

North West Inshore and Offshore Marine Plan Sustainability Appraisal. Sustainability Appraisal Statement.









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Report prepared by: ClearLead Consulting Ltd. in association with WSP UK Ltd. and MarineSpace Ltd.



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1. Introduction

This Sustainability Appraisal (SA) Statement forms the final output from the SA of the North West Marine Plan. The North West Inshore and Offshore Marine Plan has been subject to an integrated SA and Strategic Environmental Assessment (SEA)¹ (hereafter referred to as SA) in line with the requirements of Statutory Instrument 2004 No. 1633: The Environmental Assessment of Plans and Programmes Regulations 2004.

Under the terms of the SEA regulations² when a plan is adopted, a statement must be produced summarising:

- how environmental/sustainability considerations have been integrated into the plan
- how the SA report has been taken into account
- how opinions expressed in response to consultation have been taken into account
- the reasons for choosing the plan or programme as adopted, in light of the other reasonable alternative options dealt with
- the measures that are to be taken to monitor the significant sustainability effects of the implementation of the plan or programme.

To reflect these requirements, the format of this report is as follows:

- Chapter 2 describes how sustainability considerations identified through the SA process have been integrated into the North West Marine Plan
- Chapter 3 describes the reasons for choosing the Plan as adopted, in light of other reasonable alternatives
- Chapter 4 describes how the opinions expressed in response to the relevant consultations have been taken into account
- Chapter 5 describes the measures decided upon to monitor all of the potential significant environmental effects of implementation of the Plan.

If you have any queries relating to this report or the marine planning process, please contact the Marine Planning Team via planning@marinemanagement.org.uk.

¹ An integrated SEA/SA refers to the fact that the assessment adheres to the requirements of the SEA regulations (see below) but also fully reflects relevant social and economic issues.

² Statutory Instrument 2004 No.1633: The Environment Assessment of Plans and Programmes Regulations 2004

2. The North West Marine Plan

2.1 How the North West Marine Plan addresses sustainability

The UK Government vision for the marine environment is for, "clean, healthy, safe, productive and biologically diverse oceans and seas". The UK Marine Policy Statement (MPS)³ is the framework for preparing Marine Plans and taking decisions affecting the marine environment. The UK high level marine objectives (HLMOs), published in January 2009⁴, are an integral part of the MSP and set the broad outcomes for the marine plan areas in achieving this vision, and reflect the principles for sustainable development. The HLMOs are detailed in Box 1.

Box 1: High Level Marine Objectives.

Achieving a sustainable marine economy

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

Ensuring a strong, healthy and just society

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

³ UK Marine Policy Statement available at: https://www.gov.uk/government/publications/uk-marine-policy-statement

⁴ HMG,NIE, WAG, SG (2009) Our Seas A Shared Resource - High Level Marine Objectives (online) available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/18 2486/ourseas-2009update.pdf

Living within environmental limits

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

Promoting good governance

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

Using sound science responsibly

- our understanding of the marine environment continues to develop through new scientific and socio-economic research and data collection
- sound evidence and monitoring underpin effective marine management and policy development
- the precautionary principle is applied consistently in accordance with the UK Government and Devolved Administrations' sustainable development policy.

The aim of marine planning is to ensure a sustainable future for coastal and offshore waters through managing and balancing the many activities, resources and assets in our marine area and in doing so, deliver these high-level marine objectives. Marine plans (including the North West Marine Plan) are intended to guide:

- marine users to the most suitable locations for different activities
- the use of marine resources
- all marine users, to ensure everyone with an interest has an opportunity to contribute to marine plans
- a holistic approach to decision making and consideration of all the benefits and impacts of all the current and future activities that occur in the marine area.

Therefore, the concept of sustainability is integrated throughout the North West Marine Plan from the vision and objectives downwards, as demonstrated by the plan vision reproduced in Box 2.

Box 2: North West Marine Plan Vision.

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.

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

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 cooperation.

Achieving a sustainable marine economy

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

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

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 scooter. 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

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.

2.2 How the SA report has been taken into account

The final SA Report identified 43 potential significant positive effects of the North West Marine Plan, mainly in relation to economic effects and the support given for certain communities or industries such as tourism. In the SA of the final plan there was just one residual significant negative effect, 29 residual uncertain effects and 5 residual significantly negative or uncertain cumulative effects.

This represents a considerable change from the assessment of the draft Marine Plan undertaken in 2019 which reported on the SA of the preferred policies. At this stage the assessment identified 28 potential significant negative effects and 52 uncertain effects. In addition, 82 potential negative or uncertain cumulative effects were identified. Mitigation measures were put forward in the <u>draft SA report</u> (September 2019) to address these effects and improve the sustainability performance of the plan. The mitigation put forward in the draft SA report is presented in Table 1.

Table 1: North West Plan Area Mitigation Measures Identified in the Draft Plan SA.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken		
Cultural Heritage	Cultural Heritage				
Heritage assets within north west marine plan areas Heritage assets adjacent to the north west marine plan areas (for Cables grouping	Cables, Aggregates, Dredging and disposal, Oil and gas, Ports and harbours (including shipping), and	There is an assumption that any proposals arising from these sectors will need to address the potential for adverse effects to arise on heritage assets through the Environmental Impact Assessment (EIA) process, where required under the Marine Works EIA Regulations 2017.	Accepted.		
only)	Renewables	Policy NW-HER-1 aims to provide protection to heritage assets, however, it is recommended that consideration is given to amending the policy supporting text to refer specifically to activities which may occur as a result of these groupings and related proposals	Discussing potential impacts caused by every sector in the supporting text would lead to an unduly long plan. It's implicit in the use of the plan, and discussed in section 2.3 of the marine plan, that the plan must be taken as a whole and no policy should be taken in isolation. NW-HER-1 should therefore provide adequate mitigation.		
Heritage assets within north west marine plan areas	Aggregates	The Crown Estate's leasing process and other required consenting schemes also ensures that cultural heritage receptors are taken into account during these processes and conditions frequently applied to limit effects.	Accepted.		
Heritage assets within north west marine plan areas	Heritage assets	The uncertain effect identified could be mitigated through a strengthening of policy wording for NW-HER-1. Stronger consideration of the effects of altering the settings of heritage assets and	The policy wording of NW-HER-1 has been agreed with heritage stakeholders, including Historic England. The supporting text is also being reviewed to consider how to make appropriate references.		

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
		challenges at the marine/terrestrial interface for cultural heritage within the policy wording could help to modify the identified uncertain effect to a positive effect	
Geology, Substra	ites and Coastal Pro	cesses	
Coastal features and processes Seabed substrates and bathymetry	Aggregates, Dredging and disposal	Any proposals arising from these sectors will need to address the potential for adverse effects to arise on both coastal features and processes and seabed substrates and bathymetry, through the EIA process. Policy NW-MPA-4 could provide some protection, however, supporting text could be strengthened by making reference to Geological Conservation Review Sites.	Accepted. Accepted, the supporting text will be reviewed and amendments made where appropriate.
Coastal features and processes	Air quality	Policies NW-CC-5 could provide some resilience, however, it is suggested that Policy NW-CC-5 supporting text should draw upon the latest climate change projections provided within the UKC18 Marine Report, as it currently refers to UKCPC09.	Accepted, the supporting text will be reviewed and amendments made where appropriate.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
		The supporting text for NW-AIR-1 currently states that air pollution contributes to climate change, however, it does not detail the potential negative implications of climate change on coastal features and processes. It is suggested that the policy supporting text details the negative effects of climate change, of which air pollution can contribute to.	Supporting text of policy updated with relevant links to climate change.
Coastal features and processes	Renewables	If future renewable energy proposals were to come forward, the potential negative effects on coastal features and processes will need to be addressed through the EIA process (for schedule 2 developments as classified by the EIA regulations, it is assumed that an EIA will be undertaken should the project be likely to give rise to significant environmental effects, be located in a sensitive area and is above the threshold specified in the EIA regulations).	Accepted.
Coastal features and processes, Seabed substrates and bathymetry	Aggregates, Renewables	The Crown Estate's leasing process and other required consenting schemes also ensures that cultural heritage receptors are taken into account during these processes and conditions frequently applied to limit effects.	Accepted.
Coastal features and processes	Aquaculture, cables, infrastructure, oil	Mitigation could be provided through project level assessment, such as EIAs. These will identify specific potential adverse effects resulting from each	Accepted.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
	and gas, ports and harbours	proposal, and appropriate mitigation methods. Thus, this uncertain effect could be mitigated.	
Landscape and S	eascape		
Landscape and seascape	Cables, Aggregates, Infrastructure, Oil and gas and Renewables	Any proposals arising from these sectors will need to address the potential for adverse effects to arise on both landscape and seascape, through the EIA process.	Accepted.
Landscape and seascape	Renewables Aggregates	The Crown Estate leasing process and other required consenting schemes also ensures that sensitive receptors are taken into account during these processes and conditions frequently applied to limit effects.	Accepted.
Water			
Marine Litter, Water Quality	Aquaculture and fisheries	Whilst it is recognised that marine litter can enter the marine plan areas from adjacent areas, policy NW-ML-3 seeks to minimise the potential release of litter from aquaculture sites within this plan area.	Accepted.
		It is suggested that NW-ML-1 explicitly makes reference to the fisheries sector, or that a fisheries-specific policy is created which prevents the intentional release of gear into the marine environment and provides support for the retrieval of debris which has already become marine litter.	Part of this is already addressed within NW-ML-1. Discussing potential impacts caused by every sector in the supporting text would lead to an unduly long plan. It's implicit in the use of the plan, and discussed in section 2.3 of the marine plan, that the plan must be taken as a whole and no policy should be taken in isolation.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
			Fisheries management is not within the remit of marine plan.
Pollution and water quality	Oil and gas and ports and shipping	As ports and shipping developments would classified as a schedule 2 development by the EIA Regulations, it is assumed that an EIA will be undertaken, should the project be likely to give rise to significant environmental effects, be located in a sensitive area and is above the threshold specified in the EIA regulations.	Accepted.
Pollution and water quality and Marine Litter	Tourism and recreation	Supporting text for policy NW-TR-1 needs to clearly identify what is meant by 'sustainable tourism and recreational activities' and highlight the importance of water quality to tourism and recreation.	Further steps are being taken to consider how sustainable tourism and recreational activities can be defined, but it's important to note that this may have to be decided on a case by case basis during the implementation of the policy. Steps are being taken to consider how to best incorporate water quality references into the supporting text of the policy.
Air Quality			
Air pollutants	Ports and harbours	As ports and shipping developments would be classified as schedule 2 development by the EIA regulations, it is assumed that an EIA will be undertaken, should the project be likely to give rise to significant environmental effects, be located in a sensitive area and is above the threshold specified in the EIA regulations.	Accepted.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
Climate			
Climate change resilience and adaptation	Air quality	Policies NW-CC-5 could provide some resilience, however, it is suggested that Policy NW-CC-5 supporting text should draw upon the latest climate change projections provided within the UKC18 Marine Report, as it currently refers to UKCPC09.	Accepted, the supporting text will be reviewed and amendments made where appropriate.
Climate change resilience and adaptation and Greenhouse gas emissions	Ports and harbours	As ports and shipping developments would be classified as schedule 2 development by the EIA regulations, it is assumed that an EIA will be undertaken, should the project be likely to give rise to significant environmental effects, be located in a sensitive area and is above the threshold specified in the EIA regulations. Policy NW-AIR-1 could help to ensure that future ports and shipping proposals consider their effects upon air quality, which could mitigate potential negative effects.	Accepted.
Climate change resilience and adaptation and Greenhouse gas emissions	Oil and gas	As oil and gas developments are classed as Schedule 1 developments, under the EIA regulations, any oil and gas development that would come forward as a result of this policy, would be subjected to an EIA. The specific reference to greenhouse gas emissions in the EIA regulations seeks to	Accepted.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
		address this issue with the intention of embedding climate change consideration.	
Communities, He	alth & Wellbeing		
Effects on communities	Renewables	Policy supporting text for NW-REN-1 should be expanded to better detail potential employment opportunities associated with renewable supply chains. If future renewable energy proposals were to come forward, the potential negative effects on communities will need to be addressed through the EIA process.	Employment opportunities are covered in several other policies in the plan, including NW-EMP-1. Discussing potential impacts caused by every sector in the supporting text would lead to an unduly long plan. It's implicit in the use of the plan, and discussed in section 2.3, that the plan must be taken as a whole and no policy should be taken in isolation. EIA point is accepted.
Economy			
Fisheries and aquaculture	Access	Whether adequate mitigation could be provided would be dependent on whether preference is given to the SA (sub) topic and associated activities or to the policy grouping and activities associated with this. This 'prioritisation' would ultimately be dependent on the project being proposed and the associated effects, and would be decided at a more granular level than the marine plan. As such, no further appropriate mitigation can be suggested.	Accepted.
		NW-FISH-1, NW-FISH-2, NW-FISH-3 and NW-CO-1 may provide some mitigation for the potential effects which may be	Accepted.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
		incurred on fisheries and aquaculture as a result of increased access.	
Fisheries and aquaculture	Aquaculture	The circumstances under which proposals with an adverse effect on aquaculture facilities would be Accepted. is unclear. Policy supporting text should explicitly state these cases.	While the circumstances will have to be determined on a case by case basis the supporting text will be reviewed and appropriate consideration given to where clarity could be provided.
Fisheries and aquaculture	Aggregates and Dredging and disposal	Policies NW-AQ-1, NW-FISH-2 and NW-FISH-3 aim to provide protection to aquaculture and fishing from activities that could have an adverse effect. The above policies do not specifically reference aggregates and give the options of minimising and mitigating effects of activities and developments. It is recommended that the wording of both the aggregates and/or AQ/FISH supporting text is changed to reflect the potential effect of aggregates on fisheries and aquaculture. Policy NW-CO-1 could also provide mitigation for fisheries and aquaculture, as it aims to optimise the use of space and incorporate opportunities for coexistence and co-operation with existing activities, within the north west marine plan areas.	Discussing potential impacts caused by every sector in the supporting text would lead to an unduly long plan. It's implicit in the use of the plan, and discussed in section 2.3, that the plan must be taken as a whole and no policy should be taken in isolation. These policies therefore still provide mitigation.
Fisheries and aquaculture,	Natural capital	Clarity in the supporting text is required in relation to fisheries and aquaculture, to	Many sectors are dependent on natural capital assets and it would not be
Leisure/recreation and Tourism		ensure that the cyclical and interdependent nature of this industry with	appropriate to single out aquaculture and fisheries. At present there is no strategic

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
		natural capital assets within the marine and coastal environment are adequately and appropriately explained.	approach, nor evidence in place to state which natural capital assets within the plan area should be prioritised over and above the priorities that are already set out in nature conservation legislation. For the time being, until an approach is set by government, the marine plan should be read as a whole and the suite of environmental policies should be used, alongside the aquaculture and fisheries policies, to set the strategic direction for natural capital protection and conservation. The importance of aquaculture and fisheries to the plan area is covered in the AQ and FISH policies.
Aggregate extraction	Natural capital	Clarity in the supporting text is required in relation to aggregate extraction, to state whether natural capital which benefits aggregate extraction is to be treated as preferential to other natural capital assets such as biodiversity which can be significantly affected by the industry.	Many sectors are dependent on natural capital assets and it would not be appropriate to single out aggregate extraction. At present there is no strategic approach, nor evidence in place to state which natural capital assets within the plan area should be prioritised over and above the priorities that are already set out in nature conservation legislation. For the time being, until an approach is set by government, the marine plan should be read as a whole and the suite of environmental policies should be used, alongside the aggregates extraction policies, to set the strategic direction for natural capital protection and conservation.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
			The importance of aggregate extraction to the plan area is covered in the AGG policies.
Access, Leisure and recreation, Tourism	Defence	Public access and restrictions within military areas are likely to be determined by MOD Byelaws. NW-DEF-1 may provide some mitigation, aims to avoid conflict between defence activities and new proposals within the north west inshore plan area. It will ensure that defence interests are not impeded.	This would have to be determined on a case by case basis and depends what proposals for Leisure / recreation / tourism could be within or adjacent to MOD areas. The policy is clear that "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".
Fisheries and Aquaculture	Renewables	Policy supporting text could be amended to address the potential negative effects that renewable energy could have. Policy NW-FISH-1 could provide some mitigation for the effects of renewable installations on fisheries and aquaculture. Policy NW-CO-1 could provide some mitigation with regards to co-existence.	Discussing potential impacts caused by every sector in the supporting text would lead to an unduly long plan. It's implicit in the use of the plan, and discussed in section 2.3, that the plan must be taken as a whole and no policy should be taken in isolation. These policies therefore still provide mitigation.
Marine Manufacturing	Water quality	In order to protect marine manufacturing, it should feature within the planning policies, whether this be within the supporting text to an existing economic policy (for example, infrastructure, defence etc.) or within its own policy. The potential negative implications of marine manufacturing on water quality need to be included with NW-WQ-1 supporting text.	Marine manufacturing is covered by multiple sector specific policies, incl. EMP, REN, AGG, PS. Discussing potential impacts caused by every sector in the supporting text would lead to an unduly long plan. It's implicit in the use of the plan, and discussed in section 2.3, that the plan must be taken as a whole and no policy should be taken in

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
			isolation. These policies therefore still provide mitigation.
Aggregates	Renewables	NW-AGG-1 and NW-AGG-3 may work to reduce the potential restrictions which may be imposed on aggregate extraction as a result of the renewables policy grouping.	Accepted.
Ports and shipping	Renewables	Policies NW-PS-1 and NW-PS-2 will ensure that important navigational routes will be safeguarded from static sea surface infrastructure. It is assumed that any new developments arising as a result of the policies will require an updated navigational risk assessment in line with the Port Marine Safety Code.	Accepted.
Biodiversity, Hab	itats, Flora & Fauna		
Protected sites and species, ornithology	Tourism and recreation	Policy supporting text needs to provide clarification on what 'sustainable tourism and recreation activities' entails. Strength could be added to policy NW-MPA-1 by removing options to minimise and mitigate	Further steps are being taken to consider how sustainable tourism and recreational activities can be defined, but it's important to note that this may have to be decided on a case by case basis during the implementation of the policy. Steps are being taken to consider how to best incorporate water quality references into the supporting text of the policy.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
			NW-MPA-1 ensures all impacts will be avoided, minimised or mitigated in that order of preference. Benthic and intertidal habitats are also
			protected by the policy, where relevant.
Protected sites and species, ornithology, fish and shellfish	Renewables and Aggregates	If future renewable energy proposals were to come forward, the potential negative effects on protected sites and species will need to be addressed through the EIA process. The Crown Estate leasing process and other required consenting schemes also ensures that sensitive biodiversity receptors are taken into account during these processes and conditions frequently applied to limit effects.	Accepted.
Fish and shellfish	Access and Aggregates	Policy NW-BIO-2 and NW-DIST-1 could help to mitigate the cumulative effect, although only 'highly mobile' species will be protected by NW-DIST-1.	Accepted. Currently, the evidence base only supports the protection of highly mobile species in NW-DIST-1. As the evidence base develops the policy will be reviewed. This policy also directly aligns with 2 out of the 11 qualitative descriptors of the UK Marine Strategy, D1 and D4.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
Marine megafauna	Access	NW-BIO-1, NW-BIO-2 and NW-BIO-3 may aid in alleviating some negative effects. However, the caveats within NW-ACC-1 grouping allowing for environmental net gains to be used as mitigation elsewhere, may still mean that megafauna within the north west marine plan areas are adversely affected. A minor negative rather than significant effect has been recorded due to the mitigation provided by these other plan policies.	Accepted. Currently, the evidence base only supports the protection of highly mobile species in NW-DIST-1. As the evidence base develops the policy will be reviewed. This policy also directly aligns with 2 out of the 11 qualitative descriptors of the UK Marine Strategy, D1 and D4.
		Policy NW-BIO-1, NW-DIST-1, NW-UWN-1 and NW-UWN-2 could help to mitigate the cumulative effect, although only 'highly mobile' species will be protected by NW-DIST-1.	Accepted. Currently, the evidence base only supports the protection of highly mobile species in NW-DIST-1. As the evidence base develops the policy will be reviewed. This policy also directly aligns with 2 out of the 11 qualitative descriptors of the UK Marine Strategy, D1 and D4.
Ornithology	Access	Policies within groupings such as those for Marine Protected Areas (NW-MPA-1) and Biodiversity (NW-BIO-2), may help to mitigate these effects. A minor negative rather than significant effect has been recorded due to the mitigation provided by these other plan policies.	Accepted.
		Policy NW-BIO-2 and NW-DIST-1 could help to mitigate the cumulative effect, although only 'highly mobile' species will be protected by NW-DIST-1.	Accepted. Currently, the evidence base only supports the protection of highly mobile species in NW-DIST-1. As the evidence base develops the policy will be

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
			reviewed. This policy also directly aligns with 2 out of the 11 qualitative descriptors of the UK Marine Strategy, D1 and D4.
Ornithology	Aggregates	Policy NW-MPA-1 may offer further protection to Marine Protected Areas through discouraging proposals which may have adverse effects on the objectives of marine protected areas.	Accepted.
Benthic and intertidal ecology	Aquaculture	It should be clear within supporting text that "where appropriate" refers to sites which are not protected, and that direct building on the seabed is to be minimal. For example, raised cages within the water column, which are anchored by several points on the seabed.	Accepted, and changes will be made to the supporting text where appropriate.
Benthic and intertidal ecology, Fish and shellfish, Ornithology, protected sites and species and marine megafauna	Aggregates, and Ports and harbours	All new aggregate, dredging and disposal, ports and harbours and cable proposals would need to be subject to an EIA, which would assess the potential effect on benthic intertidal ecology, fish and shellfish, ornithology, protected sites and species and marine megafauna. This could mitigate both potential negative effects and cumulative effects arising from development.	Accepted.
Marine Megafauna, Ornithology, Invasive non- native species	Climate change	NW-AIR-1 seeks to avoid increased greenhouse gas emissions. NW-FISH-1 supports a sustainable fishing industry, however this focuses on diversification	Accepted. By-catch management is outside the remit of the marine plans and impacts will be mitigated by existing processes and legislation.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
		and may not necessarily alleviate pressure on over-exploited fish stocks. NW-ML-1 and NW-ML-2 seek to reduce the quantity of litter within the marine environment, however its introduction will not necessarily be wholly prevented. No policies within the marine plan broach the issue of bycatch of unintended species, including marine mammals, within fishing gear. A neutral rather than negative effect has been recorded due to the mitigation	
Protected sites and species, Benthic and intertidal ecology, Fish and shellfish	Fisheries and aquaculture	provided by these other plan policies. The policy wording of NW-FISH-3 should be amended to explicitly state whether either important habitats of commercially important species should be protected, or whether this extends to important habitats of other species, including protected sites and species, such as benthic and intertidal species and fish and shellfish.	The extent of habitat protection is determined by the evidence available to the MMO. The supporting text will be updated to clarify how it is determined which habitats are protected.
Benthic and intertidal ecology	Oil and gas	Supporting text to policy NW-BIO-2, should be amended to highlight the importance of benthic and intertidal habitats. Strength could be added to the policy by removing options to minimise and mitigate.	NW-BIO-2 ensures all significant impacts will be avoided, minimised or mitigated in that order of preference. Benthic and intertidal habitats are also protected by the policy, where relevant.
Marine megafauna and ornithology	Tourism and recreation	Supporting text for policy NW-TR-1 needs to clearly identify what is meant by 'sustainable tourism and recreational	Further steps are being taken to consider how sustainable tourism and recreational activities can be defined, but it's important to note that this may have to be decided on

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
		activities' and highlight the importance of water quality to tourism and recreation.	a case by case basis during the implementation of the policy. Steps are being taken to consider how to best incorporate water quality references into the supporting text of the policy.
Benthic and intertidal ecology	Aquaculture	It should be clear within supporting text that "where appropriate" refers to sites which are not protected, and that direct building on the seabed is to be minimal. For example, rope methods which are often used for shellfish farms.	Accepted, and changes will be made to the supporting text where appropriate.
Fish and shellfish	Aquaculture	Controls should be put in place to ensure native populations are not hindered by the presence of farmed species within the water column. Disease control should be addressed, as well as aquaculture facility density. Whilst it is recognised that this is outside the remit of the MMO, the supporting text could signpost to relevant good practice, such as the CEFAS Shellfish Biosecurity Measures Plan NW-BIO-2 and NW-FISH-3 could partially mitigate for the effects identified.	Accepted, signposting will be included in supporting text where appropriate. Impacts will also be partly mitigated by INNS policy, as well as BIO and FISH as identified.
Fish and Shellfish	Cables	The uncertain effect has been identified due to a lack of data. If further data became available, clearly evidencing the potential or lack of potential for effects on marine organisms, this could reduce the uncertainty.	Data gap acknowledged.

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
Plankton	Biodiversity	The most applicable definition of 'net environmental gain' as included within the supporting text extends only to mean low water. It is therefore recommended that a definition is included within the supporting text for both this grouping, else for the policy/supporting text to signpost to the most relevant and recent advice. The same approach should be taken for the Natural Capital grouping, to ensure that the policies encompass the marine environment and are therefore applicable to proposals within the north west marine plan areas.	There is no current guidance on net gain in the marine environment.
Benthic and intertidal ecology	Co-existence	There is no indication within the supporting text whether the protection of industries or the protection of habitats take priority. NW-BIO-1, NW-BIO-2 and NW-BIO-3 and provide some mitigation but do not specifically reference benthic and intertidal ecology.	Noted. It would have to be assessed on a case by case basis, taking other policies in the plan into account as well.
Ornithology	Natural Capital	It should be clarified within the supporting text whether activities such as tourism which derive economic benefits from ornithology as a natural capital asset would take precedence over the protection of ornithology which is the natural capital asset. It is also noted that the most applicable definition of 'net environmental gain' as included within the supporting text of the	Many sectors are dependent on natural capital assets and it would not be appropriate to single out tourism and recreation. At present there is no strategic approach, nor evidence in place to state which natural capital assets within the plan area should be prioritised over and above the priorities that are already set out in nature conservation legislation. For the time being, until an approach is set by

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
		Biodiversity grouping extends only to mean low water. It is therefore recommended that a definition is included within the supporting text for both the Natural Capital and the Biodiversity groupings which encompasses the marine environment and is therefore applicable to proposals within the north west marine plan areas.	government, the marine plan should be read as a whole and the suite of environmental policies should be used, alongside the tourism and recreation policies, to set the strategic direction for natural capital protection and conservation. The importance of tourism and recreation to the plan area is covered in the TR policies. Regarding further definition of "net environmental gain, there is no current guidance on net gain in the marine environment.
Marine megafauna	Natural Capital	At present there is no approved marine natural capital approach from government. We would anticipate that following an approved approach, clarity could be provided within the supporting text to state whether natural capital which is derived from marine megafauna is treated preferentially and takes priority over exploitation of other natural capital assets (aggregate extraction, dredging etc.). It is also noted that the most applicable definition of 'net environmental gain' as included within the supporting text of the Biodiversity grouping extends only to mean low water. It is therefore recommended that a definition is included within the supporting text for both the Natural Capital and the Biodiversity	The supporting text already states that the most up-to-date government approach should be applied and that the way in which the policy applies over time may change. There is currently no strategic approach, nor evidence in place to state which natural capital assets within the plan are should be prioritised over and above the priorities that are already set out in nature conservation legislation. For the time being, until an approach is set by government, the marine plan should be read as a whole and the suite of environmental and other plan policies should be used, alongside nature conservation legislation, to set the strategic direction for natural capital protection and conservation. Regarding further definition of "net environmental gain, there is no current

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
		groupings which encompasses the marine environment and is therefore applicable to proposals within the north west marine plan areas.	guidance on net gain in the marine environment.
Ornithology	Natural Capital	At present there is no approved marine natural capital approach from government. We would anticipate that following an approved approach, clarity could be provided within the supporting text to state whether activities such as tourism which derive economic benefits from ornithology as a natural capital asset would take precedence over the protection of ornithology which is the natural capital asset. It is also noted that the most applicable definition of 'net environmental gain' as included within the supporting text of the Biodiversity grouping extends only to mean low water. It is therefore recommended that a definition is included within the supporting text for both the Natural Capital and the Biodiversity groupings which encompasses the marine environment and is therefore applicable to proposals within the north west marine plan areas.	The supporting text already states that the most up-to-date government approach should be applied and that the way in which the policy applies over time may change. There is currently no strategic approach, nor evidence in place to state which natural capital assets within the plan are should be prioritised over and above the priorities that are already set out in nature conservation legislation. For the time being, until an approach is set by government, the marine plan should be read as a whole and the suite of environmental and other plan policies should be used, alongside nature conservation legislation, to set the strategic direction for natural capital protection and conservation. Regarding further definition of "net environmental gain, there is no current guidance on net gain in the marine environment.
Ornithology	Dredging and disposal	Policy NW-BIO-2 and NW-BIO-3 encourage proposals to enhance habitats and promote net gains, which could help	Discussing potential impacts caused by every sector in the supporting text would lead to an unduly long plan. It's implicit in the use of the plan, and discussed in

SA Sub-Topic	Causal Grouping	Draft SA Mitigation	MMO Action Taken
		to protect birds from negative effects associated with dredging and disposal. Policy NW-DIST-1 could provide some mitigation, however, supporting text should be amended to identify the potential effect dredging and disposal activities pose.	section 2.3, that the plan must be taken as a whole and no policy should be taken in isolation. These policies therefore still provide mitigation.
Plankton	Renewables	The Crown Estate leasing process and other required consenting schemes also ensures that sensitive receptors are taken into account during these processes and conditions frequently applied to limit effects. More data is needed on the potential effects of marine renewable energy devices on the water column and subsequently on plankton.	Accepted. Evidence requirement noted.

Table 1 demonstrates how the MMO addressed the suggested mitigation. Changes were then made to the plan in response to consultation and to the mitigation measures identified. The MMOs responses to the mitigation were used to inform assessment of the final plan policies, and the assessment spreadsheets were also amended in line with the changes made to the plan policies and the responses to the mitigation provided by the MMO.

3. Selection of the final North West Inshore and Offshore Marine Plan

3.1 Introduction

The SEA Directive requires that, '... reasonable alternatives, taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.'

3.2 The reasons for selecting the alternatives dealt with

As part of the development of the North West Marine Plan, several reasonable alternative options for the policies within the North West Marine Plan were identified by the MMO and tested through the SA. As required by the <u>SEA Regulations</u> (Schedule 2), this document identifies the reasons for the selection of the preferred options in preference to other alternative options.

In SA, this is interpreted as having two meanings:

- why it was 'reasonable' to select the alternatives which were developed to be tested
- 2. why the preferred approach was selected in light of the SA of alternatives.

Prior to options development the MMO identified key issues, which were then categorised as opportunities or challenges across the north west marine plan areas, which were determined at an appropriate spatial and temporal scale. These key issues were then recorded within the Issues and Evidence Database and arranged into themes:

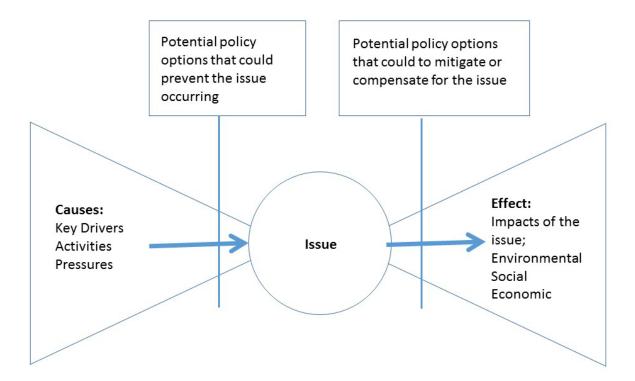
- **economy**: aquaculture, co-existence, ports and harbours, shipping, renewables, oil and gas, cables, infrastructure, aggregates
- **environment**: climate change, coastal change, air quality, disturbance, ecosystem approach, habitats, invasive non-native species, litter, Marine Protected Areas (MPAs), geodiversity, species, water quality
- **governance**: cumulative effects
- **social**: access, employment, fisheries, historic environment, seascape, tourism and recreation, dredging and disposal, heritage assets, defence.

The issues under these themes are not exclusive and others have been included as appropriate when issues and supporting evidence have been identified through the planning process.

Once key issues were identified for the north west marine plan areas, the causes and effects of these issues were considered, and later validated by stakeholders. Using this, the MMO identified where the most appropriate policy intervention could sit, either preventing the cause of the issue, or where this can't be controlled by policies within the North West Marine Plan, addressing the effect of the issue.

This process is presented in Figure 1.

Figure 1: North West Plan Area Mitigation Measures Identified in the Draft Plan.



Following the identification of key issues, realistic and deliverable alternatives were created under each theme, which align with the UK Marine Policy Statement (MPS) High Level Marine Objectives (HLMOs)⁵ and other relevant legislation, as well as address current and future issues in the plan area. As a result, each of the marine plan areas (north east, north west, south east and south west) has a variety of different 'groupings' (for example, Access) and each 'grouping' had a number of potential options. The groupings and options reflect key issues in each of the marine plan areas, and therefore vary across plan areas. For the North West Marine Plan there were 29 groupings under which 261 individual options were identified and assessed through the SA.

These options were subject to stakeholder engagement during Iteration 2 across the north east, north west, south east and south west marine plan areas. This took place between 29 January 2018 and 29 March 2018. Across these marine plan areas, a total of 1632 comments were received by the MMO in response to the Iteration 2 consultation. This stakeholder input, along with the SA options assessment findings, was then used to identify a preferred and sustainable option for each grouping which could be developed into a detailed policy.

Following the identification of a preferred option for each grouping, compatibility checks were undertaken by the MMO, during which the preferred option for each grouping was compared with other preferred options to ensure compatibility with each other. Following this exercise, a gap analysis was undertaken which identified any policy gaps within each marine plan area. A policy gap is where policies existed in other plan areas that were deemed to be nationally relevant, so were therefore introduced in areas where they did not exist after the Iteration 2 options process.

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⁵ HM Government, UK Marine Policy Statement, 2011

During the compatibility check and gap analysis exercises, some policy options were merged to create preferred policies compatible across the marine plan areas and some additional preferred policies were introduced to some marine plans in order to fill an identified policy gap. In these cases, the policies had not been considered at the options (Iteration 2) stage as no marine plan issues had been identified in the earlier marine plan development stages. In these cases, there is not considered to be an alternative option to consider because the policy is required to fill a policy gap.

Iteration 3 stakeholder engagement was then undertaken on a preferred set of policies with detailed policy content between 21 January 2019 and 29 March 2019. Following engagement, the preferred policies were edited to address consultee comments. The final set of policies was then passed to the SA consultants for assessment. The methodology followed for undertaking this assessment is described in Section 3.3 Part 1 of the SA Report.

As part of the draft plan consultation a number of respondents suggested alternative policy wordings or updates to policy supporting text. As these could be viewed as alternatives, analysis was undertaken by the MMO regarding whether these policies would be seen as reasonable alternatives to that which had already been tested and therefore, whether they should be tested.

As a result of this process, changes were made to both policy wording and policy supporting text in the final marine plans. A full list of changes can be seen in the Modifications Report.

All amendments made to the plan were then incorporated into the SA, including changes which were slight wording alterations, alterations in strength or intent, and new policies.

3.3 The reasons for choosing the plan or programme as adopted

A wide range of evidence, including stakeholder input, along with the SA options assessment findings were used to identify a preferred and sustainable option for each grouping which was then developed into a detailed policy. Some of the preferred policies resulted from a combination of options assessed at the options stage and some have also been merged with other policy options.

Through the development of the preferred set of policies for each marine plan area, options have been rejected for the following reasons:

- they were not identified as the most sustainable option in the SA
- they were not identified as compatible with other preferred policies, for example because they were a duplicate or overlapped with another policy (in which case some preferred policies were merged, or their strength changed)
- they were not favoured by stakeholders during the Iteration 2 engagement in February/March 2018
- evidence did not support taking the development of the policy forward.

4. Consultation

4.1 Introduction

Consultation is an essential part of the plan making and SA processes. This section of the report sets out the main issues raised through consultation and outlines how these comments have been taken into account in the development of the final North West Marine Plan.

4.2 SA Advisory Group

The SA Advisory Group (SAAG) was convened by the MMO to informally advise on the approach, development and delivery of the SA. The overall objective of the SAAG was to guide and advise on the delivery of the SA for the South West, North West, North East and South East Marine Plans. The advisory group provided objective procedural, technical and general advice:

- to facilitate the marine plan SA process
- to input, as appropriate to each stage of the SA process (scoping, appraisal of alternatives, appraisal of the draft plan and SA reporting)
- to promote stakeholder involvement
- to ensure appropriate consideration of relevant information, including that arising from engagements
- to achieve timely preparation of quality documents to inform appraisal decisions.

All advice and discussion was informal, in recognition of the fact that members of the group may want to (or may be required to) respond to formal consultations on the SA scoping report and final SA report.

The following organisations were members of the group:

- Associated British Ports
- Association of Inshore Fisheries and Conservation
- British Marine Aggregate Producers Association
- Chamber of Shipping
- Devon Coastal Partnership
- Durham Heritage Coast
- Historic England
- Joint Nature Conservation Committee
- Natural England
- National Federation of Fishermen's Organisations
- North-West Coastal Forum
- Royal Yachting Association
- Severn Estuaries Partnership
- Tamar Estuaries Consultative Forum
- Thames Estuary Partnership
- The Crown Estate
- The Environment Agency
- Marine Scotland (the Scottish Government).

As well as formal consultation on the SA, the SAAG agreed the methodology used and assisted in assessing both the options and the draft plan.

4.3 SA Scoping Consultation

The scoping report is the primary mechanism for consulting on the scope and level of detail of the SA, and was consulted upon in accordance with the requirements of Regulation 12(5) and (6) of the SEA Regulations. The scoping engagement began on the 11 April 2016 and closed on 13 May 2016. The scoping report was published on the MMO's website where anyone could submit a comment.

The scoping report was issued to the following statutory environmental bodies:

- Natural England
- Historic England (formerly English Heritage)
- The Environment Agency.

In addition, the scoping report was issued to the following organisations for comment:

- Associated British Ports
- Association of Inshore Fisheries and Conservation Authorities
- British Marine Aggregate Producers Association
- Chamber of Shipping
- Department for Environment, Food and Rural Affairs
- Devon Coastal Partnership
- Durham Heritage Coast
- Marine Scotland (The Scottish Government)
- National Federation of Fishermen's Organisations
- North West Coastal Forum
- Oil and Gas UK
- Renewables UK
- Royal Yachting Association
- Severn Estuaries Partnership
- Tamar Estuaries Consultative Forum
- Thames Estuary Partnership
- The Crown Estate
- Visit England
- Welsh Assembly Government
- Wildlife and Countryside Link.

The SAAG met on 2 March 2016 to discuss the scope of the SA and views expressed at this meeting informed the scoping report. At this meeting the SAAG provided baseline information and identified data gaps. Recommendations were made to change the format of the 'scorecard' presentation of information within the scoping report and some interactions between topics / activities were clarified through discussion. Additional policy documents were identified for review.

In response to the comments received on the scoping report, the following actions were undertaken:

- additional policy documents were reviewed and added to the SA Database
- additional baseline data was added to the SA Database in relation to water quality, air quality, economy, geology, substrates and coastal processes, marine litter, transboundary issues, fisheries and aquaculture, aggregates extraction, seabed assets, energy and safeguarded wharves
- additional data gaps were identified, for example, potential impacts on bats which may migrate across marine areas
- · relationships between some topics were clarified
- amendments were made to some outdated or incorrect baseline data and clarifications, for example, in relation to some protected sites and recreational boating activity
- additional detail on how magnitude is defined was added into the methodology for the preferred options assessment
- fishing was added as a cross-cutting issue
- information was provided which was useful for the assessment stage.

4.4 Consultation on the options

An Iteration 2 SAAG meeting was held on 28 February 2018. As part of this session, the SAAG members were invited to comment on the approach being taken to the options assessment and examples of some of the completed assessments of the groupings were provided.

During this meeting the SAAG asked for more detailed justification to be provided for options screened into the assessment as likely to result in significant effects. SAAG members agreed that where there is likely to be significant impacts on social issues the consideration of tourism and recreation should be considered separately. The SAAG questioned whether signposting to legislation within policy options could result in a negative effect. The consultants clarified that where there is an ongoing issue, which is not being solved by current legislation/signposting, the SA of options has identified this could result in a negative effect. Where there is not an issue, the SA of options has identified a potential positive effect as the legislation is clearly working.

The SAAG identified an issue on how particular terminology is used when talking about the significance on heritage assets. It can change in relation to societal benefits, and the use of National Planning Policy Framework and terrestrial planning. The MMO agreed that supporting text would provide details on issues and address concerns and the consultants would ensure that significance was clearly defined within the SA.

The SAAG requested that the SA matrices approach should be more flexible. The consultants agreed that the options report would include a narrative and will be more flexible.

The SAAG were invited to provide more information on issues identified by the MMO for which options were being developed to address them. The SAAG suggested some corrections to issues.

The consultants raised a discussion point on whether more prescriptive options would be beneficial, for example, policy options relating to social benefits, ecotourism, natural capital and ecosystem services. The SAAG agreed the options could be clearer in this respect.

To assist in the assessment of the preferred options, a further assessment workshop was held with the SAAG on 19 June 2019. The Advisory Group discussed the key issues identified in the preferred policies assessment with facilitation and note taking provided by the consultants. At this meeting the SAAG asked that assessment spreadsheets be included as appendices to SA options assessment reports to provide transparency and detailed information to consultees. The group suggested that the assessment description in relation to economy, oil and gas be amended to state that Carbon Capture and Storage (CCS) may be beneficial in achieving the UK's carbon targets. The consultants raised a discussion point regarding which policy groupings/receptors would be given precedence where policies from different policy groupings conflict with one another. As a result it was decided that the MMO needed to determine which approach would be favoured e.g. provide a written hierarchy for a couple of policies, change the wording, or leave it to the decision makers. The consultants were asked to include mitigation in assessment or policy options to explain that the hierarchical preference included in policies needs to be stated, this may include relevant policies being qualified with, for example, "....must not affect (e.g. MPAs)".

Regarding Natural Capital Assessments the consultants were asked by the SAAG in the 19 June 2019 meeting to amend the mitigation put forward to the MMO regarding the natural capital policy grouping, to include that should it not be possible for a definition of natural capital to be included within the policy or supporting text, then the policy/supporting text should signpost to the most relevant guidance.

The options assessment of the draft North West Marine Plan was reported in an options assessment SA report. The options assessment SA report was published in June 2018 and made available for comment. In response to the comments received, additional information relating to air, biodiversity, climate, communities, economy and water was added to the SA Database, including baseline data and policy documents. For example, information on nature improvement areas was added to the SA Database and the Scottish Marine Plan was into policy review with a greater emphasis on the need for a transboundary approach.

4.5 Consultation on the Draft North West Marine Plan and SA Report

The draft North West Marine Plan and accompanying draft SA report were consulted on with the public and other key stakeholders between 14 January 2020 and 20 April 2020.

Following consultation, responses relating to the SA have been reviewed and responded to. Amendments to the SA have been undertaken in response to consultees' comments as appropriate.

Across all marine plan areas, (north west, south west, north east Inshore and Offshore and the south east Inshore)14 individual written responses were received which included approximately 124 comments.

Where appropriate these comments have been taken into account in the final SA report. These comments can be broken down into the following main themes:

Table 2: Changes made as a result of consultation on the draft SA Report.

Theme	Detail
General	 alignment between land and sea planning systems to be emphasised
Baseline Data	 ensure both designated and non designated heritage assets are considered, both marine and terrestrial and their settings include reference to the relationship between seascape and landscape and the settings of some heritage assets provision of new data on air quality, fisheries, communities, geology and coastal process, water quality, marine litter, biodiversity (fish and shellfish), biodiversity (protected sites and species), biodiversity (marine megafauna), economy (ports and shipping), defence and water quality in the Mersey additional information provided about potential effects of tidal lagoons and offshore energy additional information provided about undersea coal at Whitehaven factual clarification of importance of aquaculture industry correction to details of activities in Walney Channel clarifications of effect from underwater noise clarification that fishing industry is not sole contributor to marine litter added a data gap to economy baseline (fisheries) additional emphasis placed on predicted impacts from climate change on fisheries clarification of general environmental effects of shipping clarification of importance of fishing to certain communities clarification of potential effect from aquaculture regarding newly introduced species
Assessment Findings	 adjusted positive effect from the marine plan on cultural heritage to uncertain and added mitigation to strengthen policy wording giving consideration of the effects of altering the settings of heritage assets and challenges at the marine / terrestrial interface clarified that not only do sediments get affected by
	physical disturbance but that any change in sediment as

Theme	Detail
	 well as any disturbance affects the resident assemblages of species amended a minor negative effect from cables relating to electromagnetic fields to an uncertain effect as some research suggests that there could be a negative effect on fish but it is limited amended effect from aquaculture, cables, infrastructure, oil and gas, ports and shipping policy groupings on coastal processes to uncertain clarified that policy has a positive effect on all protective features and thereby on the whole MPA network.

5. Monitoring

The SEA Regulations require that the significant environmental effects of plans and programmes be monitored. This intends to allow the early identification of unforeseen adverse effects so that appropriate remedial action can be taken. Therefore, monitoring undertaken for the North West Marine Plan as part of the SA, and as part of the implementation and monitoring of the adopted North West Marine Plan, should help to:

- monitor the significant effects of the final North West Marine Plan
- track whether the North West Marine Plan has had any unforeseen effects
- ensure that action can be taken to reduce/offset the significant negative effects of the plan

The requirements of the SEA regulations focus on monitoring the significant negative and unforeseen effects of the Marine Plan. Therefore, monitoring within these reports is only discussed within the context of residual effects which are significantly negative or uncertain.

The North West Marine Plan process itself includes a comprehensive monitoring programme which is focused on the achievement of the plan policies contribution towards the marine plan objectives, which in the case of the North West, South East North East and South West Marine Plans are the UK Marine Policy Statement high level marine objectives. This monitoring programme will enable the MMO to track the success of policies and also to monitor the baseline environmental, economic and social conditions of the marine plan areas. The monitoring also contributes to the three-yearly reporting to parliament, which in turn provides a mechanism for reviewing and amending the plan or individual policies.

The monitoring programme will, as outlined in section 2.6 of the North East, North West, South East and South West Approach to Monitoring, also meet the requirements of the SEA regulations in order to identify any undesirable effects and the need for remedial action, based on the residual significant negative effects and uncertain effects identified within the SA.

The North East, North West, South East and South West Approach to Monitoring provides a framework to monitoring of the English marine plans. It uses the UK Marine Policy Statement high level marine objectives to provide consistency between marine plans allowing monitoring activities to be set in a common context. Indicators will be developed to allow process, outcome and contextual monitoring. Process monitoring examines the development and implementation of marine plans, outcome monitoring measures progress towards real world change resulting from the marine planning process, and contextual monitoring recognises that marine plan monitoring must consider changes in the wider operating context.

The Annex of Indicators will be developed following the publication of the North East, North West, South East and South West Approach to Monitoring and, once completed will be available on request from the Marine Management Organisation. The SA topics and sub-topics for which residual significant negative or uncertain effects have been identified in the assessment of the final policies are presented in

Part 3 of the SA report. Suggested indicators to monitor these effects are presented in Table 3, below. During the development of the Annex of Indicators, these suggestions will, if practicable, be integrated into the monitoring programme or new indicators will be created to assess these effects.

Data will be collected, based on these indicators, which will be used to inform the reporting requirements under the Marine and Coastal Access Act 2009 Section 54 and 61, as well as the monitoring requirements under the SEA regulations. Due to the iterative nature of the marine planning process the monitoring programme will be refined over time.

Table 3: Suggested monitoring indicators.

SA Sub-topic	Indicator suggestions	
Cultural Heritage		
Heritage Assets within marine plan areas	Objective indicator: Changes to the Heritage at Risk Register entries linked to proposals going ahead	
	Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted specific outcomes* (both policy and non-policy) have occurred	
	*predicted specific outcomes would include the effects on heritage assets within marine plan areas from marine developments including: cables developments, dredging applications, oil and gas and carbon capture usage and storage projects and renewable energy projects	
Heritage Assets adjacent to marine plan areas	Objective indicator: Changes to the Heritage at Risk Register entries linked to proposals going ahead	
	Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted specific outcomes* (both policy and non-policy) have occurred	
	*predicted specific outcomes would include the effects on heritage assets adjacent to marine plan areas from marine developments	
Geology, Substrates and Coastal Processes		
Seabed substrates and bathymetry	Outcome indicator: Data from aggregate developments or licenses need to be monitored for significant negative effects on seabed substrates and bathymetry	
	Outcome indicator: Monitor data from dredging applications and licenses for potential significant negative effects on seabed substrates and bathymetry	

SA Sub-topic	Indicator suggestions
Coastal features and processes	Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted specific outcomes* (both policy and non-policy) have occurred *predicted specific outcomes would include the effects on coastal features and processes within marine plan areas from marine developments including: aggregate developments or licenses and renewable energy projects
Seascape and Landscape	
Effects on seascape and landscape	Intermediate outcome indicator: A reduction in proportion of proposals securing approval in areas that are identified as sensitive for their visual resource and marine character
Water	
Pollution and water quality	Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted policy specific outcomes* (both policy and non-policy) have occurred *predicted specific outcomes would include the effects on pollution and water quality within and adjacent to marine plan areas from marine developments Outcome indicator: Water quality data
Economy	
Energy generation and infrastructure development	Outcome indicator: The number of Crown Estate leases granted (for energy development) and spatial distribution of development Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted specific outcomes (both policy and non-policy) have
	occurred
Marine manufacturing	Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted specific outcomes (both policy and non-policy) have occurred

SA Sub-topic	Indicator suggestions		
	Outcome indicator: Office of National Statistics Data regarding marine manufacturing developments		
Biodiversity, Habitats, Flora and Fauna			
Benthic and intertidal ecology	Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted policy specific outcomes have occurred		
	Outcome indicator: Data from aggregate developments or licenses need to be monitored for potential significant negative effects on benthic and intertidal ecology		
	Outcome indicator: Monitor data from oil, gas projects for potential significant negative effects on benthic and intertidal ecology		
	Outcome indicator: Health or distribution of benthic or intertidal habitats; and sessile species		
Fish and shellfish	Outcome indicator: Magnitude of change in the spatial extent of S41 priority habitats, or the sub-set of S41 priority habitats relevant to the policy		
	Outcome indicator: Contributions to the (Marine Noise Registry (MNR) increase annually until they exceed 5% per year		
	Contextual indicator: Data and studies regarding the impacts of electromagnetic fields on fish, particularly from cables developments		
Marine megafauna	Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted specific outcomes* (both policy and non-policy) have occurred		
	*predicted specific outcomes would include the effects on marine megafauna from marine developments including: oil and gas projects, noise generating projects and aggregate developments or licenses		
	Outcome indicator: Voluntary contributions to the (Marine Noise Registry (MNR) increase annually until they exceed 5% per year		

SA Sub-topic	Indicator suggestions
Ornithology	Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted policy specific outcomes* have occurred
	*predicted specific outcomes would include the effects on ornithology from marine developments including: oil and gas projects and aggregate developments or licenses
Plankton	Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted policy specific outcomes have occurred
	Contextual indicator: Data and studies regarding the impacts of marine renewable energy devices on the water column and subsequently on plankton
Protected sites and species	Outcome indicator: Condition status for designated sites and the relative frequency of human activities or other factors identified as adversely impacting feature condition
	Outcome indicator: Magnitude of change in the spatial extent of S41 priority habitats, or the sub-set of S41 priority habitats relevant to the policy
	Outcome indicator: Stakeholder survey responses identify the extent to which stakeholders perceive predicted specific outcomes (both policy and non-policy) have occurred
	*predicted specific outcomes would include the effects on protected sites and species within marine plan areas from marine developments including: noise generating projects, oil and gas projects