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# South West Inshore and Offshore Marine Plans Sustainability Appraisal. Part 3: Results of the Assessment. Draft Report.



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# South West Inshore and Offshore Marine Plans Sustainability Appraisal. Part 3: Results of the Assessment. Draft Report.

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



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Marine Management Organisation  
Lancaster House  
Hampshire Court  
Newcastle upon Tyne  
NE4 7YH

Tel: 0300 123 1032  
Email: [info@marinemanagement.org.uk](mailto:info@marinemanagement.org.uk)  
Website: [www.gov.uk/mmo](http://www.gov.uk/mmo)

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Appendix A: SA Database

Appendix B: Assessment of the South West Marine Plans Preferred Policies



# 1. Introduction and Purpose of this Report

## 1.1 Introduction

The South West Marine Plan has been subject to an integrated Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) (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.

This report is Part 3 of the SA Report. It presents the results of the assessment of the South West Marine Plan and its reasonable alternatives.

The SA has been carried out by ClearLead Consulting Ltd, in association with WSP UK Ltd and MarineSpace Ltd. on behalf of the MMO.

## 1.2 Structure of this Report

The SEA Regulations require that an assessment is carried out on a draft version of the South West Marine Plan and a statutory environmental report (an SA report under the English planning system) is produced and consulted on. This report sets out the SA process followed, outlines why alternatives were selected or rejected, reports on the assessment of the draft marine plan and outlines a programme for monitoring the effects of the marine plan. This SA Report has been produced alongside the production of the South West Marine Plan and is published for consultation at the same time, providing respondents with appropriate information to base their representations about the sustainability implications of the marine plan.

For the sake of clarity, this SA Report is split into a number of parts. This is Part 3 of the SA Report: Results of the Assessment. The other parts of the report are:

Part 1: Introduction and Methodology

Part 2: Scoping Information

A separate Non-Technical Summary is also available.

All reports are available at the following weblink:

<https://www.gov.uk/topic/planning-development/marine-planning>

This report addresses the following:

- the reasons for selecting the alternatives dealt with
- the results of the assessment, including the effects of the plan objectives, alternative options and effects of the draft versions of the South West Marine Plan, and mitigation measures for each of the assessment topics, which are:
  - Cultural Heritage
  - Geology, Substrates and Coastal Processes
  - Seascape and Landscape
  - Water
  - Air Quality
  - Climate
  - Communities, Health and Wellbeing



- Economy
- Biodiversity Habitats Flora and Fauna
- Cumulative effects assessment
- Monitoring programme

Sections 5 to 13 of this report present the potential significant effects of the South West Marine Plan by SA topic.

Full detailed assessments are available in a separate technical appendix (SA Report Technical Appendix B: Assessment of the South West Marine Plan Preferred Policies). The technical appendix can be filtered in order to view particular parts of the assessment, SA topics or sub-topics or particular policy groupings. For example, in order to view the assessment of one policy grouping, column E can be filtered by clicking the 'button' in row 1 and selecting a grouping from the list that appears. Similarly, to view the assessment against an SA sub-topic, click the 'button' in row 1, column C and select the SA sub-topic from the list that appears.

The assessments of policies have been informed by the MMO's interactive marine planning tool, the Marine Information System (MIS). The MIS is to be superseded by an alternate service, Explore Marine Plans, which will also be accessible online. The MIS draws data from various sources including the MMO, delivery partners and industry, and compiles information on sectors and activities which support the development and implementation of marine plans.

## 2. The Reasons for Selecting Alternatives

### 2.1 Introduction

As part of the development of the South West Marine Plan, several reasonable alternative options for the policies within the South West Marine Plan were identified by the MMO and tested through the SA. As required by the [SEA Regulations](#) (Schedule 2), the SA Report 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:

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

### 2.2 The Alternatives Developed

Prior to options development the MMO identified key issues, which were then categorised as opportunities or challenges across the south 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:

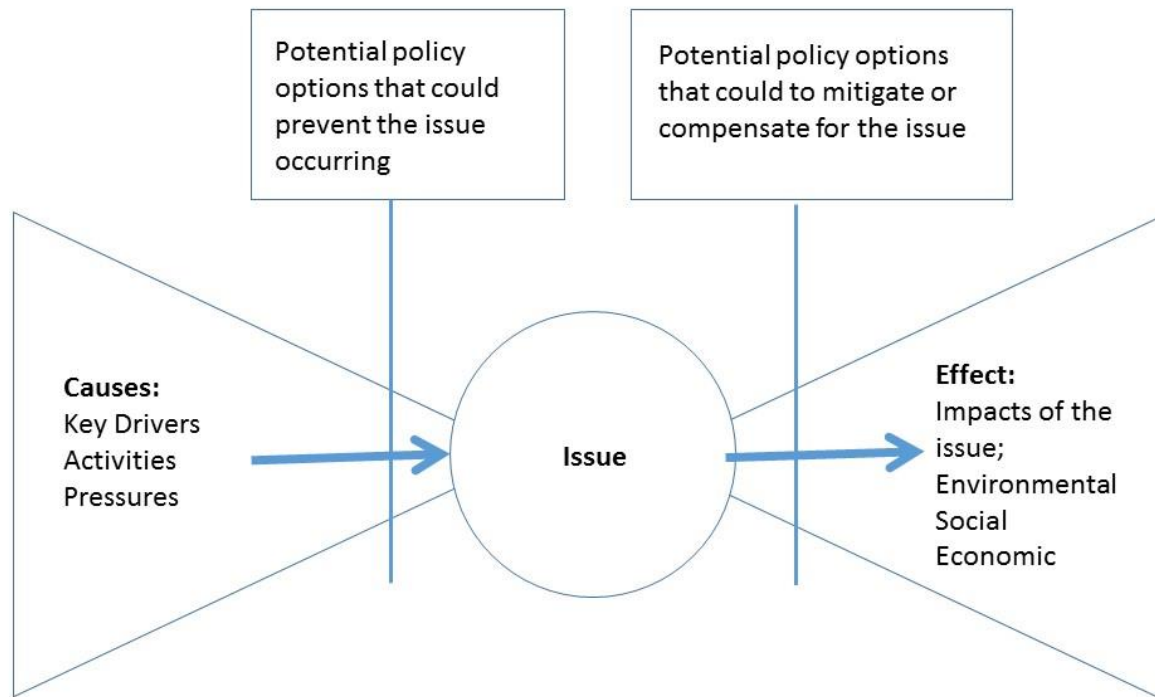
- **economy:** aquaculture, co-existence, ports and harbours, shipping, renewables, oil and gas, cables, infrastructure, aggregates
- **environment:** climate change, coastal change, air quality, disturbance, ecosystem approach, habitats, invasive non-native species, litter, Marine Protected Areas, geodiversity, 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 south west marine plan area, 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 South West Marine Plan, addressing the effect of the issue.

This process is presented in Figure 1.

**Figure 1: Methodology for Devising Policy Options.**



From this, realistic and deliverable alternatives were created, which align with the MPS High Level Marine Objectives (HLMOs)<sup>1</sup> and other relevant legislation, as well as address current and future issues in plan areas. As a result, each of the marine plan areas 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 South West Marine Plan there were 33 groupings under which 254 individual options were assessed through the SA.

These options were subject to stakeholder engagement during Iteration 2 across the seven current marine plan areas. This took place between 29 January and 29 March 2018. Across these seven 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's 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.

<sup>1</sup> 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 four 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.

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 or
- 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) or
- they were not favoured by stakeholders during the Iteration 2 engagement in February / March 2018.

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 preferred 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 Sustainability Appraisal Report.

## **2.3 Reasons for Selecting the Alternatives**

As mentioned above, stakeholder input, along with the SA's 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 result from a combination of options assessed at the assessment stage and some have also been merged with other policy options.

## 2.4 Findings of the Assessment of Alternatives

The options assessment stage was undertaken between June 2017 and April 2018 by ClearLead Consulting Ltd working in association with WSP Ltd and MarineSpace Ltd.

The options stage was a significant phase in the marine planning process; it considered the different ways of delivering the vision and HLMO objectives and was the mechanism which determined how the marine plan responded to issues in the south west inshore and offshore marine plan areas. The options assessment formed part of Iteration 2 of the SA of the marine plans, and the methodology for this is set out within Part 1 of the SA Report.

All reasonable policy options for the South West Marine Plans were assessed against each SA sub-topic. The SA Database was referred to throughout the assessments to provide evidence of relevant issues and baseline data. The assessment focussed on identifying potential significant effects and providing a comparison between the options being considered for each policy grouping.

The key recommendations from the assessment of the options were to avoid taking forward options which were identified as having the potential to result in a significant negative effect on the SA sub-topic, and to opt for options which would enhance the significant positive effects identified. It was also recommended that policy authors minimise the uncertainty associated with the implementation of a policy. Where applicable, the assessors also identified further mitigation measures which could assist with the development of the preferred options.

The assessment outputs from the options assessment stage comprised of an Excel workbook containing the assessments of the policy options for each grouping against the relevant SA sub-topics. This totaled 254 policy options across 29 groupings. From the completed assessments, a pivot table and chart were generated, providing a visual representation of the findings of the assessment for each grouping. An example is shown below. This allowed a quick comparison to be made of the relative performance of all options within a grouping (A – N of the x axis within the example provided below) against the relevant SA sub-topics (tallied in the y axis within the example provided below).

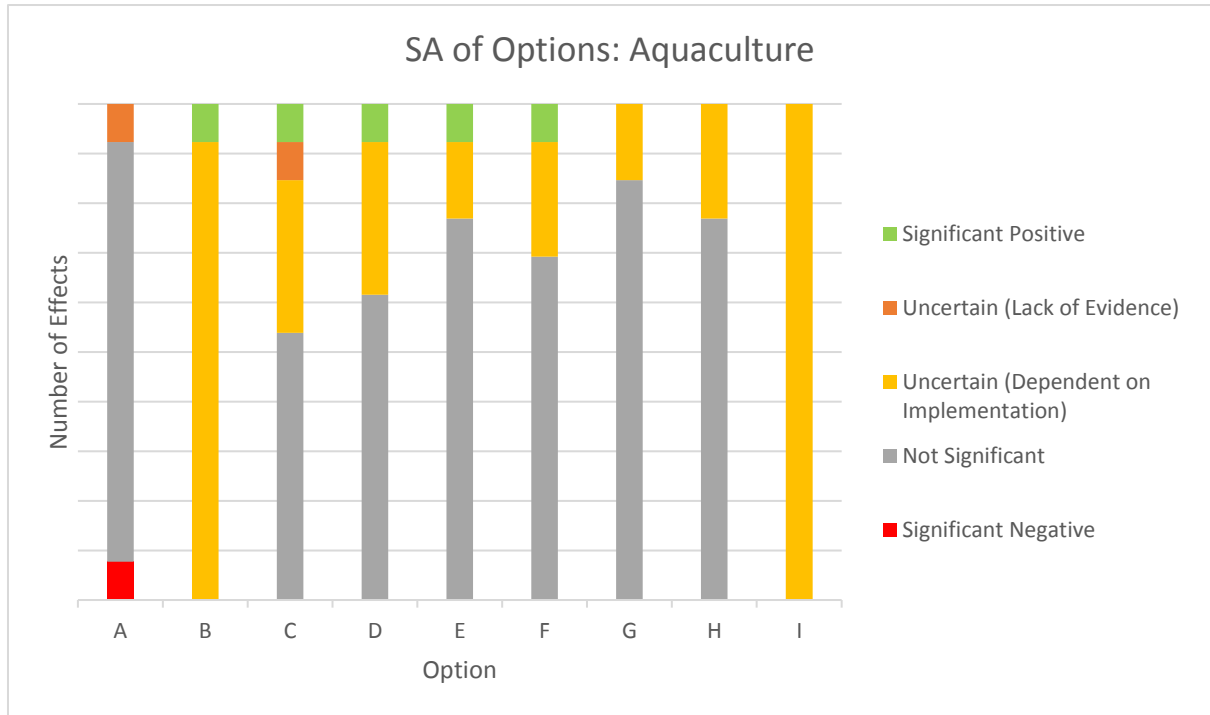
The options assessment of the draft South West Marine Plan was reported in an options assessment SA report which was published in June 2018. The report can be found [here](#), and is organised in 4 sections:

- Section 1 sets out the purpose of this report and details of the options being assessed for the marine plans
- Section 2 outlines the methodology of the SA options assessment
- Section 3 summarises the results of the SA options assessment and
- Section 4 outlines the next steps in the plan making and SA processes

Within Section 3 of the report, the results of the SA options assessment are summarized by policy grouping, highlighting the potential significant or uncertain effects which may be had on any of the SA topics as a result of the implementation

of any of the policy options within the individual policy grouping. It presents the comparison of the performance of options assessed for each grouping in the form of a pivot chart. The findings of the assessment of options has been used by the MMO to make decisions between options to be taken forward, with the aim being to take forward the most sustainable option (as identified within the assessment). The decision making has also considered the responses from stakeholders to the Iteration 2 engagement undertaken by the MMO. Figure 2 below shows an example of the options assessment output.

**Figure 2: Example Options Assessment Output.**



## 3 Summary of Preferred Policies Assessment Results

### 3.1 Introduction

This section presents a summary of the assessment findings of the South West Marine Plan. This section indicates the headline results, identifying the potential significant positive and negative effects of the SA topics and sub-topics against the policy groupings. The effects presented within the headline results take into account mitigation provided from other plan policies, but does not include possible mitigation from other existing plans and policies. The assessment results are described further for each SA topic in the subsequent sections to this report and presented in detail in Appendix B to this report.

The headline results of the assessment are summarised in Table 1 below.

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**Table 1: Headline Results of the Assessment.**

	Policy Grouping																												
SA Topic/SA Sub-topic	Access	Aggregates	Air Quality	Aquaculture	Biodiversity	Cables	Climate change	Co-existence	Cumulative effects	Defence	Disturbance	Dredging and Disposal	Employment	Fisheries	Cross Boundary Considerations	Heritage Assets	Infrastructure	Marine Litter	Marine Protected Areas	Natural Capital	Invasive non-native species	Oil and Gas	Ports and Harbours	Tourism and recreation	Renewables	Seascape and Landscape	Social benefits	Underwater Noise	Water Quality
<b>Cultural Heritage</b>																													
Heritage Assets within marine plan areas		-				-						-				+						?	?		?				
Heritage Assets adjacent to marine plan areas						-																							
<b>Geology, Substrates and Coastal Processes</b>																													
Coastal features and processes		-	?				+					-														?			
Seabed substrates and bathymetry		-										-								+									
<b>Seascape and landscape</b>																													
Effects on seascape and landscape																+				?		?			-	+			
<b>Water</b>																													
Marine litter														-	+										?				
Pollution and water quality																				+		?	-	?					+
Water temperature and salinity																									+				

SA Topic/SA Sub-topic	Policy Grouping																												
	Access	Aggregates	Air Quality	Aquaculture	Biodiversity	Cables	Climate change	Co-existence	Cumulative effects	Defence	Disturbance	Dredging and Disposal	Employment	Fisheries	Cross Boundary Considerations	Heritage Assets	Infrastructure	Marine Litter	Marine Protected Areas	Natural Capital	Invasive non-native species	Oil and Gas	Ports and Harbours	Tourism and recreation	Renewables	Seascape and Landscape	Social benefits	Underwater Noise	Water Quality
<b>Air</b>																													
Air pollutants			+																				?						
<b>Climate</b>																													
Climate change resilience and adaptation							+							+					+	+		?							
Greenhouse gas emissions			+																			?	?		+				
<b>Communities, Health and Wellbeing</b>																													
Effects on communities													+		+		+				+					?			
Effects on protected equality groups													+																
Health and the wider determinants of health															+					+				+			+		
<b>Economy</b>																													
Aggregate extraction		+																			?					?			
Defence	?							+					+																
Energy generation and infrastructure development			?										+									+			+				

SA Topic/SA Sub-topic	Policy Grouping																													
	Access	Aggregates	Air Quality	Aquaculture	Biodiversity	Cables	Climate change	Co-existence	Cumulative effects	Defence	Disturbance	Dredging and Disposal	Employment	Fisheries	Cross Boundary Considerations	Heritage Assets	Infrastructure	Marine Litter	Marine Protected Areas	Natural Capital	Invasive non-native species	Oil and Gas	Ports and Harbours	Tourism and recreation	Renewables	Seascape and Landscape	Social benefits	Underwater Noise	Water Quality	
Fisheries and aquaculture				?								+	+							?							?			
Leisure / recreation	+	+								?		+	+								?									
Marine manufacturing																														?
Ports and shipping												+	+											+	+		?			
Seabed assets						+	+																							
Tourism										?		+	+																	
<b>Biodiversity</b>																														
Benthic and inter-tidal ecology		--		--		--		?	+	+		?	--		?				+	+		?				?				
Fish and shellfish				--			+	+				--		?								+	+							
Marine megafauna		--						?				--		--							?		?		?					
Invasive non-native species											?											+	+							
Plankton					?																					?				
Protected sites and species		--					+	+	+					?									?		?				--	
Ornithology		--					+	+	+	?													?	--	?					

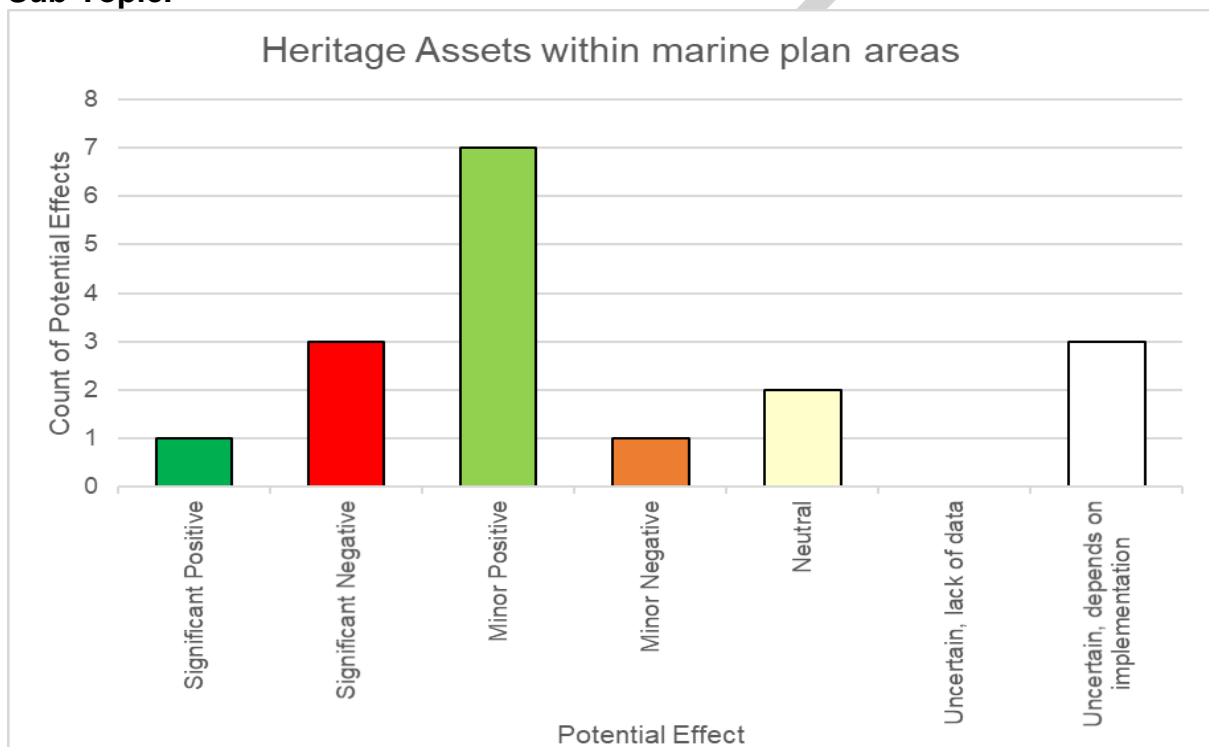
## 4. Results of the Assessment - Cultural Heritage

### 4.1 Introduction

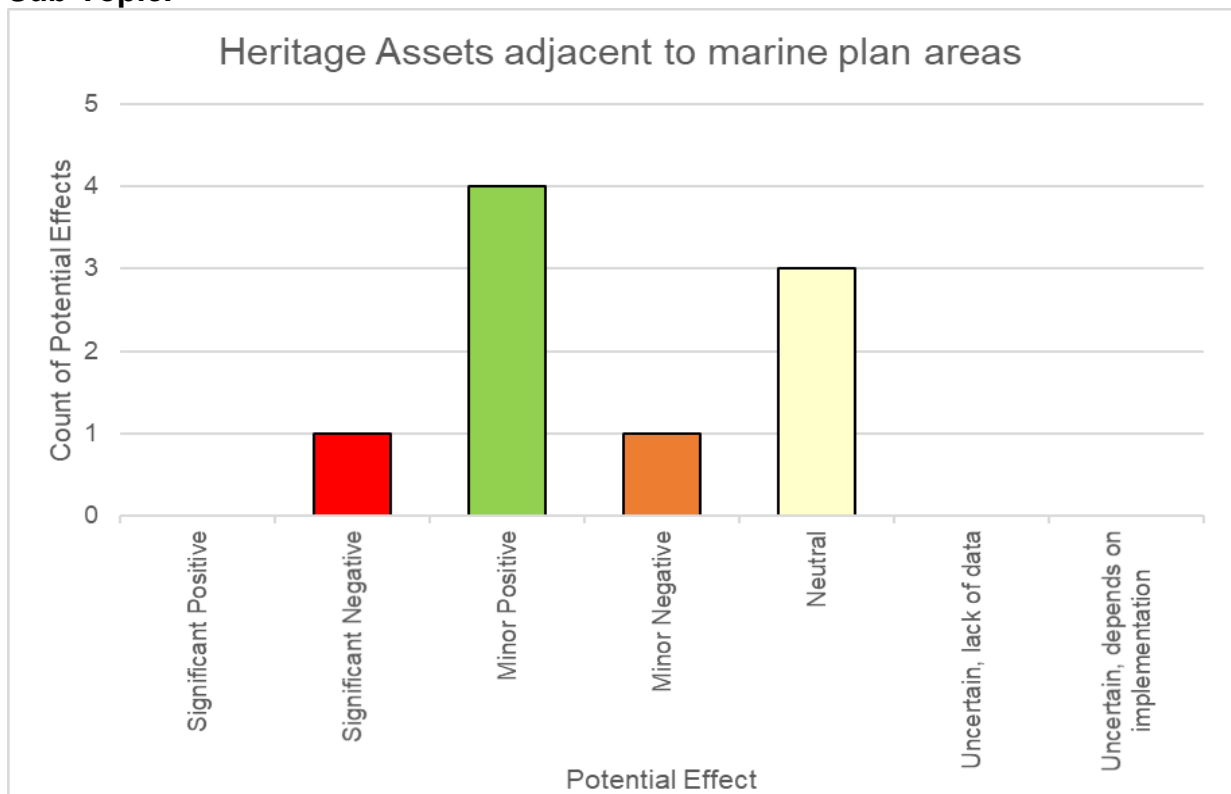
This section of the report presents the performance of the South West Marine Plan in relation to cultural heritage. It covers heritage assets within the south west marine plan areas and those which are adjacent to the south west marine plan areas. Due to the similarities in performance across the cultural heritage SA sub-topics, the description of results has been grouped. The full assessment of the cultural heritage SA topic can be found in Appendix B.

### 4.2 Results of the Assessment of all Policy Groupings on Cultural Heritage

**Figure 3: Effects on the Heritage Assets Within the Marine Plan Areas SA Sub-Topic.**



**Figure 4: Effects on the Heritage Assets Adjacent to the Marine Plan Areas SA Sub-Topic.**



A potential significant positive effect has been identified for the heritage assets within the marine plan areas SA sub-topic in relation to the cultural heritage policy grouping. The significance of heritage assets in the immediate vicinity of the south west marine plan areas, is susceptible to the effects arising from activities within marine plan areas. This policy grouping aims to protect heritage assets from developments that have the potential to result in adverse effects.

Potential significant negative effects have been identified for the heritage assets both within and adjacent to the south west marine plan areas SA sub-topics in relation to the cables policy grouping. Buried subsea cables have the potential to disturb both known and undiscovered archaeological sites. A preference for burying cables is included within the policy wording, which may have the potential to exacerbate disturbance on heritage assets, hence the significant negative effects identified.

The baseline has identified the potential for adverse effects on heritage assets with regards to aggregates extraction. Although the aggregate policies may not result in further extraction sites within the south west marine plan areas, it is assumed that the policies will safeguard existing aggregate sites (areas 472 and 526) which are licensed to extract 3 million tonnes per annum up until 2023 and 2 million tonnes per annum up until 2039. For this reason, a significant negative effect has been identified.

In the south west inshore marine plan area, there are three major ports and twenty minor ports, which require maintenance dredging to maintain access<sup>2</sup>. Similarly, to aggregates, there is potential for dredging and disposal activities to result in adverse effects on heritage assets. The baseline has identified the significant under exploited potential of buried heritage assets in the south west inshore marine plan area, as well as the potential for adverse effects on those heritage assets that are already uncovered, from dredging and disposal. Policies SW-DD-1 and SW-DD-2 aim to safeguard existing dredging activity within the south west marine plan areas, rather than increasing dredging activity. However, as dredging is an enabling activity which is essential to the functioning of ports and marinas, it is assumed that policies SW-PS-1 and SW-PS-2 will also help dredging activity to continue. As dredging activity at present is negatively affecting cultural heritage, it is assumed that at best, the current baseline situation will continue, and for this reason a significant negative effect has been identified.

An uncertain effect has also been identified in relation to the ports and harbours (including shipping) policy grouping. Future ports, harbours and shipping activity have the potential to effect heritage assets, particularly those that may be buried and not yet uncovered. Associated port activities, such as dredging, could also be increased as a result. However, an uncertain effect has been identified as the policy and supporting text do not stipulate whether potential activity will be undertaken or where it would be located. It is however, understood that this will be identified in harbour master plans to be developed as part of Maritime 2050<sup>3</sup>, which could allow for greater certainty, with regards to the effects on heritage assets.

Oil and gas developments have the potential to adversely affect buried heritage assets. At present, there are no oil or gas fields or terminals and no currently licenced areas in the south west marine plan areas. However, the remaining blocks in the marine plan areas could potentially be licensed in future licensing rounds run by the Oil and Gas Authority, within the marine plan period. At this stage, there is no certainty that this will result in development, and for this reason an uncertain effect has been identified.

An uncertain effect has been identified for the heritage assets within the marine plan areas SA sub-topic in relation to the renewables policy grouping. It is recognised that all marine renewable energy types have the potential to adversely affect heritage assets with the marine environment through their connection with the seabed, be this through the connection of the device itself with the seabed, such as the foundation of a turbine or the anchoring of a wave device, or through contact between any heritage asset and the cable which connects to the shore. The extent of these effects is largely dependent on the device used, and on the installation methods opted for, for example, if the cable would be submerged within a trench in the seabed, would have rock armour applied, or would simply lay across the seabed surface.

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<sup>2</sup> Futures Analysis for the North East, North West, South East and South West Marine Plan Areas (June 2017)

<sup>3</sup> Department for Transport, Maritime 2050, Navigating the Future, 2019

### 4.3 Suggested Mitigation Measures

Mitigation measures identified in the assessment to address potential uncertain or significant negative effects are identified within Table 2.

**Table 2: Suggested Mitigation Measures for Uncertain and Significant Negative Effects on Cultural Heritage.**

SA Sub-topic	Causal Grouping	Mitigation measures identified in the assessment
<p>Heritage assets within south west marine plan areas</p> <p>Heritage assets adjacent to the south west marine plan areas (for Cables grouping only)</p>	<p>Cables, Aggregates, Dredging and disposal, Oil and gas, Ports and harbours (including shipping), and Renewables</p>	<p>If developments in these sectors are undertaken, the potential negative effects on heritage assets will need to be addressed through the Environmental Impact Assessment (EIA) process, where required under the Marine Works EIA Regulations 2017. This could include an archaeological and cultural heritage effect assessment. In some instances, the loss of heritage assets may not be mitigatable.</p> <p>Policy SW-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.</p>
<p>Heritage assets within south west marine plan areas</p>	<p>Aggregates Dredging and disposal</p>	<p>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.</p>



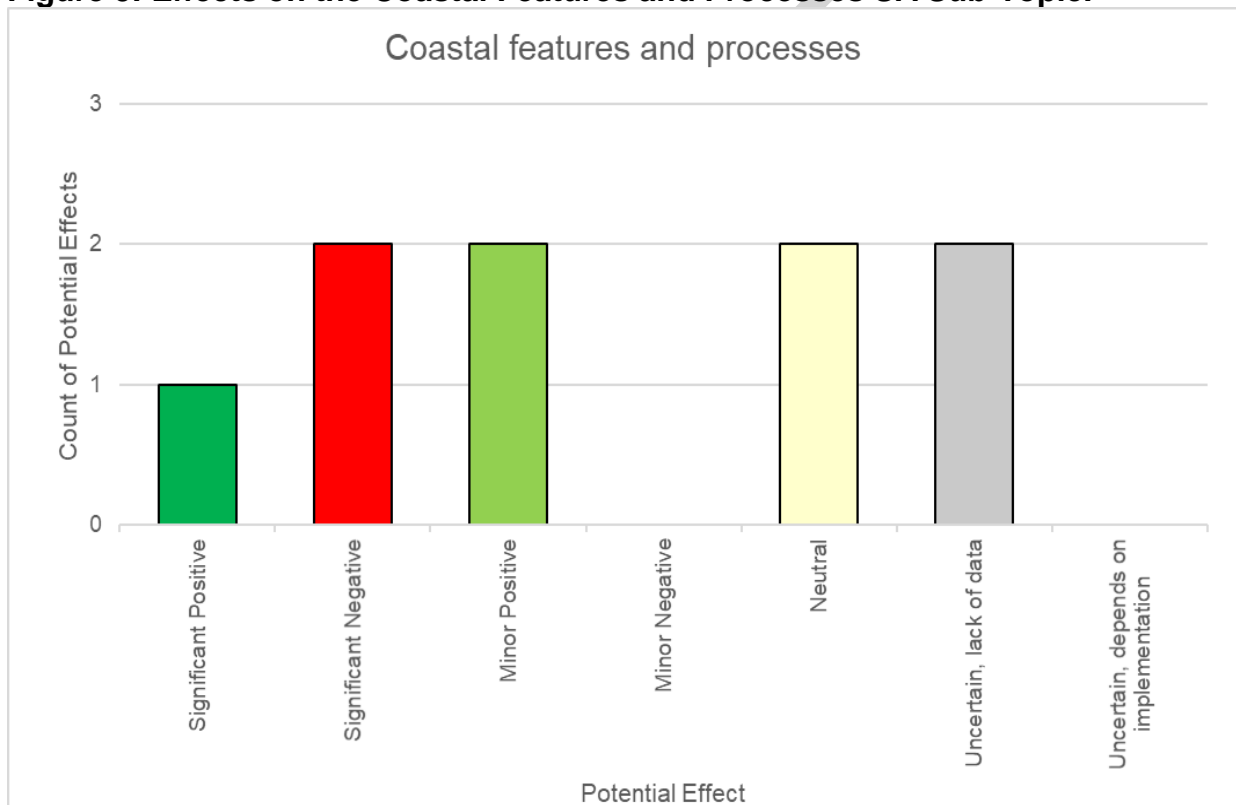
## 5. Results of the Assessment - Geology, Substrates & Coastal Processes

### 5.1 Introduction

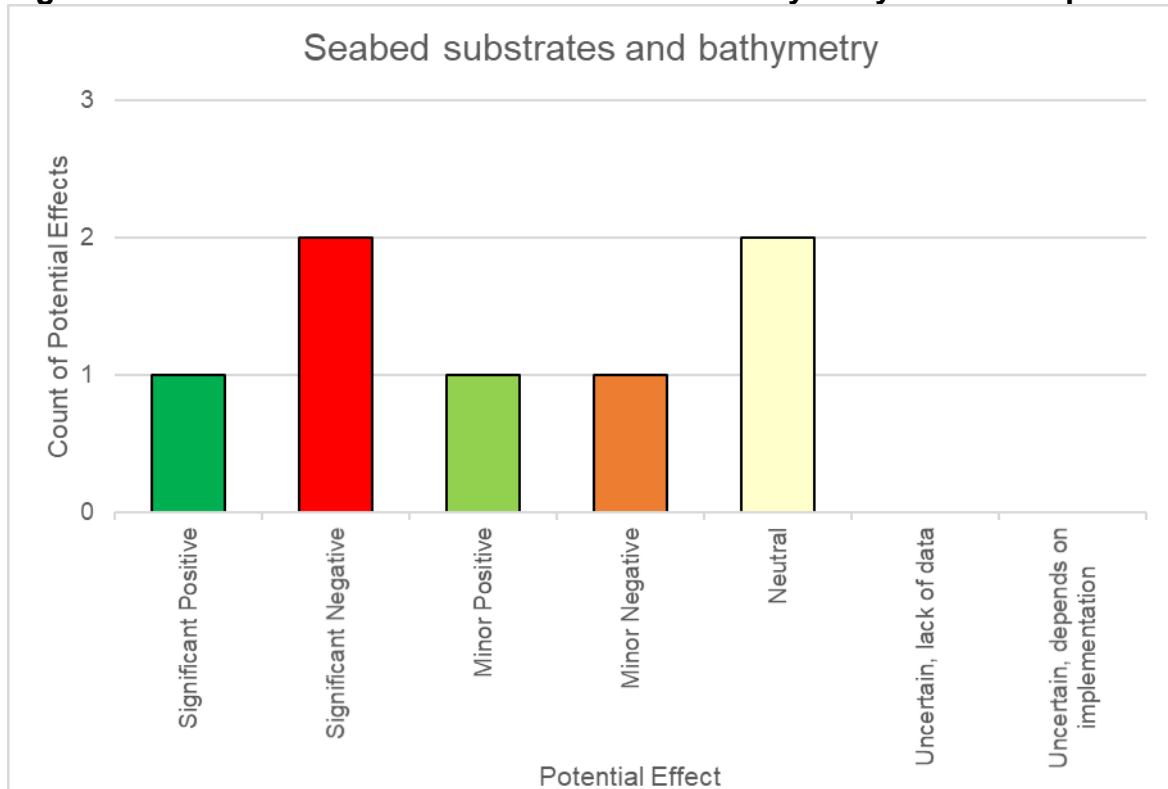
This section of the report presents the performance of the South West Marine Plan in relation to geology, substrates and coastal processes. It covers seabed substrates and bathymetry, and coastal features and processes, these are both separate SA sub-topics. Due to the similarities in performance across the two SA sub-topics, the description of results has been grouped. The full assessment of the geology, substrates and coastal processes SA topic can be found in Technical Appendix B.

### 5.2 Results of the Assessment of all Policy Groupings on Geology, Substrates and Coastal Processes

Figure 5: Effects on the Coastal Features and Processes SA Sub-Topic.



**Figure 6: Effects on the Seabed Substrate and Bathymetry SA Sub-Topic.**



A significant positive effect has been identified for coastal features and processes, in relation to the climate change policy grouping (see Figure 5). Policies SWCC-1, SW-CC-2, SW-CC-3, SW-CC-5 and SW-CC-6 in combination, seek to increase resilience of geology to the effects of climate change, minimise adverse effects on coastal change adaptation measures and support proposals which have the potential to increase flood defence and carbon sequestering habitats.

Supporting services underpin all of the other services and occur throughout the south west marine plan areas. The seabed provides a role for both nutrient cycling and carbon sinks, the importance of which has been identified within the supporting text to policy SW-NG-1. As a result of this policy, it is assumed that the seabed substrates and bathymetry SA sub-topic would be offered protection, due to the importance of these assets, and for this reason, a significant positive effect has been identified.

The south west marine plan areas contain 11 Geological Conservation Review Sites, which are indicative of 26 different processes, formations and regimes relating to sediment supply and transport, tides, waves, surges, currents and sea-level history. Marine dredging has potential to result in the loss of seabed substrates, whilst disposal of dredge material can disturb the seabed at both the extraction and selected disposal site. There is also potential for dredging and disposal to result in significant changes to the hydrodynamic regime, which in turn could alter coastal processes. The dredging and disposal policy grouping aims to safeguard dredging activity within the south west marine plan areas, rather than increasing dredging activity, however, as dredging is an enabling activity which is essential to the functioning of ports and marinas, it is assumed that SW-DD-1 and SW-DD-2 will help dredging activity to continue. As dredging activity at present is negatively affecting

both coastal features and processes and seabed substrate and bathymetry, it is assumed that at best, the current baseline situation will continue, and for this reason a significant negative effect has been identified, for both SA sub-topics.

Aggregate extraction activities have the potential to affect areas of seabed altering sediment processes and physical processes and creating sediment plumes as well as alter the hydrodynamic regime and consequently coastal processes. Although the aggregate policies may not result in further extraction sites within the south west marine plan areas, the policies will safeguard existing aggregate sites (areas 472 and 526) which are licensed to extract 3 million tonnes per annum up until 2023 and 2 million tonnes per annum up until 2039. The policy does not offer protection for seabed substrates and bathymetry, and protection is not provided by other policies within the plan, and aggregate extraction in these areas has potential to result in significant negative effects. For these reasons, a significant negative effect has been identified for both the geology, substrates and coastal processes SA sub-topics.

Coastal squeeze is an issue within the south west inshore marine plan area, which is often exacerbated through human activity and the presence of coastal defences. The issue is likely to be exacerbated further by climate change and sea level rise, and the need to protect the coastline. According to the baseline, the UK is locked into accelerated sea level rise, regardless of what we do about greenhouse gas emissions. Sea level rise has potential to give way to increased coastal erosion, inundation of the coastline and coastal squeeze.

Co-existence policy SW-CO-1 could help to prevent potential conflicts; however, it is not clear whether this applies to coastal defences, and for this reason an uncertain effect has been identified, in relation to the co-existence policy grouping and coastal features and processes sub-topic.

Due to the current lack of evidence on future scenarios of coastal processes, an uncertain effect has been identified in relation to the air quality grouping and the coastal features and processes sub-topic.

The effects of renewable energy installations on potentially sensitive environmental features are unknown at present. Policies SW-REN-1, SW-REN-2 and SW-WIND-1 could result in further renewable energy developments within the south west marine plan areas. Whilst the installation of renewable technology and subsequent reduced contributions to climate change may help to appease the effects of increased storminess such as coastal inundation and change, development within the marine environment, particularly the onshore may affect on environmental features either directly or through alterations of coastal processes. Due to the unknown type and location of future renewable sites, an uncertain effect has been identified, for the coastal features and processes sub-topic.

### 5.3 Suggested Mitigation Measures

Mitigation measures identified in the assessment to address potential uncertain or significant negative effects are identified within Table 3.

**Table 3: Suggested Mitigation Measures for Uncertain and Significant Negative Effects on Geology, Substrates and Coastal Processes.**

SA Sub-topic	Causal Grouping	Mitigation measures identified in the assessment
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 SW-MPA-4 could provide some protection, however, supporting text could be strengthened by making reference to Geological Conservation Review Sites.
Coastal features and processes	Air quality	Policies SW-CC-5 could provide some resilience, however, it is suggested that Policy-CC-5 supporting text should draw upon the latest climate change projections provided within the UKC18 Marine Report, as it currently refers to UKCPC09.  The supporting text for SW-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.
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).
Coastal features and processes, Seabed substrates and bathymetry	Aggregates and 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.

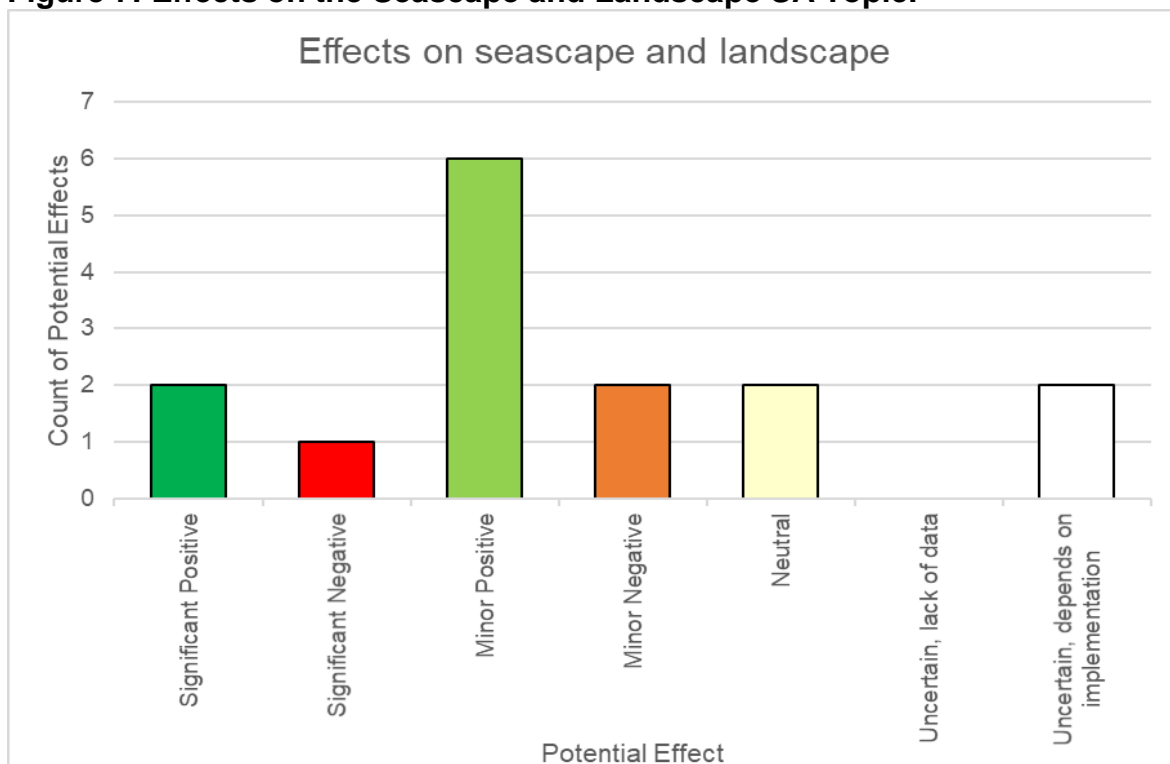
## 6. Results of the Assessment - Seascape & Landscape

### 6.1 Introduction

This section of the report presents the performance of the South West Marine Plan in relation to seascape and landscape. There are no SA sub-topics for seascape and landscape. The full assessment of the seascape and landscape SA topic can be found in Technical Appendix B.

### 6.2 Results of the Assessment of all Policy Groupings on Seascape & Landscape

Figure 7: Effects on the Seascape and Landscape SA Topic.



There is a close relationship between the presence of heritage assets and the character, value and appreciation of landscape and seascape. Policy SW-HER-1 aims to protect heritage assets from future proposals, ensuring that the diversity of the marine environment, and its cultural heritage, is protected. The policy supporting text has also identified how the setting of heritage assets may also be important to the significance of the asset. For these reasons, a significant positive effect has been identified, in regard to the heritage assets policy grouping.

Further significant positive effects have been identified in relation to the seascape and landscape policy grouping, as seen in Figure 7. Policy SW-SCP-1 aims to maintain and improve the seascape and landscape within the south west marine plan areas. Proposals which may harm the current seascape or landscape must demonstrate why this is necessary and mitigate adverse effects.

Both landscape and seascape can be highly sensitive to visual effects associated with developments. Given the importance of Exmoor National Park and South Devon, Tamar Valley, Cornwall, Isles of Scilly, North Devon, Quantock Hills, Wye Valley AONBs (all located within the south west marine plan areas). There is currently no offshore wind or tidal activity in the South West Marine Plan Area, however, there are currently two test sites for wave energy technologies in the South West Inshore Marine Plan Area, Wave Hub near Hayle and FabTest in Falmouth harbour. Renewable energy developments have potential to negatively affect the seascape and landscape character within the south west marine plan areas, and if development were to come forward, there is the potential for negative effects on visual amenity to arise.

Oil and gas developments also have potential for visual effects and negatively effects on the seascape and landscape of the south west marine plan areas. At present, there are no oil or gas fields or terminals and no currently licenced areas in the south west marine plan areas. However, the remaining blocks in the area could potentially be licensed in future licensing rounds run by the Oil and Gas Authority, within the marine plan period. At this stage, there is no certainty that this will result in development, and for this reason an uncertain effect has been identified.

The potential effect which may be had on seascapes and landscapes by policy SW-NG-1 is uncertain at present and dependent on its implementation. Seascapes and landscapes are vulnerable to adverse and cumulative effects from multiple sectors and activities. As a natural capital asset, seascapes and landscapes can provide benefits associated with tourism, recreation, wellbeing and cultural value. It is uncertain therefore whether the preservation of the quality of landscapes and seascapes as natural capital assets would take precedence over the activities which are dependent on the benefits and services which they provide.

### 6.3 Suggested Mitigation Measures

Mitigation measures identified in the assessment to address potential uncertain or significant negative effects are identified within Table 4.

**Table 4: Suggested Mitigation Measures for Uncertain and Significant Negative Effects on Landscape and Seascape.**

SA Sub-topic	Causal Grouping	Mitigation measures identified in the assessment
Landscape and seascape	Oil and gas and Renewables	If oil and gas and renewables development proposals come forward, the potential negative effects on landscape and seascape will need to be addressed through the EIA process.
Landscape and seascape	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.

## 7. Results of the Assessment - Water

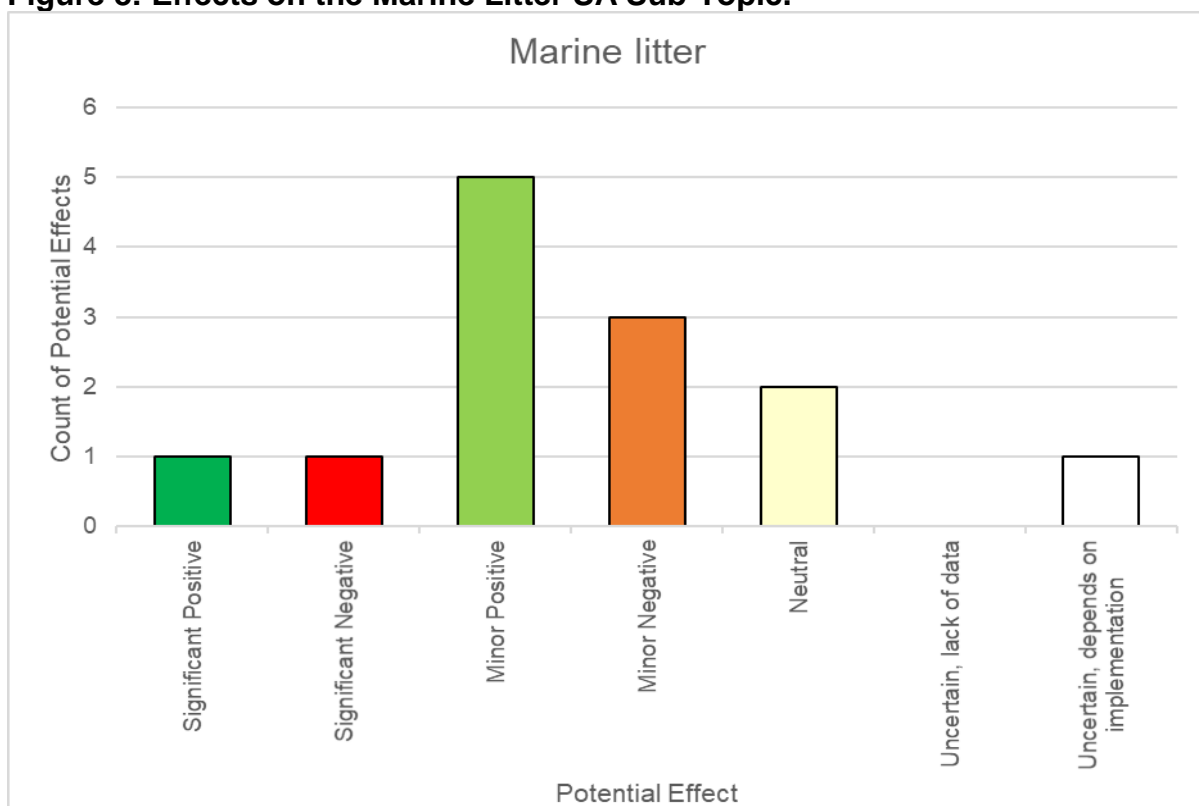
### 7.1 Introduction

This section of the report presents the performance of the South West Marine Plan in relation to water. It covers tides and currents, water temperature and salinity, pollution and water quality (including eutrophication) and marine litter, which comprise four separate SA sub-topics. The full assessment of the water SA topic can be found in Technical Appendix B.

### 7.2 Results of the Assessment of all Policy Groupings on Water

#### 7.2.1 Marine Litter

**Figure 8: Effects on the Marine Litter SA Sub-Topic.**



Marine litter is cross-boundary in nature as litter moves in the marine environment and litter originating from one marine plan area or even country can affect another. The European commission has stated in order to tackle marine litter issues, a joined up approach is needed. The SW-CBC-1 policy supporting text states that the alignment of marine planning with other planning, regulation and management bodies is necessary in order to manage pressures and aims to ensure cross-boundary effects are minimised across international borders. It is therefore considered that the cross-boundary policy, has the potential to result in a significant positive effect on marine litter.

Figure 8 demonstrates that significant negative effects have been identified in relation to the fisheries policy grouping and the marine litter SA sub-topic. Marine



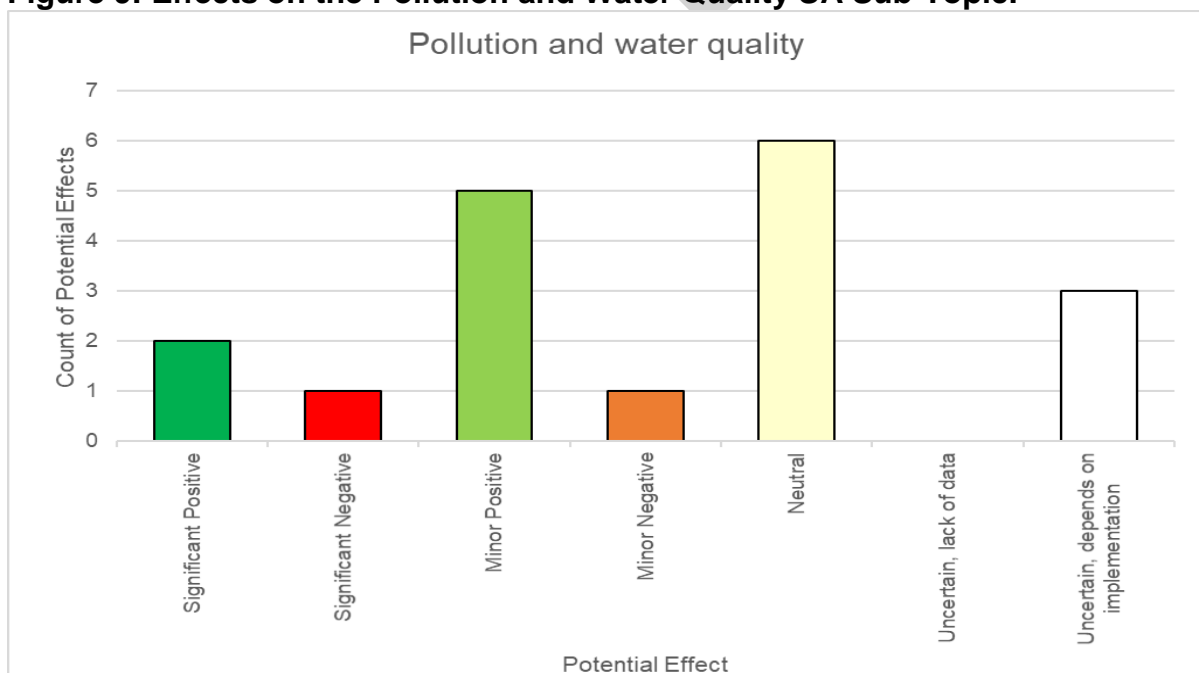
litter is a prevalent issue across the south west marine plan areas, of which the fishing industry is a key contributor. Policies SW-FISH-1, SW-FISH-2 and SW-FISH-3 encourage further fishing activity in the south west marine plan areas, which has potential to result in a significant negative effect.

Ports and shipping can contribute to marine litter. As policies SW-PS-1 and SW-PS-4 could result in increased shipping activity, there is potential for increases in marine litter and thus a potential significant negative effect has been identified.

Bathing water quality is important for the local economy, particularly tourism and recreation. The south west inshore marine plan area has consistently higher than average levels of marine litter all year round, when compared to other marine plan areas. Increased levels of tourism have potential to increase levels of marine litter within the south west inshore marine plan area. Policy SW-TR-1 states that 'sustainable tourism and recreational activities' will be supported, however, the relationship with marine litter is not documented within the policy supporting text. For this reason, an uncertain effect has been identified in relation to the tourism and recreation policy grouping and the marine litter SA sub-topic.

### 7.2.2 Pollution and Water Quality

**Figure 9: Effects on the Pollution and Water Quality SA Sub-Topic.**



Policy SW-WQ-1 aims to enhance and restore water quality within the south west marine plan areas. Given that water quality is an issue across the two plan areas, it is assumed that this policy will result in the improvement of water quality, therefore a significant positive effect has been identified in relation to pollution and water quality SA sub-topic and the water quality policy grouping.

The natural capital policy grouping has potential to result in a significant positive effect. It has been assumed that SW-NG-1 should discourage proposals which may have a significant adverse effect on the marine environment and any natural capital

which can be derived from this, and would thereby encourage improved water quality and pollution status of waters both within the south west marine plan areas and beyond.

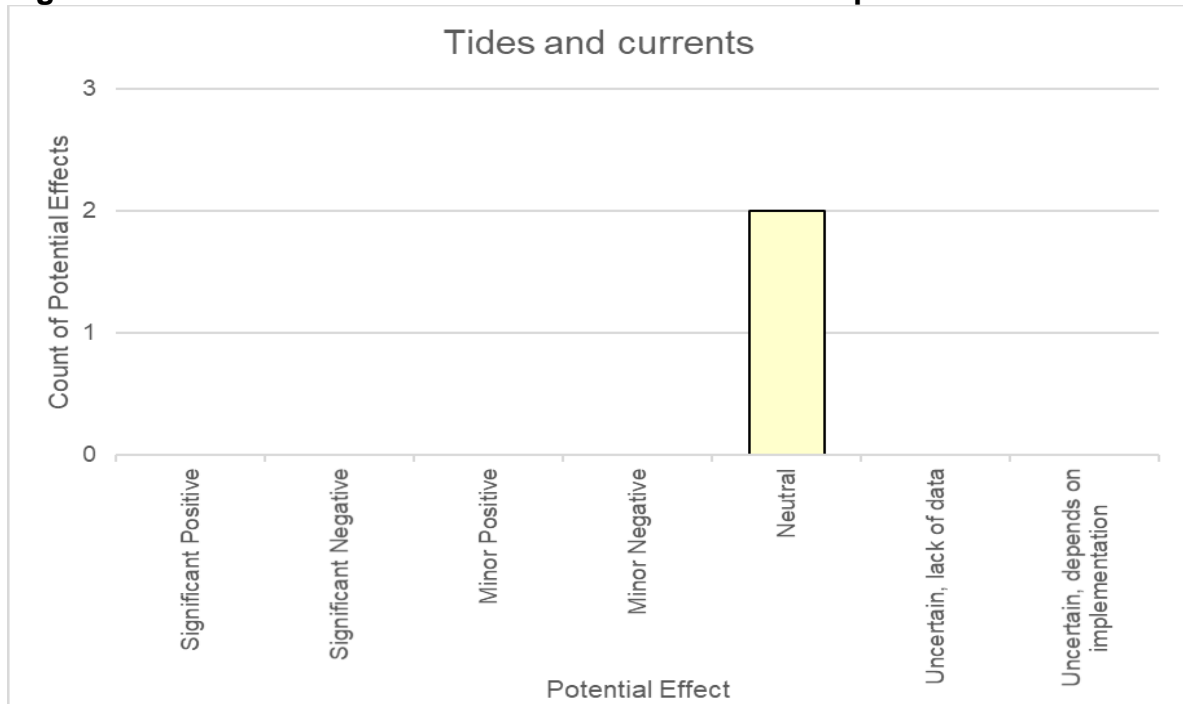
Shipping can negatively affect water quality through the possible discharges from ships such as bilge water, ballast water, sewage and other residues in a ship. Spills of oils, lubricants, fuels and other oily liquids can also be sources of water pollution from both ports and ships. As policies SW-PS-1 and SW-PS-4 could result in increased shipping activity and policies SW-OG-1 and SW-OG-2 could result in oil and gas production, there is potential for both of these policy groupings to adversely affect water quality across the south west marine plan areas. For these reasons, significant negative effects have been identified for both the ports and harbours and oil and gas policy groupings.

There are no oil or gas fields or terminals and no currently licenced areas in the south west marine plan areas. However, the remaining blocks in the south west marine plan areas could potentially be licensed in future licensing rounds run by the Oil and Gas Authority, within the marine plan period. At this stage, as the oil and gas policies provide safeguarding, there is no certainty that this will result in development, and for this reason an uncertain effect has been identified.

Bathing water quality is important for the local economy, particularly tourism and recreation. Increased levels of tourism have potential to negatively affect water quality within the south west inshore marine plan area. Policy SW-TR-1 states that 'sustainable tourism and recreational activities' will be supported, however, it is not clear whether 'sustainable tourism' will result in a positive effect on water quality. For this reason, an uncertain effect has been identified in relation to the tourism and recreation policy grouping and the pollution and water quality SA sub-topic.

### 7.2.3 Tides and Currents

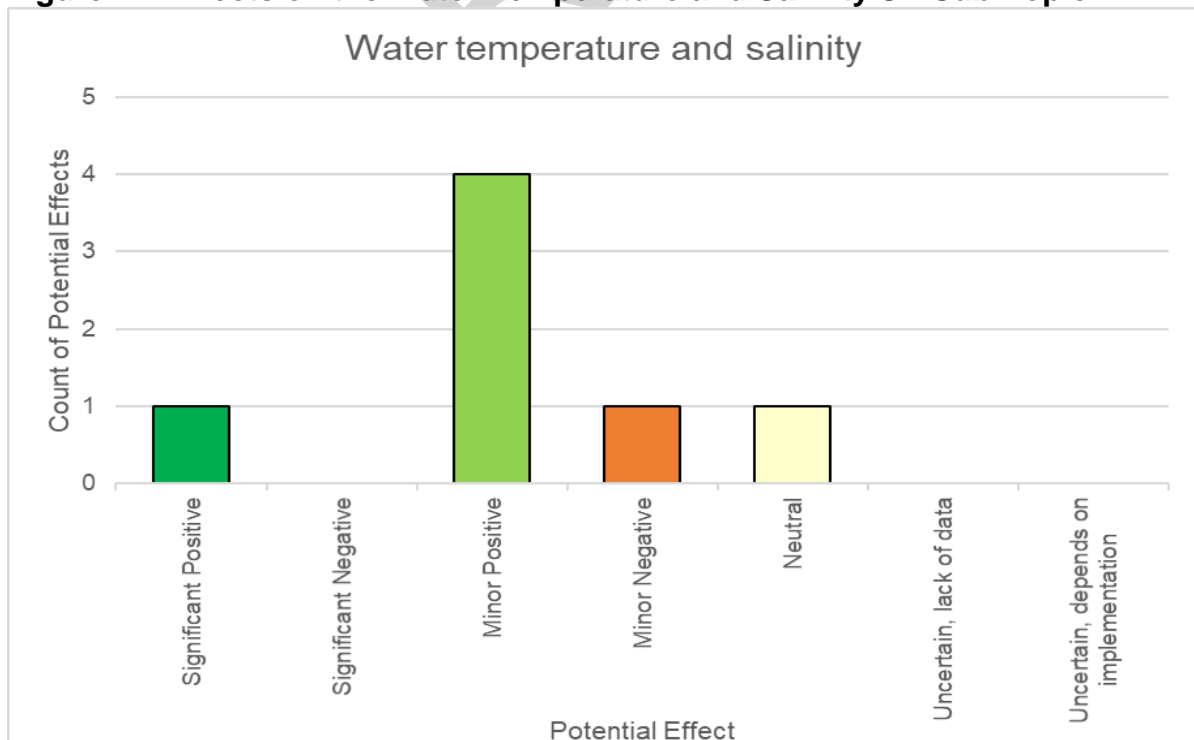
Figure 10: Effects on the Tides and Currents SA Sub-Topic.



No significant effects have been identified for the tides and currents SA sub-topic.

### 7.2.4 Water Temperature and Salinity

Figure 11: Effects on the Water Temperature and Salinity SA Sub-Topic.



A potential significant indirect positive effect has been identified in relation to the renewables policy grouping on the water temperature and salinity SA sub-topic. It is assumed that an increase in renewable energy generation as those supported through policies SW-REN-1, SW-REN-2 and SW-WIND-1, could work to counter the advance of climate change and the associated effects on water temperature and salinity.

### 7.3 Suggested Mitigation Measures

Mitigation measures identified in the assessment to address potential uncertain or significant negative effects are identified within Table 5.

**Table 5: Suggested Mitigation Measures for Uncertain and Significant Negative Effects on Water.**

SA Sub-topic	Causal Grouping	Mitigation measures identified in the assessment
Marine Litter, Water Quality	Aquaculture and fisheries	<p>Whilst it is recognised that marine litter can enter the marine plan areas from adjacent areas, policy SW-ML-2 seeks to minimise the potential release of litter from aquaculture sites within this plan area.</p> <p>It is suggested that SW-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.</p>
Pollution and water quality	Oil and gas and ports and shipping	<p>If oil and gas development is undertaken, the potential negative effects on water quality will need to be addressed through the EIA process.</p> <p>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.</p>
Pollution and water quality and Marine Litter	Tourism and recreation	Supporting text for policy SW-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.

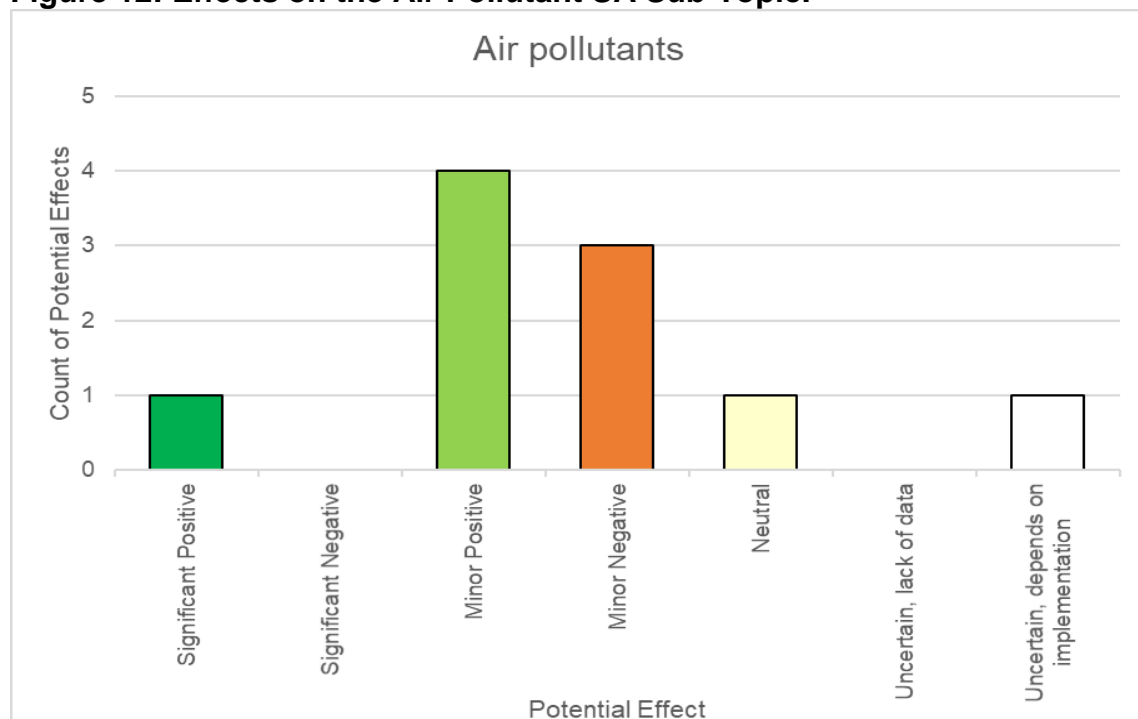
## 8. Results of the Assessment - Air Quality

### 8.1 Introduction

This section of the report presents the performance of the South West Marine Plan in relation to air quality. It covers the air pollutant sub-topic. The full assessment of the Air Quality SA topic can be found in Technical Appendix B.

### 8.2 Results of the Assessment of all Policy Groupings on Air Quality

Figure 12: Effects on the Air Pollutant SA Sub-Topic.



Policy SW-AIR-1 has the potential to help in reducing air pollution from future proposals, resulting in positive effects on air quality. This will mean policies associated with fisheries, shipping and ports and harbours will need to consider the need to protect air quality. Given that air pollution is an issue in the south west marine plan areas, the policy could help to reduce air pollution. The policy is likely to be further supported by local planning policies as well as the Clean Air Strategy.

Ports and shipping activity contribute significantly to air pollution. Policy SW-PS-1 has the potential to result in further port and shipping activity in the region, and subsequently negatively affect air pollution. There is some uncertainty regarding 'sustainable expansion' and whether this will contribute to a reduction in air pollution. Policy SW-PS-4, encourages short-sea shipping, which has potential to benefit air quality particularly when compared with other forms of transport. This could result in significant positive effects on air pollutant levels, however, it is not clear on the preference of policies SW-PS-1 and SW-PS-4, as they could have differing overall effects on air pollution.

### 8.3 Suggested Mitigation Measures

Mitigation measures identified in the assessment to address potential uncertain or significant negative effects are identified within Table 6.

**Table 6: Suggested Mitigation Measures for Uncertain and Significant Negative Effects on Air Quality.**

SA Sub-topic	Causal Grouping	Mitigation measures identified in the assessment
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.

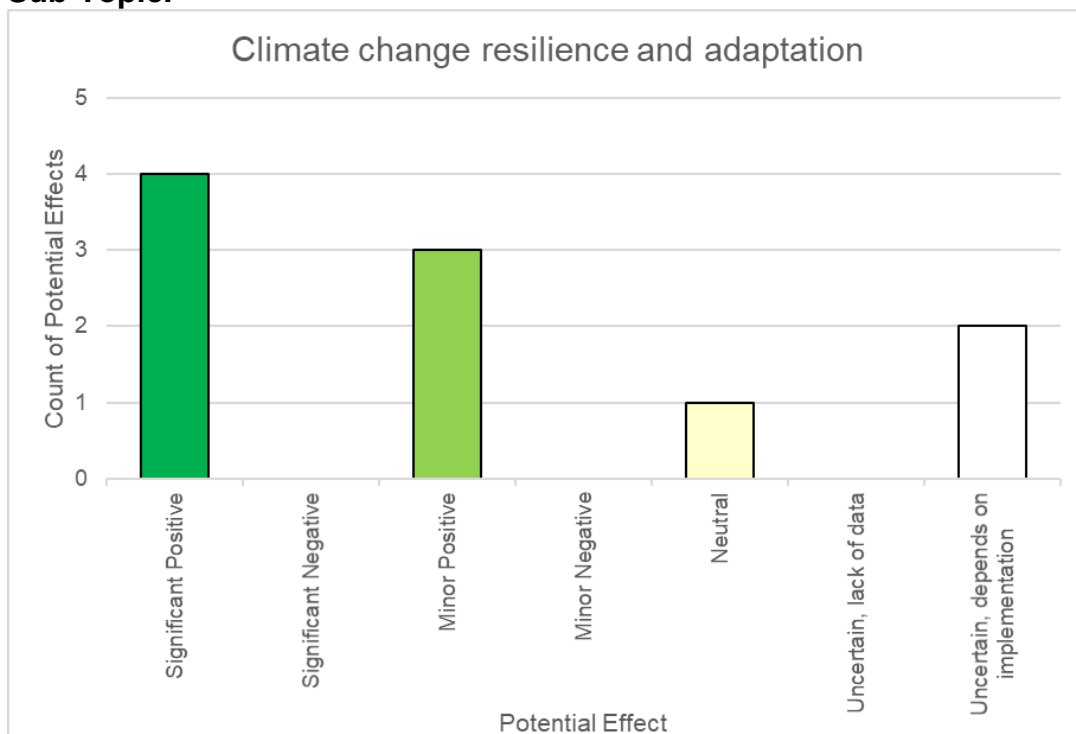
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## 9. Results of the Assessment - Climate

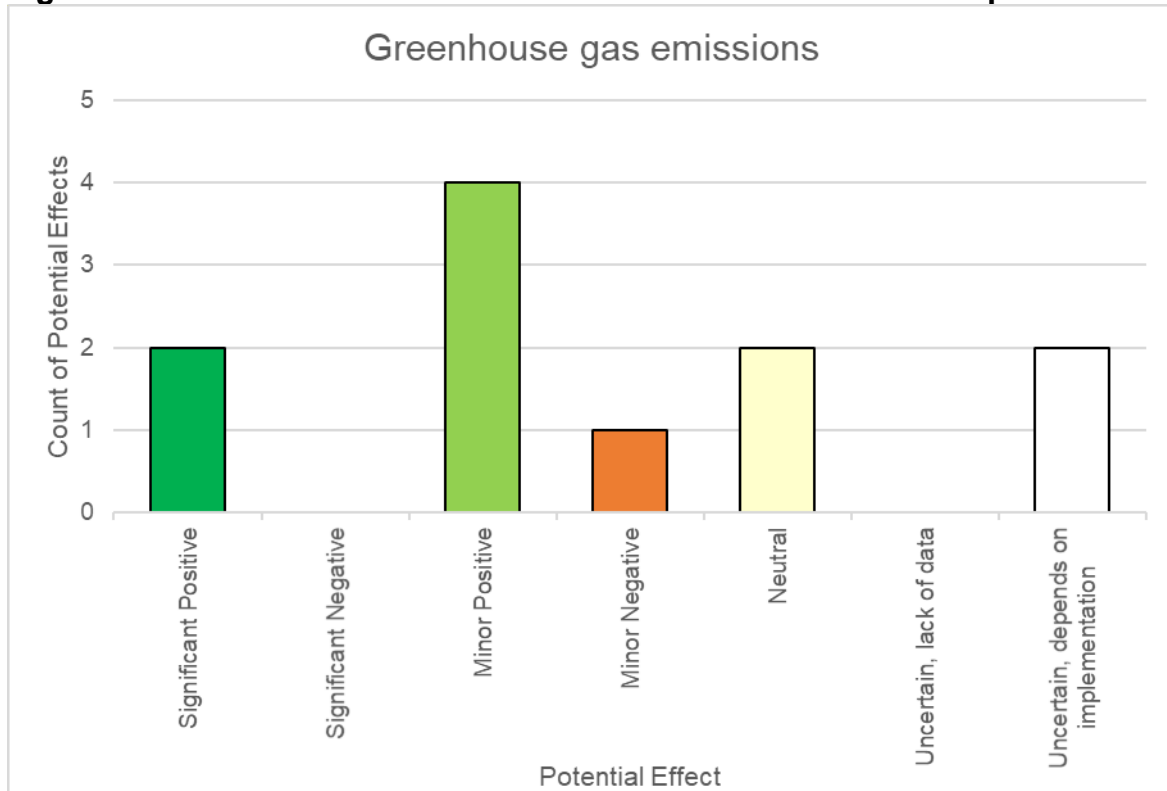
### 9.1 Introduction

This section of the report presents the performance of the South West Marine Plan in relation to climate. It covers greenhouse gas emissions and climate change resilience and adaptation. Due to the similarities in performance across the two climate SA sub-topics, the description of results has been grouped. The full assessment of the Climate SA topic can be found in Technical Appendix B Results of the Assessment of all Policy Groupings on Climate

**Figure 13: Effects on the Climate Change Resilience and Adaptation SA Sub-Topic.**



**Figure 14: Effects on the Greenhouse Gas Emissions SA Sub-Topic.**



The climate change policy grouping has resulted in a potential significant positive effect on climate change resilience and adaptation SA sub-topic. In combination, policies SW-CC-1, SW-CC-2, SW-CC-3, SW-CC-5 and SW-CC-6 seek to increase resilience and adaptation to the effects of climate change. This includes the minimisation of adverse effects on coastal change adaptation measures and support of proposals which have the potential to increase flood defence and carbon sequestering habitats.

Within the Fisheries policy grouping, Policy SW-FISH-1 supports proposals which support a sustainable fishing industry, including the diversification and/or enhanced resilience to the effects of climate change, therefore having the potential to support climate change resilience and adaptation resulting in a significant positive effect on the climate change resilience and adaptation SA sub-topic.

Further potential significant positive effects have been identified, with regards to the marine protected areas policy grouping and the climate change resilience and adaptation SA sub-topic. The issue of climate change adaption is directly addressed, with clear preference for proposals which enhance the adaptability of marine protected areas to climate change.

A potential significant positive effect has been identified in relation to the renewables policy grouping on the greenhouse gas emissions SA sub-topic as these policies support increased energy generation by marine renewables which in turn could alleviate demand on greenhouse gas-emitting fossil fuel energy generation.

Policy SW-AIR-1 aims for all proposals to demonstrate consideration of their contribution to air quality and greenhouse gas emissions, both directly and



cumulatively. Given that air pollution is an issue in the south west marine plan areas, the policy has the potential to effectively help to reduce air pollution. The policy is likely to be further supported by local planning policies as well as the Clean Air Strategy<sup>4</sup>. For this reason, a significant positive effect has been identified for the greenhouse gas emissions SA-sub-topic.

Ports and shipping activity contribute significantly to greenhouse gas emissions. Policy SW-PS-1 has the potential to result in further port and shipping activity in the region, and increasing levels of greenhouse gas emissions. There is some uncertainty regarding sustainable expansion and whether this will be able to meet challenging greenhouse gas targets. Policy SW-PS-4, encourages short-sea shipping, which has potential to reduce air pollution particularly when compared with road transport. This could result in significant positive effects on air quality. For these reasons, uncertain effects have been identified in relation to the ports and harbours policy grouping and greenhouse gas emissions.

Natural flood defences provide regulatory natural capital services. In the south west marine plan areas, mudflats in the Plym and Tamar estuaries around Plymouth, play an important natural role in protecting the coast from flood events by reducing wave energy and buffering flood waters. It is therefore assumed that as a result of policy SW-NG-1, natural flood defences in the south west marine plan areas will be protected, which in turn will provide climate change resilience. For this reason, a significant positive effect has been identified for the natural capital policy on climate change resilience and adaptation.

Oil and gas extraction can indirectly and directly result in an increase of greenhouse gas emissions, which could result in a significant negative effect. At present, there are no oil or gas fields or terminals and no currently licenced areas in the south west marine plan areas. However, the remaining blocks in the area could potentially be licensed in future licensing rounds run by the Oil and Gas Authority, within the marine plan period. As the oil and gas policies provide safeguarding, there is no certainty that this will result in future development, and for this reason an uncertain effect has been identified. The oil and gas policies do not provide opportunities for carbon capture usage and storage, like they have in the South East inshore and North East and North West Inshore Plans. Carbon capture and storage could provide opportunities for greenhouse gas emissions to be reduced, but as this is not an option in the south west marine plan areas, the effect on climate change is more significant.

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<sup>4</sup> Department for Environment Food and Rural Affairs, Clean Air Strategy, 2019

## 9.2 Suggested Mitigation Measures

Mitigation measures identified in the assessment to address potential uncertain or significant negative effects are identified within Table 7.

**Table 7: Suggested Mitigation Measures for Uncertain and Significant Negative Effects on Climate.**

SA Sub-Topic	Causal Grouping	Mitigation Measures Identified in the Assessment
Climate change resilience and adaptation	Air quality	Policies SW-CC-5 could provide some resilience, however, it is suggested that Policy-CC-5 supporting text should draw upon the latest climate change projections provided within the UKC18 Marine Report, as it currently refers to UKCPC09.
Climate change resilience and adaptation and Greenhouse gas emissions	Ports and harbours	<p>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.</p> <p>Policy SW-AIR-1 could help to ensure that future ports and shipping proposals consider their effects upon air quality, which could mitigate potential negative effects.</p>
Climate change resilience and adaptation and Greenhouse gas emissions	Oil and gas	<p>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.</p> <p>The specific reference to greenhouse gas emissions in the EIA regulations seeks to address this issue with the intention of embedding climate change consideration.</p>

## 10. Results of the Assessment - Communities, Health & Wellbeing

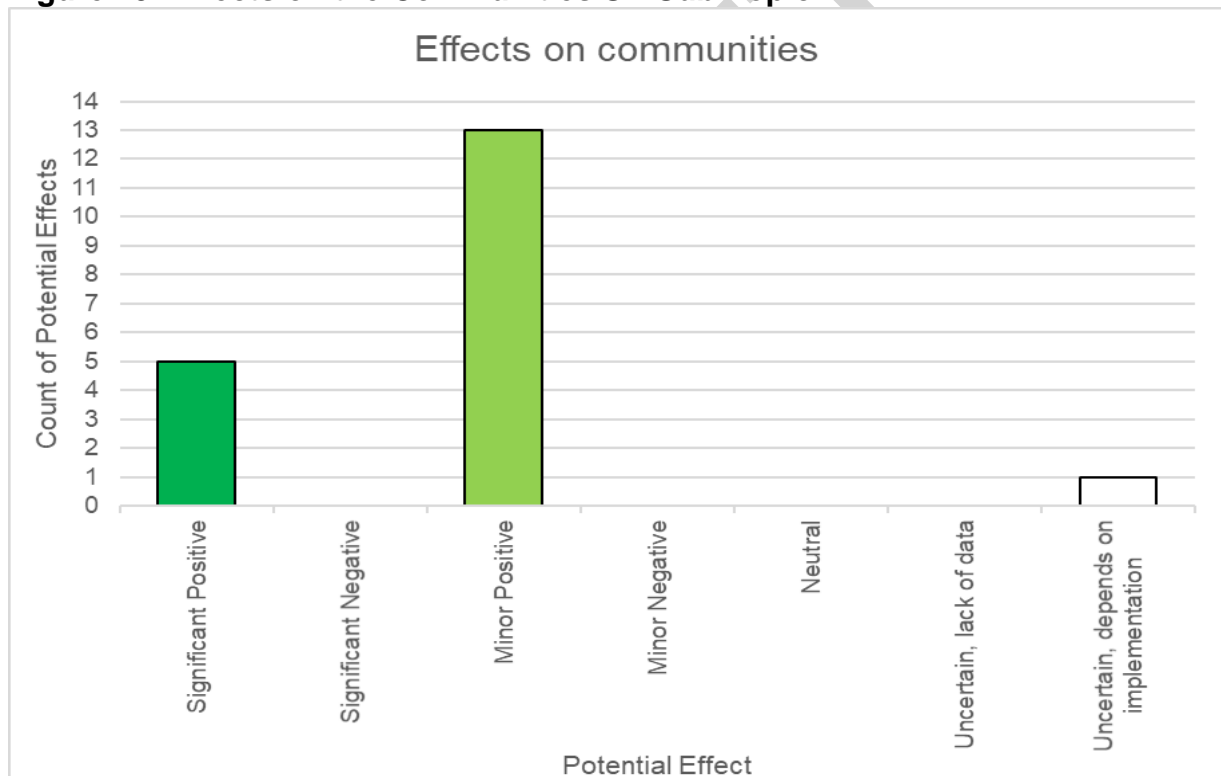
### 10.1 Introduction

This section of the report presents the performance of the South West Marine Plan in relation to communities, health and wellbeing. This topic covers health and wider determinants of health and effects on communities, which comprise one SA sub-topic, and effects on protected equality groups, which comprise a second SA sub-topic. The full assessment of the communities, health and wellbeing SA topic can be found in Technical Appendix B.

### 10.2 Results of the Assessment of all Policy Groupings on Communities, Health & Wellbeing

#### 10.2.1 Effects of Communities

Figure 15: Effects on the Communities SA Sub-Topic.



The baseline has identified income and employment deprivation issues associated with coastal communities across the south west inshore marine plan area. As SW-EMP-1 is specifically aimed at areas of deprivation and focusses employment opportunities on local skill sets, a significant positive effect has been identified in regard to the employment policy grouping and the effects on communities SA sub-topic.

Infrastructure policy SW-INF-1 supports the diversification and regeneration of marine based industries. Given the high dependence upon the fishing sector and the

declines the industry is now facing, it is assumed that the diversification and regeneration that the policy provides, has the potential to result in significant positive effects on communities.

As the south west region derives a significant sense of place and number of ecosystem services from its distinctive and high quality natural environment. This also has significant potential for social and economic gains if well managed, hence a potential significant positive effect has been identified. It is assumed that policy SW-NG-1 will seek to prevent and/or minimise adverse effects on marine natural capital within the south west marine plan areas, which in turn would have the potential to benefit local communities. For this reason, a significant positive effect has been identified in relation to the natural capital policy grouping.

Further significant positive effects have been identified in relation to the tourism and recreation grouping. Increased access to tourism and recreation activities has the potential to provide significant social benefits for communities through, greater social cohesion, improved health and wellbeing (both physical and mental) and job creation.

Deprivation in relation to income, employment, education shows some more deprived lower super output areas (LSOA) on the coast compared to the rest of England<sup>5</sup>. Policy supporting text states that proposals that occur in the south west marine plan areas should consider the cross-boundary effects upon adjacent marine plan areas and the terrestrial environment including economic, social and environmental effects, in order to achieve sustainable development. It is therefore considered that all future proposals will need to consider their effect on communities in order to achieve sustainable development, and for this reason a potential significant positive effect has been identified in relation to SW-CBC-1.

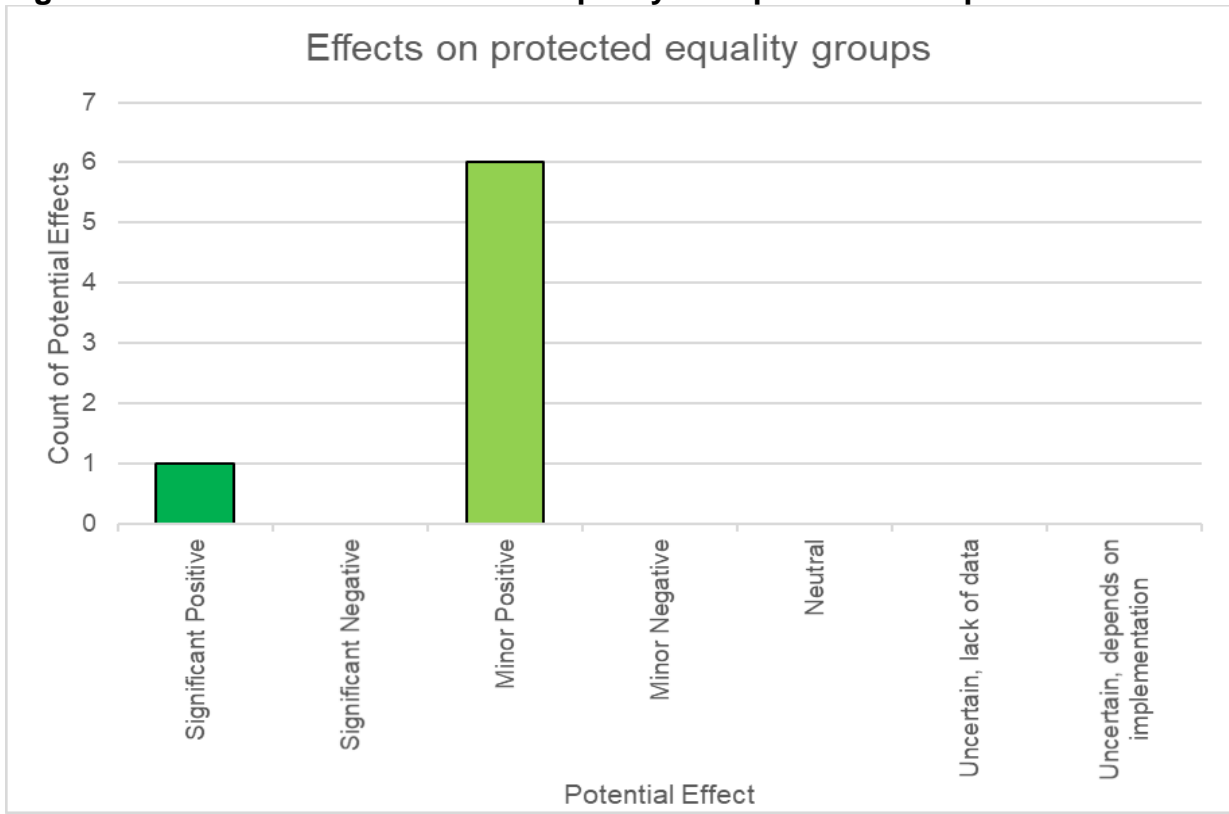
Policy SW-REN-1 aims to support associated renewable technology supply chains, which has the potential to result in increased employment opportunities. However, at this stage, it is not clear as to whether any proposals will come forward, and the likely available employment opportunities. For this reason, an uncertain effect has been identified.

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<sup>5</sup> The Indices of Deprivation 2015 measures deprivation in small areas across England. These small areas are called Lower-Layer Super Output Areas (LSOAs) and are a standard way of dividing up the country – Department for Communities and Local Government, The English Indices of Deprivation 2015

## 10.2.2 Effects of Protected Equality Groups

Figure 16: Effects on the Protected Equality Groups SA Sub-Topic.

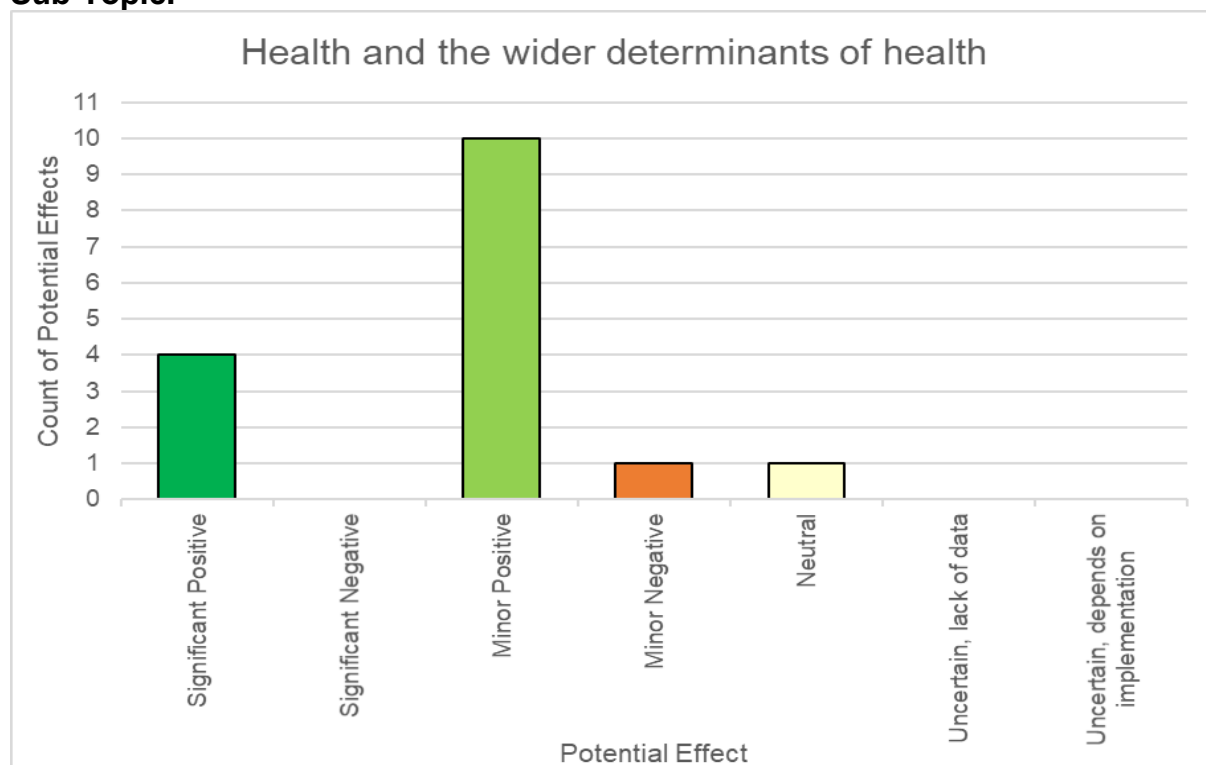


Under the Equalities Act (2010)<sup>6</sup>, protected characteristics are age, disability, sex, gender reassignment, pregnancy or maternity, race, religion or belief, sexual orientation, marriage and civil partnership. The employment policy supporting text states it will encourage public authorities to consider the long-term employment benefits of a proposal and how the required skills equate to those of the inshore marine plan area. It will enable maximum sustainable activity, prosperity and opportunities for all, both now and in the future. It is therefore assumed that SW-EMP-1 will help to provide employment opportunities for all, including those from protected equality groups, and for this reason, a significant positive effect has been identified.

<sup>6</sup> Equality Act 2010 (Commencement No. 1) Order 2010 (SI 2010/1736)

### 10.2.3 Health and the Wider Determinants of Health

**Figure 17: Effects on the Health and Wider Determinants of Health SA Sub-Topic.**



The baseline has identified that health problems are more prevalent on the coast, with some of the most deprived LSOAs in England being located on the coast<sup>5</sup>. The south west inshore marine plan area has over 30 LSOAs within the top 10% of the most deprived areas in England, with regards to health deprivation and disability. Access to a high quality marine environment can make a significant contribution to the mental and physical health and wellbeing of communities. Given the issues identified in the baseline, the social benefit policy grouping has potential to tackle these and result in a significant positive effect.

Access to recreational activities can make an important contribution to the health and wellbeing of communities. As the policy aims to protect existing recreational and tourism developments from future proposals and support future recreation and tourism opportunities, a significant positive effect has been identified, for the tourism and recreation policy grouping.

Significant positive effects have been identified in relation to the natural capital policy grouping. As stated above, access to open space and recreation can make significant contributions to health and wellbeing. The protection that SW-NG-1 provides to natural capital assets is likely to see natural capital assets that provide benefits to health and wellbeing protected, and for this reason a significant positive effect has been identified. The 25 Year Environment Plan could help contribute to the achievement of this policy.

Policy SW-CBC-1 supporting text states that proposals that occur in the south west marine plan areas should consider the cross-boundary effects upon adjacent terrestrial environment including economic, social and environmental effects. As social, environmental and economic effects are taken into consideration, it is considered that this policy has the potential to result in a significant positive effect on health, in particular the wider determinants of health.

### 10.3 Suggested Mitigation Measures

Mitigation measures identified in the assessment to address potential uncertain or significant negative effects are identified within Table 8.

**Table 8: Suggested Mitigation Measures for Uncertain and Significant Negative Effects on Climate.**

SA Sub-Topic	Causal Grouping	Mitigation Measures Identified in the Assessment
Effects on communities	Renewables	Policy supporting text for SW-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.

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# 11 Results of the Assessment - Economy

## 11.1 Introduction

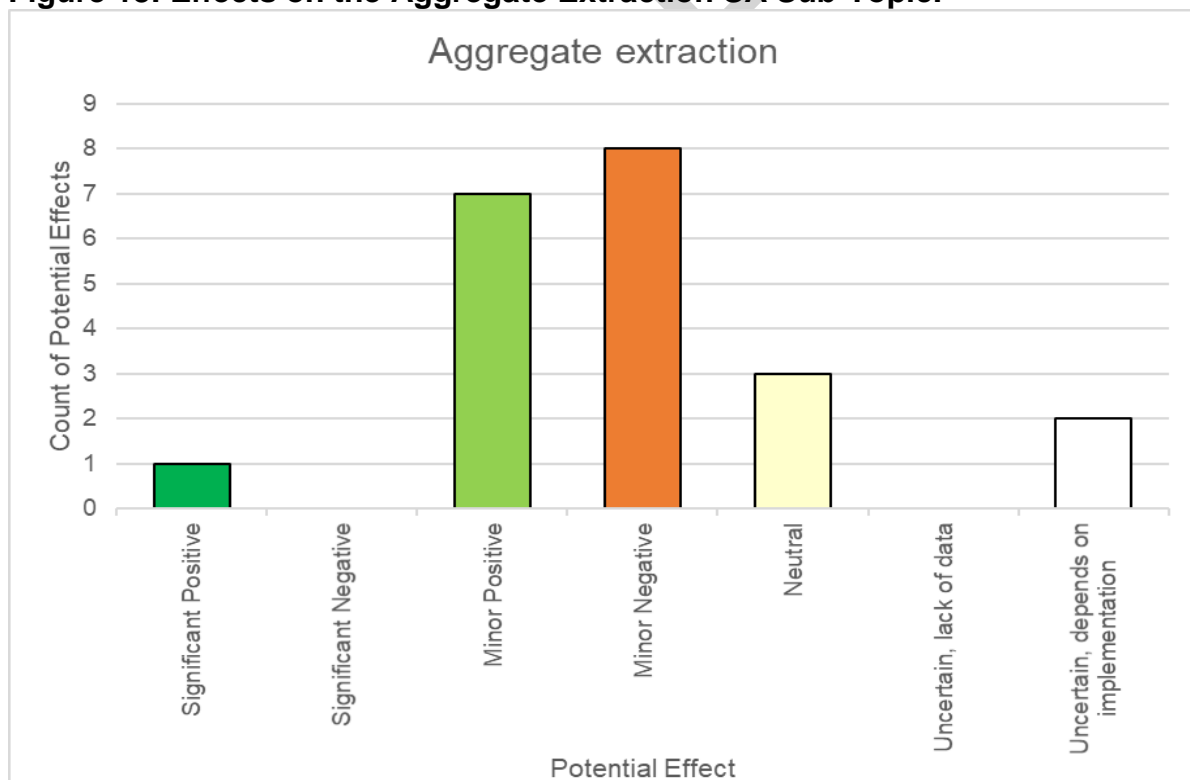
This section of the report presents the performance of the South West Marine Plan in relation to the economy. This topic encompasses ports and shipping, fisheries and aquaculture, leisure / recreation and tourism, marine manufacturing, defence, aggregate extraction, energy generation and infrastructure development (renewables, carbon capture usage and storage, nuclear and fossil fuels) and seabed assets. Each of these comprises a separate SA sub-topic, and all have been scoped in for SA of both the inshore and offshore south west marine plan areas.

Sub-section 11.2 is split into nine parts, reflecting the nine SA sub-topics. The full assessment of the economy SA topic can be found in Technical Appendix B.

## 11.2 Results of the Assessment of all Policy Groupings on Economy

### 11.2.1 Aggregate Extraction

Figure 18: Effects on the Aggregate Extraction SA Sub-Topic.



The aggregate policy grouping could result in higher levels of extraction across the south west marine plan areas. The baseline has identified the significance of the UK marine aggregates and the importance they could play in the future for meeting housing demands and provision of fill for major coastal infrastructure projects, such as ports, coastal defences, renewable energy and nuclear energy projects. For these reasons a potential significant positive effect has been identified.

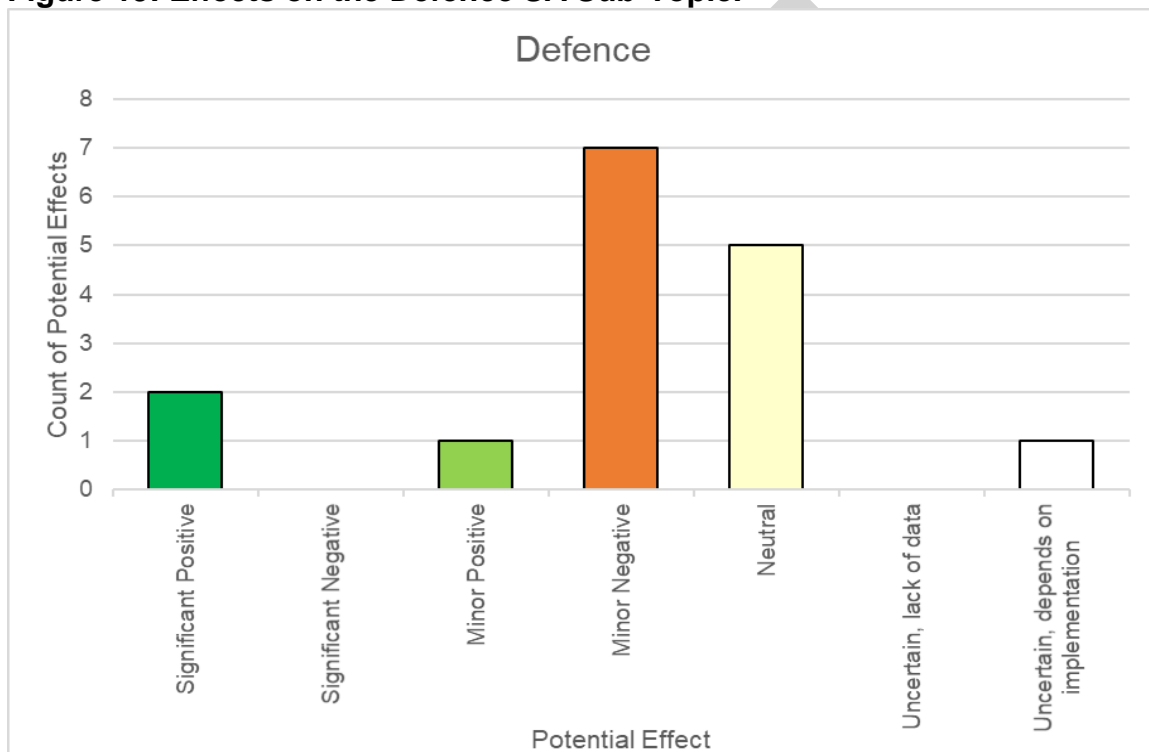


The potential effect on aggregate extraction by the natural capital policy grouping is at present uncertain, and would be dependent on its implementation. Aggregate extraction is dependent on, and benefited by, the natural capital which provides marine aggregates.

As marine aggregates contribute to provision of fill for major coastal infrastructure projects, including renewable energy projects, the aggregates policy grouping may have an indirect positive effect on the sector. However, SW-REN-2 may limit aggregate extraction in areas which are held under lease or an agreement for renewable energy generation installations. For these reasons, an uncertain effect has been identified as the effects of the renewables policy grouping on the aggregate SA sub-topic would be dependent on its implementation.

### 11.2.2 Defence

**Figure 19: Effects on the Defence SA Sub-Topic.**



The Ministry of Defence use a large proportion of the southern region of the inshore and offshore south west marine plan areas as defence practice areas as well as in the northern part of the inshore marine plan area between St Ives and Newquay. The policy supporting text for SW-CO-1 has highlighted the importance of these areas and has stated that any activity taking place in these areas are aware of training operations and follow any instructions given by the Ministry of Defence regarding the use of these areas. It is therefore assumed that the co-existence policy grouping will help to protect defence activities within the south west marine plan areas, and for this reason a significant positive effect has been identified.

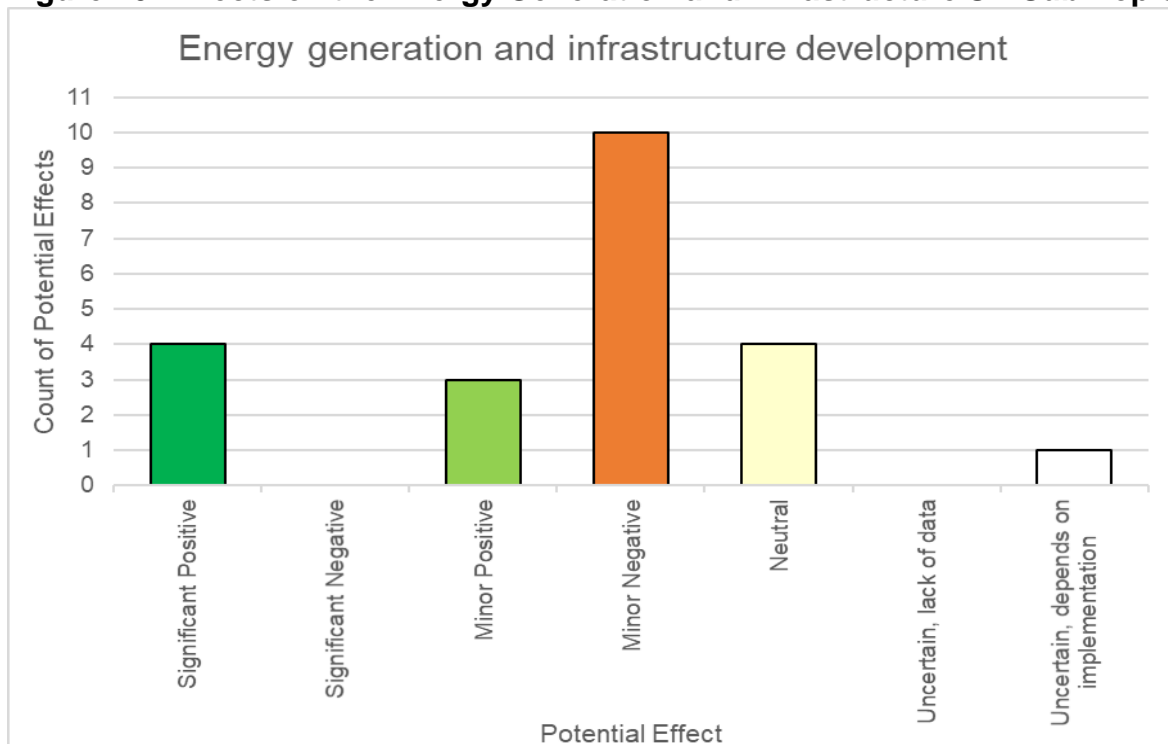
The defence sector (particularly the Royal Navy) is a large employer in the south west region and creates business opportunities within other sectors. The

employment policy grouping has the potential to result in further employment opportunities within the defence sector and therefore result in a significant positive effect.

It is unclear from the access policy grouping how public access to areas used for defence will be treated, as public access and restrictions within military areas are likely to be determined by MOD Byelaws. As a result, there may be some activities which are incompatible with public access, but it is unclear whether access for the public or defence activities would be given priority.

### 11.2.3 Energy Generation and Infrastructure Development

**Figure 20: Effects on the Energy Generation and Infrastructure SA Sub-Topic.**



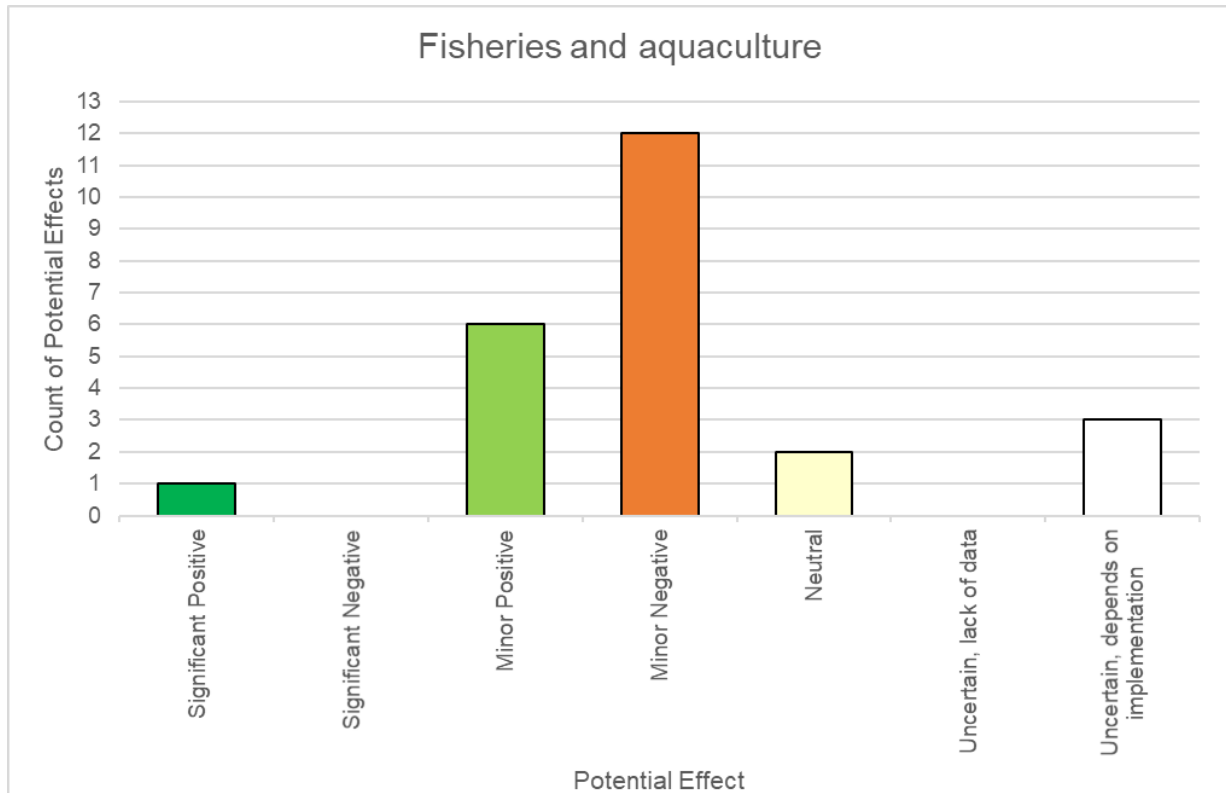
The baseline has identified the importance that oil and gas (currently not in the south west marine plan areas) contributes to the UK's economy and electrical interconnections with other nations help to contribute to UK energy security, affordability and decarbonisation objectives. The renewable policy grouping supports the UK's Clean Growth Strategy, by offering potential to deliver clean, renewable energy. The cables, renewables and oil and gas policy groupings have the potential to help enable future development within the south west marine plan areas, promote new technologies and help to ensure energy security for the future. For these reasons, potential significant positive effects on the energy generation and infrastructure development SA sub-topic, have been identified.

The employment policy grouping has the potential to result in significant positive effects on energy generation and infrastructure development, as it could support further development, diversification and employment opportunities.

The SW-AIR-1 policy could result in the limitation of future emission heavy energy sources, in particular oil and gas developments. However, there is potential that the policy could result in a shift towards cleaner energy sources and create new opportunities within the energy sector.

### 11.2.4 Fisheries and Aquaculture

**Figure 21: Effects on the Fisheries and Aquaculture SA Sub-Topic.**



The aquaculture policy grouping has the potential to result in a significant positive effect on fisheries and aquaculture, both of which are large sectors within the South West marine plan areas. Policies SW-AQ-1 and SW-AQ-2 directly addresses the need for future development to consider nearby aquaculture facilities and encourages sustainable design.

The fishing industry has suffered decline in recent years, making it increasingly difficult to provide a livelihood. Policies SW-FISH-1 and SW-FISH-2 aim to protect fisheries and promote further development across the south west inshore and offshore marine plan areas. Given that fishing is an important industry within the region, the policy grouping has the potential to result in significant positive effects.

Aggregate extraction and dredging and disposal have the potential to adversely affect fisheries, through the changes in sediment type and benthos. Both Policy SW-AGG-2 and Policy SW-DD-1 state that only those developments or activities that are compatible with aggregate extraction or dredging and disposal activities, will be supported. This could limit fishing and aquaculture activities in the south west marine plan areas. For these reasons a potential significant negative effect has been

identified between the aggregates and dredging and disposal policy groupings and the fisheries and aquaculture SA sub-topic.

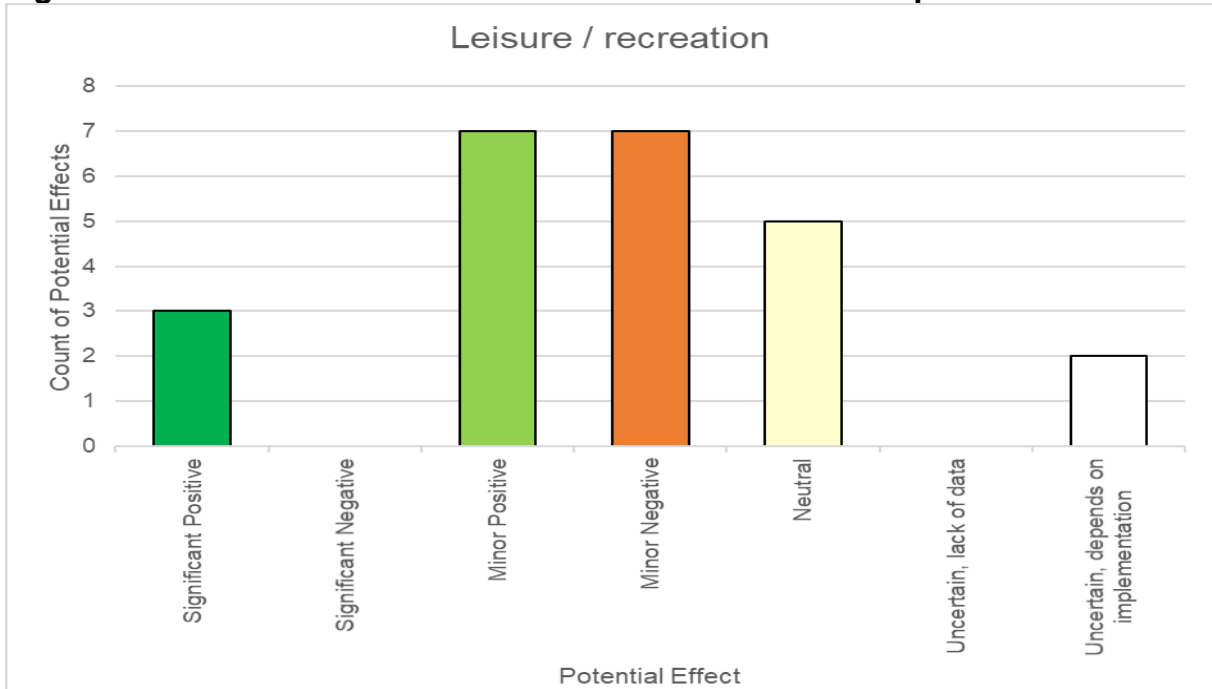
The south west inshore marine plan area has a significant number of fishing vessels and a relatively large number of shellfish sites. The fishing industry is dependent on a healthy marine environment and a marine environment that's able to support healthy fish stocks. It requires these fish stocks to be exploited sustainably, in order to ensure the long term viability of the fishing sector. However, through its reliance on fish stocks as a natural capital asset, fishing itself has the potential to have a direct adverse effect on the marine environment. It also has the potential to have an indirect adverse effect on the marine environment (and thus several natural capital assets) through the presence of ghost fishing gear, and, in the case of aquaculture, the potential degradation of water quality. It is uncertain, therefore, how this cyclical and interdependent nature of fisheries and aquaculture on the natural capital assets (SW-NG-1) provided by the marine environment would affect the industry specifically.

There is potential for renewable energy installations to have negative implications on fisheries and aquaculture sites within the south west marine plan areas. Development has potential to result in the displacement of fisheries and aquaculture sites, as well as potential adverse effects on fish and shellfish.

Policy SW-SCP-1 states that where possible proposals should demonstrate that they have considered how highly the seascape and landscapes of an area is valued, its quality, and the areas potential for change. In addition, the scale and design of the proposal should be compatible with its surroundings, and not have a significant adverse effect on the seascape and landscapes of an area or the wider landscape. At this stage, it is not clear what the quality and value of the landscape and seascape is where future proposals could be developed, or the process of which will be undertaken to establish the value. Therefore, at this stage the overall effect of policy SW-SCP-1 on aquaculture is uncertain.

## 11.2.5 Leisure and Recreation

Figure 22: Effects on the Leisure and Recreation SA Sub-Topic.



Both the access and tourism and recreation policy groupings aim to increase access to the marine environment providing greater leisure and recreational opportunities across the south west marine plan areas. For these reasons, significant positive effects have been identified.

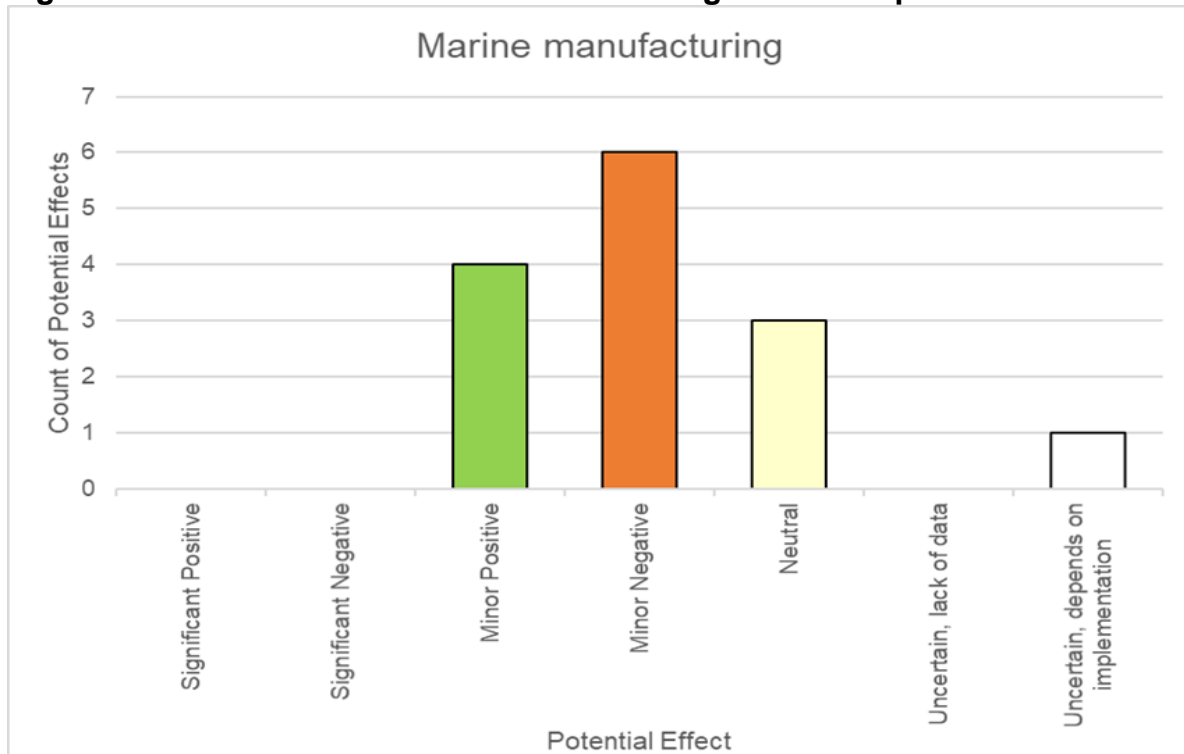
Leisure and recreation opportunities have positive interactions with economic and social topics and implementation of policy SW-EMP-1 has the potential to result in significant positive effects on the leisure and recreation industry.

Sea training is carried out within the south west marine plan areas, with 60% of the inshore plan area and 94% of the offshore plane area, being dedicated as military practice and exercise (PEXA) training areas. Preference towards defence activities could see some recreational activity and new recreational proposals limited within the south west inshore marine plan area, and there is potential for issues in relation to access. Uncertainty has been recorded as the proposals will need to be considered on a case by case basis and it is unclear which proposals would require authorisation.

The potential effect on leisure and recreation as a result of the natural capital policy is uncertain at present and dependent on its implementation. Leisure and recreation associated activities can benefit from the natural capital afforded by the marine environment (economic, outdoor recreation, increased visitor numbers), however, these activities may have a significant adverse effect on elements of marine and coastal natural capital.

### 11.2.6 Marine Manufacturing

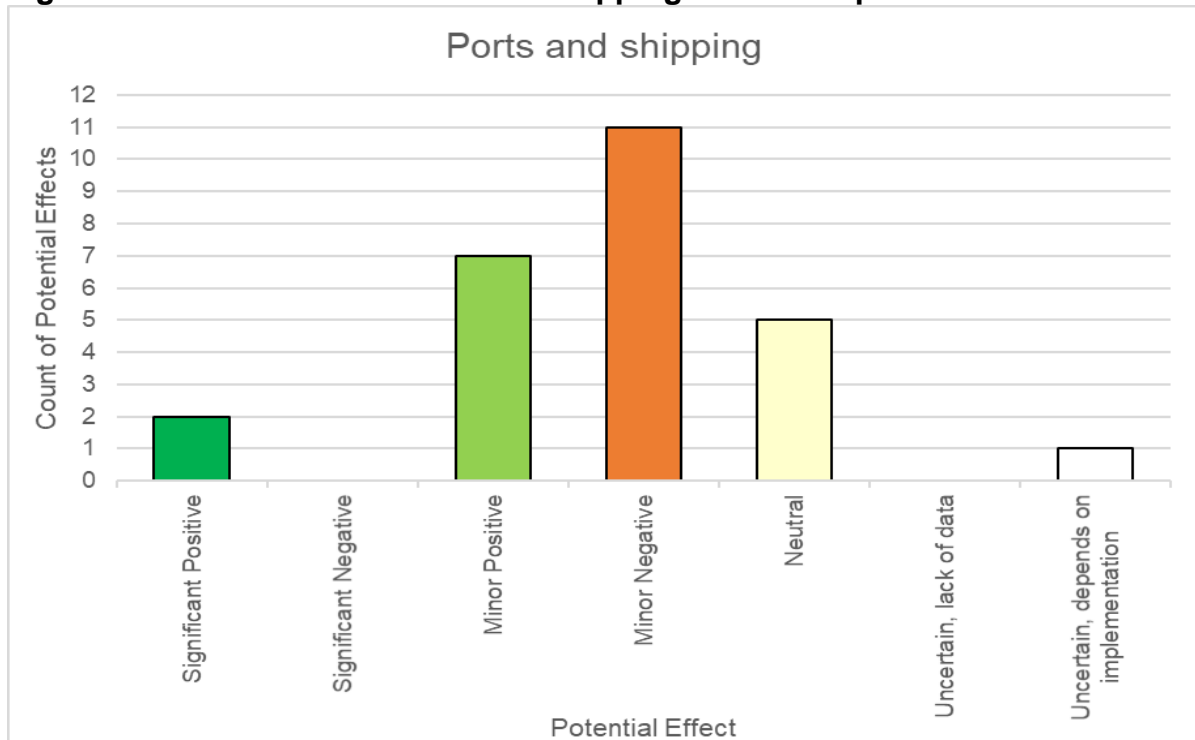
Figure 23: Effects on the Marine Manufacturing SA Sub-Topic.



Uncertain effects have been identified in relation to the water quality policy grouping. Policy SW-WQ-1 has potential to limit future proposed marine manufacturing activities within the south west marine plan areas. There are no policies within the plan that offer general protection for marine manufacturing activities, nor is it included within policy supporting text. There are however several policies which mention several different marine industries individually and their associated supply chains and skills bases.

## 11.2.7 Ports and Shipping

**Figure 24: Effects on the Ports and Shipping SA Sub-Topic.**



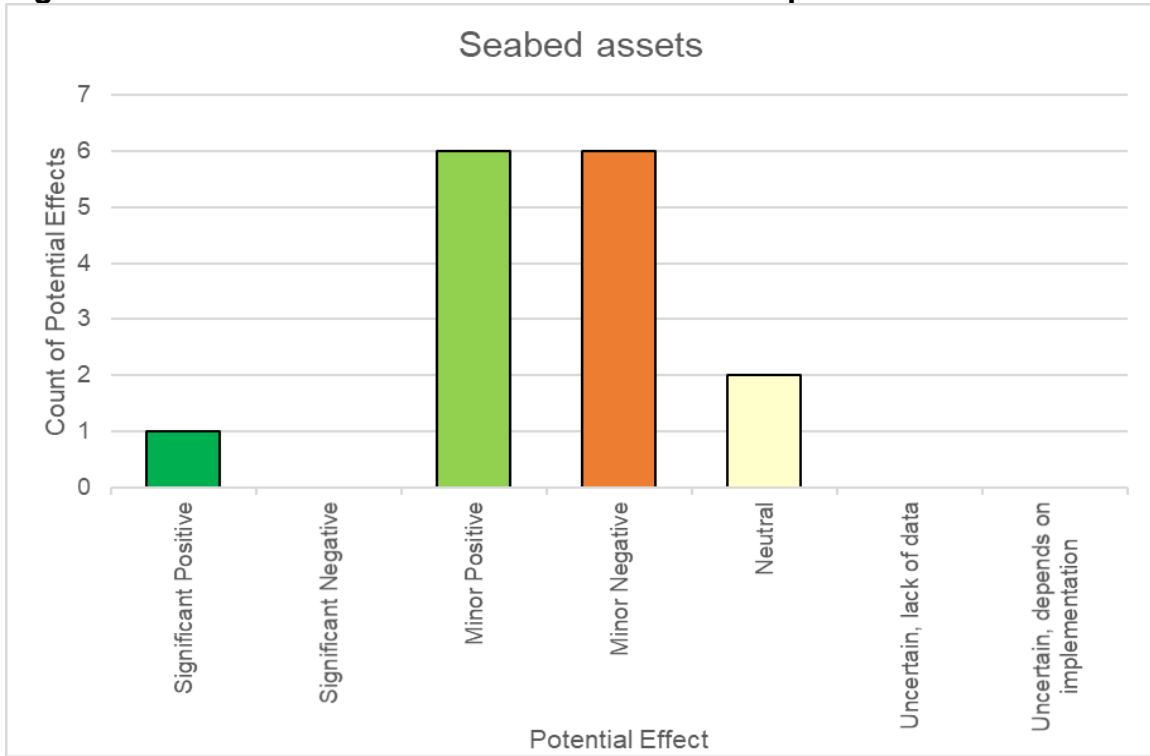
Potential significant positive effects have been identified in relation to the ports and shipping policy grouping. Policies SW-PS-2 and SW-PS-3 have the potential to help safeguard port access and key navigational routes, whilst policies SW-PS-1 and SW-PS-4 could increase port and shipping activity within the south west marine plan area. All four policies support existing shipping infrastructure and open up new opportunities for short sea shipping.

Ports and shipping have positive interactions with economic and social topics and implementation of policy SW-EMP-1, within the employment policy grouping, has the potential to result in significant positive effects on the ports and shipping industry.

Ports have a vital role in the import and export of energy supplies and will need to be responsive both to changes in different types of energy supplies needed and to the need for facilities to support the development and maintenance of offshore renewable sites. Within the renewables policy grouping, there is potential for all three policies to result in significant positive effects on shipping. However, further development as well as the restrictions associated with areas designated for wind development (SW-WIND-1), will further reduce available space. Due to the unknown number of future renewable developments, the potential effect on ports and shipping is not known at this stage.

### 11.2.8 Seabed Assets

Figure 25: Effects on the Seabed Assets SA Sub-Topic.

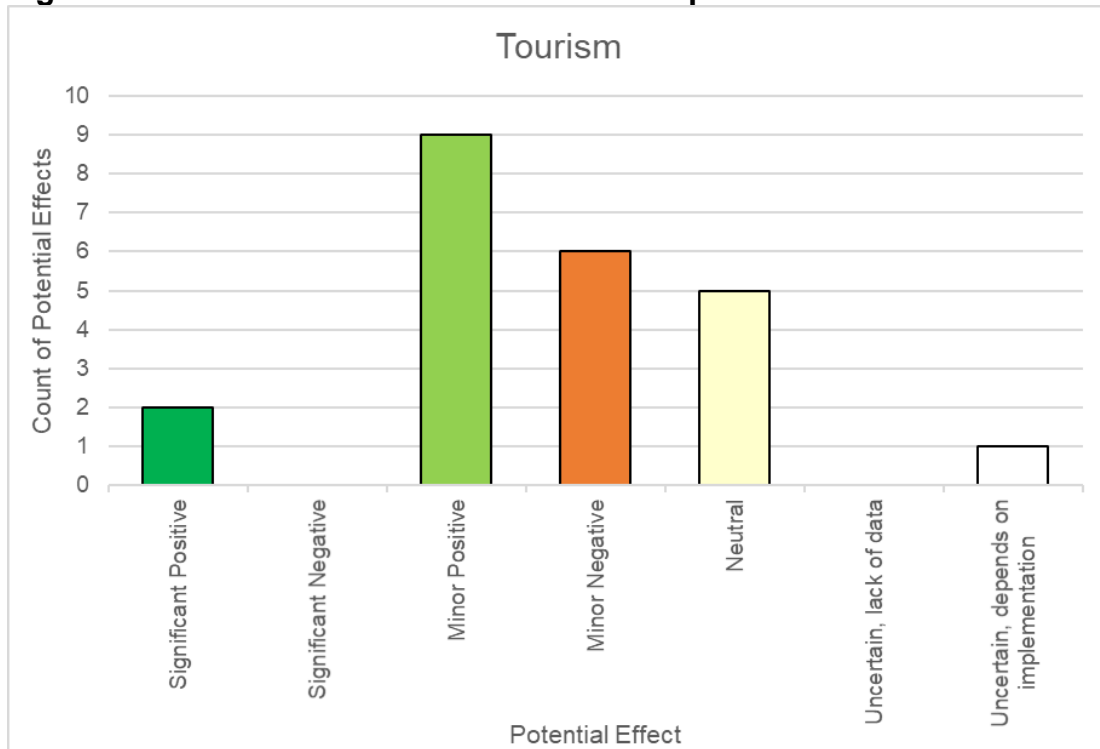


Potential significant positive effects have been identified in relation to the cables policy grouping. Policies SW-CAB-1, SW-CAB-2 and SW-CAB-3 aim to support existing cable infrastructure and encouraging new cable developments within the south west marine plan areas.



## 11.2.9 Tourism

Figure 26: Effects on the Tourism SA Sub-Topic.



The tourism and recreation policy grouping policy has the potential to cause significant positive effects on the tourism policy grouping. Policy SW-TR-1 aims to protect existing tourism activities and could result in expansion and diversification of existing developments as well as new proposals.

The south west marine plan areas provide various tourism opportunities, which make a substantial contribution to the regional and national economy. Providing further employment opportunities and diversification, has the potential to result in more tourism opportunities.

Given that the defence sector has a major presence within the south west marine plan areas, preference towards defence activity could affect tourism activity and new tourism proposals limited within the south west inshore marine plan area. Uncertainty has been recorded as the policy is not clear as to what types of proposals are likely to affect Ministry of Defence areas.

## 11.3 Suggested Mitigation Measures

Mitigation measures identified in the assessment to address potential uncertain or significant negative effects are identified within Table 9.

**Table 9: Suggested Mitigation Measures for Uncertain and Significant Negative Effects on Economy.**

SA Sub-Topic	Causal Grouping	Mitigation Measures Identified in the Assessment
Fisheries and aquaculture	Access	<p>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.</p> <p>SW-FISH-1, SW-FISH-2, SW-FISH-3 and SW-CO-1 may provide some mitigation for the potential effects which may be incurred on fisheries and aquaculture as a result of increased access.</p>
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.
Fisheries and aquaculture	Aggregates and Dredging and disposal	<p>Policies SW-AQ-1, SW-FISH-2 and SW-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.</p> <p>Policy SW-CO-1 could also provide mitigation for fisheries and aquaculture, as it aims to optimise the use of space and incorporate opportunities for co-existence and co-operation with existing activities, within the south west marine plan areas.</p>
Fisheries and aquaculture, Leisure /	Natural capital	Clarity in the supporting text is required in relation to fisheries and aquaculture, to ensure that the cyclical and interdependent nature of

SA Sub-Topic	Causal Grouping	Mitigation Measures Identified in the Assessment
recreation and Tourism		this industry with natural capital assets within the marine and coastal environment are adequately and appropriately explained.
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.
Access, Leisure and recreation, Tourism	Defence	<p>Public access and restrictions within military areas are likely to be determined by MOD Byelaws.</p> <p>SW-DEF-1 may provide some mitigation, aims to avoid conflict between defence activities and new proposals within the south west marine plan areas. It will ensure that defence interests are not impeded.</p>
Fisheries and Aquaculture	Renewables	<p>Policy supporting text could be amended to address the potential negative effects that renewable energy could have. Policy SW-FISH-1 could provide some mitigation for the effects of renewable installations on fisheries and aquaculture.</p> <p>Policy SW-CO-1 could provide some mitigation with regards to co-existence.</p>
Marine Manufacturing	Water quality	<p>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.</p> <p>The potential negative implications of marine manufacturing on water quality need to be included with SW-WQ-1 supporting text.</p>

## 12 Results of the Assessment - Biodiversity, Habitats, Flora & Fauna

### 12.1 Introduction

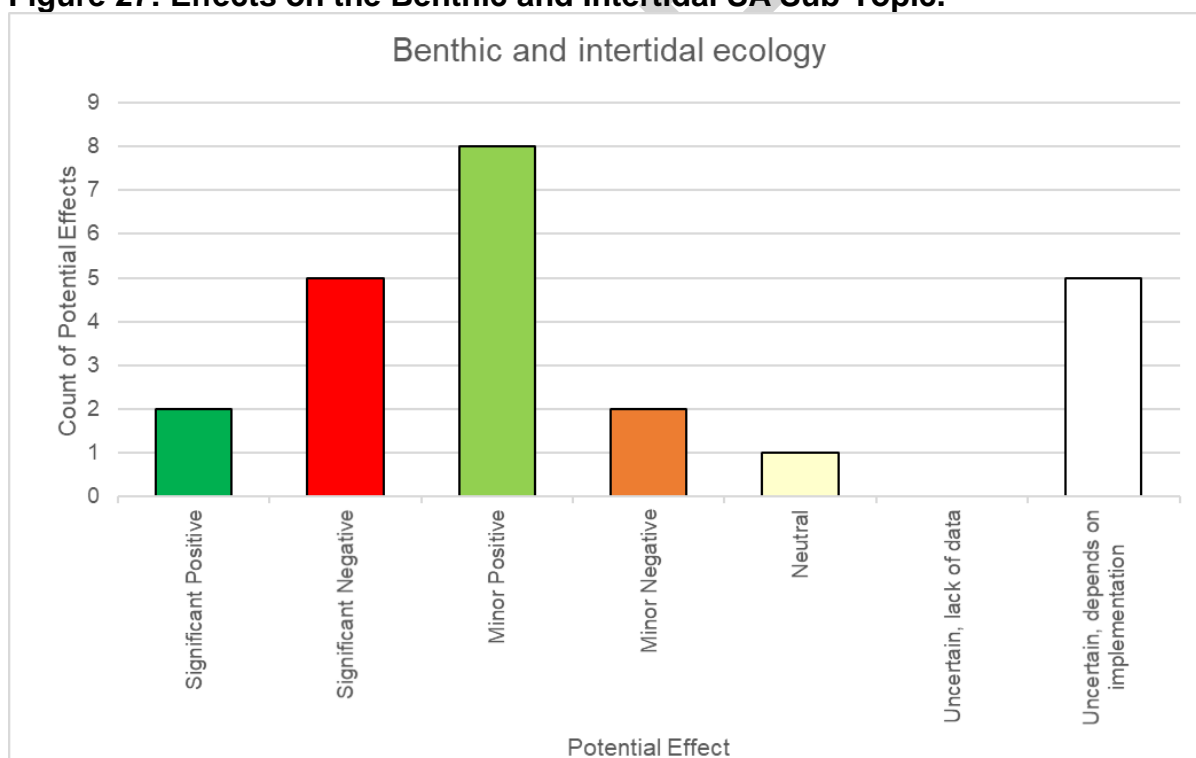
This section of the report presents the performance of the South West Marine Plan in relation to biodiversity, habitats, flora and fauna. This topic encompasses protected sites and species, benthic and intertidal ecology and fish and shellfish, marine megafauna, plankton, ornithology and invasive non-native species. Each of these comprises a separate SA sub-topic.

Sub-section 12.2 is split into seven parts, reflecting the seven SA sub-topics. The full assessment of the biodiversity SA topic can be found in Technical Appendix B.

### 12.2 Results of the Assessment of all Policy Groupings on Biodiversity, Habitats, Flora & Fauna

#### 12.2.1 Benthic and Intertidal Ecology

Figure 27: Effects on the Benthic and Intertidal SA Sub-Topic.



The implementation of the marine protected areas policy grouping has the potential for significant positive effects on benthic and intertidal ecology. In particular, policies SW-MPA-2 and 3 may aid in increasing the adaptability of benthic and intertidal environments to the effects of climate change, and make suitable arrangements for the spatial changes in distribution of habitat types. For these reasons, a significant positive effect has been recorded for the SA objective benthic and intertidal ecology.

Policy SW-CE-1 is predicted to have a significant positive effect on the benthic and intertidal environment, as it will address adverse cumulative effects from future proposals. For this reason, a significant positive effect has been identified, in relation to the cumulative effects policy grouping.

The installation of buried subsea cables has the potential to disturb benthic and intertidal habitats. The impetus that the cable policy grouping gives to buried cables has resulted in a significant negative effect particularly on benthic habitats within the marine plan area. For these reasons, potential significant negative effects have been identified in relation to both cable policy groupings.

The aquaculture policy grouping also has potential to have a significant negative effect on benthic and intertidal ecology. This policy grouping promotes aquaculture developments, particularly policy SW-AQ-2, which could lead to an increase in the nutrients and pollutants present within benthic and intertidal sediments, altering species composition. The effect of building on benthic habitats could also lead to the direct loss of habitat and species, such as Ross worm (*Sabellaria spinulosa*) (present on the North Devon coast) which might not be mitigatable.

The aggregate and dredging and disposal policy groupings support aggregate extraction and dredging and disposal extraction in the south west marine plan areas. Both activities have the potential to lead to the loss of subtidal rocky habitats and benthic species and habitats from both direct removal or smothering from dredge deposits. Indirect effects have also been identified, as the loss of benthic species could have negative implications for the fishing industry. Although, neither policy grouping will explicitly result in increased activity, as aggregate activity is set to continue at 472 and 526, and dredging is required at a number of ports within the inshore marine plan area, these policies will safeguard these activities, which are already having adverse effects. For these reasons, a potential significant negative effect has been identified.

Subtidal sediment and habitats can be lost as a result of offshore activities and pollution. There are no oil or gas fields or terminals and no currently licenced areas in the south west marine plan areas. However, the remaining blocks in the area could potentially be licensed in future licensing rounds run by the Oil and Gas Authority, within the marine plan period. At this stage, there is no certainty that this will result in development, and for this reason an uncertain effect has been identified.

Benthic and intertidal ecology is being heavily affected by a number of industries within the south west marine plan areas (for example, aggregates, dredging, fishing, cables and recreation). The supporting text for Policy SW-CO-1 aims to help protect habitats and species, but it also aims to protect industries that are damaging to benthic and intertidal habitats. The policy text discusses existing activities and does not make reference to opportunities to improve the performance of existing activities with relation to their potential negative effects through co-existence. There is no indication within the supporting text whether the protection of industries or the protection of habitats take priority. For these reasons, an uncertain effect has been identified, in relation to the co-existence policy grouping and benthic and intertidal ecology.

Uncertainty has been recorded in regard to the disturbance policy grouping. The SW-DIST-1 policy option does not protect benthic or intertidal habitats; or sessile species from the effects of disturbance, which has the potential to lead to the irreversible loss of benthic and intertidal environments within this plan area. Whilst SW-BIO-2 may have the potential to mitigate for this, it is uncertain that the "significant adverse effects on native species" would include the effects of disturbance.

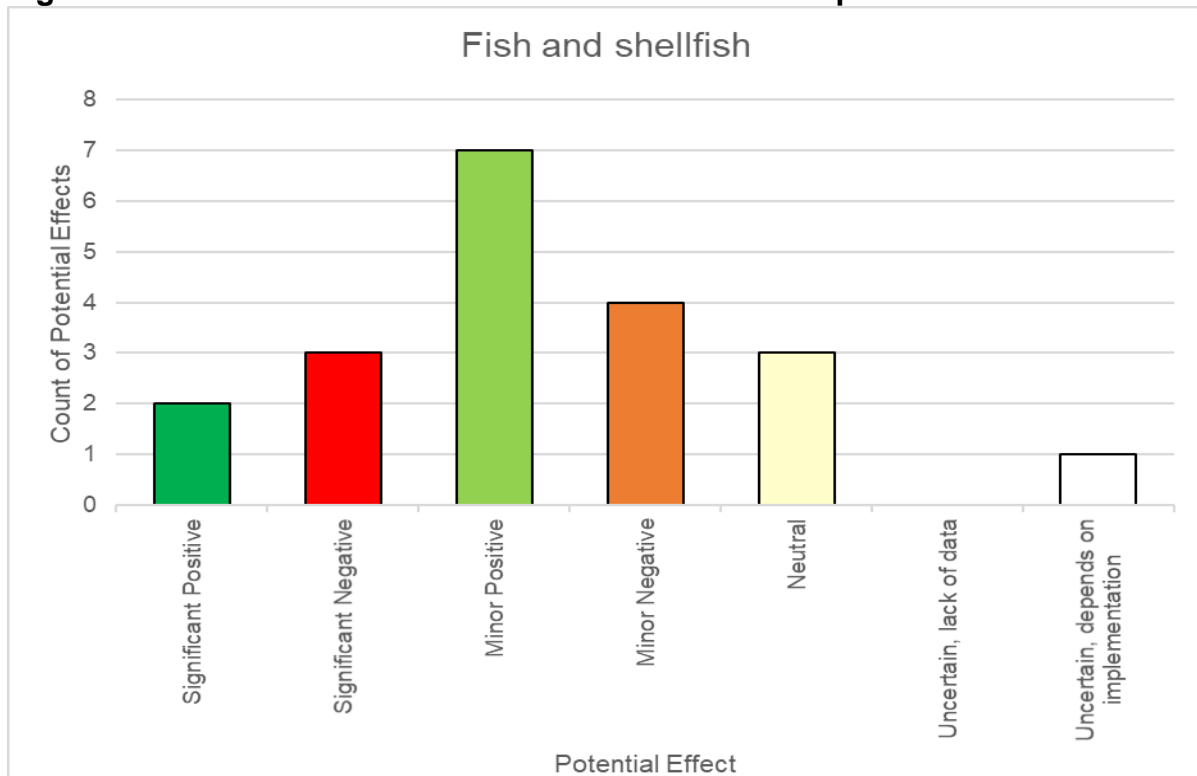
Commercial fishing can cause adverse effects on subtidal sediments, resulting in the loss of benthic habitats and species. Whilst policy SW-FISH-3 seeks to protect essential fish habitat, it is unclear whether this would apply only to fish habitat of commercially important species. This would not facilitate the direct protection of benthic and intertidal ecology. The potential effect that the fisheries policy grouping could have is at present uncertain and dependent on implementation.

Associated port and shipping activity, in particular dredging, has potential to effect sub-tidal sediments and the baseline has identified that at various locations near large ports, subtidal rocky habitat has been lost due to construction, infrastructure (mainly coastal) or via smothering from dredged deposits. Shipping also poses the risk of water pollution which can indirectly affect benthic and intertidal ecology. Policies SW-PS-1 and SW-PS-4, within the ports and harbours policy grouping, could result in increasing port and shipping activity, which has the potential to result in a significant negative effect on benthic and intertidal ecology. However, due to the unknown location and the likelihood of future development and uncertain effect has been recorded. Some uncertainty has also been recorded as it is not clear what is meant by 'sustainable expansion' and how this could affect benthic intertidal ecology.

Renewable infrastructure has potential to result in adverse effects on the hydrodynamics of the estuarine environments and can effect on intertidal and subtidal habitats. The renewable policy grouping has the potential to result in further renewable activity within the south west marine plan areas, however, the likelihood of future proposals and the type of future proposals is not known. For these reasons an uncertain effect has been identified.

## 12.2.2 Fish and Shellfish

Figure 28: Effects on the Fish and Shellfish SA Sub-Topic.



The south west marine plan areas include important fish spawning areas for cod, plaice, sand eel and sole, and nursery grounds for anglerfish and mackerel. The SW-CO-1 policy supporting text has identified the importance of this and has stated that it will optimise the use of these important grounds and consider seasonal use to accommodate sensitive life stages for local species to avoid adverse effects upon these species. This will help to protect fish and shellfish within the region and for this reason a significant positive effect has been identified.

The invasive non-native species policy grouping has the potential to positively effect native fish and shellfish populations, such as the European Eels (*Anguilla anguilla*) inhabiting the Severn Estuary. It clearly outlines the need to prevent the introduction of non-native species through transport and construction, which could subsequently compete with native species. For this reason, a significant positive effect has been recorded.

The increased number of aquaculture facilities which could result from the aquaculture policy grouping, may have potential positive effects on local fish and shellfish species, for example, the structures may act as an aggregating device. However, unless carefully managed, there is potential for increased eutrophication, altering of food sources and increased disease transmission. Competition may also occur between new species and native lobster populations, such as those currently supported by the work of National Lobster Hatchery. For this reason, a potential significant negative effect has been identified.

There is potential for an indirect significant negative effect to result from the underwater noise policy grouping, as Policy SW-UWN-2 may still allow for developments causing noise due to caveats within the policy, which has potential to disturb fish.

The dredging and disposal policy grouping supports dredging and disposal in the south west marine plan areas, which has the potential to lead to the loss of subtidal rocky habitats, important to fish, and benthic species and habitats from both direct removal or smothering from dredge deposits. Indirect effects have also been identified, as the loss of benthic species has the potential to cause negative implications for the fishing industry. Although the policy grouping will not explicitly result in increased activity, as aggregate activity is set to continue at 472 and 526, the aggregate policy grouping will safeguard activities which are already having adverse effects. For these reasons, a potential significant negative effect has been identified.

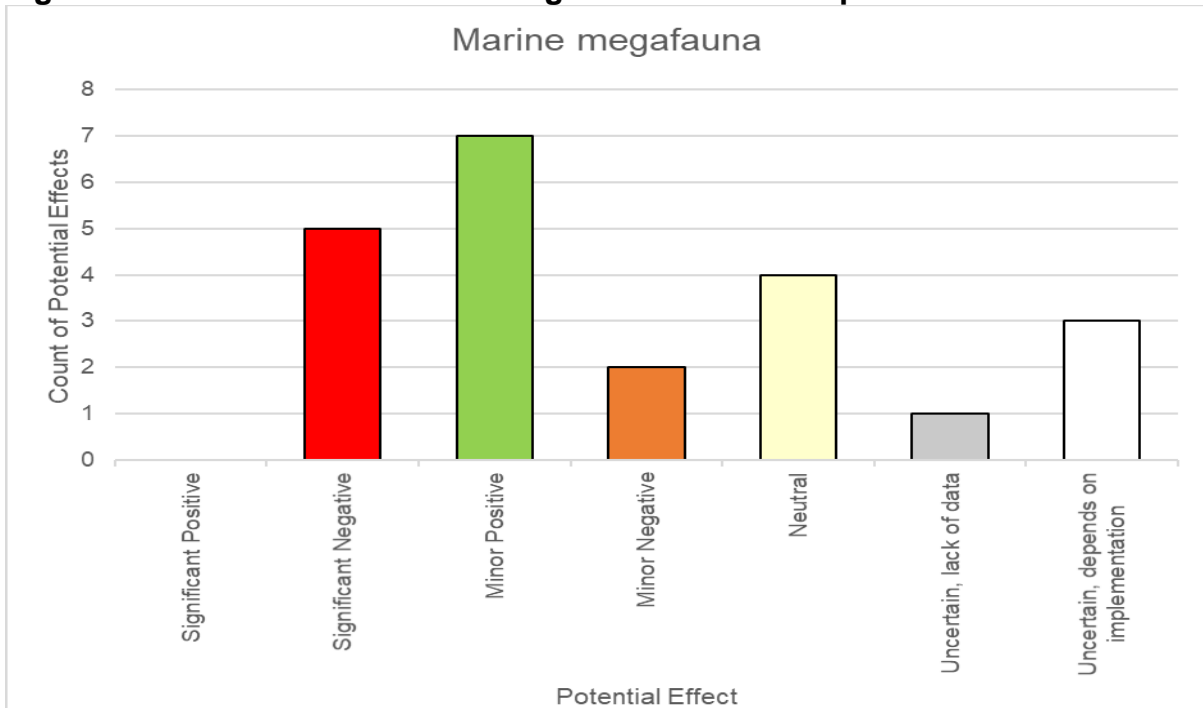
The Severn Estuary provides nursery grounds for commercially important fish including sole and bass. Whilst policy SW-FISH-3, within the fisheries policy grouping, seeks to protect habitat of such essential fish, it is unclear whether this would apply only to habitats of commercially important species, and as it stands it would not include the direct protection of other fish and shellfish. The potential effect that the fisheries policy grouping is uncertain and would be dependent on implementation.

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### 12.2.3 Marine Megafauna

**Figure 29: Effects on the Marine Megafauna SA Sub-Topic.**



There is a potential direct significant negative effect from the implementation of the underwater noise policy grouping due to caveat d of policy SW-UWN-2, which allows for noise emitting developments to occur in some cases without mitigation. This has the potential to lead to the altering of megafauna migration pathways, interruption of predation and lead to increased energy expenditure, lowering organism fitness. Similarly, noise effects from marine dredging are already having an effect on marine megafauna within the marine plan area. The policy could result in further dredging activity within the marine plan area, worsening the current situation, and for this reason a significant negative effect has been identified, with regards to the dredging and disposal policy grouping.

Ports and shipping activity can increase disturbance as well as potential collisions, with marine megafauna. This can cause increased energy expenditure, reduced resting time and has the potential to cause cetaceans to abandon or not use ideal habitats, potentially resulting in a reduction of energy reserves which could affect foraging efficiency, overall fitness and reproductive capacity. For these reasons, significant negative effects have been identified.

Noise effects from aggregate activity can negatively affect marine megafauna within the marine plan area. Although the policy may not result in further extraction sites within the south west marine plan area, the policies will safeguard existing aggregate sites (areas 472 and 526) which are licensed to extract 3 million tonnes per annum up until 2023 and 2 million tonnes per annum up until 2039.

Bycatch of marine mammals by fisheries and their entanglement by marine litter are two separate issues which have the potential to be exacerbated by the fisheries policy grouping. Neither of these issues are addressed by the policy grouping, and whilst the latter is partially addressed by policy SW-ML-2, the former is not

addressed by other policies within the plan, hence a potential significant negative effect has been recorded.

Marine megafauna are often highly migratory species, and may therefore experience the cumulative effects originating within multiple plan areas. It is unclear if the cumulative effects identified within the cumulative effects policy grouping will extend to those which are cross-boundary cumulative effects. Therefore, an uncertain effect has been recorded.

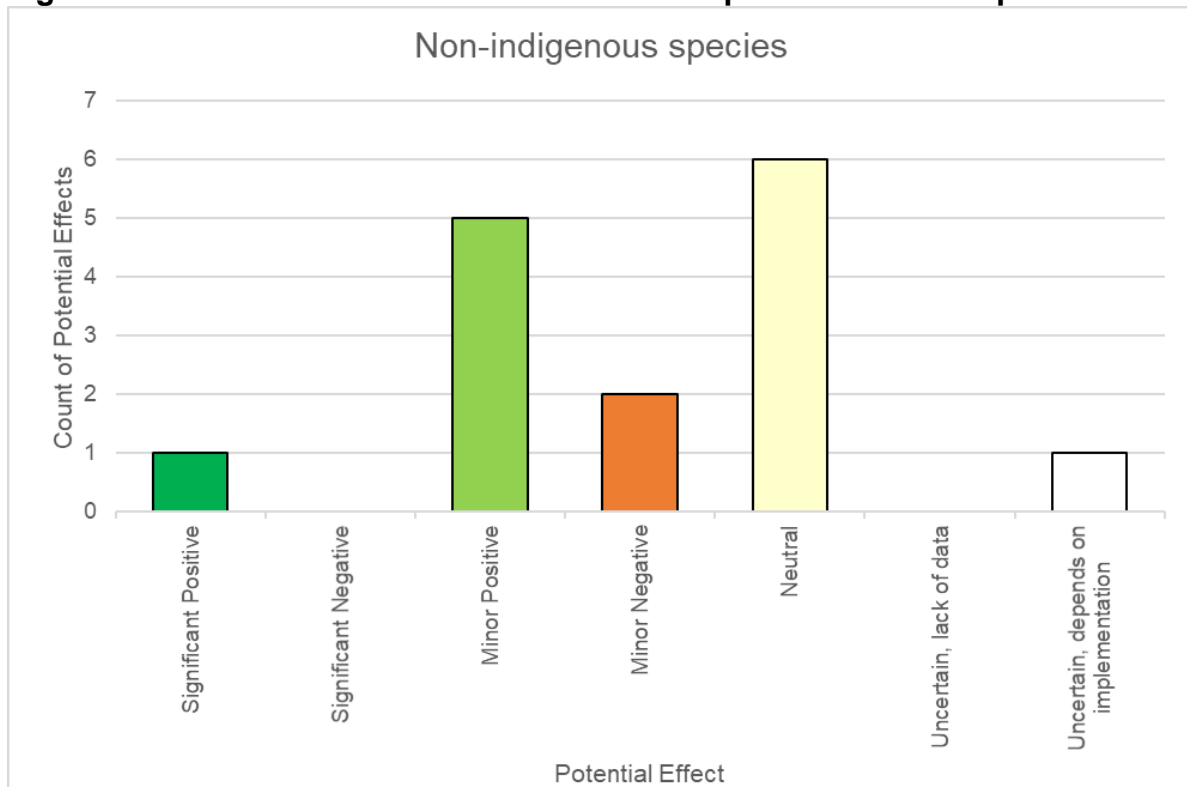
Offshore energy development has potential to increase noise, which is likely to be significantly worse during construction. The production of noise in the marine environment can have varying effects on marine mammals, including the altering of feeding behaviour, increased energy expenditure and death due to altered dive patterns. There are no oil or gas fields or terminals and no currently licenced areas in the south west marine plan areas. However, the remaining blocks in the area could potentially be licensed in future licensing rounds run by the Oil and Gas Authority, within the marine plan period. At this stage, there is no certainty that this will result in development, and for this reason an uncertain effect has been identified.

At present the potential effect of the natural capital policy on marine megafauna is uncertain and would be dependent on its implementation. Marine megafauna provides natural capital through, for example, eco-tourism and wildlife tours. However, these activities have been identified as having potential negative effects on marine megafauna. In addition, other sectors which make use of seismic surveys, piling, dredging, defence and shipping can also have negative effects on marine megafauna whilst themselves relying on marine natural capital. It is therefore unclear which natural capital asset, and which sector's exploitation of such an asset, would be prioritised through the implementation of SW-NG-1.

Megafauna provide popular recreational attractions within the south west region; however, recreational disturbances are regularly recorded, which often affects, seals, cetaceans and sharks. Disturbances are often caused by dogs, boats, surfers canoes and paddle boards. The tourism and recreation policy grouping could result in increased recreational pressures on marine megafauna which has potential to worsen the problem. It is uncertain what 'sustainable tourism and recreation activities' entail, and therefore whether the policy grouping would address disturbance issues.

## 12.2.4 Invasive Non-Native Species

Figure 30: Effects on the Invasive Non-Native Species SA Sub-Topic.

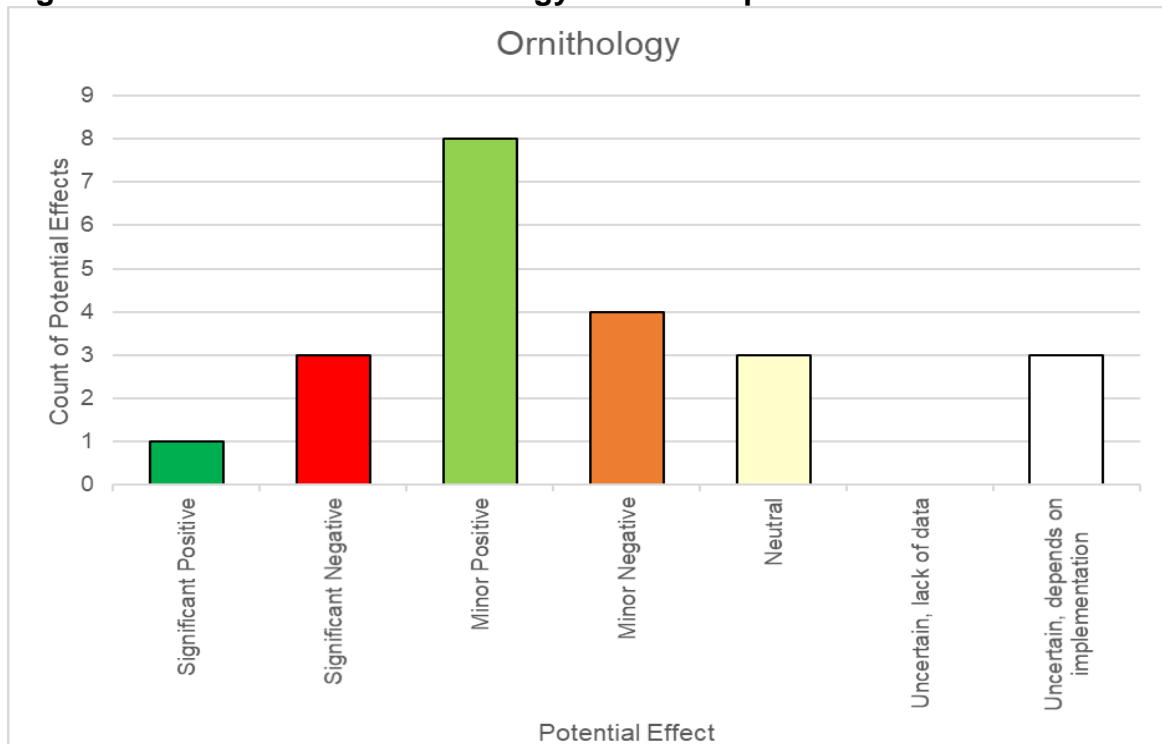


The invasive non-native invasive species policy grouping directly aims to prevent the introduction and increase of invasive non-native species throughout the south west marine plan areas. Transport of invasive non-native species, as well as areas of potential colonisation are addressed within this grouping, which should help to form a well-rounded approach to tackling this issue. For this reason, a significant positive effect has been recorded.

It is unclear if invasive non-native species will be given the same protection as native species from disturbance, as described in by policy SW-DIST-1, within the disturbance policy grouping. For this reason, an uncertain effect has been recorded.

## 12.2.5 Ornithology

Figure 31: Effects on the Ornithology SA Sub-Topic.



The south west marine plan areas are both nationally and internationally significant for bird populations and includes England's only nesting sites for British Storm Petrels and Manx Shearwaters. The baseline has identified the existing co-existence issues with aggregate extraction, dredging, mineral extraction and fishing. SW-CE-1 policy supporting text has highlighted the significance of this and the need to protect them. It has also identified the need to optimise the use of space to avoid adverse effects upon these species especially during the important winter season, where populations are significantly higher. The co-existence policy grouping is likely to result in further protection for the south west bird populations, and for this reason a significant positive effect has been identified.

The baseline has identified issues relating to marine developments and the displacement of seabirds. Although, neither policy grouping will explicitly result in increased activity, as aggregate activity is set to continue at 472 and 526, and dredging is required at a number of ports within the inshore marine plan area, these policies will safeguard these activities, which are already having adverse effects. Given the national and international importance of some of the species that reside in the south west marine plan areas, there is potential for a significant negative effect from both policy groupings.

Oil and gas activities have potential to cause disturbance and displacement of the movement of species through the south west marine plan areas. The south west marine plan areas are identified as an internationally important area for seabirds, in particular Storm Petrel and Lesser Black-Backed Gull species. There is therefore potential for a significant negative effect.

Shipping activity can negatively affect birds, mainly through disturbance and displacement. Given the national and international importance of bird populations in the south west region, there is potential for significant negative effects as a result of policies SW-PS-1 and SW-PS-4. For these reasons a significant negative effect has been identified. However, some uncertainty has been noted with regards to 'sustainable expansion' and what this could mean for birds.

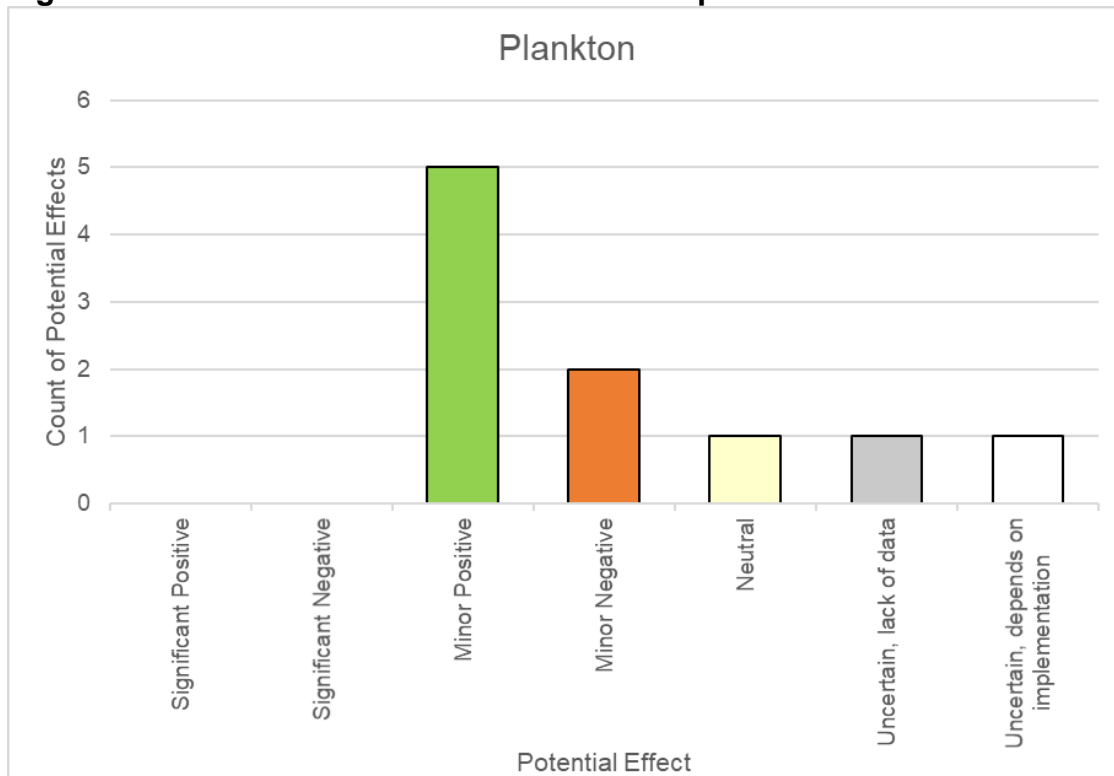
Oil and gas activities have potential to cause disturbance and displacement of the movement of species through the south west marine plan areas. At present, there are no oil or gas fields or terminals and no currently licenced areas in the south west marine plan areas. However, the remaining blocks in the area could potentially be licensed in future licensing rounds run by the Oil and Gas Authority, within the marine plan period. At this stage, there is no certainty that this will result in development, and for this reason an uncertain effect has been identified.

Ornithology provides popular recreational attractions within the south west marine plan areas; however, recreational disturbances are regularly recorded. The tourism and recreation policy grouping could result in increased recreational pressures on bird species which has potential to worsen the problem. It is uncertain what 'sustainable tourism and recreation activities' entail, and therefore whether the tourism and recreation policy grouping would address issues with increased tourism resulting in increased disturbance on ornithology.

Uncertainty has also been recorded in relation to the co-existence policy grouping as it is unclear if the cumulative effects identified within this policy grouping will extend to those which are cross-boundary cumulative effects. Bird species are often highly mobile and migratory and may therefore experience the cumulative effects across multiple plan areas.

## 12.2.6 Plankton

Figure 32: Effects on the Plankton SA Sub-Topic.

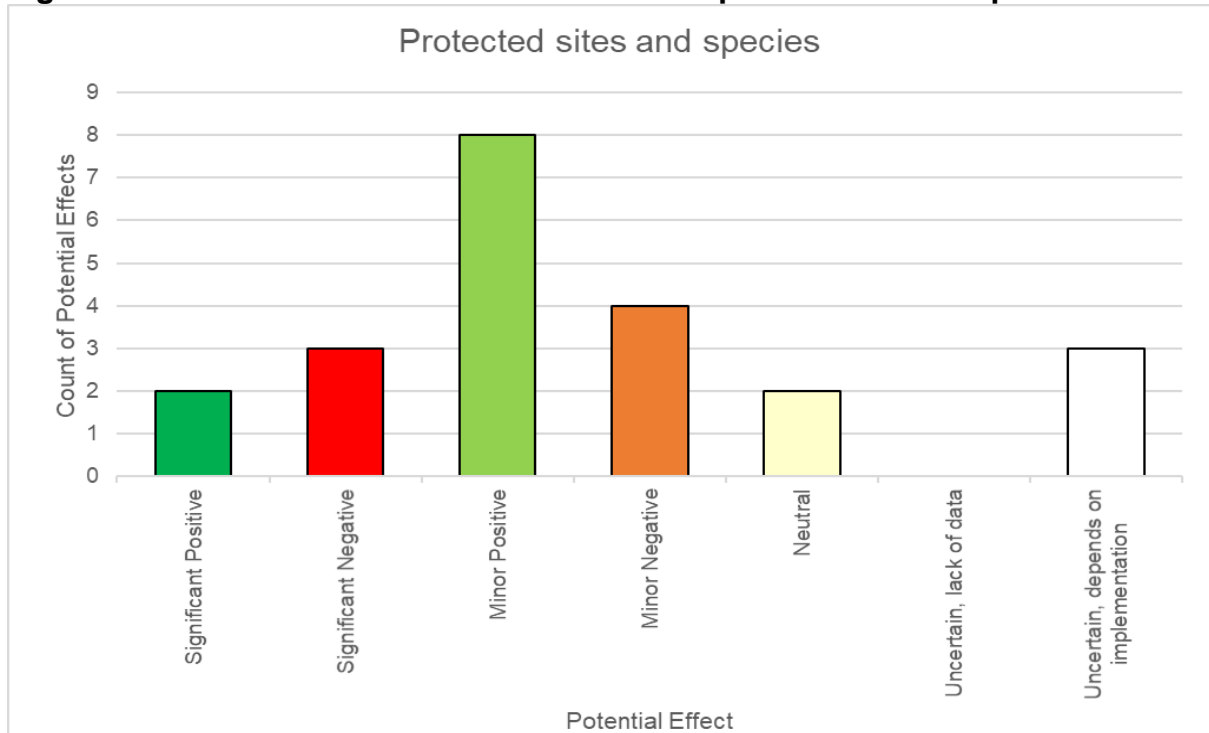


At present, the potential effects of the biodiversity policy grouping are uncertain and would be dependent on its implementation. Plankton are the basis of all marine food webs, including those of commercially important species. They are affected by several indirect anthropogenic drivers, including warming sea temperatures and ocean acidification as a result of climate change, and eutrophication through nutrient run-off. As policies SW-BIO-2, SW-BIO-3 and SW-HAB-1 do not seek to target these drivers which are causing permanent and irreversible damage to plankton populations and communities, it is not clear that their implementation would be beneficial for this SA sub-topic. It is uncertain whether net environmental gains which may be sought as a compensatory route would encompass plankton.

Indirect positive effects may be had on plankton through renewable energy generation indirectly reducing the effects of climate change, such as changes to water temperature and salinity, and through having the potential to minimise demand on fossil fuel generated energy which could in turn minimise carbon dioxide emissions and subsequent ocean acidification. There is however a lack of data as to whether marine devices can have an adverse effect on plankton, and the mechanisms by which these may occur. Baseline data, indicates that heavy manufacturing which has a coastal or estuarine location can potentially have a number of effects on the environment, including crucially, the water environment. During the construction, operation and decommissioning phases of renewable energy developments, there can be increased demand for water, discharges to water and adverse ecological effects resulting from physical modifications to the water environment.

## 12.2.7 Protected Sites and Species

**Figure 33: Effects on the Protected Sites and Species SA Sub-Topic.**



Marine protected areas within the south west marine plan areas present co-existence challenges with other activities (such as anchorage, dredging, fisheries, recreational activities), which is mainly due to the number of marine protected areas and the variety of management measures within them. SW-CO-1 policy supporting text has identified the high sensitivity of special protected areas within the south west marine plan areas, and the important socio-economic benefits that they can provide. It aims to provide exclusive access to other suitable activities that do not pose a risk to the designated features of protected sites. Providing sensitive access to protected sites is likely to reduce the current recreational pressure faced within these important areas. For this reason, a significant positive effect has been identified in relation to the co-existence policy grouping.

The implementation of the cumulative effects policy grouping is predicted to have a significant positive effect on protected sites and species, as cumulative effects resulting from future developments must be addressed and mitigated. The addition of mitigating cumulative effects which may later arise from "reasonably foreseeable proposals" adds strength to this grouping and further protection for protect sides and species.

The south west marine plan areas contain 40% of national marine protected areas as well as a number of voluntary marine protected areas. Aggregate activity can result in adverse effects on marine life and habitats, which in turn could affect on protect sites and species. Although the policy may not result in further extraction sites within the south west marine plan areas, the policies will safeguard existing aggregate sites (areas 472 and 526) which are licensed to extract 3 million tonnes per annum up until 2023 and 2 million tonnes per annum up until 2039. These

policies will help safeguard this activity, therefore a significant negative effect has been identified.

Increased ports and shipping activity as a result of policies SW-PS-1 and SW-PS-4 has the potential to result in significant negative effects on protected sites and species. A potential significant negative effect has therefore been identified for the ports and harbours policy grouping.

The tourism and recreation policy has potential to result in increased recreational activity within the south west inshore marine plan area. Recreational pressures can result in disturbance of both protected sites and species. It is not clear what 'sustainable tourism and recreation activities' could entail, and for this reason an uncertain effect has been identified.

Fisheries pose a threat to vulnerable or rare species and protected sites, and there is a lack of understanding of the purpose of Marine Conservation Zones within the sector. Whilst policy SW-FISH-3 seeks to protect essential fish habitat, it is unclear whether this would apply only to fish habitat of commercially important species. This would not include the direct protection of protected sites and species, and for this reason an uncertain effect has been identified.

It is unclear from the oil and gas policy grouping if protected sites and species or oil and gas proposals would be given priority in the policy hierarchy. Future designations of protected sites could be prevented by the implementation of the oil and gas grouping. Existing sites may also be affected by noise or pollution emitted from oil and gas developments if developments came forward. At present, there are no oil or gas fields or terminals and no currently licenced areas in the south west marine plan areas. However, the remaining blocks in the area could potentially be licensed in future licensing rounds run by the Oil and Gas Authority, within the marine plan period. At this stage, there is no certainty that this will result in development, and for this reason an uncertain effect has been identified. For this reason, an uncertain effect has been recorded.

There is potential for an indirect significant negative effect to result from the underwater noise policy grouping, as Policy SW-UWN-2 may still allow for developments causing noise due to caveats in the policy.

### **12.3 Suggested Mitigation Measures**

Mitigation measures identified in the assessment to address potential uncertain or significant negative effects are identified within Table 10.



**Table 10: Suggested Mitigation Measures for Uncertain and Significant Negative Effects on Climate.**

SA Sub-Topic	Causal Grouping	Mitigation Measures Identified in the Assessment
Protected sites and species, ornithology	Tourism and recreation	<p>Policy supporting text needs to provide clarification on what 'sustainable tourism and recreation activities' entails.</p> <p>Strength could be added to policy SW-MPA-1 by removing options to minimise and mitigate.</p>
Protected sites and species, ornithology	Underwater noise	<p>The effects of allowing noise producing developments should be carefully considered. The best mitigation for this effect may be to prevent noise generating activities, however this is unlikely to be practical.</p> <p>Alternatively, if these developments are approved then the policy wording could be altered to ensure that the timing of noise related activities avoids key breeding seasons.</p> <p>Most developments will also be required to perform an EIA, which may further help to mitigate significant adverse effects on protected sites and species.</p>
Protected sites and species, ornithology, fish and shellfish	Renewables and Aggregates	<p>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.</p> <p>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.</p>
Fish and shellfish	Access and Aggregates	<p>Policy SW-BIO-2 and SW-DIST-1 could help to mitigate the cumulative effect, although only 'highly mobile' species will be protected by SW-DIST-1.</p>
Marine megafauna	Access	<p>SW-BIO-2 and SW-BIO-3 may aid in alleviating some negative effects. However, the caveats within SW-ACC-1 allowing for environmental net gains to be used as mitigation elsewhere, may still mean that megafauna within this 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.</p>

SA Sub-Topic	Causal Grouping	Mitigation Measures Identified in the Assessment
		Policy SW-BIO-2, SW-DIST-1, SW-UWN-1 and SW-UWN-2 could help to mitigate the cumulative effect, although only 'highly mobile' species will be protected by SW-DIST-1.
Ornithology	Access	<p>Policies within groupings such as those for Marine Protected Areas (SW-MPA-1) and Biodiversity (SW-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.</p> <p>Policy SW-BIO-2 and SW-DIST-1 could help to mitigate the cumulative effect, although only 'highly mobile' species will be protected by SW-DIST-1.</p>
Ornithology	Aggregates	Policy SW-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.
Benthic and intertidal ecology	Aquaculture	It should be clear within supporting text of policy SW-AQ-2 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.
Benthic and intertidal ecology	Disturbance	<p>SW-DIST-1 should seek to minimise the effects of disturbance on all marine species wherever practicable rather than focusing solely on the protection of highly mobile species. It is therefore recommended that the policy covers adverse effects on all species and not just highly mobile species.</p> <p>It is also recommended that the supporting text of SW-BIO-2 clarifies that the avoidance/minimisation of significant adverse effects specifically as a result of disturbance are encompassed within this policy.</p>
Benthic and intertidal ecology, Ornithology, protected sites and species and marine megafauna	Ports and harbours	All new ports and harbours proposals would need to be subject to an EIA, which would assess the potential effect on benthic intertidal ecology, ornithology, protected sites and species and marine megafauna. This could mitigate both potential negative effects and cumulative effects arising from development.

SA Sub-Topic	Causal Grouping	Mitigation Measures Identified in the Assessment
Marine Megafauna, Ornithology, Invasive non-native species	Climate change	<p>SW-AIR-1 seeks to avoid increased greenhouse gas emissions.</p> <p>SW-FISH-1 supports a sustainable fishing industry, however this focuses on diversification and may not necessarily alleviate pressure on over-exploited fish stocks.</p> <p>SW-ML-1 and SW-ML-2 seek to reduce the quantity of litter within the marine environment, however its introduction will not necessarily be wholly prevented.</p> <p>No policies within the marine plan broach the issue of bycatch of unintended species, including marine mammals, within fishing gear.</p> <p>A neutral rather than negative effect has been recorded due to the mitigation provided by these other plan policies.</p>
Protected sites and species, Benthic and intertidal ecology, Fish and shellfish	Fisheries and aquaculture	<p>The policy wording of SW-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.</p>
Benthic and intertidal ecology	Oil and gas	<p>Supporting text to policy SW-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.</p>
Marine megafauna and ornithology	Tourism and recreation	<p>Supporting text for policy SW-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.</p>
Benthic and intertidal ecology	Aquaculture	<p>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.</p>
Fish and shellfish	Aquaculture	<p>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</p>

SA Sub-Topic	Causal Grouping	Mitigation Measures Identified in the Assessment
		<p>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</p> <p>SW-BIO-2 and SW-FISH-3 could partially mitigate for the effects identified.</p>
Plankton	Biodiversity	<p>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 marine plan area.</p>
Benthic and intertidal ecology	Co-existence	<p>There is no indication within the supporting text whether the protection of industries or the protection of habitats take priority. SW-BIO-1, SW-BIO-2 and SW-BIO-3 provide some mitigation but do not specifically reference benthic and intertidal ecology.</p>
Ornithology	Natural Capital	<p>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.</p> <p>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 marine plan areas.</p>

SA Sub-Topic	Causal Grouping	Mitigation Measures Identified in the Assessment
Marine megafauna	Natural Capital	<p>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.).</p> <p>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 marine plan areas.</p>
Ornithology	Natural Capital	<p>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.</p> <p>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 marine plan areas.</p>
Ornithology	Dredging and disposal	<p>Policy SW-BIO-2 and SW-BIO-3 encourage proposals to enhance habitats and promote net gains, which could help to protect birds from negative effects associated with dredging and disposal.</p> <p>Policy SW-DIST-1 could provide some mitigation, however, supporting text should be</p>

SA Sub-Topic	Causal Grouping	Mitigation Measures Identified in the Assessment
		amended to identify the potential effect dredging and disposal activities pose.
Plankton	Renewables	<p>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.</p> <p>More data is needed on the potential effects of marine renewable energy devices on the water column and subsequently on plankton.</p>

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## 13 Cumulative Effects Assessment

### 13.1 Introduction

The SEA Regulations require an assessment of cumulative effects. Cumulative effects arise where:

- several individual effects of the plan have a combined effect on a single receptor
- where several plans and policies each have insignificant effects but together have a significant effect.

The significance of cumulative effects resulting from a range of activities, or multiple incidences of one activity, may vary based on factors such as the nature of the projects proposed and the sensitivity of the receiving communities and environment.

The cumulative effects assessment therefore includes:

- consideration of how different aspects of the South West Marine Plan may interact to cause cumulative effects on a receptor
- how the South West Marine Plan can cause cumulative effects in association with other programmes, plans, policies and projects.

Potential cumulative effects of different elements of the South West Marine Plan which may have a combined effect are reported in 13.2.

Potential cumulative effects of the South West Marine Plan in association with other programmes, plans, policies and projects are presented in Section 13.3.

## 13.2 Potential Cumulative Effects of all Policy Groupings

Should multiple proposals from within a single sector or from a combination of sectors come forward which would be located within relatively close proximity to one another, there is the potential for negative cumulative effects to be had on SA topics. The damage which may be incurred as a result of potential cumulative effects would have the potential to vary, dependent on:

- the nature (susceptibility to damage) and spatial extent of the features in question
- the installation methods opted for
- the proximity of future developments to designated sites or features
- the type and number of proposals, policies or developments which may come forward
- how different policies address common issues
- the preference given to certain policies.

Cumulative effects which have been identified as having potential to occur on features within the south west marine plan areas as a result of proposals from various industries have been summarised in Table 11 and described within Table 12.

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**Table 11: Summary of Cumulative Effects of all Policy Groupings.**

SA Topic/SA Sub-topic	Policy Grouping																													
	Access	Aggregates	Air Quality	Aquaculture	Biodiversity	Cables	Climate change	Co-existence	Cumulative effects	Defence	Disturbance	Dredging and Disposal	Employment	Fisheries	Governance	Heritage Assets	Infrastructure	Marine Litter	Marine Protected Areas	Natural Capital	Invasive non-native species	Oil and Gas	Ports and Harbours	Renewables	Seascape and Landscape	Social benefits	Tourism and recreation	Underwater Noise	Water Quality	
<b>Cultural Heritage</b>																														
Heritage Assets within marine plan areas		-				-					-						-					-	-	-						
Heritage Assets adjacent to marine plan areas						-																								
<b>Geology, Substrates and Coastal Processes</b>																														
Coastal features and processes		-									-																			
Seabed substrates and bathymetry		-									-													-						
<b>Seascape and landscape</b>																														
Effects on seascape and landscape		-															-					-	-		+					
<b>Water</b>																														
Marine litter				-										-									-	-				-		
Pollution and water quality							-		-													-	-				-			
Water temperature and salinity																														
<b>Air</b>																														
Air pollutants																							-					-		

Climate																				
Climate change resilience and adaptation																				-
Greenhouse gas emissions																				- -
Communities, Health and Wellbeing																				
Effects on communities																				
Effects on protected equality groups																				
Health and the wider determinants of health																				
Economy																				
Aggregate extraction																				
Defence																				
Energy generation and infrastructure development																				-
Fisheries and aquaculture		-							-	-									-	-
Leisure / recreation																				
Marine manufacturing																				-
Ports and shipping																				-
Seabed assets																				
Tourism																				
Biodiversity																				
Benthic and inter-tidal ecology																				- -
Fish and shellfish																				- -
Marine megafauna																				-
Invasive non-native species																				-
Plankton																				
Protected sites and species																				- -
Ornithology																				- -

**Table 12: Potential Cumulative Effects of All Policy Groupings.**

SA Topic	Cumulative Effects Vary Dependant on:	Potential Negative Cumulative Effects	Potential Positive Cumulative Effects	Mitigation
Cultural Heritage	<ul style="list-style-type: none"> <li>The nature (susceptibility to damage) and spatial extent of the archaeological features in question, and</li> <li>the type and number of proposals which may occur within close proximity to the archaeological features.</li> </ul>	<p>Potential negative cumulative effects are associated with the following policy groupings:</p> <p>Assets within plan area:</p> <ul style="list-style-type: none"> <li>aggregates</li> <li>cables</li> <li>dredging and disposal</li> <li>infrastructure</li> <li>oil and gas</li> <li>renewables</li> <li>shipping and ports.</li> </ul> <p>Adjacent to marine plan area:</p> <ul style="list-style-type: none"> <li>cables</li> <li>renewables.</li> </ul>	<p>Both within and adjacent to the south west marine plan areas in relation to the seascape and landscape policy grouping working in combination with the heritage assets policy grouping could result in positive cumulative effects.</p>	<ul style="list-style-type: none"> <li>It is assumed that where applicable, new infrastructure proposals will require an EIA under the EIA regulations. This could minimise the effect of negative cumulative effects occurring on heritage assets.</li> <li>Policy SW-CE-1 aims for all new proposals to consider their potential cumulative effects.</li> <li>Policy SW-HER-1 aims to provide protection to heritage assets.</li> <li>The Crown Estate leasing process and other required consenting schemes ensures that sensitive receptors, such as heritage assets, are considered during these processes and conditions are frequently applied to limit effects.</li> </ul>
Geology, Substrates and Coastal Processes	<ul style="list-style-type: none"> <li>The type and number of proposals which may occur within close proximity to one another; and</li> <li>the installation methods opted for.</li> </ul>	<p>Potential negative cumulative effects are associated with the following policy groupings:</p> <p>Seabed substrates and bathymetry:</p> <ul style="list-style-type: none"> <li>aggregates</li> <li>dredging and disposal.</li> </ul>	N/A	<ul style="list-style-type: none"> <li>It is assumed that where applicable, new infrastructure proposals will require an EIA under the EIA regulations. This could minimise the effect of negative cumulative effects occurring on geology, substrate and coastal processes.</li> </ul>

SA Topic	Cumulative Effects Vary Dependant on:	Potential Negative Cumulative Effects	Potential Positive Cumulative Effects	Mitigation
		Coastal features and processes: <ul style="list-style-type: none"> <li>• aggregates</li> <li>• co-existence</li> <li>• dredging and disposal.</li> </ul>		<ul style="list-style-type: none"> <li>• Policy SW-CE-1 aims for all new proposals to consider their potential cumulative effects</li> <li>• Policy SW-MPA-4 could provide some protection, however, supporting text could be strengthened by making reference to Geological Conservation review Sites.</li> </ul>
Landscape and Seascape	<ul style="list-style-type: none"> <li>• The type and number of proposals which may occur within close proximity to both existing and future developments; and</li> <li>• The proximity of future developments to designated sites, local beauty spots and areas considered to be of a high landscape value.</li> </ul>	Potential negative cumulative effects are associated with the following policy groupings: <ul style="list-style-type: none"> <li>• aggregates</li> <li>• cables</li> <li>• infrastructure,</li> <li>• oil and gas</li> <li>• renewables.</li> </ul>	Seascape and landscape policy grouping working in combination with the marine protected areas and heritage assets policy groupings, could result in positive cumulative effects.	<ul style="list-style-type: none"> <li>• It is assumed that where applicable, new infrastructure proposals will require an EIA under the EIA regulations. This could minimise the effect of negative cumulative effects occurring on landscape and seascape</li> <li>• Policy SW-SCP-1 could help to provide adequate mitigation for cumulative effects identified</li> <li>• Policy SW-CE-1 aims for all new proposals to consider their potential cumulative effects</li> </ul>
Water	<ul style="list-style-type: none"> <li>• The type and number of proposals which may occur, particularly those developments that</li> </ul>	Potential negative cumulative effects are associated with the following policy groupings: Pollution and water quality:	Biodiversity policies have potential to result in minor positive cumulative effect if	<ul style="list-style-type: none"> <li>• It is assumed that where applicable, new infrastructure proposals will require an EIA under the EIA regulations. This could minimise the effect of negative</li> </ul>

SA Topic	Cumulative Effects Vary Dependant on:	Potential Negative Cumulative Effects	Potential Positive Cumulative Effects	Mitigation
	<p>contribute to water pollution and marine litter (e.g. shipping, ports and harbours, fisheries and tourism and recreation); and</p> <ul style="list-style-type: none"> <li>How different policies address common issues, in particular marine litter.</li> </ul>	<ul style="list-style-type: none"> <li>co-existence</li> <li>defence</li> <li>oil and gas</li> <li>ports and harbours</li> <li>tourism and recreation.</li> </ul> <p>Marine Litter:</p> <ul style="list-style-type: none"> <li>aquaculture</li> <li>fisheries</li> <li>marine litter</li> <li>ports and harbours</li> <li>tourism and recreation.</li> </ul>	<p>used in combination with marine litter policies.</p> <p>Seascape and landscape policy SW-SCP-1 working in combination with SW-ML-2 has potential to result in significant positive cumulative effects on marine litter.</p>	<p>cumulative effects occurring on water quality and marine litter</p> <ul style="list-style-type: none"> <li>Policy SW-WQ-1 could help to prevent further water pollution</li> <li>Policies SW-ML-1 and SW-ML-2 could help to mitigate effects on marine litter.</li> <li>Policy SW-CE-1 aims for all new proposals to consider their potential cumulative effects</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>The type and number of proposals which may come forward particularly those developments that contribute to air pollution.</li> </ul>	<p>Potential negative cumulative effects are associated with the following policy groupings:</p> <ul style="list-style-type: none"> <li>ports and harbours</li> <li>tourism and recreation.</li> </ul>	N/A	<ul style="list-style-type: none"> <li>It is assumed that where applicable, new infrastructure proposals will require an EIA under the EIA regulations. This could minimise the effect of negative cumulative effects occurring on air quality</li> <li>SW-AIR-1 could help to mitigate significant negative cumulative effects identified, by ensuring that all proposals assess their direct and indirect effects upon air quality and greenhouse gas emissions.</li> </ul>

SA Topic	Cumulative Effects Vary Dependant on:	Potential Negative Cumulative Effects	Potential Positive Cumulative Effects	Mitigation
				<ul style="list-style-type: none"> <li>Policy SW-CE-1 aims for all new proposals to consider their potential cumulative effects.</li> </ul>
Climate	<ul style="list-style-type: none"> <li>The type and number of proposals which may come forward particularly those developments that contribute to climate change.</li> </ul>	<p>Potential negative cumulative effects are associated with the following policy groupings:</p> <p>Greenhouse gas emissions:</p> <ul style="list-style-type: none"> <li>oil and gas</li> <li>ports and harbours.</li> </ul> <p>Climate change resilience and adaptation:</p> <ul style="list-style-type: none"> <li>oil and gas.</li> </ul>	N/A	<ul style="list-style-type: none"> <li>SW-CC-1 and SW-AIR-1 could help to mitigate both the potential negative effects and negative cumulative effects, that could rise from oil and gas developments.</li> <li>Policy SW-AIR-1 could help to ensure that future ports and shipping proposals consider their effects upon greenhouse gas emissions, which could mitigate potential negative effects.</li> <li>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. It is assumed that ports, shipping and harbours developments would also be subjected to an EIA. The specific reference to greenhouse gas emissions in the EIA regulations seek to address this issue with the intention of embedding climate change consideration.</li> </ul>

SA Topic	Cumulative Effects Vary Dependant on:	Potential Negative Cumulative Effects	Potential Positive Cumulative Effects	Mitigation
				<ul style="list-style-type: none"> <li>Policy SW-CE-1 aims for all new proposals to consider their potential cumulative effects</li> </ul>
Economy	<ul style="list-style-type: none"> <li>the type and number of policies which may come forward, particularly those that could result in developments that could inhibit economic activity (e.g. Air quality restrictions)</li> <li>the preference given to economic policies</li> <li>the type and number of developments that come forward as a result of policy implementation (e.g. effect of multiple renewable developments on ports and shipping).</li> </ul>	<p>Potential negative cumulative effects are associated with the following policy groupings:</p> <ul style="list-style-type: none"> <li>aggregates</li> <li>aquaculture</li> <li>climate change</li> <li>disturbance</li> <li>invasive non-native species</li> <li>marine litter</li> <li>renewables</li> <li>underwater noise.</li> </ul>	N/A	<ul style="list-style-type: none"> <li>Policy SW-CO-1, supports co-existence within the marine environment, which could help mitigate pressures on ports and shipping, tourism and recreation and fisheries and aquaculture, from the competition of space with other marine industries.</li> <li>Policy SW-FISH-1 could provide some mitigation for the cumulative effects of renewable installations on fisheries and aquaculture.</li> <li>Policies SW-PS-1, SW-PS-2, SW-PS-3 and SW-PS-4 may help to alleviate the cumulative effects of invasive non-native species on ports and shipping</li> </ul>
Biodiversity	<ul style="list-style-type: none"> <li>the type and number of developments that come forward</li> </ul>	<p>Potential negative cumulative effects are associated with the following policy groupings:</p> <ul style="list-style-type: none"> <li>access</li> </ul>	A positive cumulative effect has been identified as having the	<ul style="list-style-type: none"> <li>It is assumed that where applicable, new infrastructure proposals will require an EIA under the EIA regulations. This could minimise the effect of negative</li> </ul>

SA Topic	Cumulative Effects Vary Dependant on:	Potential Negative Cumulative Effects	Potential Positive Cumulative Effects	Mitigation
	<p>as a result of policy implementation</p> <ul style="list-style-type: none"> <li>the preference given to biodiversity policies</li> <li>the nature (susceptibility to damage) and spatial extent of the biodiversity in question.</li> </ul>	<ul style="list-style-type: none"> <li>aggregates</li> <li>cables</li> <li>climate change</li> <li>disturbance</li> <li>dredging and disposal</li> <li>fisheries</li> <li>oil and gas</li> <li>ports and harbours</li> <li>tourism and recreation</li> <li>renewables.</li> </ul>	<p>potential to occur on fish and shellfish, in relation to the marine protected areas policy grouping working in combination with the fish and shellfish and policy grouping.</p>	<p>cumulative effects occurring on biodiversity</p> <ul style="list-style-type: none"> <li>Policy SW-BIO-2 and SW-DIST-1 could help to mitigate the cumulative effect, of access on fish and shellfish, marine mega-fauna and ornithology, although only 'highly mobile' species will be protected by SW-DIST-1.</li> <li>Policy SW-FISH-3 encourages proposals to enhance essential fish habitats including spawning, nursery and feeding grounds, and migratory routes. This could provide some mitigation for fish and shellfish, from the potential negative cumulative effects arising from economic developments.</li> <li>Policy SW-BIO-1, SW-BIO-2 and SW-BIO-3 encourage proposals to enhance habitats. SW-BIO-3 promotes net gains which could provide mitigation for ornithology from economic developments.</li> <li>SW-INNS-1 may partially mitigate for the cumulative effect identified specifically in relation to aquaculture, although the release of invasive non-native species from aquaculture sites cannot be ensured through this</li> </ul>



SA Topic	Cumulative Effects Vary Dependant on:	Potential Negative Cumulative Effects	Potential Positive Cumulative Effects	Mitigation
				<ul style="list-style-type: none"> <li>• 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. This could mitigate negative cumulative effects arising from aggregates and renewables</li> <li>• Policy SW-MPA-1 could provide some protection to marine protected areas.</li> </ul>

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### 13.3 Cumulative Effects – Policies in Combination with South West Marine Plan

The SA Database in Appendix A was reviewed for plans and policies which may give rise to significant effects as follows:

- international plans, policies and strategies
- national plans, policies and strategies
- regional plans, policies and strategies.

Legislation from the database is not included in the review as it is assumed that this will be complied with. The MPS was also not included separately as it requires implementation of the marine plans. Effects from other marine plans are included so effects of the MPS have been identified at a regional level. Local Plans are considered cumulatively, but beyond this level of planning, individual local or area action plans are not identified individually. This is because, given the spatial scale of the broad policies and geographic areas identified in the plan, it is more appropriate to identify the higher tier plans and policies which identify the same effects, but at a regional or national level. It should also be noted that at the strategic level, this list is not exhaustive and cumulative effects arising from individual projects and plans should be revisited as part of their assessment at the application stage.

Further, the MMO conducted a sub-national policy analysis exercise which aimed to take into account interactions between terrestrial and marine planning. This analysis formed part of the evidence base when developing policies for the south west marine plan areas within this assessment and should therefore help mitigate any adverse effects or conflicts caused by the marine plans in combination with terrestrial planning.

Table 13 presents the reviewed plans, policies and strategies and identifies potential cumulative effects that could result from them in combination with the South West Marine Plan.

The majority of the policies and plans assessed in Table 13 will result in positive cumulative effects. This is because they strengthen environmental protection, for example by reducing greenhouse gas emissions, improving air or water quality, protecting designated sites for nature conservation, landscape or the historic environment. However, there is potential for development to cause negative cumulative effects, particularly where development in adjacent terrestrial or marine areas can act in-combination to affect receptors. There are a number of policies within the South West Marine Plan which do help to mitigate these effects:

- Cumulative Effects Policy SW-CE-1
- Natural Capital Policy SW-NG-1
- Co-existence Policy SW-CO-1
- Cross-boundary Considerations Policy SW-CBC-1
- environmental protection policies
- economic development [including fisheries] policies

In addition, cumulative impact assessments undertaken as part of the consenting and EIA processes would also address and mitigate for potential cumulative effects of projects

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**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
<b>International</b>				
Irish National Marine Planning Framework (Draft plan not yet available)	In 2014 the European Parliament and the Council of the European Union adopted Directive 2014/89/EU. This directive established a framework for MSP and details the main goals (Article 5) and minimum requirements (Article 6). The Marine Spatial Plan must be in place by March 2021.	Air Quality, Biodiversity, Climate, Communities, Health and Wellbeing, Cultural Heritage, Economy, Geology, Substrates and Coastal Processes, Water.	Alignment of marine planning with other planning, regulation and management bodies is necessary in order to manage pressures, further environmental health and achieve sustainable development across the coastal areas of the south west. The UK MPS states that marine plans are required to co-ordinate planning across administrative boundaries and to sit alongside existing terrestrial planning regimes. The National Planning Policy Framework states: 'In coastal areas, planning policies and decisions should take account of the UK MPS and marine plans. Integrated Coastal	Significant positive

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
			Zone Management should be pursued across local authority and land/sea boundaries, to ensure effective alignment of the terrestrial and marine planning regimes.'	
Welsh National Marine Plan (WNMP) 2019	<p>WNMP sets out the policy for the next 20 years for the sustainable use of Welsh seas.                      Welsh Ministers are the planning authority for the Welsh:                      Inshore region (out to 12 nautical miles)                      offshore region (12 to 200 nautical miles)                      Marine planning will:</p> <ul style="list-style-type: none"> <li>• Support our vision for clean, healthy, safe and diverse seas</li> <li>• guide future sustainable development</li> <li>• support the growth of marine space and natural resources ('blue growth').</li> </ul>	Air Quality, Biodiversity, Climate, Communities, Health and Wellbeing, Cultural Heritage, Economy, Geology, Seascape and Landscape, Substrates and Coastal Processes, Water.	<p>Alignment of marine planning with other planning, regulation and management bodies is necessary in order to manage pressures, further environmental health and achieve sustainable development across the coastal areas of the south west.</p> <p>The UK MPS states that marine plans are required to co-ordinate planning across administrative boundaries and to sit alongside existing terrestrial planning regimes. The National</p>	Significant positive

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
			Planning Policy Framework states: 'In coastal areas, planning policies and decisions should take account of the UK MPS 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.'	
France-Maritime Facing Strategies. <ul style="list-style-type: none"> <li>• Channel East-North Sea</li> <li>• North Atlantic-West Channel.</li> </ul>	France will integrate MSP in four coastal regions in accordance with its National Strategy for the Sea.	Air Quality, Biodiversity, Climate, Communities, Health and Wellbeing, Cultural Heritage, Economy, Geology, Seascape and Landscape, Substrates and Coastal Processes, Water.	Alignment of marine planning with other planning, regulation and management bodies is necessary in order to manage pressures, further environmental health and achieve sustainable development across the coastal areas of the south west.	Significant positive

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
<b>National</b>				
Clean Growth Strategy 2017	The Emissions Intensity Ratio (EIR): This measures the amount of greenhouse gases (tonnes of carbon dioxide equivalent) produced for each unit of Gross Domestic Product (GDP) created. Currently the EIR is 270 tonnes/£ million and it was 720 tonnes/£ million in 1990. By 2032, the UK expect the EIR will need to be nearly as low as 100 tonnes/£ million to meet their ambitions.	Air Quality, Climate.	Renewable energy offers the potential for significant broad-scale environmental benefits through mitigating greenhouse gas emissions from energy production.	Significant positive
Clean Air Strategy 2019	The government is committed to driving down emissions from ships and reducing the effect of emissions from the maritime sector on the environment and public health. In 2016, domestic shipping (ships that start and end their journey in the UK) accounted for 10% of the UK's total domestic NOx emissions, 2% of PM2.5 and 7% of SO2.	Air Quality, Climate.	Production of Air Quality Strategies by all major English ports by May 2019 should reduce emissions across the port estate including ship and shore activities which will benefit emissions from ports and shipping under the South West Marine Plan.	Significant positive
International Maritime Organisation, 2018, Initial Strategy on the reduction of greenhouse	The initial strategy envisages for the first time a reduction in total greenhouse gas emissions from international shipping which, it says,	Climate	The "levels of ambition" in the Strategy would seek to reduce greenhouse gas emissions and benefit	Significant positive

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
gas emissions from ships	<p>should peak as soon as possible and to reduce the total annual greenhouse gas emissions by at least 50% by 2050 compared to 2008, while, at the same time, pursuing efforts towards phasing them out entirely.</p> <p>The strategy includes a specific reference to “a pathway of carbon dioxide emissions reduction consistent with the Paris Agreement temperature goals”.</p>		emissions from ports and shipping under the South West Marine Plan.	
Maritime 2050, Navigating the Future, Department for Transport, 2019	Maritime 2050 sets out the government’s vision and ambitions for the future of the British maritime sector. It is built on seven high level themes: the UK’s competitive advantage, environment, infrastructure, people, security, technology and trade.	Air Quality, Climate, Economy.	In addition to positive effects on economic policies for Ports and Shipping, there will also be cumulative benefits for air quality and climate. The strategy includes targets for greenhouse gas emissions – by 2050, the UK will actively drive the transition to zero emission shipping in its waters; in addition to planning for adaptation to climate change – flood risk, tidal	Significant positive



**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
			surges, extreme weather and coastal erosion.	
Draft National Flood and Coastal Erosion Risk Management Strategy for England, Environment Agency 2019	The strategy builds on existing approaches to flood and coastal risk management and promotes the use of a wide range of measures to manage risk. Risk should be managed in a co-ordinated way within catchments and along the coast and balance the needs of communities, the economy and the environment. This strategy will form the framework within which communities have a greater role in local risk management decisions and sets out the Environment Agency's strategic overview role in flood and coastal erosion risk management (FCERM).	Climate, Communities, Economy, Geology, Biodiversity, Water.	There is the potential for cumulative positive effects in relation to management of flood risk and coastal erosion in coastal areas which affects communities, tourism, biodiversity and economic development in particular. Effects are likely to be limited as the Strategy is aimed at governance and funding.	Minor positive
25 Year Environment Plan, Defra, 2018	The 25 Year Environment Plan sets out government action to help the natural world regain and retain good health.	Biodiversity, Economy, Communities, Water, Natural Capital.	Chapter 5: Securing clean, healthy, productive and biologically diverse seas and oceans seeks to: <ul style="list-style-type: none"> <li>• Implement a sustainable</li> </ul>	Significant positive

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
			<p>fisheries policy as we leave the EU.</p> <ul style="list-style-type: none"> <li>• Achieve good environmental status of our seas while allowing marine industries to thrive, and complete our ecologically coherent network of well-managed marine protected areas (MPAs).</li> </ul> <p>There is potential for cumulative positive effects arising with marine plan policies on fisheries, ecosystem approach, marine protected areas and water quality.</p>	
Blue New Deal Good jobs for coastal communities through healthy seas & action plan of priorities, New	Aims to deliver stronger economies for UK coastal communities, supporting more and better jobs through a healthier marine environment. It has, so far,	Communities, Economy.	<p>Key focus areas for the Blue New Deal:</p> <ul style="list-style-type: none"> <li>• Sustainable fisheries and aquaculture</li> <li>• Renewable energy</li> </ul>	Significant positive

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
Economics Foundation, 2015 & 2016	identified five key policy areas that offer the opportunity to respond to the different socio-economic and environmental challenges that the UK's coastal communities currently face.		<ul style="list-style-type: none"> <li>• Responsible tourism, leisure and recreation</li> <li>• Innovative coastal management</li> <li>• Re-connecting people with nature.</li> </ul> <p>These have potential for positive cumulative effects in combination with policies relating to access, fisheries and aquaculture, social benefits, employment, energy, habitats, fisheries, recreation and tourism.</p>	
Sporting Future: A New Strategy for an Active Nation; Department for Digital; Culture, Media and Sport, 2015	The Government sports strategy 'Sporting Future: A New Strategy for an Active Nation' contains targets in relation to the social effect of sport along with policies around elite sport. The strategy states that the Government will aim to ensure the potential for natural capital to meet physical activity needs is realised.	Communities	Potential for positive effects on policies associated with recreation and tourism. Effects are likely to be limited as the Strategy is aimed at governance and funding.	Minor positive

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
National Planning Policy Framework, 2019	The National Planning Policy Framework sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.	Air Quality, Climate, Communities, Cultural Heritage, Economy, Geology, Seascape and Landscape, Water.	There is potential for positive cumulative effects with NPPF policies for climate change, conserving the natural and historic environment, promoting a strong economy and healthy communities. However, there may also be negative cumulative effects where economic or housing development has negative effects in combination with marine plan policies for example, energy or port development on water quality designated landscapes, seascapes, coastal biodiversity or historic environment.	Significant positive / significant negative
The Crown Estate 2018/2019 Marine Aggregate Round	Eight areas of seabed have been selected as potentially suitable for the extraction of marine aggregates, seven of which lie within English waters, with one area overlapping	Biodiversity, Cultural Heritage, Economy, Geology, Seascape and Landscape, Substrates and	None of the areas identified are within the south west marine plan areas, therefore there is no potential for cumulative	Neutral

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
	English and Welsh waters. The shortlist was announced following a bid assessment process undertaken by The Crown Estate. None of the areas identified are within the south west marine plan areas.	Coastal Processes, Water	effects with the South West Marine Plan policies	
The Crown Estate Round 4	<p>The following regions were announced as not being taken forward to Round 4 in November 2018:</p> <ul style="list-style-type: none"> <li>• South West</li> <li>• Bristol Channel (English and Welsh)</li> <li>• West Isle of Wight</li> </ul> <p>Development areas taken forward in November 2018 include; South East, East Anglia, Dogger Bank, North Wales, Irish Sea and Southern North Sea.</p>	Biodiversity, Cultural Heritage, Economy, Geology, Seascape and Landscape, Substrates and Coastal Processes, Water.	The south west region is not being taken forward to round 4 and therefore there is no potential for cumulative effects with the South West Marine Plan policies.	Neutral
Regional & Local				
Shoreline Management Plans (SMPs): <ul style="list-style-type: none"> <li>• Durlston Head to Rame Head (part)</li> <li>• Rame Head to Hartland Point</li> </ul>	SMPs in the UK provide a large scale assessment of the risks associated with coastal processes that result in both flooding and erosion and presents a policy framework to reduce these risks.	Climate, Geology, Biodiversity, Communities.	Provision of long term coastal defence, including planning for hold the line, no active intervention or managed retreat will enable better planning of coastal activities	Significant positive

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
<ul style="list-style-type: none"> <li>Hartland Point to Anchor Head</li> <li>Anchor Head to Lavernock Point (part).</li> </ul>			associated with the marine plan.	
<p>Local Plans in the south west: Cornwall Local Plan (adopted November 2016)</p> <ul style="list-style-type: none"> <li>North Devon and Torridge Local Plan 2011-2031 (joint plan adopted October 2018)</li> <li>West Somerset Local Plan to 2032 (adopted November 2016)</li> <li>Sedgemoor Local Plan 2011-2032 (adopted February 2019)</li> <li>North Somerset Council Core Strategy (January 2017)</li> </ul>	<p>Local plans are prepared by the Local Planning Authority (LPA), usually the Council or the national park authority for the area. They provide a vision for the future of each area and a framework for addressing housing needs and other economic, social and environmental priorities.</p> <p>Current versions are provided here but it should be noted that Local Plan development takes several years and iterations, so cumulative effects will also apply to other versions.</p>	Air Quality, Climate Cultural Heritage, Communities, Seascape and Landscape, Economy.	There is potential for positive cumulative effects with local plan policies for climate change, conserving the natural and historic environment, promoting a strong economy and healthy communities. There is also potential for negative cumulative effects from coastal development in local plans and marine plan from transport and energy emissions, local air quality effects, heritage assets and landscape/ seascape, loss of biodiversity, water quality.	Significant positive / significant negative

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
<ul style="list-style-type: none"> <li>• A new Local Joint Spatial Plan is being prepared by North Somerset, Bristol, Bath and North East Somerset and South Gloucestershire Councils</li> <li>• Bristol Development Framework Core Strategy (adopted June 2011). Site Allocations and Development Management Policies Local Plan (adopted July 2014)</li> <li>• South Gloucestershire Local Plan: Core Strategy – 2006-2027 (2013)</li> <li>• Stroud District Local Plan (November 2015) Forest of Dean Core Strategy (adopted February 2012)</li> </ul>				

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
<ul style="list-style-type: none"> <li>Gloucester, Cheltenham and Tewkesbury Joint Core Strategy 2011-2031 (adopted December 2017).</li> </ul>				
<p>AONB Management Plans:</p> <ul style="list-style-type: none"> <li>Cornwall</li> <li>North Devon Coast</li> <li>Quantock Hills</li> <li>South Devon; Tamar Valley</li> <li>Blackdown Hills;</li> <li>Gower (Wales)</li> <li>Wye Valley (Wales).</li> </ul>	<p>AONB Management Plans set the overall strategy for achieving the primary purpose of AONB designation: conserving and enhancing landscape.</p>	<p>Cultural Heritage, Landscape &amp; Seascape</p>	<p>Potential for positive cumulative effects on seascape, access and tourism.</p>	<p>Minor positive</p>
<p>Eel Management Plans SW - Tamar, Taw and Severn EMP</p>	<p>Eel Management Plans (EMPs) implemented within the 14 UK River Basin Districts (RBDs) in accordance with Article 9 of Regulation No 1100/2007.</p>	<p>Biodiversity</p>	<p>Potential for positive cumulative effects on biodiversity from environmental protection of migratory species.</p>	<p>Minor positive</p>
<p>The North East Atlantic Environment Strategy, OSPAR 2010 and Regional Action Plan for Prevention and</p>	<p>OSPAR Strategy by 2020 is to substantially reduce marine litter in the OSPAR maritime area to levels where properties and quantities of marine litter do not cause harm to</p>	<p>Water</p>	<p>There is potential for positive cumulative effects on water quality, particularly through</p>	<p>Minor positive</p>



**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
Management of Marine Litter in the North-East Atlantic, OSPAR, 2014	the coastal and marine environment. The OSPAR Marine Litter Regional Action Plan brings together a large number of actions, with target dates, that have been assigned to lead parties (countries) to lead. These focus on actions to combat marine sources of litter, terrestrial sources of litter, removal actions and education and outreach.		policies reducing marine litter.	
Draft Welsh National Marine Plan, Welsh Government, 2017	This WNMP's purpose is to guide the sustainable development of our marine area by setting out how proposals for use will be considered by decision makers including, in particular, consenting authorities.	All	General policies on a sustainable marine economy, a strong healthy and just society, living within environmental limits, promoting good governance can give rise to positive cumulative effects with the South West Marine Plan. However, sector policies in the Welsh Plan including aggregates, dredging, energy – low carbon and oil and gas, fisheries, ports and shipping, cabling may	Significant positive / minor negative

**Table 13: Potential Cumulative Effects with Other Plans, Policies and Strategies.**

Policy/Plan/Programme	Description	Related SA Topic(s)	Potential cumulative effects with SW Marine Plan	Likely significant effect (scoring)
			give rise to cumulative negative effects.	
South Inshore and South Offshore Marine Plan, 2018	<p>The South Marine Plan introduces a strategic approach to planning within the inshore and offshore waters between Folkestone in Kent and the river Dart in Devon. It provides an evidence based approach to inform decision-making by marine users and regulators on where activities might take place within the marine plan area.</p> <p>The South Marine Plan contains policies on co-existence, defence, oil and gas, tidal and renewable energy, ports and harbours, aggregates, dredging, aquaculture, cables, fisheries, tourism and access, employment and social benefits, climate change, heritage, seascape, ecological designated areas, biodiversity, marine litter and pollution, water quality.</p>	All	<p>South Marine Plans provide marine planning and similar policies in the areas neighbouring the South West Marine Plan. Potential for positive effects arising from policies which support environmental protection and social benefits. However, there is potential for negative cumulative effects arising from economic activities in the adjacent plan areas, such as aggregates, cables, fisheries, dredging and disposal, oil and gas, ports and shipping, renewables and wind energy.</p>	Significant positive / minor negative

## 14 Monitoring of Residual effects

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 South West Marine Plan as part of the SA, and as part of the implementation and monitoring of the adopted South West Marine Plan, should help to:

- monitor the significant effects of the draft South West Marine Plan
- track whether the South 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 and unforeseen effects of the Marine Plan. Therefore, the SA monitoring framework should be focused only on monitoring those effects which are significantly negative or uncertain.

Following the consultation period, the MMO will prepare the final South West Marine Plan and the final SA will be prepared alongside this. Any revisions to the Plan at this stage in response to suggested mitigation or consultee comments will be reviewed and the SA amended accordingly. Following this, the residual significant effects will be identified and a monitoring framework for these effects will be proposed.

The South West Marine Plan process will itself include a comprehensive monitoring programme which is focused on the achievement of the plan's 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 intention is that the SA framework will be linked to this where practical.

## 15 Next Steps

The SA Report will be consulted on alongside the draft South West Marine Plan during Quarter 1 of 2020.

Comments received on the SA during this period will then be reviewed and amendments made to the next iteration of the SA Report as appropriate. Amendments may also be made to the South West Marine Plan following this consultation period in response to consultation comments received. Should any changes made to the plan be deemed to be significant, the SA will be updated to reflect the amended version of the South West Marine Plan.

The South West Marine Plan and an up to date version of the SA Report will be submitted to the Secretary of State in mid-2020 and the intention is for the Government to adopt the South West Marine Plan in 2021. The adopted South West Marine Plan will be accompanied by an SA Statement as required by the [SEA Regulations](#).

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