁸, and the [Marine and Coastal Access Act 2009](#).
1338. For more information on net gain obligations in the marine area, see Box 1 in Section 3.1 of the North West Marine Plan.
1339. Decision-makers will assess if the proposal affects coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services, on a case-by-case basis. Decision-makers should apply these policies proportionately in respect of proposals that will interact with coastal habitats, where important in their own right and/or for ecosystem functioning and provision of ecosystem services. Determination may be informed by a relevant assessment. An assessment to determine how a proposal can be beneficial to coastal habitats should ensure understanding of habitat types within and adjacent to the proposal area and ensure understanding of the importance of these habitats to ecosystem functioning and ecosystem services. Consideration should also be given to the space required for the effective function of coastal habitats and/or if the proposal could assist coastal habitat enhancement.
1340. Decision-makers will need to apply the best available evidence and the precautionary principle when considering the potential net habitat loss of coastal habitats.
1341. Figure 28 and Figure 29 show priority habitats and habitats of conservation importance respectively, and Figure 32 shows areas of potential habitat creation to assist with the application of this policy. Figures are accurate at the time of plan publication. Please see [Explore Marine Plans](#) for the most recent figures.

¹⁴⁷ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹⁴⁸ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

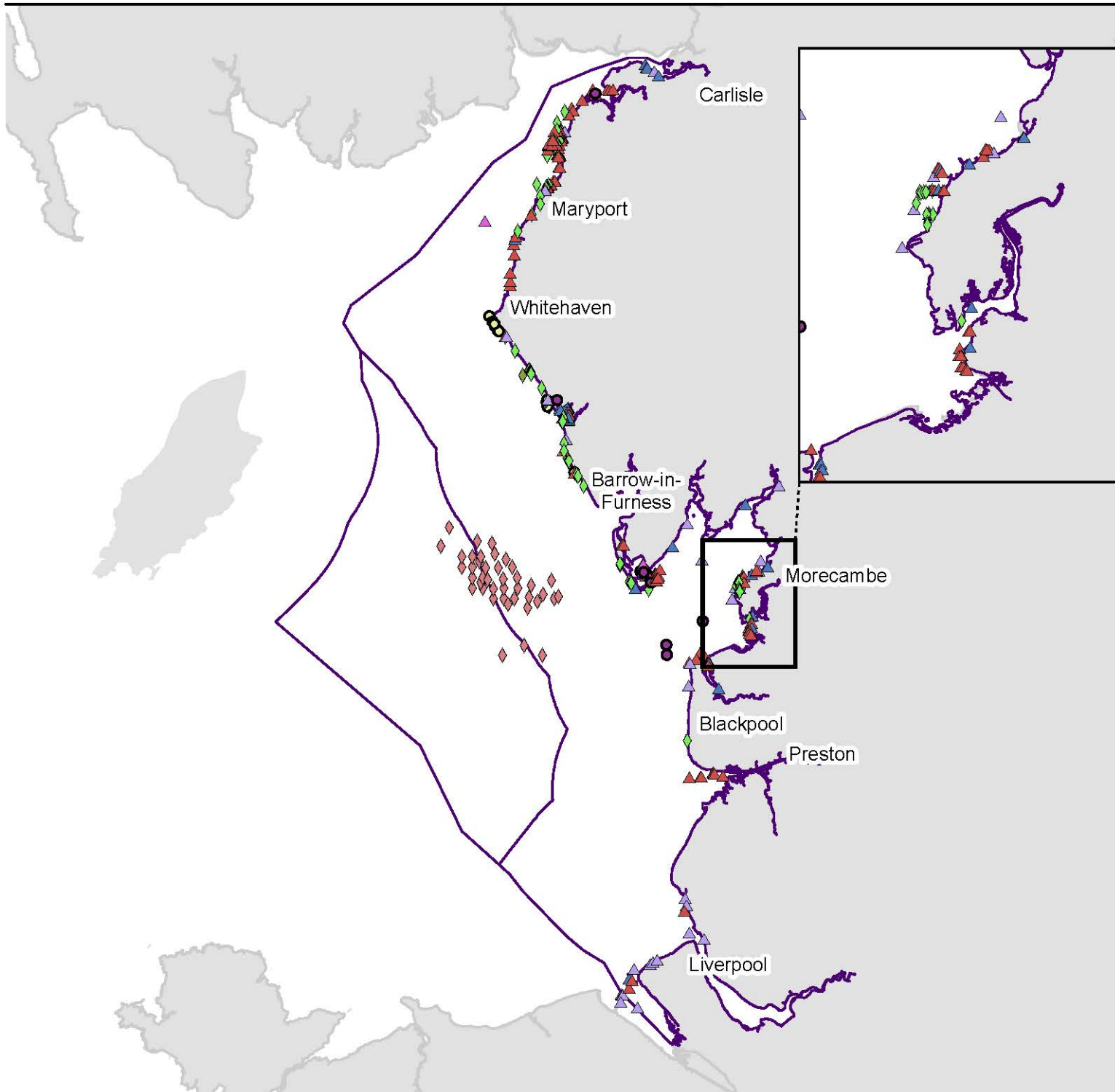
Figure 28 | Priority Habitat Inventory and Seagrass Extent



- | | |
|---|---|
|  North West Marine Plan Areas |  Seagrass Extent |
| Priority Habitat Inventory |  Maritime Cliff and Slope |
|  Coastal and Floodplain Grazing Marsh |  Mudflats |
|  Coastal Saltmarsh |  No Main Habitat but Additional Habitats Present |
|  Coastal Sand Dunes |  Reedbeds |
|  Coastal Vegetated Shingle |  Saline Lagoons |

Indicative map
 This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Figure 29 | Habitats of Conservation Interest (HOCI)



North West Marine Plan Areas	Horse Mussel Beds	Sea Pens and Burrowing Megafauna
Blue Mussel Beds	Intertidal under Boulder Communities	Seagrass Beds
Cold-Water Coral Reefs	Littoral Chalk Communities	Sheltered Muddy Gravels
Estuarine Rocky Habitats	Maerl Beds	Subtidal Sands and Gravels
File Shell Beds	Mud Habitats in Deep Water	Subtidal Chalk
Fragile Sponge and Anthozoan Communities on Subtidal Rocky Habitats	Native Oyster Beds	Subtidal Chalk / Peat and Clay Exposures
Honeycomb Worm Reefs	Peat and Clay Exposures	Tide-Swept Channels
	Ross Worm Reefs	
	Sabellaria Spinulosa Reefs	

Indicative map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

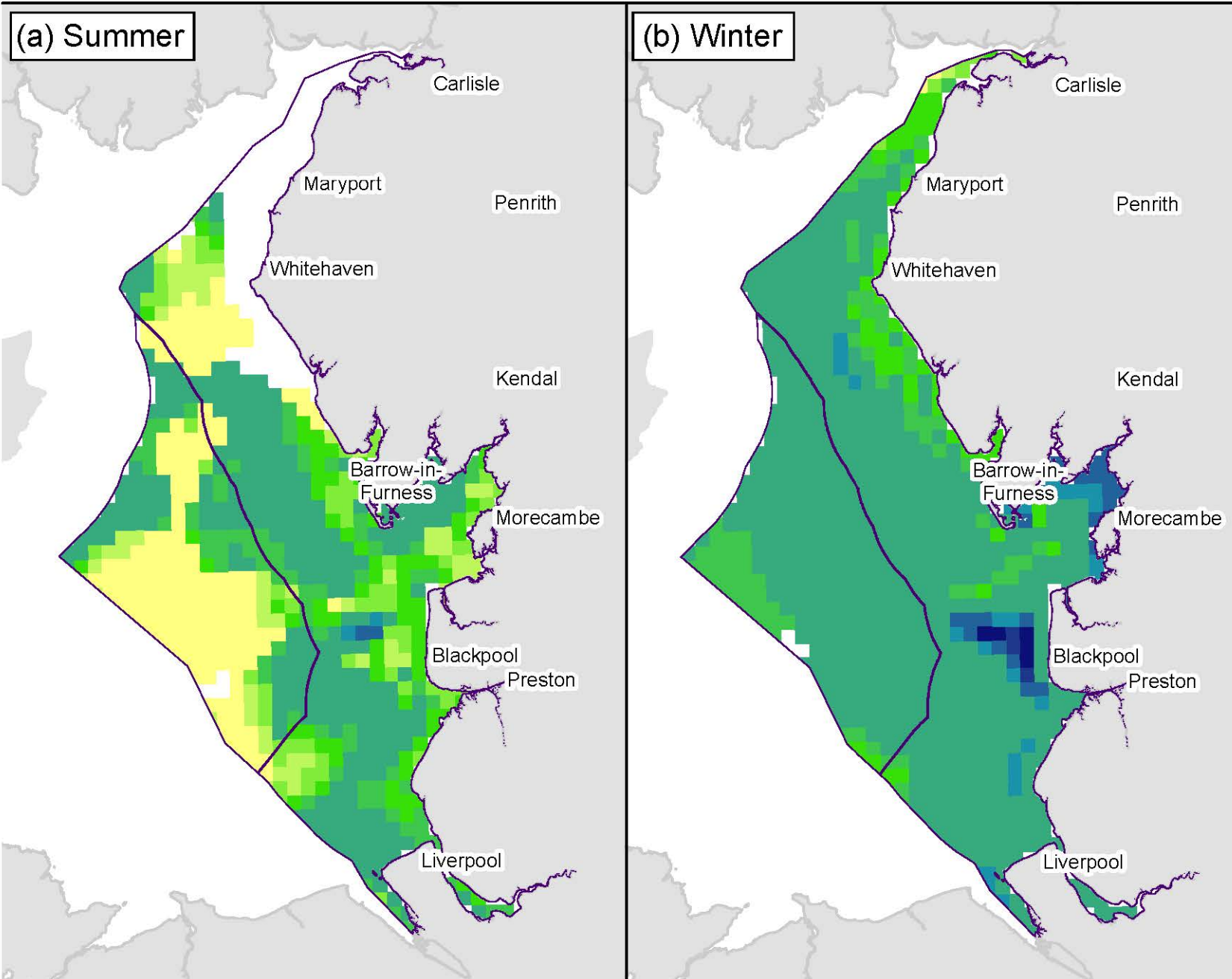


Figure 30 | Seasonal Seabird Density

Indicative map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

(a) Summer

(b) Winter



Summer months: April - September (inclusive), Winter months: October - March (inclusive)

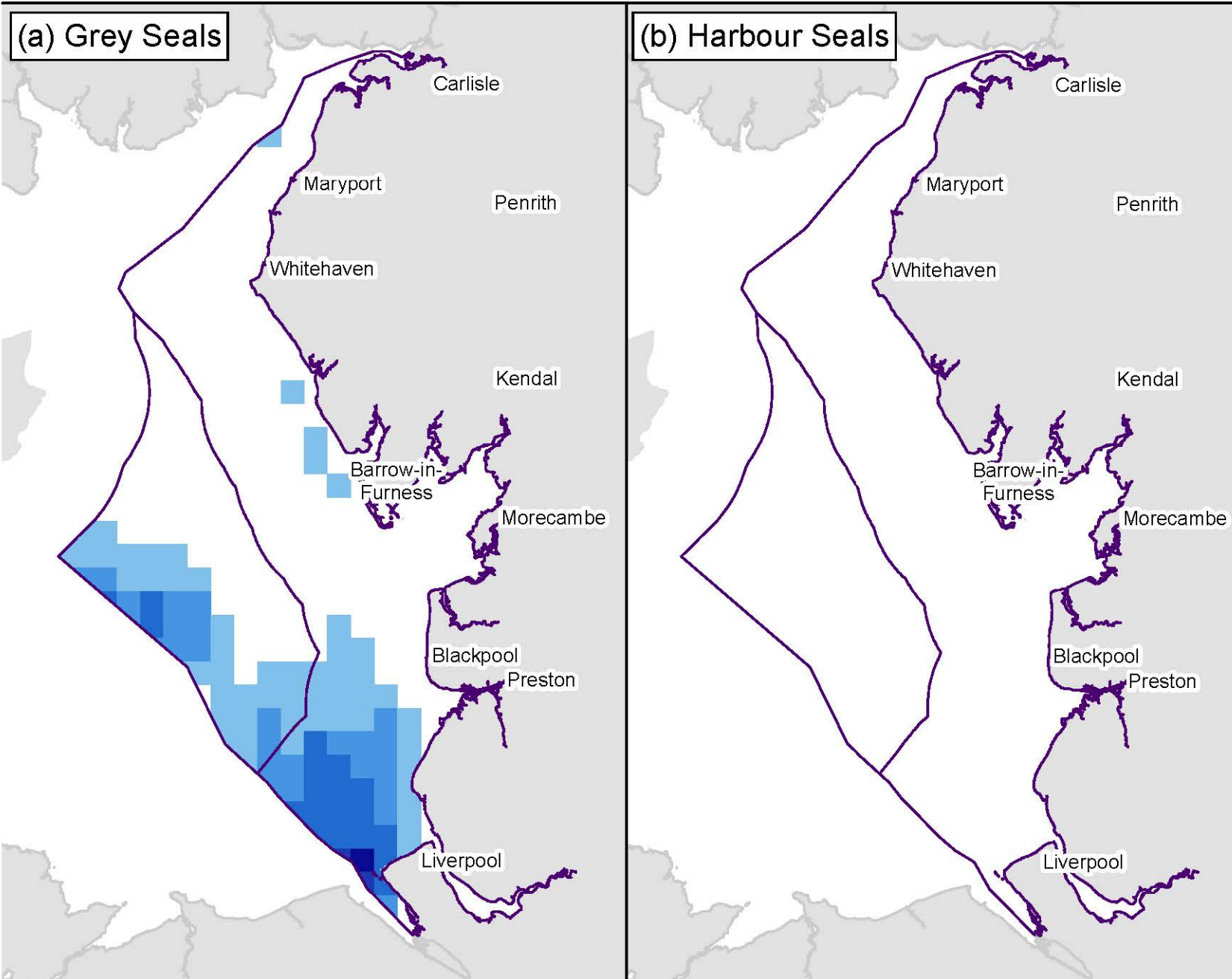
Date: August 2020
Coordinate System: ETRS 1989 UTM Zone 30N
Projection: Transverse Mercator
Datum: ETRS 1989

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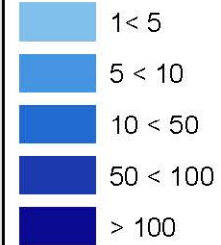
Figure 31 | Grey and Harbour Seal Distribution

Indicative map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.



North West Marine Plan Areas

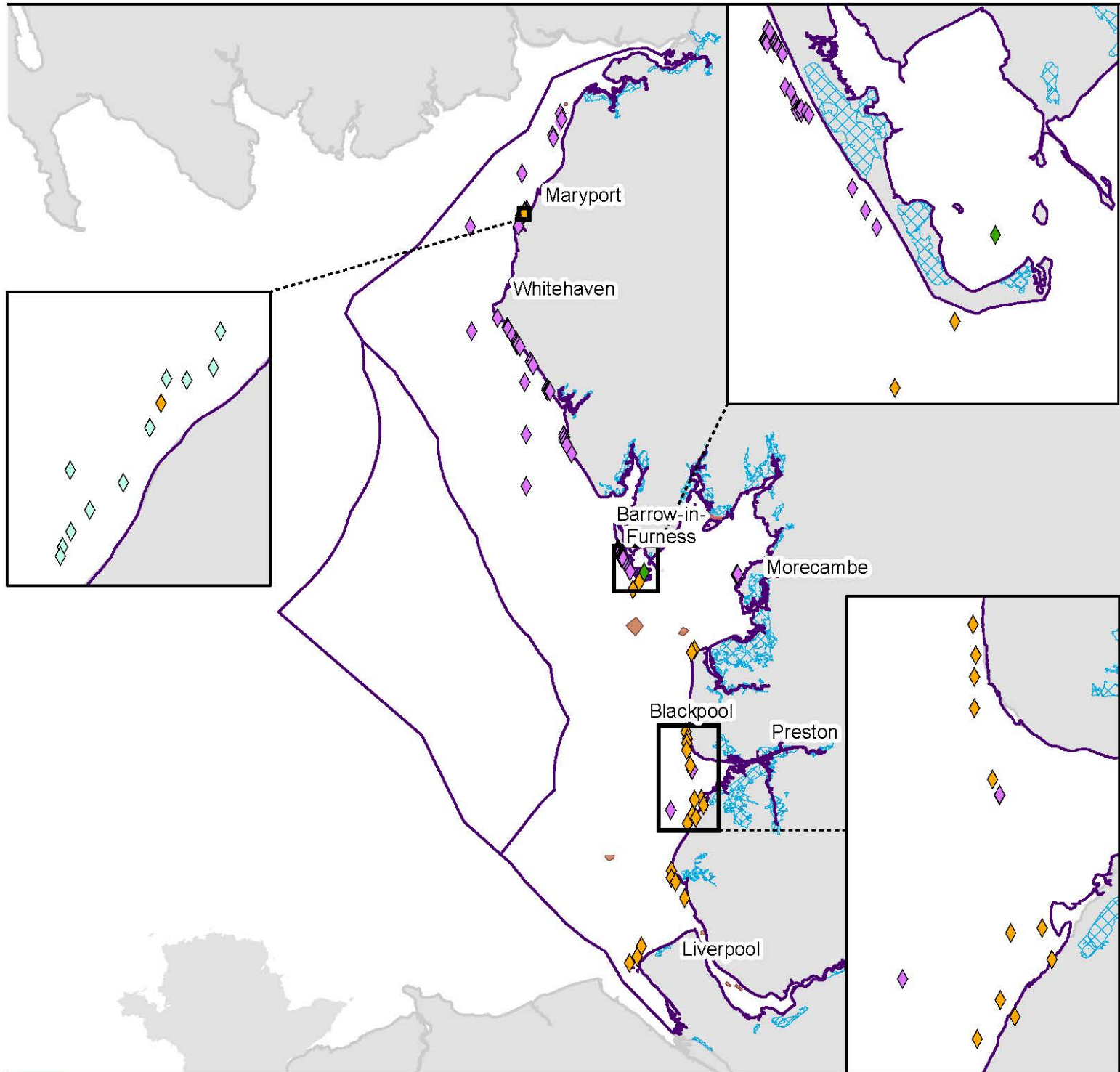
Number of seals



Date: August 2020
Coordinate System: ETRS 1989 UTM Zone 30N
Projection: Transverse Mercator
Datum: ETRS 1989

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Figure 32 | Location of Significant Sites for Habitat Restoration or Creation



- North West Marine Plan Areas
- ◆ Potential Native Oyster Restoration (Historic and Current Sites)
- ◆ Potential *Sabellaria alveolata* Restoration (Historic Sites)
- ◆ Potential Seagrass Creation Restoration (Historic and Current Sites)
- Potential Beneficial use Mud Stretches which may Benefit
- Potential Habitat Creation Sites Within the Current Floodplain
- Materials Suitable for Mudflat or Saltmarsh Restoration

Policy map
This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

5.25 Invasive non-native species

Policy Code	Policy Wording
NW-INNS-1	<p>Proposals that reduce the risk of introduction and/or spread of invasive non-native species should be supported.</p> <p>Proposals must put in place appropriate measures to avoid or minimise significant adverse impacts that would arise through the introduction and transport of invasive non-native species, particularly when:</p> <p>1) moving equipment, boats or livestock (for example fish or shellfish) from one water body to another 2) introducing structures suitable for settlement of invasive non-native species, or the spread of invasive non-native species known to exist in the area.</p>
NW-INNS-2	<p>Public authorities with functions to manage activities that could potentially introduce, transport or spread invasive non-native species should implement adequate biosecurity measures to avoid or minimise the risk of introducing, transporting or spreading invasive non-native species.</p>

What are invasive non-native species?

1342. Non-native (sometimes referred to as non-indigenous) species are those introduced (for example, by human action) outside of their natural past or present distribution and include any part, gametes, seeds, eggs, or propagules of such species that might survive and subsequently reproduce. In many cases, non-native species do not cause harm to the local environment or economy. The [Great Britain Non-Native Species Secretariat](#) describes invasive non-native species as any non-native species that has the ability to spread, causing damage to the environment, economy, human health or the way we live.
1343. Non-native species can become invasive when they cause significant adverse impacts. For example, the Leathery sea squirt, first introduced in Plymouth in 1953, now has a distribution that runs from the Clyde (West Scotland) all around Welsh and English coasts and up to the Humber on the East coast. The sea squirt attaches to solid surfaces in shallow water, especially in harbours and marinas, but also on wrecks and natural rock. It can smother oysters and mussels, compete for food, and foul boat hulls, buoys, moorings, ropes and harbour and marina infrastructure. Highly invasive species do not always establish or become invasive immediately – there may be a significant lag phase – but once they have become established, they often reproduce quickly, can adapt quickly to a broad range of situations (such as water quality or food availability), have a diverse gene pool, and/or are associated with human activities. Invasive non-native species threaten biodiversity globally, particularly on islands and other areas where the number of endemic species is higher and the tolerance to invasive species is lower. [The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services](#) global assessment identified non-native species as one of the top five direct drivers of biodiversity loss

worldwide. Pathogens, plants, invertebrates and vertebrates are all capable of becoming invasive species.

1344. Species expanding their native range, independent of human activity, as the climate changes are not considered non-native, but climate change may lead to non-native 'sleeper' species becoming invasive or exploiting the greater vulnerability of native species and species being dispersed more widely as a result of extreme weather events.

Why is the management of invasive non-native species important?

1345. There is a high risk of invasive non-native species being introduced and spreading within the north west marine plan areas over the period covered by the Plan due to climate change and an expected increase in high-risk pathways. This risk is further exacerbated in the north west marine plan areas due to the semi-enclosed nature of the Irish Sea. The [Great Britain Invasive Non-Native Species Framework Strategy](#) and the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) encourage a stronger sense of shared responsibility across government, key stakeholder organisations, land managers and the general public for actions and behaviours that will reduce the threats posed by invasive non-native species and the impacts they cause.

1346. [The North Western Inshore Fisheries and Conservation Authority Biosecurity Plan](#) (created in 2014 and currently being updated) reports the following marine invasive non-native species in the north west inshore marine plan area:

- Acorn barnacle
- Chinese mitten crab
- Common cordgrass
- Green sea fingers
- Japanese skeleton shrimp
- Leathery sea squirt
- Orange tipped sea squirt
- Pacific oyster
- Tube worm
- Wakame
- Wireweed

1347. There may be a different assemblage of species present in other parts of the north west marine plan areas, or species yet to be discovered and recorded. The assemblage and geographical range of species may change over the period covered by this plan. Looking at areas beyond the north west marine plan areas could be indicative of the species that may become a problem in the future. The most up-to-date evidence should be used when applying these policies. The [National Biodiversity Network Atlas](#) aggregates data from multiple sources and shows where species have been recorded in the UK. The [RAPID \(Reducing and Preventing Invasive Alien Species Dispersal\) LIFE project](#) has produced [Regional Invasive Alien Species Management Plans \(RIMPs\)](#), providing tailored recommendations on

prevention, early warning, rapid response, eradication and control of invasive species throughout England.

1348. High-risk species that may move into the north west marine plan areas in the future are identified in the [North Western Inshore Fisheries and Conservation Authority Biosecurity Plan](#) and in the [Biosecurity Plan for the Solway](#). These potentially invasive species include:

- Asian shore crab
- Carpet sea squirt
- Killer shrimp
- Slipper limpet
- Zebra mussel

1349. The north west marine plan areas are a major manufacturing base and key area for UK exports which receives a large amount of shipping traffic. According to the [final sea passenger statistics](#) of 2015, produced by the Department for Transport, the total freight traffic by tonnage handled by ports in the north west was around 11 percent of the total of all ports in England, with the majority transported through Liverpool and Heysham. There are several international passenger routes from Liverpool and numerous commercial shipping routes across the region with international connections. The Port of Barrow is also capable of accommodating large cruise ships. The Superport Project is an integration of port, road, rail and air logistics that will deliver faster, greener global market access for business to and from the northern UK and Ireland via an enlarged deep water container terminal at Liverpool. Increased international shipping could increase the risk of introduction and spread of non-native species.

1350. Invasive non-native species are most likely to establish in areas where activities that are known to introduce and/or spread invasive species occur. Such activities are referred to as pathways of introduction and spread. High-risk pathways in the north west marine plan areas include:

- aquaculture (intentional release (which may not be legal), unintentional escape of species, introductions of other species as 'hitch-hikers' when stocking, or conditions become favourable for species establishment)
- aquariums (escape of plants and animals)
- coastal protection infrastructure (species can colonise structures)
- commercial and recreational boating (through hull fouling and ballast water)
- commercial and recreational fishing (fouling of gear and equipment)
- dispersal of species/propagules/spat etc. on marine currents, from areas where they are non-native – eg northern Europe
- 'hitchhiking' of species with goods transported for trade
- marine litter and debris (species attached to floating material)
- movement of waste and materials
- naval and commercial freight shipping (through hull fouling and ballast water)
- offshore installations and equipment (species can colonise structures)

- port, harbour and marina infrastructure (species can colonise structures and equipment)
- recreational boats and water activities (fouling of equipment)
- relocation of structures and equipment

1351. Measures are in place to help reduce the risks associated with some of these activities:

- contingency plans are being developed for new arrivals of non-native species
- non-native species Pathway Action Plans are being developed for recreational boating and for angling
- [species factsheets and identification sheets](#) published by the Marine Biological Association
- the [Check, Clean, Dry](#) aquatic biosecurity campaign includes targeted awareness-raising materials for the marine environment
- the [Great Britain Non-Native Species Secretariat online training](#) is available but does not currently focus on the marine environment

1352. The presence of Chinese mitten crab makes estuarine river banks particularly vulnerable due to the burrowing nature of this species. At present, there are very few records of the species in the north of the plan areas, with most records occurring south of Formby ([National Biodiversity Network Atlas, 2018](#)).

1353. The [Futures Analysis for the North West Marine Plan Area](#) suggests that freight and passenger shipping and offshore structures are the highest risk pathways in the north west marine plan areas due to the high level of these activities compared to other pathways like recreational boating and aquaculture.

1354. Coastal marina berths in the inshore north west marine plan area represent four percent of all coastal berths in England according to the British Marine report, [The Economic Benefits of UK Boating Tourism, 2017-18](#). [Sea Angling 2012 – a survey of recreational sea angling activity and economic value in England](#), published by The Department for the Environment, Food and Rural Affairs, states that charter boats for sea fishing represent two percent of the total across England as a whole. Although the north west marine plan areas have the smallest number of marina berths and sea fishing charter boats of all of the marine plan areas, it does have a relatively high proportion of cruise passengers with 16 percent of the English total visiting north west ports. The total level of freight and passenger ships and the relatively well-connected nature of the Irish Sea make the north west marine plan areas particularly vulnerable to invasive non-native species.

1355. The ports at Liverpool and Heysham account for the majority of the shipping traffic that occurs in the north west marine plan areas. A large proportion of the shipping in this area follows well-defined routes to and from the ports, but vessels engaged in other activities, such as fishing and leisure, tend to navigate more freely within the area.

1356. The north west marine plan areas have a high number of offshore structures compared to other marine plan areas due to wind energy generation and oil and gas

installations which could be used as 'stepping stones' for the spread of invasive non-native species. Large areas of the north west marine plan areas are also identified as areas of potential for future oil and gas installation and for wind energy generation. Offshore wind infrastructure can act in the same way and is also present across the plan areas.

1357. The [Futures Analysis for the North West Marine Plan Area](#) suggests that aquaculture production in the north west poses a lower risk compared to other marine plan areas based on the expected level of future activity. Although there is potential for expansion of the oyster production sector, this primarily occurs in the south east and south west marine plan areas due to the more favourable environmental conditions in these areas.
1358. Registered aquaculture businesses in the north west marine plan areas produce Native oyster, Pacific oyster, mussel and Manila clam with the main activity off Morecambe Bay in the area between Fleetwood and Barrow-in-Furness. While aquaculture is present in the plan areas, activity is low compared to other marine plan areas.
1359. While the activities above provide high-risk pathways for the introduction and/or spread of invasive non-native species, they are also important economic activities for the north west and are promoted through this plan. The risk associated with these activities also makes them particularly vulnerable to the impacts caused by invasive non-native species and highlights the importance of responsible management. Invasive species can have adverse impacts on or outcompete commercially valuable species. They can affect fish and shellfish directly through competition, predation or by bringing disease and parasites, or indirectly by affecting food sources or the availability of habitat. They can also smother vessels and equipment associated with intakes and outfalls, marinas, ports, harbours and aquaculture. Control methods, where applied to nuisance species, are fairly ineffective, can be costly, and no non-native marine species has yet been successfully eradicated from British waters.
1360. It is apparent that invasive species also have a damaging impact on the economy. [The Great Britain Invasive Non-Native Species Strategy](#) has stated that invasive non-native species incur an annual cost of £1.7 billion to the British economy.
1361. Invasive species can also cause significant adverse impacts on local biodiversity, making ecosystems less resilient to change. Through lack of natural predators, competition for space, food or other factors, non-native species can impact local food webs, replace or prey on native species in the area, or introduce diseases to a local system, to which native species are not resistant. The north west marine plan areas support a diverse range of internationally significant habitats and species which are potentially vulnerable to the introduction of invasive non-native species. A Natural England Commissioned Report [Investigating the Impacts of Marine Invasive Non-Native Species](#) (NECR223) found that Morecambe Bay Special Area of Conservation and Morecambe Bay Special Protection Area support a number of habitats that are susceptible to the colonisation of invasive non-native species.

1362. The [Convention on Biological Diversity](#) acknowledges invasive non-native species as one of the most significant threats to marine biodiversity, especially in light of climate change and increasing global trade, transport and tourism. This threat is recognised by a wide range of international and domestic legislation.
1363. Due to the difficulties in managing invasive non-native species once they establish, particularly in the marine area, [The Great Britain Invasive Non-Native Species Framework Strategy](#) promotes the importance of prevention, early detection and rapid eradication before the species can become established. The [Convention on Biological Diversity](#) details prevention, detection/surveillance and control/eradication as the three main ways of dealing with invasive species, with prevention given the highest priority. The government's [A Green Future: Our 25 Year Plan to Improve the Environment](#) commits to implementing [The Great Britain Invasive Non-Native Species Strategy](#), highlighting the importance of biosecurity, early pre-emptive action, and the development of action plans for all high-priority pathways of introduction. The [Wildlife and Countryside Act 1981](#) also includes measures to prevent the introduction or spread of non-native species. [The Invasive Alien Species \(Enforcement and Permitting\) Order 2019](#) imposes strict restrictions on a list of species of concern that have been risk-assessed and whose impacts justify concerted action.
1364. The [Marine Strategy Part One: UK updated Assessment and Good Environmental Status](#) lists invasive non-native species (referred to as invasive non-indigenous species) as a descriptor of environmental health. NW-INNS-1 and NW-INNS-2 can support the implementation of the Marine Strategy by ensuring proposals reduce the risk of introduction and spread of invasive non-native species through reducing the risk of pathways and promoting the management of high-risk pathways and vectors.
1365. The [Marine Strategy Part Three: UK programme of measures](#) recognises that marine planning will make a positive contribution towards the achievement of Good Environmental Status and has the potential to contribute to all descriptors, including Descriptor 2 – non-indigenous species. Due to the expected increased risk and impacts caused by invasive non-native species, policies NW-INNS-1 and NW-INNS-2 will contribute towards the prevention of further introduction and spread caused by human activities.

Policy NW-INNS-1

Proposals that reduce the risk of introduction and/or spread of invasive non-native species should be supported.

Proposals must put in place appropriate measures to avoid or minimise significant adverse impacts that would arise through the introduction and transport of invasive non-native species, particularly when:

- 1) moving equipment, boats or livestock (for example fish or shellfish) from one water body to another
- 2) introducing structures suitable for settlement of invasive non-native species, or the spread of invasive non-native species known to exist in the area.

Policy aim

1366. The north west marine plan areas are particularly busy and, as a result, there is a high risk of introducing or spreading invasive non-native species which may damage the marine area and harm populations of native flora and fauna. NW-INNS-1 aims to avoid or minimise damage to the marine area from the introduction or transport of invasive non-native species. Proposals that do not put in place appropriate measures to avoid or minimise significant adverse impacts that would arise through the introduction and transport of invasive non-native species will not be supported. NW-INNS-1 also aims to support those projects that attempt to reduce the risk and/or introduction of invasive non-native species, such as eradication projects.
1367. NW-INNS-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1368. This policy applies throughout the north west marine plan areas. In applying this policy, the term 'adjacent' is taken to mean close by, by the side of, or bordering on the marine plan area.
1369. The distribution of many invasive non-native species is currently limited by water temperature ([Marine Climate Change Impacts Partnership: Science Review Non-native species](#)), but species are spreading and becoming established through a combination of climate change, migration and human introduction.
1370. Aquaculture sites, together with the locations of ports, harbours, marinas and slipways in the north west inshore marine plan area, can be found on the [Explore Marine Plans](#) digital service. Maps showing recreational and commercial vessel activity are also available, along with areas of current and potential offshore wind, oil and gas activities.

Proponents

1371. Proposals that reduce the risk of introduction and/or spread of non-native species should include information demonstrating how this will be achieved.
1372. Proposals that do not put in place appropriate measures to avoid or minimise significant adverse impacts that would arise through the introduction and transport of invasive non-native species will not be supported.
1373. Proposals related to high-risk pathways must demonstrate how they will avoid or minimise significant adverse impacts on the marine areas from the introduction and transport of non-native species, or the spread of invasive non-native species known to exist in the area. Avoiding or minimising the introduction and spread of non-native species should be achieved through improved management of high-risk pathways and the development of action plans.
1374. Proposals must identify non-native species that are at risk of colonising or spreading, as a result of that proposal, and the pathways that cause the greatest risk.
1375. Examples of how to avoid the risk of introduction, transportation and/or spread of invasive non-native species include, but are not limited to:

- cleaning boats and equipment (for example. aquaculture cages, fouled buoys and lines) before transporting them from one water body to another
- maintaining boat hulls clear of fouling organisms, particularly when moving to and from different areas

1376. Examples of how to minimise the risk of introduction, transportation and/or spread of invasive non-native species include, but are not limited to:

- biosecurity action planning, implementation and monitoring during the operational stages of a proposal
- cleaning and drying recreational gear (for example dive and fishing gear) after use minimising the amount of vessel traffic to offshore platforms ([Check, Clean, Dry campaign](#))
- providing freshwater wash-down facilities in new marinas, clubs and training centres with appropriate training facilities

1377. A marine licence is not needed to deposit into the marine area a substance removed from that part of the hull of a vessel which is normally submerged, subject to the condition that the removal of the substance is undertaken by hand, using only a soft cloth, a sponge, the bristles of a soft brush, or sandpaper with grit size of at least P2000 ([Article 27A of the Marine Licensing \(Exempted Activities\) Order 2011](#)). A marine licence is required under Section 66 of the [Marine and Coastal Access Act 2009](#) to deposit any other substance into the marine environment from cleaning vessels or equipment. More heavily fouled vessels should be removed from the water for cleaning.

1378. The [UK Marine Pathways Project](#) and the [Reducing and Preventing Invasive Alien Species Dispersal \(RAPID\) LIFE project](#) have developed guidance and best practice to reduce the risk of introduction and spread of invasive non-native species, and a number of [training tools](#) on biosecurity planning.

1379. Ballast water management is regulated through the International Maritime Organization [International Convention for the Control and Management of Ships' Ballast Water and Sediments](#). The convention provides a framework to address the issues of ballast water and the spread of non-native species.

1380. Proposals are required to comply with relevant legislation and regulations, including the [Aquatic Animal Health \(England and Wales\) Regulations 2009](#), [Marine and Coastal Access Act 2009](#), the [Ballast Water Management Convention](#) and National Policy Statements where they apply.

1381. Proposals considered under NW-BIO-2 which incorporate features that enhance or facilitate natural habitat and species adaptation, migration and connectivity must comply with policy NW-INNS-1.

Decision-makers

1382. Public authorities should support proposals that reduce the risk of introduction and/or spread of non-native species, including those which attempt to remove existing non-native species, within the north west marine plan areas and adjacent plan areas

where they comply with other policies in this plan and other relevant legislation, such as relevant local and regional biosecurity plans.

1383. Public authorities must assess new proposals for measures to avoid or minimise significant adverse impacts on the marine area from the introduction and transport of non-native species, or the spread of invasive non-native species known to exist in the area.
1384. Appropriate statutory bodies should work closely together to ensure the risk of invasive non-native species in the marine environment is avoided and nationally and internationally important species and habitats are protected against adverse impacts.
1385. Monitoring and management of invasive non-native species in the north west marine plan areas poses significant challenges due to the length of the coastline and the different ways in which species are introduced and spread. Public authorities should use the best available up-to-date evidence and apply the precautionary principle as a way of approaching decision-making in the absence of full scientific certainty in line with the Convention on Biological Diversity [Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species that threaten Ecosystems, Habitats or Species](#).
1386. It is important to encourage the monitoring of invasive non-native species. Currently, the lack of evidence and recordings of invasive non-native species makes it difficult to prevent and address the issues. Increased monitoring of invasive species will help develop better and more extensive guidance and legislation in the future.
1387. Non-native species records can be submitted directly to [iRecord](#) or through local schemes and societies. The carpet sea squirt is an alert species and should be reported to the [Carpet sea squirt recording page](#).

Policy NW-INNS-2

Public authorities with functions to manage activities that could potentially introduce, transport or spread invasive non-native species should implement adequate biosecurity measures to avoid or minimise the risk of introducing, transporting or spreading invasive non-native species.

Policy aim

1388. NW-INNS-2 aims to avoid or minimise the introduction and spread of marine invasive non-native species by encouraging public authorities with relevant functions throughout the north west to implement adequate biosecurity measures, increase awareness of invasive non-native species and provide suitable guidance to help reduce their adverse impacts on the marine environment, which could include the eradication of existing invasive species.
1389. NW-INNS-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1390. This policy applies throughout the north west marine plan areas to public authorities that manage activities known to spread and/or introduce invasive non-native species, but which are not managed through formal authorisations or consents.
1391. The distribution of many invasive non-native species is currently limited by water temperature ([Marine Climate Change Impacts Partnership: Science Review Non-native species](#)), but species are spreading and becoming established through a combination of climate change, migration and human introduction.
1392. Aquaculture sites, together with the locations of ports, harbours, marinas and slipways in the north west inshore marine plan area, can be found on the [Explore Marine Plans](#) digital service. Maps showing recreational and commercial vessel activity are also available, along with areas of current and potential offshore wind, oil and gas activities.

Decision-makers

1393. Public authorities with access-management functions, particularly ports, harbours and those responsible for marinas, ports and harbours that are not classified as public authorities, are encouraged to raise awareness of invasive non-native species prevention amongst users. Raised awareness should include the potential for artificial structures to become platforms or 'stepping stones' that can facilitate the settlement or spread of non-native species, and the potential risks from moving equipment between water bodies. Measures could also include the promotion of codes of conduct, such as the [Check, Clean Dry campaign](#) for recreational anglers and boat users and the [Royal Yachting Association Biosecurity Guidance](#), or the development of biosecurity management plans and monitoring. Appropriate information and biosecurity facilities should be in place at key locations for recreational paddlers entering and returning from Europe.
1394. Measures could also include:
- invasive non-native species biosecurity training, compliance with biosecurity measures and recording of invasive non-native species found in all contracts
 - monitoring of invasive non-native species to ensure that information and evidence is up-to-date to best inform biosecurity guidance and decision-making
 - removal or the attempted eradication of existing invasive non-native species
 - the development of biosecurity management plans and monitoring
 - the promotion of codes of conduct such as the [Check, Clean Dry campaign](#) for recreational anglers and boat users
1395. Authorities responsible for shoreline management should also be aware of the risks posed by the placement of hard structures on the coastline and implement adequate biosecurity measures during strategic planning. Biosecurity measures associated with individual coastal protection schemes are addressed by policy NW-INNS-1.
1396. The [UK Marine Pathways Project](#) and the [Reducing and Preventing Invasive Alien Species Dispersal LIFE project](#) have developed guidance and best practice to

reduce the risk of introduction and spread of invasive non-native species, and a number of [training tools](#) on biosecurity planning.

1397. Monitoring and management of invasive non-native species in the north west marine plan areas poses significant challenges due to the length of the coastline and the different ways in which species are introduced and spread. The Convention on Biological Diversity [Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species that threaten Ecosystems, Habitats or Species](#) discusses the precautionary principle as a way of approaching decision-making in the absence of full scientific certainty.
1398. It is important to encourage the monitoring of invasive non-native species. Currently, the lack of evidence and recordings of invasive non-native species makes it difficult to prevent and address the issues. Increased monitoring of invasive species will help develop to better and more extensive guidance and legislation in the future.
1399. Public authorities should apply this policy to functions that are capable of affecting adjacent marine plan areas due to the transboundary nature of invasive non-native species.

5.26 Disturbance

Policy Code	Policy Wording
NW-DIST-1	<p>Proposals that may have significant adverse impacts on highly mobile species through disturbance or displacement must demonstrate that they will, in order of preference:</p> <p>a) avoid b) minimise c) mitigate</p> <p>- adverse impacts so they are no longer significant.</p>

What is disturbance?

1400. **Disturbance** is when human activity causes a physical or behavioural response in an individual or group of individuals, causing the expenditure of extra time or energy to avoid the human activity or output. Disturbance can be temporary, permanent and/or cumulative and can affect the ability of individuals to survive, breed, rear or nurture young, which can affect the local distribution or abundance of the species. Disturbance can affect the viability of a population or habitat, and continued disturbance can result in a loss of habitat or a reduction in population resilience.
1401. This policy applies to visual and physical disturbance. Visual disturbance occurs when highly mobile species respond to visual stimuli including, but not limited to, the presence of vessels, vessel collision, vehicles, people, dogs or light pollution from onshore or offshore structures. Physical disturbance occurs when highly mobile species respond to non-visual stimuli such as electromagnetic fields or noise. These types of disturbance can cause displacement of highly mobile species. Policy NW-DIST-1 applies to disturbance resulting from above-water noise; disturbance resulting from underwater noise is discussed in detail in NW-UWN-1 and NW-UWN-2.
1402. **Displacement** is when there is a reduction in the number of a species occurring within or immediately adjacent to an area in which an anthropogenic activity is occurring or has occurred. Displacement and avoidance are types of behavioural response. Highly mobile species can be displaced such that they cannot access habitats essential to their success, such as foraging areas or breeding grounds.
1403. **Highly mobile species** are those that range over large distances and include fish, sharks, birds, marine mammals and turtles. Individuals are often part of more widespread international populations, and may only be present in the north west marine plan areas on a seasonal basis, or for part of their life cycle.
1404. Highly mobile species occurring in the north west marine plan areas include fish, sharks, birds, marine mammals and turtles. The [Natural Environment and Rural Communities Act 2006](#) Section 41 requires the Secretary of State to publish a list of habitats and species of principal importance for the conservation of biodiversity in England. The [Section 41](#) list and [Features of Conservation Importance](#) should be used to prioritise species when applying this policy. This policy does not apply to invasive non-native species.

Why is disturbance important?

1405. [The Conservation of Habitats and Species Regulations 2017](#)¹⁴⁹ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁵⁰ prohibit the deliberate disturbance of birds, turtles and cetaceans, particularly during periods of breeding, rearing, hibernation and migration. Birds, their nests and eggs are protected against disturbance through the [Wildlife and Countryside Act 1981](#), along with cetaceans, turtles, seals and some fish species. The Marine Management Organisation has produced [Marine species: protection](#) guidance, which details the protections offered to marine species through existing legislation, including legislation providing protection from disturbance.
1406. The government has made a long-term commitment to leave the environment in a measurably better state, as set out in [A Green Future: Our 25 Year Plan to Improve the Environment](#). This aim is reinforced in the marine area by the government's commitment to achieving Good Environmental Status in UK seas through provisions in [The Marine Strategy Regulations 2010](#)¹⁵¹, including the development of a marine strategy. The [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) includes 11 qualitative descriptors to assess progress towards Good Environmental Status. NW-DIST-1 supports the delivery of the objectives associated with two descriptors directly:
- D1 Biological diversity (cetaceans, seals, birds, fish, pelagic and benthic habitats)
 - D4 Food webs (cetaceans, seals, birds, fish and pelagic habitats)
1407. Highly mobile species are resident or regular visitors to waters of the north west marine plan areas. Many highly mobile species are charismatic and bring value for tourism and recreation through wildlife watching and employment at reserves or businesses, while appropriate recreation and tourism may bring opportunities for the protection of species through increased public awareness and additional funding.
1408. The north west marine plan areas are seasonally home to breeding, migrating and over-wintering seabirds, waders and waterfowl. [Grey seals](#) occur in the marine and coastal areas of the north west marine plan areas. There are several haul-out sites, including the Dee estuary, Solway Firth and Walney Island, which is home to a breeding population of grey seals. Basking sharks are a seasonal visitor to the north west marine plan areas as neighbouring Isle of Man is a global hotspot for the species. Low densities of basking shark occur in the north west marine plan areas from May to August. [Leatherback turtles](#) are the only turtle species which occur in colder waters such as in the UK; they are most likely to be sighted in the summer months in the north west marine plan areas, albeit at low numbers. [Atlantic salmon](#) migrate through the north west marine plan areas as they move to and from their

¹⁴⁹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹⁵⁰ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹⁵¹ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

river habitats as adults and juveniles, respectively. Similarly, adult [sea lamprey](#) and [river lamprey](#) occur in the north west marine plan areas but little is known about their at-sea distribution. The north west marine plan areas are also home to breeding, migrating and over-wintering waterbirds and seabirds as well as fish spawning and nursery grounds. Seabirds moult annually at sea, during which time they are flightless and movement is restricted.

1409. Highly mobile species use a variety of habitats within the north west marine plan areas for critical behaviours or life stages, for example, feeding grounds, nursery grounds, nesting grounds or spawning grounds. Highly mobile species can experience disturbance from both visual and non-visual stimuli and can exhibit multiple behavioural responses to avoid the disturbance pressure that ultimately results in the expenditure of extra energy. This expenditure of extra energy can affect the ability of individuals to survive, breed, rear or nurture young, which can affect the local distribution or abundance of the species. Behavioural responses to disturbance can include, but are not limited to, a cessation in feeding/foraging, alteration of communication behaviour and temporary, or even permanent, abandonment of the site. Physical responses to disturbance could include, but are not limited to, loss of weight, deterioration of condition, or a decrease in reproductive success. Disturbance can affect the viability of a population or habitat, and continued disturbance can result in a loss of habitat or a reduction in population resilience.
1410. The Joint Nature Conservation Committee has developed a Pressures Activities Database to provide an evidence base for relationships between human marine activities and associated pressures on wildlife, including pressures of disturbance. There is also guidance available to help reduce disturbance impacts on marine species, including the Joint Nature Conservation Committee's [guidance on protection of European marine protected species from injury and disturbance](#) and the Marine Management Organisation's evidence report on [displacement and habituation of seabirds in response to marine activities](#), which may assist with the application of this policy.
1411. Tourism and recreation are important to the economy in the north west marine plan areas and are highlighted here because both tourism and recreational activities can exert significant disturbance, as noted in the [UK Marine Policy Statement](#). Tourism and recreational activities are often not subject to the same statutory regulation compared to other types of proposals, as many activities can take place without having to apply for an authorisation or consent. Disturbance induced from tourism and recreation activities is rarely deliberate in the UK, and other mechanisms are required to manage these impacts.
1412. To manage impacts from disturbance caused by tourism and recreation activities within the north west marine plan areas, various management measures can be put into effect at the local level. Such management measures could include local byelaws, local mitigation strategies or voluntary codes of conduct. There are several national codes of conduct that can be implemented at a local level, including, the Green Blue initiative's [The Green Wildlife Guide for Boaters](#), which provides guidance on how best to avoid disturbing wildlife while boating, and British

Canoeing's [You, Your Canoe and the Marine Environment](#) which provides guidance for paddlers in the marine environment. The Shark Trust has a [basking shark code of conduct](#) designed to reduce disturbance to basking sharks from boat users, kayakers, swimmers, divers and surfers.

1413. Marine development, including coastal development and offshore industry, is important to the north west economy and promotes investment in the region. Offshore energy, renewable and gas, is an important activity in the north west marine plan areas. Such developments have the potential to disturb highly mobile species if not managed appropriately: for example, from disturbance caused during construction works or from the physical presence of vessels and lighting. The OSPAR Commission has produced guidelines to reduce the impact of offshore installation lighting on birds in the OSPAR maritime area ([OSPAR Agreement 2015-08](#)).

Policy NW-DIST-1

Proposals that may have significant adverse impacts on highly mobile species through disturbance or displacement must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts so they are no longer significant.

Policy aim

1414. Disturbance and displacement from activities, including those that do not require authorisation such as tourism and recreation, can cause declines in some highly mobile species. NW-DIST-1 reduces the effects of disturbance and displacement by requiring proposals to manage impacts, highlighting good practice and encouraging strategic management of unauthorised activities. NW-DIST-1 enables people to appreciate marine biodiversity and act responsibly to protect and recover populations of rare, vulnerable and valued species. Proposals that cannot avoid, minimise and mitigate significant adverse impacts will not be supported.

1415. Policy NW-DIST-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

Proponents

1416. This policy applies to any organisation or individual putting forward a proposal, including, but not restricted to, those applying for an authorisation. A proposal can be for a new activity or a change to an existing activity that is subject to management by public authorities.
1417. Proposals must first demonstrate how they will avoid significant adverse impacts on highly mobile species caused by disturbance or displacement. Where significant adverse impacts cannot be avoided, proposals must demonstrate how they will minimise significant impacts so they are no longer significant. Where significant

adverse impacts cannot be minimised, proposals must demonstrate how they will adequately mitigate significant adverse impacts so they are no longer significant. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate adverse impacts. Proposals must demonstrate how they have satisfied a) before moving to b), and so on.

1418. Proposals should include supporting information that is proportionate to the proposal. Actions that can be carried out to avoid, minimise or mitigate significant adverse impacts on highly mobile species will be specific to the disturbance under consideration. Proposals that cannot avoid, minimise and mitigate significant adverse impacts will not be supported.
1419. Avoidance of significant adverse impacts could be temporal or spatial. The activity could take place in a different area or at a different time to avoid significant adverse impacts on highly mobile species, for example, when the species is not present in the area because of migration.
1420. Minimisation of significant adverse impacts may involve a change to the source of the impact. Minimisation can also be temporal or spatial, for example, reducing the area of impact within a migration corridor, thereby reducing the extent of highly mobile species that will be significantly adversely impacted by the activity. Temporal minimisation could be if activities take place when highly mobile species are present but less sensitive to disturbance, for example, outside of breeding seasons.
1421. Mitigation of significant adverse impacts could include, for example, a change in technology adopted to reduce the severity of the impact, such as the use of bubble or silt curtains during pile driving activities.
1422. For marine protected areas, the assessment of adverse impacts must take account of the conservation objectives set out by the statutory nature conservation bodies and comply with the statutory assessments for marine conservation zones under the [Marine and Coastal Access Act 2009](#), sites of special scientific interest under the [Wildlife and Countryside Act 1981](#), and special protection areas, special areas of conservation and Ramsar sites under [The Conservation of Habitats and Species Regulations 2017](#)¹⁵² and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁵³. Where proposals have been determined to have a likely significant effect on a special protection area, special area of conservation or Ramsar site through a Habitats Regulations Assessment, an Appropriate Assessment will be required.
1423. Where proposals have adverse impacts on a marine protected area, policies NW-MPA-1, NW-MPA-2, NW-MPA-3 and NW-MPA-4 apply. Such proposals must first demonstrate that they have avoided adverse impacts. Avoidance is the preferred measure due to the difficulty of mitigating impacts in the marine environment. Advice should be sought from the statutory nature conservation bodies on the suitability of

¹⁵² As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹⁵³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

mitigation measures. Where such proposals cannot avoid, minimise and mitigate adverse impacts, compensation may not be appropriate and the provisions for derogations that are present in primary legislation and regulations must be applied.

1424. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations to be taken into account by the decision-maker, which may include, for example, other plans.
1425. Proponents should refer to Figure 30 and Figure 31 which show areas of seabird density and grey and harbour seal distribution respectively to inform their proposals. Figures are accurate at the time of plan publication. Please see [Explore Marine Plans](#) for the most recent figures.

Decision-makers

1426. Decision-makers will assess if the proposal will significantly adversely impact highly mobile species through disturbance or displacement on a case-by-case basis. Decision-makers should apply this policy proportionately in respect of proposals that will interact with highly mobile species. Determination may be informed by a relevant assessment.
1427. Decision-makers will need to apply the best available evidence and the precautionary principle when considering the potential significant adverse impacts on highly mobile species.
1428. Decision-makers will manage activities that require authorisation, such as energy development or aggregates dredging, through existing assessments that are required under national legislation including, but not limited to, [Habitats Regulations Assessments](#), [Marine Conservation Zone Assessment](#) (as required by the [Marine and Coastal Access Act 2009](#) Section 126) and [Environmental Impact Assessments](#). These will identify conditions that need to be placed on a licence or permit.
1429. Figure 30 and Figure 31 show areas of seabird density and grey and harbour seal distribution, respectively, to assist with the application of this policy. Figures are accurate at time of plan publication. Please see [Explore Marine Plans](#) for the most recent figures.

5.27 Underwater noise

Policy Code	Policy Wording
NW-UWN-1	Proposals that result in the generation of impulsive sound must contribute data to the UK Marine Noise Registry as per any currently agreed requirements. Public authorities must take account of any currently agreed targets under the Marine Strategy Part One Descriptor 11.
NW-UWN-2	Proposals that result in the generation of impulsive or non-impulsive noise must demonstrate that they will, in order of preference: <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <ul style="list-style-type: none"> - adverse impacts on highly mobile species so they are no longer significant. If it is not possible to mitigate significant adverse impacts, proposals must state the case for proceeding.

What is underwater noise?

1430. All marine activities introduce sound into the marine environment to a greater or lesser extent. Noise generally refers to anthropogenic sound. Underwater noise occurs either as non-impulsive noise (including ambient noise, shipping propulsion and operational vibrational noise) or as discrete impulsive sounds (including detonation of explosives, seismic surveys, geophysical surveys, construction piling and acoustic deterrent devices).
1431. There are natural sources of sound in the marine environment, such as communication between marine fauna, wave action and lightning, but growing human use has increased background non-impulsive noise levels over the last 50 years. While impulsive sound has also increased, less is known about its temporal and spatial distribution and the magnitude of trends.
1432. Noise is often used to describe unwanted anthropogenic sound, however, for the purposes of this plan, sound and noise are deemed to have the same meaning and are, therefore, used interchangeably.

Why is underwater noise important?

1433. Impulsive sound is a consideration in the north west marine plan areas as there are oil and gas licensed blocks throughout both the inshore and offshore north west marine plan areas; this means that there is an increased likelihood of seismic surveys being undertaken to explore the geology of the seabed. The north west offshore marine plan area also features large military exercise and practice areas run by the Ministry of Defence which have the potential to cause underwater noise through, for example, the detonation of explosives. Offshore wind resource areas are distributed throughout the north west inshore and offshore marine plan areas indicating the potential for further development in the future. Offshore energy projects often involve geophysical surveys, piling and the detonation of unexploded

ordnance, which emit impulsive noise. There is also the potential for future port and harbour development along the north west coast within the north west inshore marine plan area with, associated construction noise.

1434. The north west marine plan areas have significant shipping traffic activity, including ferry routes across the Irish Sea and fishing activity as well as some recreational activity, and all of this contributes to non-impulsive noise generation.
1435. Underwater noise resulting from activities and developments can have adverse impacts on marine life and is a growing concern. Chronic noise disturbance has the potential to result in long-term negative impacts, particularly for highly mobile species including fish, birds, marine mammals and turtles¹⁵⁴. Noise impacts may include masking communication, disruption of navigational ability, impaired hunting ability and disorientation. At higher levels, noise may change behaviour, resulting in avoidance of areas including important feeding and breeding areas, or the species presenting chronic stress. Impulsive sounds may also cause temporary or permanent hearing damage to individuals and, at high intensities, can result in death. The [UK Marine Policy Statement](#) Section 2.6.3 states that “Marine noise has the potential to mask biologically relevant signals; it can lead to a variety of behavioural reactions, affect hearing organs and injure or even kill marine life”.
1436. In UK law, [The Marine Strategy Regulations 2010](#)¹⁵⁵ set out the requirements for Good Environmental Status in UK waters. The management of underwater noise is a key component of this. The government has published a marine strategy that sets out how this will achieve or maintain Good Environmental Status in UK waters. [The Marine Strategy Part Three: UK programme of measures](#) recognises that marine planning will make a positive contribution to the achievement of Good Environmental Status, including the management of underwater noise. Regulations, such as those mentioned above, which begin to address underwater noise in this way, reflect a growing concern over the increase of noise generated by human activity in the marine environment. Considerable uncertainty exists around the spatial and temporal elements of noise, as well as its magnitude and resulting impacts.
1437. The noise registry aims to monitor man-made impulsive noise to quantify the pressure on the environment by making available an overview of relevant impulsive sound sources throughout the year. This, in turn, will aid in the definition of a baseline level for impulsive noise in UK waters and ensure pressures are managed effectively.
1438. Management of noise and its sources can also bring additional benefits, for example making the human working environment less dangerous and improving the efficiency, integrity and life of vessels and structures¹⁵⁶.

¹⁵⁴ As set out in the [Marine Strategy Part Three: UK programme of measures](#)

¹⁵⁵ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

¹⁵⁶ As set out in the [Marine Strategy Part Three: UK programme of measures](#)

Policy NW-UWN-1 Underwater Noise

Proposals that result in the generation of impulsive sound must contribute data to the UK Marine Noise Registry as per any currently agreed requirements. Public authorities must take account of any currently agreed targets under the Marine Strategy Part One Descriptor 11.

Policy aim

1439. Impulsive sounds can have an adverse effect on marine life and human enjoyment of marine areas. NW-UWN-1 supports the established noise registry to determine baselines, levels of impulsive sound and management options through the recording and assessment of the distribution and timing of impulsive sound sources in the marine environment. This will enable effective marine management and protection of biodiversity or viable populations of species.
1440. Policy NW-UWN-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1441. Implementation of NW-UWN-1 will ensure that proposals that result in the generation of impulsive sound contribute data to the Marine Noise Registry.
1442. The [Marine Strategy Part Three: UK programme of measures](#) outlines the measures that contribute to the achievement and maintenance of Good Environmental Status in UK seas by 2020. It sets a target “to establish a noise registry” to “record, assess, and manage the distribution and timing of anthropogenic sound sources”. The contribution of data to the [Marine Noise Registry](#) on impulsive noise will help determine current baseline levels of impulsive noise, including providing the spatial and temporal distribution of impulsive noise-generating activities.

Proponents

1443. Proposals must provide information to the [Marine Noise Registry](#) on the projected noise generated from the proposed activity prior to it taking place. Proposals must define expected noise types, levels and dates, considering all stages of the development; the [Marine Noise Registry](#) provides guidance and signposting at each stage of data input. Following the completion of the activity, data for the actual noise generated may be contributed in line with the requirements of the consenting regime under which the proposals are approved, or on a voluntary basis where no consenting process is currently in place. Regulatory bodies will detail specific requirements during the consenting process. For example, it is a condition of the consent issued by the Department for Business, Energy and Industrial Strategy for any geological survey undertaken by the oil, gas and carbon capture and storage sectors that, following completion of the survey, survey logs and a close-out report must be submitted, and this data informs the Noise Registry.

Decision-makers

1444. Decision-makers must take account of any currently agreed targets under the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#)

Descriptor 11, and ensure any proposals being approved are in line with these targets before providing any authorisation.

Policy NW-UWN-2 Underwater Noise

Proposals that result in the generation of impulsive or non-impulsive noise must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse impacts on highly mobile species so they are no longer significant.

If it is not possible to mitigate significant adverse impacts, proposals must state the case for proceeding.

Policy aim

1445. Underwater noise levels have increased with marine space use. Noise can affect highly mobile species, including causing chronic stress and death at higher intensities. NW-UWN-2 supports management of underwater noise, requiring proposals to take appropriate noise reduction actions. NW-UWN-2 enables clear and proportionate regulation to make sure marine activity respects environmental limits and protects biodiversity.
1446. Policy NW-UWN-2 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1447. Implementation of NW-UWN-2 will help to ensure that the collective pressures created by underwater noise are considered in line with the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and [The Marine Strategy Regulations 2010](#)¹⁵⁷.

Proponents

1448. Proposals must demonstrate that they will, in order of preference, avoid, minimise or mitigate significant adverse impacts of underwater noise on highly mobile species. Proposals cannot proceed to (b) unless they have first demonstrated why they cannot meet (a), and so on throughout the hierarchy.
1449. Where it is not possible to mitigate, proposals must state the case for proceeding, including how the proposal supports the north west marine plan vision, objectives and other plan policies. Inclusion of this information does not indicate that approval of the proposal will follow by default. Approval will also depend on other material considerations to be taken into account by the decision-maker, which may include, for example, other plans.
1450. For impulsive noise, measures could include:

¹⁵⁷ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

- avoid – eliminating noise at source through use of different methods, and not generating impulsive noise during sensitive periods (such as breeding, rearing, hibernation, migration)
- minimise – controlling noise at source, for example using alternative quieter approaches, such as drilling foundations instead of piling and soft start piling, allowing sensitive species to avoid the area, or attenuation measures, for example bubble curtains or pile collars
- mitigate – using marine mammal observers or passive acoustic monitoring to ensure that no sensitive species are nearby prior to the start of noise generation

1451. For non-impulsive noise, these measures could include:

- avoid – eliminate some vessel traffic through consolidation of services or routes
- minimise – design specifications to reduce operational vibration (for example, in vessels or infrastructure) or impose speed restrictions in sites of sensitivity that reduce noise generated
- mitigate – use attenuation measures, for example acoustic baffles

1452. Proposals should use the best available evidence and, where knowledge gaps exist, use expert judgement and create internal guidance for noise management.

1453. Where protected species and sites are involved, the case for proceeding must be based on the requirements set out in relevant legislation and regulations. For example, when the interest features of special protection areas, special areas of conservation and Ramsar sites are involved, and an adverse effect on the integrity of the special protection areas, special areas of conservation and Ramsar sites, despite mitigation measures, cannot be ruled out, then the case for proceeding must be based on a) imperative reasons of overriding public interest (IROPI) and b) no alternative solution to delivering the objectives of the project is available.

Decision-makers

1454. In determining the proposal, decision-makers will take account of a range of relevant considerations, including compliance with legislation and regulations, and potential impacts highlighted in project-level assessments. Decision-makers should be aware that, in some cases, noise is used as a mitigation measure for other pressures, for example, the use of acoustic deterrents in some fisheries to reduce bycatch.

1455. Responsibility for the regulation of noise resides with the licensing authority. For example, the Department for Business, Energy and Industrial Strategy regulates noise associated with oil and gas activities and carbon capture and storage. The Marine Management Organisation regulates noise for marine licences and deemed marine licences, including renewable energy.

1456. Decision-makers should use the best available evidence and, where knowledge gaps exist, expert judgement.

1457. Considerations for future proposals should be determined on a case-by-case basis by reference to the most robust evidence.
1458. Proposals should first demonstrate how they will avoid significant adverse impacts on highly mobile species. Where significant adverse impacts cannot be avoided, proposals should demonstrate how they will minimise significant impacts so they are no longer significant. Where significant adverse impacts cannot be minimised, proposals should demonstrate how they will mitigate significant adverse impacts so they are no longer significant. Where significant adverse impacts cannot be mitigated, proposals should state the case for proceeding, explaining why the benefits of the proposal outweigh the significant adverse impacts caused. Proposals will likely apply a mixture of measures to avoid, minimise and mitigate significant adverse impacts. Proposals should demonstrate how they have satisfied a) before moving to b), and so on.
1459. For impulsive noise, measures could include:
- avoid – eliminating noise at source through use of different methods, and not generating impulsive noise during sensitive periods (such as breeding, rearing, hibernation, migration)
 - minimise – controlling noise at source, for example using alternative quieter approaches, such as drilling foundations instead of piling and soft start piling, allowing sensitive species to avoid the area, or attenuation measures, for example bubble curtains or pile collars
 - mitigate – using marine mammal observers or passive acoustic monitoring to ensure that no sensitive species are nearby prior to the start of noise generation
1460. For non-impulsive noise, these measures could include:
- avoid – eliminate some vessel traffic through consolidation of services or routes
 - minimise – design specifications to reduce operational vibration (for example, in vessels or infrastructure) or impose speed restrictions in sites of sensitivity that reduce noise generated
 - mitigate – use attenuation measures, for example acoustic baffles
1461. Where a proposal states it is not possible to avoid, minimise or mitigate significant adverse impacts, decision-makers should consider any case for proceeding without such measures as the proposal may have provided. The case for proceeding may include, but is not limited to:
- the benefits of the proposal and how they outweigh the significant adverse impacts caused
 - evidence that all other possible avoidance, minimisation and mitigation has been considered
 - how the proposal supports the north west marine plan vision, objectives and other plan policies

Promoting good governance

5.28 Cumulative effects

Policy Code	Policy Wording
NW-CE-1	<p>Proposals which may have adverse cumulative effects with other existing, authorised, or reasonably foreseeable proposals must demonstrate that they will, in order of preference:</p> <ul style="list-style-type: none"> a) avoid b) minimise c) mitigate <p>- adverse cumulative and/or in-combination effects so they are no longer significant.</p>

What are cumulative effects?

1462. **Cumulative effects** are the combined, similar effects that result from incremental changes caused by other past, present or reasonably foreseeable actions, together with the current proposal. Cumulative effects may extend beyond the geographical site boundaries of proposals. Cumulative effects are made up of additive effects (the magnitude of the combined effects equals the sum of the individual effects) and synergistic effects (combined effects lead to an increased effect, greater than the individual effects). For example, installing another wind farm in an area where there are already multiple wind farms could cause significant disturbance to bird migrations or possibly other marine species.
1463. Cumulative effects can impact environmental and social receptors. For example, one development may not devalue the intrinsic natural beauty of a designated area, such as an Area of Outstanding Natural Beauty; however, several developments may significantly impact the visual aspect of the area. Similarly, cumulative and/or in-combination effects can also be seen to impact other features, such as heritage assets, or create risk in terms of coastal protection and/or sea defences. Small individual disturbances could link up over time to form more major disturbances.
1464. Cumulative effects can arise from a wide range of activities and result in increases in underwater noise, pollution and marine litter, and disturbance or damage to the seabed. Cumulative effects can occur both spatially and temporally. The effect of such pressures and whether or not they have an impact will depend on the sensitivity of the local area that is affected.
1465. **In-combination effects** refer to the differing, additive or synergistic effects from multiple projects or activities on a single receptor (environmental or social). In-combination assessment ensures holistic protection by preventing many different projects or activities causing minor adverse impacts alone, while having a significant overall adverse impact on a receptor. Environmental legislation, such as [The Conservation of Habitats and Species Regulations 2017](#)¹⁵⁸ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁵⁹, refers to 'in-combination

¹⁵⁸ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹⁵⁹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

effects', which is commonly understood to mean the same environmental receptor being impacted in different ways from one or more schemes. For example, an infrastructure project and a dredging scheme may occur on or around a biogenic reef. The infrastructure project may remove parts of the reef, while the dredge projects may increase suspended sediments, which have the potential to smother the reef. Individually, these activities may not significantly impact the feature, however, together they could cause a significant adverse impact on the overall condition of the reef.

1466. The terms 'cumulative' and 'in-combination' can be considered interchangeable (ie they describe the overall impact on single or multiple receptors from single or multiple pressures). 'In-combination' could be considered a type of 'cumulative'. The term 'in-combination effects' is particularly used in the context of Habitats Regulations Assessments.
1467. Effect is distinct from impact. An impact occurs only when a pressure is present and acts on a receptor that is sensitive to that pressure. A cumulative impact refers to the combined impact of such pressures over time in the marine and coastal area. An effect is a change caused by a pressure without any consideration of the impact.

Why are cumulative effects important?

1468. The north west is important for energy production, via discrete gas reserves, nuclear power and, more recently, through renewable energy production, and there are extensive MOD firing areas. The substantial amount of marine activity means that this area is particularly at risk of cumulative and in-combination effects.
1469. The north west marine plan areas contain and are adjacent to many sites of significant social and environmental importance. Sites such as, but not limited to, Morecambe Bay, Lake District, the calcareous dunes at Sandscale and Haverigg Haws, Liverpool, Blackpool, areas of shoreline management plans, coastal change management areas and heritage assets can all be negatively impacted as a result of adverse cumulative effects.
1470. Coastal and marine habitats of the north west marine plan areas consist of intertidal sand and mudflats, such as those in Duddon Estuary. This protected area supports invertebrate populations and is very important for the large numbers of over-wintering wildfowl and waders on the site. Furthermore, the subtidal sand and mud ecosystems of West of Walney Marine Conservation Zone contains threatened sea-pens and burrowing megafauna communities. It is important to protect areas such as these from adverse cumulative and in-combination effects, particularly in areas of high activity and development where cumulative effects are amplified. In accordance with the [UK Marine Policy Statement](#) and [A Green Future: Our 25 Year Plan to Improve the Environment](#), it is vital that biodiversity is maintained to ensure that resources are sustained in a productive state for use in future as well as achieving protection of nature for its intrinsic value.
1471. Singular activities analysed in isolation may have little to no impact on marine areas. However, the cumulative pressure of multiple activities within or adjacent to marine areas can threaten the maintenance and restoration of favourable conservation

status. This policy intends to ensure that cumulative effects are considered in the proposal and decision-making process. Even small-scale proposals could induce a tipping point where cumulative effects become critically detrimental.

1472. Specific activities and sectors can be subject to cumulative effects. The accumulation of proposals in certain locations can disrupt fishery activity. For instance, the combination of the presence of structures at sea or on the sea floor, closed areas resulting from other uses, and loss of access through transit restrictions, may accumulate and reduce or prevent access for fisheries. The [National Policy Statements for Energy Infrastructure](#) notes that, depending upon the location and the extent of clustering, new energy and other infrastructure developments may have cumulative negative effects on water quality, water resources, flood risk, coastal change and health. Consequently, consideration of the co-location of activities is important when attempting to reduce cumulative effects.
1473. Cumulative effects in the marine area are less likely to be reduced by physical barriers in the same way as they would be in the terrestrial environment. Therefore, it is important for any marine proposal to proactively avoid, minimise or mitigate significant adverse cumulative effects to prevent wide-ranging negative impacts to the environment both within and adjacent to the north west marine plan areas.
1474. As the north west offshore marine plan areas share borders with the [Welsh National Marine Plan](#), [Scotland's National Marine Plan](#) and the Isle of Man marine area, it is even more important to consider cumulative effects at boundary limits and encourage cross-border planning. It is also important to consider the impact of the terrestrial environment and terrestrial plans as cumulative effects can cross the boundaries between sea and land.
1475. As set out in the [UK Marine Policy Statement](#) Sections 2.3.1.6 and 2.3.2.1, marine plans should contribute to considering cumulative impacts, for example, "Marine plans should ... identify how the potential impacts of activities will be managed, including cumulative effects" and "when considering the potential benefits and adverse effects, decision-makers should also take into account any multiple and cumulative impacts of proposals, in the light of other projects and activities".
1476. Cumulative effects are well noted as needing to be addressed in UK legislation. [The Marine Works \(Environmental Impact Assessment\) Regulations 2007](#), [The Environmental Assessment of Plans and Programmes Regulations 2004](#) and [The Offshore Petroleum Production and Pipelines \(Assessment of Environmental Effects\) Regulations 1999](#) list cumulation with other existing or approved projects as relevant matters for consideration to determine whether a project is likely to have significant effects on the environment. [The Marine Strategy Regulations 2010](#)¹⁶⁰ require the UK to take account of cumulative effects when conducting their assessments of the environmental status of marine waters, and the [National Planning Policy Framework](#) consistently covers the need to take into account cumulative effects.

¹⁶⁰ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

1477. In 2012, the [Marine Strategy Part One: UK initial assessment and good environmental status](#) noted that improving the evaluation of the cumulative effects of human activities on marine ecosystems was an important priority to ensure that the best possible evidence supports management decisions.

Policy NW-CE-1

Proposals which may have adverse cumulative effects with other existing, authorised, or reasonably foreseeable proposals must demonstrate that they will, in order of preference:

- a) avoid
- b) minimise
- c) mitigate
 - adverse cumulative and/or in-combination effects so they are no longer significant.

Policy aim

1478. While cumulative effects are considered in relevant assessments and decision-making, the increasing use of the marine area reinforces the need to consider and address cumulative effects, of both terrestrial and maritime projects, in line with the aims set out in the [UK Marine Policy Statement](#). In conjunction with and in support of other relevant north west plan policies, this policy is intended to ensure relevant effects, including those that may seem less significant in their own right, are taken account of and addressed. In doing so, the policy will help to ensure that the cumulative effect on the wider environment of the north west marine area and other relevant receptors are effectively managed.

1479. Policy NW-CE-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1480. Cumulative and in-combination effects can occur anywhere throughout the north west marine plan areas but may be more pronounced in areas of high marine activity. The [Explore Marine Plans](#) digital service should be consulted to identify local habitats and species in areas that could be at risk from cumulative effects.

Proponents

1481. Proposals must demonstrate that they have considered the cumulative and in-combination effects they may have on the north west marine plan areas. Proposals that may have adverse cumulative or in-combination impacts in the north west marine plan areas must ensure that these impacts are not significant. Where adverse cumulative or in-combination effects are significant, proposals must demonstrate that they will, in order of preference, avoid, minimise or mitigate these cumulative or in-combination effects so that they are no longer significant. Proposals cannot proceed to (b - minimise) unless they have first demonstrated why they cannot meet (a - avoid). Proposals cannot proceed to (c - mitigate) unless they have first demonstrated why they cannot meet (b). For example:

- avoid – finding alternative locations

- minimise – minimising the size of structures or the amount of time work is undertaken to make sure natural processes can continue
- mitigate – innovative engineering design, sediment bypassing to avoid sediment loss or reductions to the overall size and scope of a project

1482. Where it is not possible to avoid, minimise or mitigate adverse cumulative effects so that they are no longer significant, the proposal will not be supported. Proposals should consider the cumulative and in-combination effects with proposals from outside and inside the north west marine plan areas.

1483. Proposals must consider the cumulative and in-combination effects of past, present and reasonably foreseeable projects (proposals where the appropriate decision has been made, eg a lease or licence granted, but the proposal has yet to be put into practice, eg a development that has yet to be built) and implement measures to restrict and/or prevent the accumulation or intensification of significant adverse impacts (social or environmental). Information to help inform these considerations can be found on the [Explore Marine Plans](#) digital service and the Marine Management Organisation's marine licence [Public Register](#). Information on activities occurring within the [Welsh National Marine Plan](#) can be found at Natural Resources Wales' [Marine Licensing Decisions](#), [Marine Licence Applications received and determined](#) and [Current consultations, Marine Licence applications](#). Information on activities within [Scotland's National Marine Plan](#) can be found at the [Scottish Government Licensing Information](#) page.

1484. Proponents must provide an adequate assessment of their effects; they must clearly illustrate the negative and/or positive cumulative and in-combination effects that the project will have.

1485. Proposals must consider the natural pressures on the marine environment and social receptors such as, but not limited to, areas of shoreline management plans, coastal change management areas, heritage assets and sea defences where possible, in addition to the proposed activity and any current and forecasted future use of the area. Consideration needs to be given to the short and long-term cumulative and/or in-combination effects of these activities.

1486. When considering environmental cumulative and in-combination effects, proposals should consider other projects or activities likely to negatively affect habitats and species. Proposals should provide consideration of their impact in combination with other projects on all habitats and species, whether they are designated or not. It is important to note that where evidence is not available, there may still be habitats and species that are sensitive or of conservation concern. In this case, proposals may require additional, more specific evidence.

1487. Proposals should consider how cumulative effects, as a result of the proposed project, will impact areas within the [Welsh National Marine Plan](#), [Scotland's National Marine Plan](#), the future [Northern Irish Marine Plan](#), Isle of Man marine area, as well as local terrestrial plans.

1488. Proposals should identify and provide information on how cumulative and in-combination effects, as a result of the proposed project, will impact on neighbouring

plan areas. As proposals provide information on cumulative and in-combination effects, issues may be mapped on the [Explore Marine Plans](#) digital service, providing baseline data on cumulative effects that can be considered in future proposals. In addition, an evidence base can then be developed to record and track shifting baselines of cumulative effects.

1489. When taken as a whole, the policies set out in the North West Marine Plan will contribute to the consideration of cumulative effects, including this specific policy requiring cumulative effects to be addressed, but also other policies, such as those to manage the use of space effectively and reduce adverse impacts in the north west marine plan areas.

Decision-makers

1490. Public authorities should work together with relevant statutory nature conservation bodies to review guidance on cumulative effects and ensure that current and future guidance is accessible. Cross-boundary co-operation is encouraged between decision-makers to ensure that decisions around cumulative and in-combination effects are informed by the best available evidence.
1491. The study published by Natural England, [Development of a generic framework for informing Cumulative Impact Assessments \(CIA\) related to Marine Protected Areas through evaluation of best practice](#), provides guidance on how cumulative impacts should be assessed within and beyond the marine environment.
1492. Decision-makers should fully assess current and reasonably foreseeable use of the marine plan areas and consider the short and long-term cumulative and/or in-combination effects of these activities on the marine area. Information to help inform these decisions can be found on the [Explore Marine Plans](#) digital service and the Marine Management Organisation's marine licence [Public Register](#).
1493. In examining and determining applications for Nationally Significant Infrastructure Projects, examining authorities must have regard to this policy.

5.29 Cross-border co-operation

Policy Code	Policy Wording
NW-CBC-1	<p>Proposals must consider cross-border impacts throughout the lifetime of the proposed activity.</p> <p>Proposals that impact upon one or more marine plan areas or terrestrial environments must show evidence of the relevant public authorities (including other countries) being consulted and responses considered.</p>

What is cross-border co-operation?

1494. Cross-border matters are those which involve a significant interaction between what occurs in the north west marine plan areas and the bordering marine plan areas or terrestrial environment. These matters may be physical, environmental, social and/or economic.
1495. **Cross-border impacts** originate from a source that has the ability to extend and affect a sector, activity or use across terrestrial and/or marine borders in either a negative or positive manner. For example, activities or decisions made within the north west marine plan areas may impact upon bordering marine or terrestrial areas.
1496. **Co-operation** is the positive working relationship between sectors, proponents or users through communication to secure long-term beneficial and sustainable growth for all.

Why is cross-border co-operation important?

1497. The north west marine plan areas are adjacent to the marine areas of Scotland, the Isle of Man and Wales. It is important to ensure cross-border impacts are minimised across UK and international borders.
1498. The north west inshore marine plan area is adjacent to 21 Local Planning Authorities and one National Park Authority. There is an overlap in jurisdiction between the mean low water spring mark and the mean high water spring mark. The overlap in jurisdiction means that decisions made regarding activities or development in this intertidal zone can have adverse impacts upon the plan objectives of the reciprocal authorities. Additionally, activities that occur wholly below the mean low water spring mark or wholly above the mean high water spring mark can have adverse impacts upon the reciprocal area. Thus, it is important for public authorities to consult with all authorities that may be affected by an authorisation or enforcement decision. The [Coastal Concordat for England](#) provides a framework to assist in the co-ordination of the processes that exist for the consent of coastal developments in England.
1499. Alignment of marine planning with other planning, regulation and management that affects the use of the marine area and its resources is important in order to manage pressures, improve environmental health and achieve sustainable development across the north west marine plan areas.
1500. Integration between terrestrial and marine planning and between management systems across plan boundaries should provide more consistency, for example, in

the management of ecosystems such as the Ravenglass, Wyre and Mersey estuaries as a single management system. Conflicting decisions between decision-makers working in different planning systems could have significant adverse impacts in these areas, leading to failure for one or more authorities to reach their plan objectives.

1501. Proposals within the north west marine plan areas may have positive impacts on land. Proponents should inform the relevant authorities so they may optimise positive economic, social and environmental opportunities associated with their proposal.
1502. The [UK Marine Policy Statement](#) Sections 1.2 and 1.3 note the commitment and requirement to coordinate marine planning across administrative boundaries and to sit alongside existing terrestrial planning regimes.
1503. The [National Planning Policy Framework](#) states that “in coastal areas, planning policies and decisions should take account of the [UK Marine Policy Statement](#) and marine plans. Integrated Coastal Zone Management should be pursued across local authority and land/sea boundaries, to ensure effective alignment of the terrestrial and marine planning regimes”.

Policy NW-CBC-1 Cross-Border Co-operation

Proposals must consider cross-border impacts throughout the lifetime of the proposed activity.

Proposals that impact upon one or more marine plan areas or terrestrial environments must show evidence of the relevant public authorities (including other countries) being consulted and responses considered.

Policy aim

1504. NW-CBC-1 requires a considered approach to enhance cross-border co-operation between the terrestrial and marine planning systems in the north west marine plan areas and the neighbouring administrations of Scotland, the Isle of Man and Wales.
1505. Policy NW-CBC-1 applies to the inshore and offshore marine plan areas.

How will this policy be implemented?

1506. Decisions must be made with due regard to the vision and objectives of all adjacent planning areas, both marine and terrestrial, to ensure activities and development within the north west marine plan areas do not cause direct or indirect adverse impacts to these neighbouring areas.
1507. Alignment of marine planning will be important to manage coastal change and sustainability. Co-ordination and sharing of information between relevant authorities will ensure effective use of the marine environment to create sustainable development and infrastructure that best benefit the physical, economic and social environment of the coastline and adjacent areas. For example, a decision causing displacement of activities to an adjacent plan area could increase adverse impacts upon the environment or conflicts between sectors in the adjacent plan area.

1508. An example of cross-border co-operation is the proposed development of a subsea fibre-optic cable infrastructure network in the Irish Sea that will connect the Republic of Ireland to mainland England and Europe via Dublin and Blackpool and incorporate a branching unit to include the Isle of Man.

Proponents

1509. This policy applies to any organisation or individual putting forward a proposal including, but not restricted to, those applying for an authorisation. A proposal (construction, operation and decommissioning) can be for a new activity or a change to an existing activity that is subject to management by public authorities.
1510. Proposals that occur in the north west marine plan areas must demonstrate consideration of cross-border impacts upon adjacent marine plan areas and the terrestrial environment, including economic, social and environmental impacts.
1511. In accordance with the [Marine and Coastal Access Act 2009](#) Section 58, proponents should demonstrate consideration of all marine plan policies and not take any policy within the Plan in isolation. Proponents should consider if marine plans, other than the North West Marine Plan, for the neighbouring administrations of Scotland, Wales and the Isle of Man, are relevant (in accordance with the [Marine and Coastal Access Act 2009](#) Section 59).
1512. Proponents should provide evidence of consultations conducted with relevant sectors and authorities adjacent to the north west marine plan areas which may be affected by the proposed development. This evidence will be made available to decision-makers and may take the form of, but not be limited to, meeting minutes, consultation and survey reports that are available in the public domain (for example, forming part of a proposal to another public authority).

Decision-makers

1513. Decision-makers must consider the cross-border impacts of any activity affecting the north west marine plan areas. They must consider all the policies in the North West Marine Plan, and any other relevant marine plans, to ensure that decisions do not cause significant adverse impacts between the north west marine plan areas and those of bordering administrations. These impacts include decisions that would result in economic decline, a reduction in social benefit or detrimental impacts upon the marine environment. Development, adoption and use of the [Coastal Concordat for England](#), [shoreline management plans](#) and [coastal change management areas](#), aligned with this policy, will aid the management of these cross-border impacts.
1514. In accordance with the [Localism Act 2011](#), marine planning and licensing authorities must consider the cross-border impacts of marine developments upon the area above the mean high water spring mark. They must consider the relevant local plan(s) in their decision-making to ensure that marine-based activities do not conflict with the policies, objectives and vision of terrestrial local plans and neighbourhood plans.
1515. In accordance with the [Localism Act 2011](#) Section 110, local authorities and other public bodies have a duty to co-operate with other relevant authorities; they must

engage constructively, actively and on an ongoing basis. Decision-makers must consult with relevant bordering authorities when developing plans or making decisions that may impact bordering plan areas. Public authority decisions and plans should be compliant with the relevant local development plans.

1516. Decision-makers should also consider non-statutory plans and strategies in plan-making and decision-making and allow for integration of policies where relevant to the local area. For example, shoreline management plans and estuary management plans.

1517. Local authorities, when considering terrestrial development, will consult terrestrial planning policy and development plan documents which already include policies addressing coastal and estuarine planning. They will also need to consider marine policy guidance. The two will complement each other to ensure liaison between respective responsible authorities for terrestrial and marine planning, including in-plan development, implementation and review stages. This will help ensure, for example, that developments in the marine environment are supported by the appropriate infrastructure on land and reflected in terrestrial development plans and vice versa (see also NW-INF-1).

1518. Local authorities will need to consider marine policy guidance to support the mutual co-operation of sharing the evidence base and data where relevant and appropriate so as to achieve consistency in the data used in plan-making and decisions. When developing or reviewing regional marine plans and coastal change management policies, local and public authorities should consider relevant statutory and non-statutory plans or strategies to allow for the integration of policies of local relevance. Sharing of data between plan authorities and cross-border, and the timely development of marine plans for any area, will assist in managing cross-border impacts.

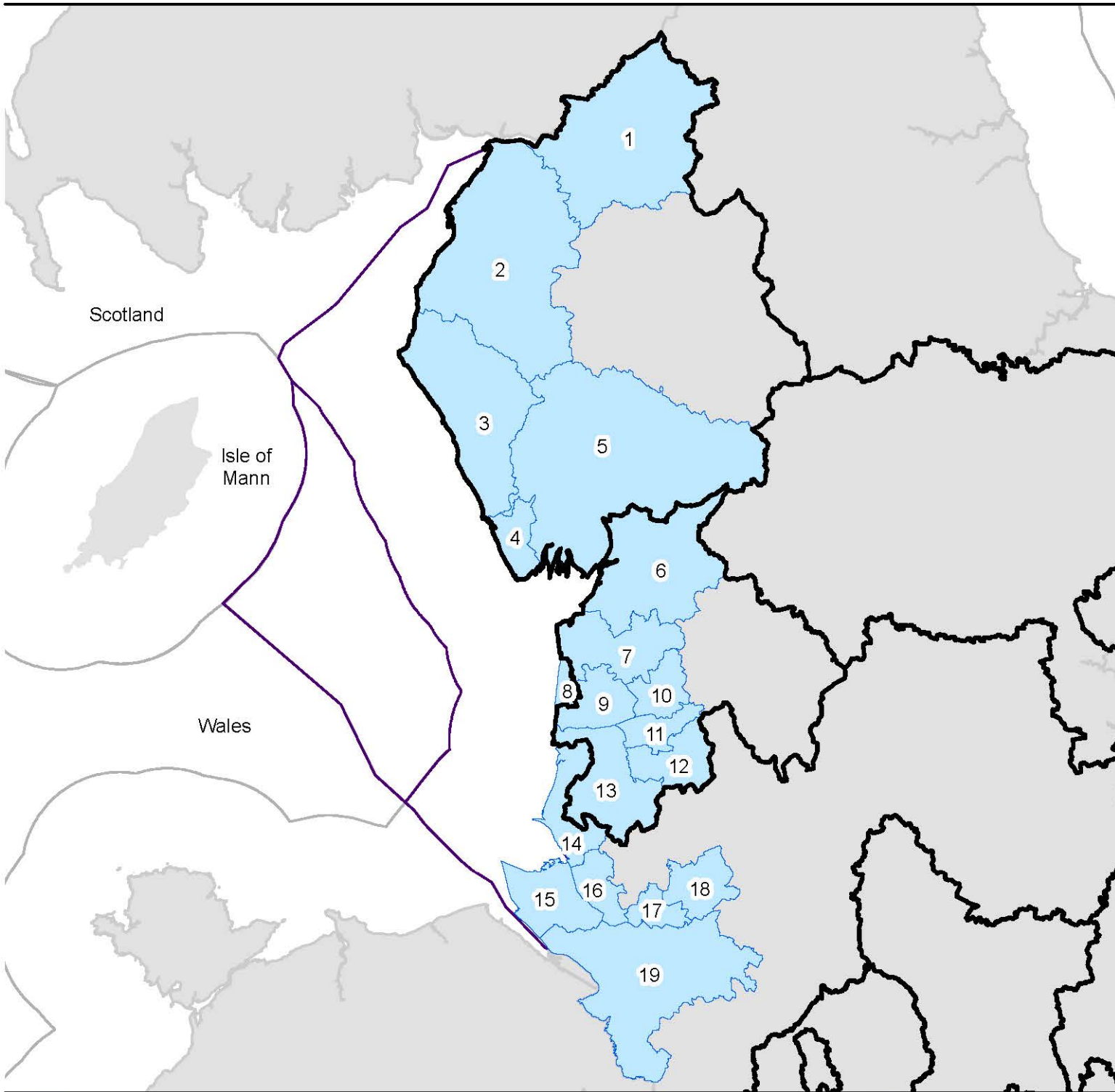
1519. There is an overlap in authority between the north west inshore marine plan area and the terrestrial local authorities. The overlap in authority is due to the marine plans extending to the mean high water spring mark and terrestrial planning authority extending to the mean low water spring mark. The following terrestrial Local Planning Authorities relevant to NW-CBC-1 are:

- Allerdale
- Barrow-in-Furness
- Blackpool
- Carlisle
- Cheshire West and Chester
- Chorley
- Copeland
- Cumbria
- Fylde
- Halton
- Lake District National Park Authority
- Lancashire

- Lancaster
- Liverpool
- Preston
- Sefton
- South Lakeland
- South Ribble
- Warrington
- West Lancashire
- Wirral
- Wyre

1520. Figure 33 is a map of English district, unitary and county authority areas in the north west inshore marine plan area. Figure 33 also shows the bordering marine areas of Scotland, the Isle of Man and Wales.

Figure 33 | District, Unitary and County Authority Areas and International Boundaries



- | | | |
|---|------------------------------------|------------------------------------|
|  North West Marine Plan Areas | 4 - Barrow-in-Furness District (B) | 13 - West Lancashire District (B) |
|  County Councils | 5 - South Lakeland District | 14 - Sefton District (B) |
|  District & Unitary Authorities | 6 - Lancaster District (B) | 15 - Wirral District (B) |
|  UK Territorial Sea Limits | 7 - Wyre District (B) | 16 - Liverpool District (B) |
| 1 - Carlisle District (B) | 8 - Blackpool (B) | 17 - Halton (B) |
| 2 - Allerdale District (B) | 9 - Fylde District (B) | 18 - Warrington (B) |
| 3 - Copeland District (B) | 10 - Preston District (B) | 19 - Cheshire West and Chester (B) |
| | 11 - South Ribble District (B) | |
| | 12 - Chorley District (B) | |

Information map
 This map is to be used for reference only. Please refer to Explore Marine Plans for a detailed view of the data and to interrogate plan policies.

Chapter Six

6 Monitoring and reporting

6.1 Approach to monitoring

1521. The [North East, North West, South East and South West Marine Plans Approach to Monitoring](#) describes how the North West Marine Plan will be monitored, and will be supported by a separate Annex of Indicators that will set out detailed indicator descriptions, including quality assurance undertaken.
1522. The approach to monitoring adopted by the Marine Management Organisation is informed by [The Magenta Book](#) and incorporates recommendations made in the Sustainability Appraisal and Habitats Regulations Assessment. It also includes an evaluation of the effectiveness of plan monitoring to date.

6.2 Reporting

1523. The duties for monitoring and reporting in relation to marine plans and marine planning are set out in the [Marine and Coastal Access Act 2009](#) Sections 61(1)(b) and (c).
1524. Section 61(1) sets out a duty to prepare and publish, and lay before parliament, a copy of a report on the following matters (set out in the Marine and Coastal Access Act 2009, Section 61(3)):
- (a) the effects of 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 a Marine Policy Statement governs marine planning for the marine plan authority's region, the progress being made towards securing that the objectives for which the Marine Policy Statement was prepared and adopted are met in that region.
1525. Reporting must occur at intervals of not more than three years from the date of a marine plan being adopted; successive reports must be published at intervals of not more than three years following the date of publication of the previous report. After a report is published, the marine plan authority must decide whether or not to amend or replace the marine plan.
1526. Additional information within the three-yearly report may include:

- a review of changes in the context in which the plans were developed since adoption
- evidence demonstrating effective marine implementation of the Plan
- evidence demonstrating plan effects

1527. Section 61(1)(c) requires the Secretary of State, as the marine planning authority, to prepare and lay before parliament, at intervals of not more than six years ending before 1st January 2030, a report that:

- (a) identifies any marine plans which the authority has prepared and adopted;
- (b) describes any intentions the authority may have for the amendment of any marine plans which it has prepared and adopted;
- (c) describes any intentions the authority may have for the preparation and adoption of any further marine plans.

1528. Activities in relation to monitoring and reporting duties under [Marine and Coastal Access Act 2009](#) Section 61 must be carried out in such a way as to also fulfil duties under Section 54 that specifies a duty to keep relevant matters under review.

Annex 1 Glossary

Activities – a general term that includes development and uses; examples of uses might include fishing or recreation.

Adaptation – the ability of habitats, species and populations to respond to changes in the environment. Adaptation includes the natural succession of habitats and range shifts in response to climatic and other environmental changes.

Adjacent – close by, by the side of, or bordering on the marine plan area.

Aggregates Exploration and Option Agreements – issued by The Crown Estate following acceptance of a marine aggregates tender bid for a defined area. The Agreement provides exclusive rights to explore the defined area and carry out activities in that area to support a marine licence application. The Exploration and Option Agreement is for a period of five years from the date of grant.

Air pollution – a mixture of gases and particles that have been emitted into the atmosphere by man-made processes. Many substances can pollute the air, a number of which are subject to UK-wide ambient air quality standards. The UK has emissions reduction targets in place for five harmful pollutants: fine particulate matter (PM_{2.5}), ammonia (NH₃), nitrogen oxides (NO_x), sulphur dioxide (SO₂) and non-methane volatile organic compounds (NMVOCs).

Air quality – a measure of how polluted the air is. When air quality is poor, pollutants in the air may be hazardous to people.

Anoxic – to be without oxygen (for example, anoxic sediments are sediments without oxygen).

Applicant – an organisation or individual that applies for authorisation, for example those applying for authorisation in relation to a development or activity (see 'Development').

Aquaculture – the controlled rearing of aquatic shellfish and finfish, and the cultivation of aquatic plants and algae. Aquaculture can take place in both the inshore and offshore marine environment and can be broadly grouped according to water type (marine or freshwater), species type (finfish, shellfish or plants) and intensity (intensive, semi-intensive or extensive).

Archaeological or historic interest – all traces of human existence, having a cultural, historical or archaeological character, such as:

- sites, structures, buildings, artefacts and human remains, together with their archaeological and natural context

- vessels, aircraft, other vehicles or any part thereof, their cargo or other contents, together with their archaeological and natural context, and objects of prehistoric character

Area of search – a broad area (of seabed and associated water column) within which some development or other activity may be acceptable, subject to detailed consideration, for example, mineral extraction or renewable energy generation. The term can refer to areas of search used by the Joint Nature Conservation Committee for offshore Special Areas of Conservation and may be defined in map format by the relevant organisations involved, depending on the sector concerned.

Areas of geological extraction potential – areas in which undeveloped oil and gas discoveries may exist below the seabed, having been identified through exploration work, but have not yet seen any production, extraction or development.

Areas of high potential aggregate resource – spatial areas where there is a high potential for marine aggregate resource, which can be used to guide future decisions on marine aggregate extraction, exploration and optioning. Areas of high potential aggregate resource were developed in 2014 by the British Geological Survey, in conjunction with The Crown Estate.

Authorisation – normally relates to something that can be applied for. See also ‘Decisions’.

Avoid – to prevent the impact by removing the source. Proposals are designed so that adverse impacts are no longer received by the receptor.

Biodiversity – the variety of all life on earth, including the diversity within and between all plant and animal species and the diversity of ecosystems.

Biodiversity net gain – an approach to development that leaves biodiversity in a measurably better state than pre-development.

Capital dredging – the deepening or widening of an existing navigable area, or enabling an entirely new channel for access to a new facility. Capital dredging allows improvement of access, for example, to allow bigger and deeper vessels, longer optimum tidal windows, and the provision of passing places. This area will not have been dredged during the preceding 10 years.

Climate change adaptation measures – measures to help developments or activities to reduce or protect against the impact of climate change.

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

Coastal squeeze – the loss of natural habitats or deterioration of their quality arising from anthropogenic structures or actions, preventing the landward transgression of those habitats that would otherwise naturally occur in response to sea level rise in conjunction with other coastal processes. Coastal squeeze affects habitats on the seaward side of existing structures.

Co-existence – where multiple developments, activities or uses can exist alongside or in close proximity to each other in the same area or at the same time.

Co-location – where multiple developments (often structures), activities or uses share the same marine footprint or area, either temporally or spatially (by using different portions of the water column). The footprint can include both the physical location of a development or activity, for example, a built structure, and a wider area associated with the development or activity, for example, a surrounding safety zone.

Compensate – to provide an act in return for causing adverse impacts.

Co-operation – the positive working relationship between sectors, proponents or users through communication to secure long-term beneficial and sustainable development for all.

Cross-border impacts – originate from a source that has the ability to extend and affect a sector, activity or use across terrestrial and/or marine borders in a negative or positive manner.

Cumulative effects – the combined, similar effects that result from incremental changes caused by other past, present or reasonably foreseeable actions, together with the current proposal. Cumulative effects may extend beyond the geographical site boundaries of proposals. Cumulative effects are made up of additive effects (the magnitude of the combined effects equals the sum of the individual effects) and synergistic effects (combined effects lead to an increased effect, greater than the individual effects).

Cumulative impact – an impact occurs only when a pressure is present and acts on a receptor that is sensitive to that pressure. A cumulative impact refers to the combined impact of such pressures over time in the marine area.

Decisions – there are two types of ‘decision’ specified in Section 58 of the [Marine and Coastal Access Act 2009](#) that are to be made by public authorities and will involve consideration of the marine plans.

First, ‘an authorisation or enforcement decision’, which is defined in Section 58(4) of the [Marine and Coastal Access Act 2009](#) as:

- a) the determination of any application (whenever made) for authorisation of the doing of any act which affects or might affect the whole or any part of the UK marine area,
- b) any decision relating to any conditions of such an authorisation,
- c) any decision about extension, replacement, variation, revocation or withdrawal of any such authorisation or any such conditions (whenever granted or imposed),
- d) any decision relating to the enforcement of any such authorisation or any such conditions,
- e) any decision relating to the enforcement of any prohibition or restriction (whenever imposed) on the doing of any act, or of any act of any description, falling within paragraph (a).

It does not include any decision on an application for an order granting development consent under the [Planning Act 2008](#) (c. 29) (in relation to which subsection (3) has effect accordingly).

Examples include a decision to grant or refuse a marine licence in accordance with Part 4 of the [Marine and Coastal Access Act 2009](#), or planning permission granted by a local planning authority if the permission is capable of affecting part of the marine area. Such decisions must be taken 'in accordance with' the marine plans ([Marine and Coastal Access Act 2009](#), Section 58(1)) unless relevant considerations indicate otherwise. An exception is a decision under the [Planning Act 2008](#) on applications for development consent for Nationally Significant Infrastructure Projects, where public authorities are required to 'have regard to' marine plans.

Secondly, the term relates to any other decision which relates to the exercise of any function capable of affecting the UK marine area, but which is not an authorisation or enforcement decision. Examples include the designation of marine protected areas or byelaws that do not extend/replace/vary/revoke or withdraw an authorisation. A public authority must 'have regard to' the marine plans when taking any such decision ([Marine and Coastal Access Act 2009, Section 58\(3\)](#)).

Decommissioning – the process of removing infrastructure that has come to the end of its production life, eg for oil and gas or offshore renewable energy generation. In the case of offshore oil and gas installations and pipelines, the process consists of several stages, including the safe plugging and abandonment of wells, the removal of infrastructure, the storage, disposal, or processing of materials and pollutants and, finally, the clearance of the site.

Decommissioning programme – owners and operators of offshore installations and submarine pipelines must identify all the items of equipment, infrastructure and materials that have been installed or drilled, and describe the decommissioning solution for each.

Delivery activities – activities undertaken to deliver marine planning that also contribute to the achievement of the objectives and represent the wider benefits of planning. For example, sub-national policy analysis should lead to better integration of decision-making; delivery of workshops, meetings and training should improve awareness of existing requirements and those within the Plan and [UK Marine Policy Statement](#), and evidence collation and commissioning should improve the marine evidence base to inform decisions. It is important that such activities are recognised and included when measuring the success of the plans through the use of appropriate process indicators.

Development – built infrastructure and certain activities listed under Section 66 of the [Marine and Coastal Access Act 2009](#) and other legislation, for example, oil and gas activities (under the [Petroleum Act 1998](#)) and carbon dioxide storage (under the [Energy Act 2008](#)), including Nationally Significant Infrastructure Projects under the [Planning Act 2008](#) (Section 14). The definition is analogous to that in Section 55 of [The Town and Country Planning Act 1990](#) of "carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material

change in the use of any buildings or other land". The term encompasses, but is not restricted to, what is sometimes commonly called 'development'. Examples include built or fixed structures, such as a gas platform or a wind farm comprising pilings, turbines, and associated structures (converter stations, etc), and activities such as aggregate extraction and maintenance dredging.

Displacement – the action of causing the moving of a development or activity from its current place or position, for example, shipping traffic can no longer occur in an area due to the placement of built infrastructure. Displacement also occurs when there is a reduction in the number of a species occurring within or immediately adjacent to an area in which an anthropogenic activity is occurring or has occurred. Displacement and avoidance are types of behavioural responses. Highly mobile species can be displaced such that they cannot access habitats essential to their success, such as foraging areas or breeding grounds.

Disposal sites – designated areas in which material, for example from navigational dredging, is deposited. Disposal sites are classified into open, disused and closed sites. Sites are assessed and classified on a case-by-case basis but, in general, open sites are defined as those that are in use; disused sites are those that have not been used in the last five years, and closed sites are defined as those that have not been used in the last 10 years. Alternative use sites are also currently considered as a category of disposal site.

Disposal of dredged material – the relocation of dredged material. Dredged material can only be disposed of in identified sites subject, to the type of dredged material. Disposing of dredged material means that the material serves no further purpose; however, the exception to this is alternative use sites, which are also classified as disposal sites.

Distribution – how a species is spatially arranged over an area. Distribution can be viewed on various spatial scales, eg the distribution of individuals, population distribution or the distribution of an entire species.

Disturbance – when human activity causes a physical or behavioural response in an individual or group of individuals, causing the expenditure of extra time or energy to avoid human activity or output. Disturbance can be temporary, permanent and/or cumulative and can affect the ability of individuals to survive, breed, and rear or nurture young, which can affect the local distribution or abundance of the species. Disturbance can affect the viability of a population or habitat and continued disturbance can result in a loss of habitat or a reduction in population resilience.

Diversification in fisheries – facilitates adaptation to change and is one way the fishing industry can increase its sustainability, response to changing markets, and resilience to climate change. Diversification includes changes within the fishing sector, for example, new fishing techniques and gear that alter how or what species are targeted, or within the processing and fish value chain, for example, direct sales or marketing that adds value to fish products. Diversification also includes the industry undertaking multiple activities; for example, in addition to generating income

from fishing, complementary activities such as tourism, for vessels where this is appropriate, can represent diversification into other sectors.

Dredging activity – moving material from waterways, the sea or sea bed using any device. There are two main types of navigational dredging: maintenance and capital.

Ecologically coherent network – a network of well-managed, resilient, and adequately sized marine protected areas that are ecologically connected and that represent a range of replicated marine habitats and species.

Ecosystem – the dynamic complex of plant and animal communities and the surrounding non-living environment that supports them in the north west marine plan areas.

Ecosystem approach – an ecosystem-based approach to the management of human activities means an approach that ensures that the collective pressure of human activities is kept within the levels compatible with the achievement of Good Environmental Status, does not compromise the capacity of marine ecosystems to respond to human-induced changes, and enables the sustainable use of marine goods and services.

Ecosystem function - the collective physio-chemical, geochemical and biological processes that occur within the ecosystem. Ecosystem function is dependent on the relationship within, among and between species and the non-living environment, as well as the physical and chemical interactions within the environment. Effective ecosystem function can be reliant upon solar energy flow, for example photosynthesis by phytoplankton, and mineral and nutrient cycling such as the absorption of carbon dioxide from the atmosphere, for example by saltmarsh, and water cycling. Ecosystem function can also include geomorphological processes that contribute towards geodiversity.

Ecosystem services – the benefits people obtain from ecosystems. The classification of ecosystem services adopted by the [UK National Ecosystem Approach](#) categorises services as follows: regulating, provisioning, cultural and supporting services.

Enhanced public access – improvements to existing public access infrastructure and services.

Enjoyment of the marine environment generates public benefits that can be gained while undertaking activities, including (but not limited to):

- recreational activities and physical exercise
- simply viewing the coast
- utilising health and well-being facilities and amenities that are located for their setting in and adjacent to the marine area.

Environmental net gain – an evolving concept that will expand biodiversity net gain approaches to include wider benefits, such as flood protection, recreation and improved water and air quality.

Essential fish habitat – areas of intertidal and subtidal water, seabed, riverbed, and the associated water column necessary to fish and shellfish for spawning, breeding, feeding or growth to maturity. Essential fish habitats also encompass migration routes such as estuaries or channels that connect essential fish habitats throughout their life cycle.

Evidence – for the purpose of marine planning, evidence includes policy, data, information, surveys, maps, and any other relevant material.

Exclusive economic zone – a sea zone extending up to 200 nautical miles prescribed by the United Nations Convention on the Law of the Sea over which a state has special rights regarding the exploration and use of marine resources, including energy production from water and wind.

Existing activities – activities that currently occur in an area. This can include management measures of both protected and unprotected areas, as well as industrial and recreational use. The term also covers activities that have been authorised, but not yet implemented.

Fisheries – the capture of wild marine organisms (fish and shellfish); commercial fishing can use a variety of mobile and static gear, vessels and locations.

Geodiversity – the variety of landforms, rocks, minerals, fossils, soils and natural processes that underlie and determine the character of our landscape and seascape.

Greenhouse gases – gases that contribute to climate change.

Direct greenhouse gases, which contribute directly to climate change owing to their positive radiative forcing effect, include the following:

- carbon dioxide (CO₂)
- methane (CH₄)
- nitrous oxide (N₂O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulphur hexafluoride (SF₆)
- nitrogen trifluoride (NF₃)

Indirect greenhouse gases include:

- nitrogen oxides (NO_x)
- carbon monoxide (CO)
- non-methane volatile organic compounds (NMVOC)
- sulphur dioxide (SO₂)

Gross value added – gross value added is the value generated by any unit engaged in a production activity. It is measured at basic prices, excluding taxes (less subsidies) on products. Regional gross value added is measured using the income approach. The main components of income-based gross value added are:

- compensation of employees (wages)

- gross operating surplus (the sum of self-employment income, gross trading profits)
- surpluses, non-market capital consumption, rental income (less holding gains)
- taxes (less subsidies) incurred as a result of engaging in production, independently of the quantity or value of goods and services produced, such as business rates

Habitat connectivity – allows the movement of nutrients and supports species connectivity through the presence of continuous suitable habitat.

Habitats Regulations Assessment – [The Conservation of Habitats and Species Regulations 2017](#)¹⁶¹ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁶² require a [Habitats Regulations Assessment](#) to be carried out on any proposed plan or project that has the potential to cause impacts on a European site within the UK national site network. The decision about whether a plan or project can proceed following a Habitats Regulations Assessment will be made by the relevant competent authority.

Heritage assets – elements of the historic environment such as buildings, monuments or landscapes that have been identified as holding a degree of significance.

High density navigation routes – areas at sea along which shipping traffic travels. This term encompasses routes used by vessels of 300 gross tonnes or more, including cruise services. Passenger services are regular routes for these vessels (which may or may not overlap with high density navigation routes).

Highly mobile species – species that range over large distances, including fish, sharks, birds, marine mammals and turtles. Individuals are often part of more widespread international populations and may only be present in an area on a seasonal basis or for part of their life cycle.

Historic environment – all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged.

Inclusive public access – “equitable access for those who want to use and enjoy the coast, seas and their wide range of resources and assets” ([UK Marine Policy Statement](#) Section 2.2) through the improvement of existing or development of new access routes and their associated services. Inclusive public access also includes financial access. For example, where access costs are required, they should be justifiable and not prohibitive.

In-combination effects – the differing, additive or synergistic effects from multiple projects or activities on a single receptor. These are examples of cumulative effects

¹⁶¹ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹⁶² As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

(see above). The term ‘in-combination effects’ is particularly used in the context of Habitats Regulations Assessment (see above).

Independent Investigation – once the consultation draft of the marine plans has been published, and the Marine Management Organisation has assessed comments received, resolved any issues where possible, and identified any issues that remain unresolved, the Marine Management Organisation will consider whether or not to recommend the need for an Independent Investigation. The Secretary of State will then determine (in accordance with paragraph 13 of Schedule 6 of the [Marine and Coastal Access Act 2009](#)) whether or not to appoint an independent person to investigate the draft marine plans’ proposals and to make any recommendations, and the reasons for those recommendations will be published.

Industrial clusters – groupings of industrial businesses that have the potential to share low carbon infrastructure and other agglomeration benefits to achieve decarbonisation.

Infrastructure – the fundamental facilities serving a development or activity, for example, wharves for offloading of fish or aggregates, and connections to land such as pipelines or cables.

Infrastructure for aquaculture – marine and land-based structures and facilities. Since aquaculture is a variable industry, the infrastructure used is highly dependent on the system. Marine infrastructure may include bottom-anchored methods (such as trestle tables and poles), techniques that are suspended from buoys or long-line systems (such as rope culture), sea-based container culture systems, or moored sea cages. Shore-side infrastructure to consider includes, but is not limited to:

- all ports and harbours and associated landing and offloading facilities
- markets, including infrastructure that helps build supply chain resilience
- repair and chandlery facilities
- storage and processing facilities (including depuration plants for shellfish and storage for wet fish, dry goods and other produce)
- transport of produce to shore and once on shore (logistics companies)

International Maritime Organization (IMO) – the United Nations agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships.

International Maritime Organization routeing systems – established to maintain navigational safety by managing shipping traffic in busy areas and/or in response to prevailing hydrographic features.

Knowledge – access to, and the interpretation of, information that increases understanding, appreciation and enjoyment of the natural environment, historic environment and socio-economic values that make up the ‘marine environment’.

Landfall sites – areas on the coast where subsea cables come ashore.

Landscape – is an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.

Licensing round – the period during which government offers and then allocates a number of specified areas (blocks or part blocks) within its national boundaries for exploration to oil and gas companies, typically in return for fees and/or a commitment to carry out a work programme.

Local planning authority (or local authority) – an organisation that has powers under [The Town and Country Planning Act 1990](#) to determine applications for planning permission and prepare local plans for its area.

In England, local authorities are:

- district councils
- London borough councils
- metropolitan district councils
- county councils in relation to any area in England for which there is no district council
- the Broads Authority

A national park authority is the local planning authority for the whole of its area.

Marine aggregates – sand and gravel removed from the seabed, commonly intended for use in the construction industry, but also used in flood defence and other industries.

Marine conservation zone – specific areas designated under the [Marine and Coastal Access Act 2009](#) for the purposes of conserving marine flora or fauna, marine habitats or features of geological or geomorphologic interest.

Marine litter – any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment. Marine litter consists of items that have been made or used by people and deliberately discarded into the sea or rivers or on beaches; brought indirectly to the sea by rivers, sewage, storm water or winds; accidentally lost, including material lost at sea in bad weather (fishing gear, cargo); or deliberately left by people on beaches and shores.

Marine protected areas – areas of the sea protected by law for nature conservation purposes.

Minimise – to reduce severity to the smallest possible amount or degree by altering the intensity of the source. Proposals are designed so that adverse impacts received by the receptor, before mitigation is applied, are reduced to the smallest possible amount or degree.

Mitigate – to reduce how an adverse impact is experienced by the receptor without altering it at the source.

Monitoring plan – a document which includes the approach and indicators that will be used to measure the effectiveness of the policies, and a review process.

Nationally Significant Infrastructure Project – major infrastructure developments in England and Wales, as defined in Section 14 of the [Planning Act 2008](#). In England and Wales, consents for Nationally Significant Infrastructure Projects, including the

larger offshore renewable energy (> 100Megawatts) and port developments, need to be determined in accordance with the [Planning Act 2008](#). However, where a relevant National Policy Statement has been published, Nationally Significant Infrastructure Project proposals must be determined in accordance with the National Policy Statement, subject to certain exceptions, and having regard to the [UK Marine Policy Statement](#) and relevant marine plans. The determining authority is the relevant Secretary of State (for example, the Department for Business, Energy and Industrial Strategy in the case of offshore wind energy) on a recommendation supplied by the National Infrastructure Directorate within the Planning Inspectorate (to whom the Marine Management Organisation is a statutory consultee).

Natural capital – the elements of nature that produce value to people, for example, ecosystems, species, freshwater, land, soils, minerals, our air and our seas. A ‘natural capital approach’ is one that values the benefits we receive from the natural environment, such as food provision, clean air and water, flood protection, and opportunities for recreation, including appreciation of wildlife, that support health and well-being.

Net gain – an approach to development that leaves the natural environment in a measurably better state than pre-development.

Non-marine planning matters – non-marine planning matters are best addressed by a response other than marine plans. Such responses may include other plans, decisions and management measures affecting the marine plan area already in existence, under development, or required without the need for an operative marine plan. These measures, established under other influences, together with the plan objectives, contribute to the achievement of the high level marine objectives set out in the [UK Marine Policy Statement](#). In some cases, information, institutional or market failure may mean that the achievement of the goal may be constrained. In such cases, it may be that a plan objective is not required; rather, signposting is used within the marine plans to raise awareness or to encourage improved implementation of existing influences. This avoids replication of both objectives and policies, ensuring that marine plans focus on issues where they add value or where matters are not otherwise addressed.

Objectives – desired outcomes of the marine plans. Objectives form the link between the vision and the detailed strategy, including policies.

Oil and gas activity – in the marine area, oil and gas activity involves the exploration and production of oil and gas (hydrocarbon) deposits from below the seabed, forming the upstream sector of the oil and gas industry.

Exploration involves the location of crude oil and natural gas below the seabed using various boat-based geophysical surveys and discrete sampling works, which are of limited duration. Oil and gas deposits are located in spatially discrete areas where the deposits were formed. Production activities utilise infrastructure such as fixed platforms or floating production facilities where hydrocarbons are extracted and processed prior to being exported onshore via pipelines or using shuttle tankers.

Production facilities are installed for the duration of the field life and usually have a limited spatial footprint.

Oil and gas licences - fall into several categories. The principal distinctions are between landward and seaward licences, and between exploration licences (which cover exploration alone and are not exclusive to a particular area) and production licences (which may include an element of exploration during the first phase of the development, and are exclusive to a specific area).

Licences are granted by the oil and gas authority. Except in special circumstances, production licences run for three successive periods or terms. These terms are commonly associated with a particular activity, the initial term for exploration, the second term for the approval of a development plan, and the third term for production. Licences expire at the end of these terms if the specified work has not been completed.

Options – in planning terms, this is the part of the planning process for considering different ways of achieving the objectives of a plan and addressing any significant issues.

Passenger services – commercial passenger transport services that are operated according to a published timetable.

Plan policies – support the marine plan objectives and address the issues outlined for the sustainable development of the plan area. With SMART (Specific, Measurable, Attainable, Relevant and Timely) objectives, there is a greater focus on the added value of marine plans, paving the way for further specificity in plan policies. When developing SMART (Specific, Measurable, Attainable, Relevant and Timely) plan policies, consideration can be given to a number of different factors, such as becoming more local, spatial or prescriptive.

Ports and harbours – a port is a commercial facility based on both land and water, and provides facilities for shipping vessels to load and unload their cargo. A harbour is a place of safety for ships and other waterborne vessels; harbours provide mooring safe anchorage for shipping, both commercial and recreational. Ports are generally man-made; harbours can be man-made or natural. Ports and harbours are diverse and support a wide range of activities and infrastructure including, but not limited to, provision of marinas, ferries, commercial shipping, fishing, recreational activities, ship manufacturing and maintenance, and aggregate loading and unloading facilities.

Potential conflicts – conflicts with existing activities can result in a decline in expected economic gains or targets for the existing activity, a reduction in available space for an activity to take place, and/or restricted access to associated facilities that support the activity. Sources of potential conflict include access restrictions on existing activities that could cause displacement to less desirable areas or prevent the activity happening altogether, declines in environmental condition in non-designated areas managed by local authorities or environment groups, or degradation caused to designated sites, resulting in a reduction of favourable condition.

Precautionary principle – where evidence is inconclusive, decision-makers should make reasonable efforts to fill evidence gaps but will also need to apply precaution within an overall risk-based approach in accordance with the sustainable development policies of the UK administrations. This means that if the risks from an activity are uncertain, preventative measures may be required if there is concern that human activities may harm human health, living resources and marine ecosystems or interfere with other legitimate uses of the sea, or have other social and economic impacts. This would need to be considered based on risk.

Pressure – the effects of any given activity over time in the marine area. Pressures can be physical, chemical or biological. The same pressure can be caused by a number of different activities, for example fishing using bottom gears and aggregate dredging both cause abrasion.

Priority habitats and species – those recognised as being of ‘principal importance’ for the conservation of biological diversity in England under the [Natural Environment and Rural Communities Act 2006](#) (Section 41). Priority habitats and species have been identified through additional organisations and legislation. Features of conservation importance, including marine habitats, are identified by the Joint Nature Conservation Committee and listed in the [Ecological Network Guidance](#). The [Conservation of Habitats and Species Regulations 2017](#)¹⁶³ and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)¹⁶⁴ require protection for [Annex I Habitats and Annex II Species](#). The [OSPAR Convention for the Protection of the North-East Atlantic](#) has developed a [list of threatened and/or declining species and habitats](#). The [Wildlife and Countryside Act 1981](#) requires protection for habitats and species identified by the accompanying [Schedules](#).

Proponent – an organisation or individual putting forward a ‘proposal’ (see below). Includes, but is not restricted to, ‘applicant’.

Proposals – general term, usually for something new but could also be for a change that encompasses development and uses, subject to management by public authorities, for example fishing or certain recreation activity, together with management measures. Proposals may relate to either type of decision specified in the [Marine and Coastal Access Act 2009](#) (see ‘Decisions’).

Public access – physical access to the marine area to participate in recreational activities or associated land-based facilities and infrastructure that support activities in the marine area. Public access embraces both interpretative and virtual access that serve to increase public awareness and understanding of the marine area.

Public authority – a Minister of the Crown, a public office holder, or a public body ([Marine and Coastal Access Act 2009](#), Section 322(1)). A public body includes government departments, The Crown Estate, local authorities, inshore fisheries conservation authorities and statutory undertakers. A public office holder means a

¹⁶³ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

¹⁶⁴ As amended by [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#)

person holding an office under the Crown, an office created by an Act or devolved legislation, or an office paid for by Parliament. Public authorities are responsible for ensuring that relevant decisions (see 'Decisions') take appropriate account of the marine plans and plan policies.

Recreation – leisure activities undertaken by individuals within their usual living environment (ie near to where they live).

Resilience – the ability of an ecosystem to recover from disturbances within a reasonable timeframe.

Resilience to climate change – the ability to respond or adapt to changes in climate so that original function and form is maintained, such as absorbing stresses including sea level rise, or maintaining function in the face of external stresses imposed on it by climate change.

Re-use of oil and gas infrastructure – the repurposing of existing oil and gas infrastructure for an alternative use. The infrastructure referred to can include wells, trunk pipelines or platforms which, through re-use, can facilitate the transport and storage of captured carbon dioxide and the associated atmospheric benefits.

Seascape – landscapes with views of the coast or seas and the adjacent marine environment with cultural, historical and archaeological links with each other.

Seascape character – the perception of an area and the combination of characteristics at the surface, within the water column and on the seabed.

Services for tourism and recreation – facilities and infrastructure that support public access to, and enjoyment of, the marine area.

Setting – the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance, or may be neutral.

Short sea shipping – the movement of cargo and passengers by sea over short distances, including along the coast between domestic ports and harbours, and to and from the UK to European ports. Short sea shipping reduces congestion caused by terrestrial road transport and can provide air quality improvements through greater fuel economy, use of increasingly lower sulphur fuels, and lower emissions of carbon dioxide. Short sea shipping is one of the most sustainable and economically competitive modes of transport.

Significance (heritage) - the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.

Signposting – highlights or points to existing plans, policies, measures or information, relevant to a specific plan policy or sector/topic, particularly if they are critical to addressing an issue identified in the planning process.

Site condition – the condition of the qualifying features of a marine protected area.

Skills strategies – designed to address skills issues inhibiting sustainable economic growth, while also helping to inform negotiations with the government to secure support for activities that develop required skills. Skills strategies run parallel to existing education and training guidance.

Species connectivity – allows the movement of individuals, juveniles, groups and propagules to maintain genetic exchange and thus prevent individual or group isolation.

Species migration – the seasonal movement of populations of animals, for example for breeding or feeding purposes. Migration may occur over a small distance or over a much larger, international distance. Species can migrate within, to, from and through the north west marine plan areas.

Statutory Harbour Authorities - statutory bodies responsible for the management and running of a harbour. The powers and duties in relation to a harbour are set out in local Acts of Parliament or a [Harbour Order](#) under the [Harbours Act 1964](#).

Strategically important navigation routes – routes that are essential to regional, national and international trade.

Subsea cables – used for many purposes, including connecting offshore infrastructure to the point where the cable comes ashore, connecting different electricity markets, known as interconnectors, and ensuring telecommunication between separate landmasses. Subsea cabling is important to the growth and sustainability of telecommunications, offshore energy generation, electricity transmission and energy security.

Sustainability appraisal – an appraisal of the sustainability of proposals for inclusion in the marine plan, a report of the results of which is published under paragraph 10 of Schedule 6 of the Marine and Coastal Access Act 2009 alongside the consultation draft of the marine plan. It incorporates the requirements of [The Environmental Assessment of Plans and Programmes Regulations 2004](#) (commonly referred to as the 'Strategic Environmental Assessment Regulations') on the assessment of the effects of certain plans and programmes on the environment and ensures that potential environmental effects are given full consideration alongside social and economic issues.

Sustainable development – development that meets the needs of the present, without compromising the ability of future generations to meet their own needs.

Sustainable aquaculture – considers environmental, economic and social sustainability. The specifics of this concept cannot be generalised and may vary according to species, location, farming methods and management techniques, among other factors.

Sustainable tourism – defined by the United Nations World Tourism Organisation as “tourism that takes full account of its current and future economic, social and

environmental impacts, addressing the needs of visitors, the industry, the environment and host communities”.

Tourism – a general term that encompasses any time spent away from home to pursue leisure or relaxation activities. It is defined by the United Nations World Tourism Organisation as “a social, cultural or economic experience that involves the movement of people to countries or places outside their usual environment for personal (or professional) purposes”.

Under-keel clearance – the minimum clearance available between the deepest point on a vessel and the seabed in still water.

Use – generally a purpose for which the marine area is used, for example fishing or recreation. Distinguished from ‘development’, which has a specific meaning in legislation and in marine management.

Vision – a short statement of the overall aim for the marine plan areas (based on a 20-year time horizon). It also includes a description of what will characterise the plan areas in 20 years’ time. It should be noted that this is a vision for the marine plan areas, and there will be numerous other factors which contribute to its success.

Visual resource – views of the coast and sea from land. Views from the sea to land, and sea to sea, are also relevant.

Waste – any substance or object which the holder discards, intends to discard, or is required to discard.

Waste hierarchy – ranks waste management options in the order which is best for the environment: prevention, re-use, recycling, recovery, then disposal.

Water quality – a measure of the condition of water and its suitability to sustain a range of uses for both biotic and human benefits.

Wreck site – the location of any aircraft or vessel lying wrecked on or in the seabed or of any objects contained or formerly contained in it lying on or in the seabed near the wreck.

Appendix 1 Marine planning requirements, background and context

Appendix 1.1 Marine planning requirements and background

1. Through the [Marine and Coastal Access Act 2009](#)¹⁶⁵, the government introduced a number of measures to achieve its vision of ‘clean, healthy, safe, productive and biologically diverse oceans and seas’. The measures included a provision for a marine planning system, establishing the Secretary of State as the marine planning authority for the English inshore and English offshore marine planning regions, with the power to delegate certain marine planning functions. The Secretary of State delegated a number of functions to the Marine Management Organisation in March 2010, retaining the decision to publish the plans, the decision to lay reports in relation to the [Marine and Coastal Access Act 2009](#) Section 61 reporting requirements, and the decision to withdraw the Plan.
2. Marine plans, together with the [UK Marine Policy Statement](#), underpin this planning system for England’s marine area. Plans will formulate and present outcomes for a marine plan area consistent with the [UK Marine Policy Statement](#), informed by evidence relevant to the plan area. In 2011, the Department for Environment, Food and Rural Affairs recommended to the Marine Management Organisation a series of marine plan areas for the English inshore and offshore marine areas. The boundaries for these areas were identified following stakeholder and expert input and a specific consultation in 2010, resulting in 11 plan areas covering the seas around England¹⁶⁶. Plans have been produced for each of these areas. The first plans adopted in April 2014 were for the east inshore and offshore plan areas. The second plans adopted in July 2018 were for the south inshore and offshore plan areas. The North West Marine Plan covers the north west inshore and offshore plan areas. Alongside the development of the North West Marine Plan, separate plans have been developed for the north east inshore and offshore plan areas, and the south west inshore and offshore plan areas, and the south east inshore plan area.
3. The process of marine planning will contribute to the achievement and integration of sectoral activity through specific policies within a framework of economic, social and environmental considerations to support the high level marine objectives set out in the [UK Marine Policy Statement](#). This approach will help to ensure that sustainable development of the English marine areas is consistent with the [UK Sustainable Development Strategy](#) (see Box 2) in the context of the government’s current

¹⁶⁵ HM Government Marine and Coastal Access Act 2009

¹⁶⁶ There is a map on the Marine Management Organisation’s webpages:
<https://www.gov.uk/government/publications/marine-plan-areas-in-england>

priorities, including to enable sustainable economic growth, be the first generation to leave the environment in a better state for the next generation, and move towards a net zero carbon target. In doing so, the North West Marine Plan provides a clear approach to managing relevant aspects of the north west marine plan areas, their resources, and the activities and interactions taking place within them.

Box 2: Sustainable development

The [UK Marine Policy Statement](#) defines sustainable development in line with the UK Sustainable Development Strategy 'Securing the Future' (reiterated in the government's refreshed vision), which sets out five guiding principles of sustainable development:

- living within the planet's environmental limits
- ensuring a strong, healthy and just society
- achieving a sustainable economy
- promoting good governance
- using sound science responsibly

The [National Planning Policy Framework](#), which incorporates a presumption in favour of sustainable development, reiterates these principles. It also reinforces the government's view of sustainable development, and that the English planning system has an economic, social and environmental role.

Appendix 1.2 Marine planning – national context

4. The [UK Marine Policy Statement](#) was adopted by all UK administrations and published in March 2011. It built upon the shared UK-wide high level marine objectives published in 2009¹⁶⁷, and provides the policy framework for the preparation of marine plans, establishing how decisions affecting the marine area should be made to enable sustainable development. It sets out a high-level approach to developing marine plans. The process should be participative, based on an ecosystem approach¹⁶⁸, and apply precaution within an overall risk-based approach; a particular issue highlighted is the cumulative effects of impacts (see Box 3). The [UK Marine Policy Statement](#) also lists the high-level principles for decision-making, including that it should be consistent with existing legislation, streamlined where possible and seek to avoid or mitigate negative impacts where possible in a proportionate manner and using sound science responsibly. There have been notable developments in the national context during the preparation of the North West Marine Plan. Such developments include policies and strategies in respect of climate change, energy, industry and the environment (such as [A Green Future: Our 25 Year Plan to Improve the Environment](#)), all of which have been taken account of in preparing the Plan.

¹⁶⁷ [Objectives in Our seas – a shared resource: high level marine objectives](#)

¹⁶⁸ A review concluded that the majority of the principles of the ecosystem approach are already incorporated in the existing marine planning process, with recommendations for further application relating mainly to data availability (including in relation to cumulative impacts) and some elements of stakeholder engagement. <https://www.gov.uk/government/publications/integration-of-ecosystem-approach-into-marine-planning-mmo-1048>

Box 3: Cumulative effects

The north west marine plan areas are busy in places, with a large and diverse range of human activities that exert pressure to varying degrees. Cumulative effects can arise from a range of pressures, such as (but not limited to) disturbance or damage to the seabed, increases in underwater noise, pollution and increases in marine litter. Cumulative effects can occur both spatially and temporally. The effect of such pressures, and whether or not they have an impact, will depend on the sensitivity of the components of the ecosystem that are affected and the level of exposure to those pressures.

Cumulative effects are considered through existing processes such as [Environmental Impact Assessment](#) and [Strategic Environmental Assessment](#). In addition, a Habitats Regulations Assessment is required where a plan or project is likely to have a significant effect on a feature (habitats and species) of a European site within the UK national site network, either individually or in combination with other plans or projects (inter-project cumulative effects). These processes also consider the need to avoid, minimise or mitigate impacts caused by cumulative effects, and this is also reflected in the principles of the [National Planning Policy Framework](#) and the [UK Marine Policy Statement](#) Section 2.6.1.3 on conserving and enhancing the natural environment.

As set out in the [UK Marine Policy Statement](#) Sections 2.3.1.6 and 2.3.2.1, marine plans should contribute to considering cumulative impacts, for example, “Marine plans should... identify how the potential impacts of activities will be managed, including cumulative effects” and “when considering the potential benefits and adverse effects, decision-makers should also take into account any multiple and cumulative impacts of proposals, in the light of other projects and activities”.

In developing the North West Marine Plan, each plan policy has been considered within the Sustainability Appraisal for cumulative effects. The results of this consideration can be found in the Sustainability Appraisal database, which is available from the Marine Management Organisation on request.

When taken as a whole, the policies set out in the North West Marine Plan will contribute to the consideration of cumulative effects, including the specific policy requiring cumulative effects to be addressed, but also other policies, such as those to manage the use of space effectively and reduce adverse impacts.

A variety of work is being undertaken by different organisations to develop our knowledge of environmental sensitivity to pressure, and how this information can best be analysed to develop our knowledge of areas at greater risk of cumulative effects. For example, the Marine Management Organisation has developed a framework for scoping cumulative effects strategically. The Marine Management Organisation will continue to work together with third parties to make sure that any developments in knowledge can be considered in future marine planning. This may result in a more prescriptive approach to the management of cumulative effects at such time as the evidence base is deemed sound enough to support it. Public authorities should make sure that current and future guidance, as it becomes available, is clearly highlighted, applied, and reviewed (where required), working

with, for example, the Joint Nature Conservation Committee and Natural England, The Crown Estate, and industry.

5. All marine plans must conform to the [UK Marine Policy Statement](#) unless relevant considerations indicate otherwise¹⁶⁹. The [UK Marine Policy Statement](#) also provides an overview and summary of national policy relevant to marine planning and decision-making in the marine plan areas, set within the context of international policy. The plans take account of this and other UK national policy, particularly policy under the [Planning Act 2008](#), including the [National Planning Policy Framework](#), [National Policy Statements](#) such as those for [ports](#), [energy](#) (for example nuclear power generation), and the process for Nationally Significant Infrastructure Project consents¹⁷⁰. Relevant provisions in the [National Planning Policy Framework](#) and [National Policy Statements](#) have been identified and incorporated into the marine plans where appropriate.
6. The [UK Marine Policy Statement](#) Section 1.3.5 states that marine plans and the planning process will contribute to an integrated and holistic approach to the management of marine and coastal areas in line with the principles of Integrated Coastal Zone Management. The Marine Management Organisation has taken all reasonable steps, as required by the [Marine and Coastal Access Act 2009](#), to make sure that the North West Marine Plan is compatible with marine plans for marine areas related to the north west marine plan areas¹⁷¹, including [Scotland's National Marine Plan](#), the [Welsh National Marine Plan](#) and the [Marine Plan for Northern Ireland](#). Compatibility testing was carried out in summer 2018 once the preferred policy options for the north west marine plan areas were confirmed. Policy interactions across plans were rated red, amber or green depending on their compatibility. For red and amber interactions, compatibility issues were addressed either through adjusting the weighting of developing policies, providing spatial information to explain where policies apply, or through advice provided in the implementation text. The Marine Management Organisation has taken all reasonable steps, as required by the [Marine and Coastal Access Act 2009](#), to make sure that the North West Marine Plan is compatible with any related relevant development plans¹⁷² (or their equivalent). Table 5 in Appendix 2 provides a summary of findings from this analysis. The Marine Management Organisation is also working with public and local authorities responsible for other plans affecting the north west marine plan areas¹⁷³, for example, through a review of River Basin Management Plans. The [Coastal Concordat](#), an agreement between the Department for Environment, Food and Rural Affairs, the Ministry for Housing, Communities and Local Government, the Department for Transport, the Marine Management Organisation, the Environment Agency, Natural England and the Local Government Association's Coastal Special Interest Group, sets out how regulatory and advisory bodies propose to work with

¹⁶⁹ [Marine and Coastal Access Act 2009](#) Section 51(6)

¹⁷⁰ [Planning Act 2008](#), Section 14

¹⁷¹ HM Government [Marine and Coastal Access Act 2009](#) Schedule 6 3(1)

¹⁷² HM Government [Marine and Coastal Access Act 2009](#) Schedule 6 3(2)

¹⁷³ HM Government [Marine and Coastal Access Act 2009](#) Schedule 6 9(2)(h)

local planning authorities to enable sustainable growth in the coastal zone in support of efficient consenting and decision-making.

7. The [Planning and Compulsory Purchase Act 2004](#) (as amended by the [Localism Act 2011](#)) places a duty to co-operate on the Marine Management Organisation and other public authorities in the preparation of marine plans, local development plans, and other plans (so far as they relate to a strategic matter). It requires local authorities and other public bodies¹⁷⁴ to engage constructively, actively and on an ongoing basis¹⁷⁵. That duty applies to the marine plans, their implementation, and any subsequent revisions. These requirements, together with the options for communities to formulate their own Neighbourhood Plans, bring new opportunities for an integrated planning system for land and sea.
8. In fulfilment of the above requirements and policy aims, the Marine Management Organisation worked with planning and other authorities to identify policies in their plans with marine relevance for consideration in the development of the North West Marine Plan (see Table 5 for a summary of findings). Spatial information on those other plans can also be found on the [Explore Marine Plans](#) digital service.

Appendix 1.3 Marine planning – international context

9. Marine planning sits within an international regulatory framework that governs a number of aspects of marine management. The national policy documents referred to above describe most of these as part of their context. They range from the [United Nations Convention on the Law of Sea \(UNCLOS\)](#) to [The Marine Strategy Regulations 2010](#)¹⁷⁶. The government has published a marine strategy that sets out how ‘Good Environmental Status’ will be achieved or maintained in our waters.
10. The relevant EU legislation, which has been converted into domestic law, is detailed at appropriate points in the North West Marine Plan, whereas the [Maritime Spatial Planning Directive](#) is considered here. The North West Marine Plan has been prepared in accordance with, and gives consideration to, the EU [Maritime Spatial Planning Directive](#) (2014/89/EU), which came into force in July 2014 in support of the [Integrated Maritime Policy for the European Union](#). The UK decided to leave the EU in 2016; however, during the development of the North West Marine Plan, the UK remained a member of the EU. As such, a number of minimum requirements set out by the EU [Maritime Spatial Planning Directive](#) have been addressed in the North West Marine Plan. The framework for maritime spatial planning and the aims of the EU [Maritime Spatial Planning Directive](#) to support the sustainable development of marine areas and the sustainable use of marine resources are also reflected in national legislation.

¹⁷⁴ ie a body or person prescribed under Section 33A(1)(c) [Planning and Compulsory Purchase Act 2004](#). Prescribed bodies are currently set out in Regulation 4 of [The Town and Country Planning \(Local Planning\) \(England\) Regulations 2012 \(SI 2012/767\)](#)

¹⁷⁵ [A Plain English Guide to the Localism Act](#)

¹⁷⁶ As amended by [The Treaty of Lisbon \(Changes in Terminology\) Order 2011](#), [The Marine Environment \(Amendment\) \(EU Exit\) Regulations 2018](#) and [The Environment \(Legislative Functions from Directives\) \(EU Exit\) Regulations 2019](#)

Appendix 2 Evidence base

1. The [UK Marine Policy Statement](#) Section 2.3.1.2 states that “marine plans will be based on a sound evidence base, as far as possible”. The Marine Management Organisation has been working closely with many partners and stakeholders since the start of the planning process to gather and apply the best available evidence to better understand the activities, resources and ecosystem in the north west marine plan areas.
2. Marine plan issues were raised as part of the ‘call for issues with supporting evidence’ phase of marine planning undertaken in summer 2016. Issues include challenges and opportunities that occur at a spatial and temporal scale appropriate for a marine planning response. The [marine planning issues and evidence database](#), published in 2017, contains and summarises the issues and associated supporting evidence (identifying why the issue is relevant to the marine plan area) to be considered throughout the planning process. Issues have been added during each iteration of marine planning. The North West Marine Plan and Technical Annex are based on the most up-to-date evidence available at the time of publication.
3. Evidence gathering continued throughout the marine planning process, with the opportunity for stakeholders to comment at each iteration via workshops and online engagement. Stakeholders were able to view and provide comments on the evidence base at any point throughout the planning process, including submitting new or alternative evidence.
4. Evidence used for marine plan preparation included spatial data (presented on the [Explore Marine Plans](#) digital service), third-party research reports/guidance documents, specifically commissioned research¹⁷⁷ and national/sub-national policy. All evidence used has gone through a [quality assurance process](#) and this has informed how the evidence has been used to support decision-making. The marine planning evidence base will continue to develop after the adoption of the marine plan. New evidence in support of marine plan policies will be added to [Explore Marine Plans](#), where data licensing conditions allow publication.
5. [Core development documents](#) produced during the development of the North West Marine Plan include iteration outputs, details of engagement and feedback.

¹⁷⁷ All published reports can be viewed at the following website:
<https://www.gov.uk/government/publications/evidence-and-the-marine-management-organisation-mmo/evidence-projects-register>

6. The Habitats Regulations Assessment and Sustainability Appraisal are independent statutory assessments carried out to inform the development of marine plans and are also a source of evidence.
7. The Habitats Regulations Assessment was carried out and informed the development of the [North West Marine Plan](#). The assessment includes:
 - pre-screening review
 - screening review
 - appropriate assessment information report
 - [appropriate assessment](#)
8. The Sustainability Appraisal ran alongside the development of the [North West Marine Plan](#) and included:
 - scoping report
 - options assessment
 - [sustainability appraisal report](#)
9. To support integration between land and sea, there is a duty to make sure all marine plans are compatible with plans developed by local planning authorities. There is also a duty to have regard to all other plans prepared by public bodies for the management and/or use of the sea or coast¹⁷⁸. The plans assessed to fulfil this requirement included local transport plans, waste and mineral plans, river basin management plans, beach management plans, heritage coast plans and shoreline management plans. Spatial information related to sub-national plans can also be found on the [Explore Marine Plans](#) digital service. For certain activities, such as marine aggregates, this compatibility and influence may extend to plans and authorities outside of the marine plan area.
10. By involving planning authorities and other stakeholders, the Marine Management Organisation developed a process for assessing sub-national policies and plans to identify policies with marine relevance for consideration in the development of the North West Marine Plan.
11. Table 5 provides a summary of findings from this analysis of public plans. Please note that some of the plans do not appear in the table as they were not considered to be of a scale suitable for consideration in the development of the North West Marine Plan, or are taken account of in other plans that were reviewed. Table 5 indicates those plans that include provisions that relate to the [UK Marine Policy Statement](#) Sections 2 and 3, 'detailed considerations' and 'key activities'. This can be considered an overview of the extent to which matters relevant to the marine area are addressed in terrestrial planning.

¹⁷⁸ The [UK Marine Policy Statement](#) (2011) directs the evidence base to take in a wide range of sources including existing plans. The 'Description of the Marine Planning System for England' states that, as much as possible, the marine planning system should facilitate the process of land-sea integration, build on and reinforce existing terrestrial policies. Please see Chapter 6 for a list of statutory and non-statutory plans in the description document.

Table 5: Local plan policy related to the marine area

	Ecology and biodiversity	Air Quality	Noise	Water Quality	Seascape	Historic Environment	Climate Change	Coastal Change and Flooding	Marine Protected Areas	Defence	Energy Production	Ports and Shipping	Aggregates	Dredging and Disposal	Cables	Fisheries	Aquaculture	Surface Water Management	Tourism and Recreation
Local Plans / Core Strategies / Minerals and Waste Strategies																			
Allerdale	X	X	X	X	X	X		X	X		X	X			X			X	X
Barrow-in-Furness	X					X	X		X			X							X
Blackpool					X	X	X	X										X	X
Carlisle	X	X	X	X		X	X	X			X				X				X
Cheshire West and Chester	X				X	X		X				X	X					X	X
Chorley	X		X								X								
Copeland	X					X		X			X							X	X
Cumbria						X	X				X	X	X					X	X
Flintshire	X	X		X		X		X	X		X	X	X		X				X
Fylde	X			X	X	X		X	X			X				X		X	X
Halton					X	X	X	X			X	X							X
Lancaster	X	X			X	X		X			X	X						X	X
Lake District National Park	X		X		X	X	X	X	X		X							X	
Liverpool	X	X	X			X	X	X	X		X	X	X					X	X
Preston						X		X			X	X			X			X	X
Sefton	X				X	X	X	X	X			X	X					X	X
South Lakeland	X	X	X	X	X	X	X	X			X		X						X
South Ribble	X				X	X	X	X											
Warrington	X			X		X		X			X	X	X		X			X	X
West Lancashire	X				X		X	X			X				X			X	X
Wirral	X			X	X	X	X	X			X	X	X						X
Wyre	X			X	X	X		X			X	X			X			X	X
Joint Lancashire Minerals and Waste														X					
Joint Merseyside and Halton Minerals and Waste	X						X											X	
Arnsdale and Silverdale AONB Management Plan	X			X	X	X			X										X
The Solway Coast AONB Management Plan	X			X	X	X		X	X		X			X		X	X	X	X

Table 6 The devolved administrations and non-UK bordering nations that have been notified and engaged with in relation to the North West Marine Plan

Bordering Nation	Organisation	Date Notified	Ongoing Engagement¹⁷⁹
Scotland	Marine Scotland	2016 (SPP)	Yes
Northern Ireland	Department of Agriculture, Environment and Rural Affairs	2016 (SPP)	Yes
Wales	Welsh Government	2016 (SPP)	Yes
Isle of Man	Isle of Man Government	2018	Yes

¹⁷⁹ Ongoing engagement includes receipt of all communications from the marine planning team (including regular newsletters and engagement notifications throughout the development of marine plans), informal engagement, and formal meetings