



Marine  
Management  
Organisation

**South Marine Plan  
Sustainability Appraisal Report  
Sustainability Appraisal Report Part 3  
Draft for consultation  
November 2016**



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# 1 Introduction

## 1.1 This report

This is Part 3 of the draft South Marine Plans Sustainability Appraisal report (SA report). This part of the report outlines the results of the appraisal of the draft South Marine Plans and reasonable alternatives. The other parts of the SA report are as follows:

- Part 1: Introduction and Methodology; and
- Part 2: Scoping information.

A Non-Technical Summary is also available.

All reports are available at the following weblink:

<https://www.gov.uk/south-inshore-and-south-offshore-marine-plan-areas>

## 1.2 Format of this report

This report addresses the following:

- The reasons for selecting the alternatives dealt with (Section 2 of this report);
- The results of the appraisal (effects of the alternative options, effects of the draft South Marine Plans and mitigation measures for each appraisal topic as follows):
  - Communities, health and wellbeing (Section 3)
  - Cultural heritage (Section 4)
  - Marine ecology (Section 5)
  - Economy (Section 6)
  - Geology, geomorphology and coastal processes (Section 7)
  - Landscape and seascape (Section 8)
  - Water environment (Section 9)
- In addition to the topic based assessment above details of a brief review of an early draft South Marine Plans have been included in Annex B. This review took place in July 2015 and provided a brief review of the document and provided recommendations of how to improve the sustainability performance of the draft South Marine Plans which were subsequently incorporated into the final draft which is the subject of this Environmental Report;
- Cumulative effects assessment; and
- Outline monitoring programme.

## 2 The Reasons for Selecting Alternatives

### 2.1 Introduction

The purpose of this stage of the planning process is to identify reasonable alternative options for the draft South Marine Plans that can be tested. The SEA Regulations require that the SA report identifies the reasons for selecting the alternatives tested in light of the others available (SEA Regulations Schedule 2 (8)).

In SA practice this is usually understood as having two meanings:

1. Discuss why it was 'reasonable' to select the alternatives that were developed to be tested (this is outlined in Sections 2.2 and 2.3 below); and
2. Discuss why the preferred approach (as set out in the draft South Marine Plans) was selected in light of the SA of alternatives (this is set out in Section 2.4 below).

### 2.2 The alternatives developed

Three options for the development of the draft South Marine Plans have been designed, each delivering the objectives as a whole but distinct from one another in terms of how the different combinations of policies achieve the desired outcomes. These options are as follows:

1. Option 1 – Balanced Option: A high strength option that includes the highest possible number of high-strength policies. To enable compatibility of high strength policies, some require clauses allowing an applicant to state the case for proceeding with a proposal even when it does not conform with a policy. There is no guarantee that if a case is stated, it will be successful. This is because the high-strength policies require a greater level of consideration of other policies than medium and low-strength policies do. This means that greater weight may be attached to any impacts identified. This should lead to a relatively greater degree of certainty that the intent of the policy and its desired outcome will be realised in most, but not all, cases.
2. Option 2 – Flexible Option: An option that looks to find the middle ground across objectives (and therefore contains primarily medium strength policies). This option most closely resembles the East Inshore and Offshore Marine plans, in terms of phrasing and strength of policies and in terms of the likelihood of the outcomes gained from the policies. As the strength of requirements in the policies are less than those in option 1, there is more chance that a case can be made to proceed with a proposal or activity even if it is not in line with a policy. Therefore outcomes from the policies are less certain and there may be more scope for variation in how they are applied. This is also likely to give rise to greater uncertainty to any potential impacts and may make avoidance and mitigation more difficult.



3. Option 3 – Prescriptive Option: An option that seeks to be more prescriptive and looks to achieve more certain outcomes for issues that have been highlighted as being particularly important for the South Marine Plan areas. These primarily relate to:
  - a. the protection of the environment (both for its intrinsic value, the ecosystem services it provides and to help sectors reliant upon it for some of their appeal, such as tourism and recreation),
  - b. a number of sectors of very high economic or social importance, namely:
    - i. Tourism and recreation
    - ii. Ports
    - iii. Shipping
    - iv. Fishing
    - v. Aggregates

Policies under this option provide the highest degree of certainty of outcome for the sectors and topics above, by removing the opportunity to state the case for proceeding when not in line with the policy. In so doing, it means that other sectors and topics can only be compatible with the above sectors and topics through use of a lower-strength policy that places fewer requirements on the decision maker and/or applicant in its implementation. This option is therefore a mix of strengths of policy and involves a degree of trade-offs between sectors and topics.

## 2.3 The reasons for selecting the alternatives

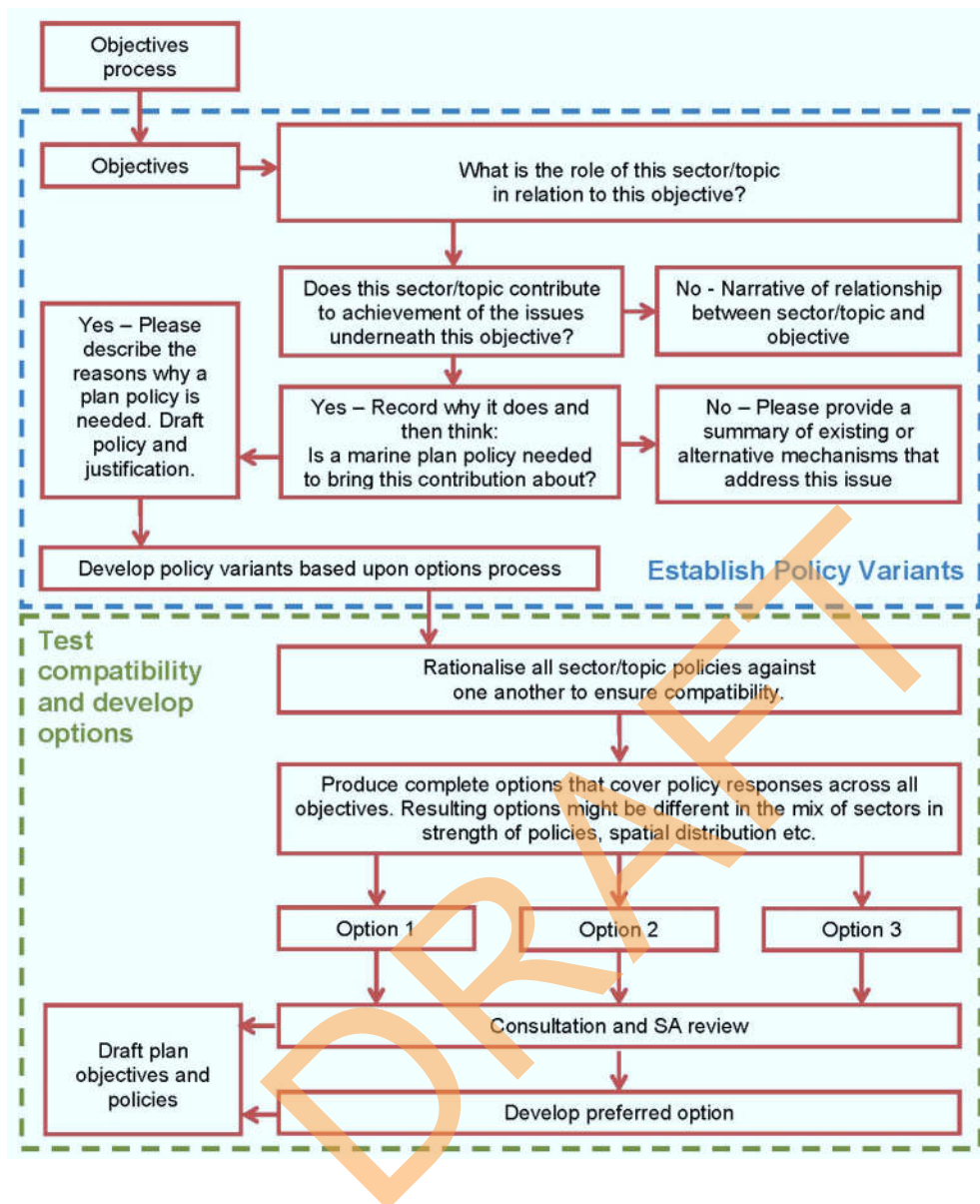
The options paper produced by the MMO<sup>1</sup> discusses the evolution of the alternative options and the reason for selecting the alternative options tested. Annex 2 of the MMO options in particular goes into detail regarding the different approaches to options development that have been considered by the MMO. The information below is a summary of this report.

The MMO tested various approaches to developing options. The selected approach is illustrated in Figure 2.1. This process was undertaken for each sector or topic and appropriate policy variants devised through the methodology outlined in phase one of this diagram. Where policies were not necessary or could not realistically be designed to address an issue, a justification and signposting narrative was produced. Where it was decided that a policy was needed to address the issues identified, the MMO attempted to draft a 'high', 'medium' and 'low' strength policy variant.

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<sup>1</sup> Marine Management Organisation (February 2015): South Marine Plan Areas Options Report.

**Figure 2.1: Methodology for devising policy options**



Each policy then underwent a process of compatibility checking as part of phase 2 of this process in order to answer two questions:

- Would it be possible to make a decision in line with my policy variant as well as other policy variants developed for other sectors within the objective?
- Could a decision be made using this policy alongside others in the option?

The MMO options report sets out the results of this compatibility check – please see Annex 2. The outcome of this process was a simple indication of which policy variants:

- Could be used together for development of an option;
- Could be used providing conditions were in place (these were considered compatible on the assumption that conditions would be described in more detail in any final plan);
- Could not be used in the same option.

All the different policy variants under each objective were reviewed to ensure they responded to the core issues identified in the South Plan Analytical Report<sup>2</sup> and therefore were appropriate in terms of delivering the objective. Any gaps identified were filled at this point with development of new policy variants as necessary.

With policy variants confirmed and compatibility checked against each of the other sectors or topics under an objective, development of the constituent parts of options was complete. Three options were then designed, each delivering the objectives as a whole but distinct from one another in terms of how the different combinations of policies achieve this.

In identifying distinct options; the MMO applied the following characteristics in each case when selecting combinations of policy variants:

1. A high strength option, one that includes the highest possible number of high-strength policies but in so doing includes clauses in some policies, allowing an applicant to state the case for proceeding with a proposal even when it does not conform with a policy. There is no guarantee that if a case is stated, it will be successful, particularly as the high-strength policies require a greater level of consideration across all policies than for medium and low-strength policies, which means that greater weight may be attached to any impacts identified. This leads to a greater degree of certainty that the intent of the policy and its desired outcome are more likely to be realised in most, but not all, cases.
2. An option that looks to find the middle ground across objectives (and therefore contains primarily medium strength policies). This option most closely resembles the East Inshore and Offshore Marine plans, in terms of phrasing and strength of policies and in terms of the likelihood of the outcomes gained from the policies. Because the requirements in the policies are less strong, there is more chance that a case can be made to proceed with a proposal or activity even if it is not in line with a policy, therefore outcomes from the policies are less certain and there may be more scope for variation in how they are applied.
3. An option that seeks to be more prescriptive and looks to achieve more certain outcomes for issues that have been highlighted as particularly important for the South Marine Plan areas. These primarily relate to:
  - a. the protection of the environment (both for its intrinsic value, the ecosystem services it provides and to help sectors reliant upon it for some of their appeal, such as tourism and recreation),
  - b. a number of sectors of very high economic or social importance, namely:
    - i. Tourism and recreation
    - ii. Ports
    - iii. Shipping
    - iv. Fishing
    - v. Aggregates

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<sup>2</sup> Marine Management Organisation (June 2014): South Inshore and South Offshore Marine Plan Areas: South Plan Area Analytical Report

This option provides more certainty by removing in the policies for the sectors and topics above, the room for cases to be stated to go against a policy. This provides the highest degree of certainty that an outcome for a policy will be achieved for these sectors or topics. In so doing, it means that for other sectors and topics, they can only be compatible with the above sectors and topics through a lower-strength policy that allows for room for the policy to be discounted in a decision. This option is therefore a mix of strengths of policy and involves a degree of trade-offs between sectors and topics.

These options were developed using experience from engagement with stakeholders and knowledge of the issues relevant to the South Marine Plan areas. To illustrate this, option 3 takes those sectors and issues which are of primary importance to the future of the plan areas. This is based on evidence of economic and social value presented in the South Plan Analytical Report, plus assessment of the state of the environment of the plan areas and the importance of a healthy environment that is apparent in national and local policy as well as in the views of stakeholders. Option 2 represents a plan which is similar to the East Marine Plans and reflects the need for flexibility that is a response to the uncertainty attached to the predicted development of sectors and topics shown in the South Marine Plan areas futures analysis<sup>3</sup>. Option 1 represents the desire raised by some stakeholders to have a plan that required a greater level of consideration of the needs of other sectors and topics in decision-making that results in a greater level of certainty of outcome with a consequent loss of flexibility in decision-making.

The options were then built, policy by policy, from Objective 1 through to Objective 15, according to the three rationales above.

It is felt that this process is the most comprehensive one that could have been chosen and it has led to the identification of three options packages which could reasonably deliver the objectives.

## 2.4 The reason for choosing the preferred approach

Options were selected as a result of feedback from respondents and were also supported by the findings of the SA of options. As respondents favoured a mix of options 1 – 3 the preferred option was a combination of the above. Therefore, summarised below is a breakdown of each of the objectives presented at the options stage of the planning process and the preferred option chosen for each of these objectives.

Objective subject	Preferred Option	Justification
Climate Change	3	A stronger policy was preferred by attendees at the options workshops as well as being supported by the SA of options.

<sup>3</sup><http://webarchive.nationalarchives.gov.uk/20140108121958/http://www.marinemanagement.org.uk/evidence/1039.htm>

Objective subject	Preferred Option	Justification
Marine Protected Areas	3	It was felt that given the high value of MPAs they required strong protection to retain their resilience. It was also felt that option 3 was the most deliverable of the options presented and that option 2 added little to existing legislation.
Good Environmental and Good Ecological Status	3	The majority of respondents supported more prescriptive policies and welcomed the focus on MSFD and WFD.
Ecology and Ecosystem services	3	Respondents supported greater prescription in policies.
Disturbance	1	Favoured by respondents as a high strength policy.
Water Quality	3	Chosen as a prescriptive policy after respondents identified this as being a key issue in the South Marine Plan areas and therefore that stronger policy was needed in order to tackle it.
Displacement of Marine Activities and Access	1	Chosen as being a balance between too flexible and too prescriptive and was favoured by respondents in the options consultation.
Heritage Assets	3	Selected as the preferred option due to receiving the most positive responses from stakeholders and being supported by the SA.
Seascape	1	Slightly more popular among respondents although this was only marginal.
Co-location	1	Chosen as the preferred option as there were concerns that option 3 could restrict new and developing ideas and therefore option 1 was favoured by respondents.
Infrastructure	1	The most popular among respondents and was therefore selected. There were no further comments from respondents.
Regeneration and diversification of activities that improve socio-economic conditions	1	Chosen as the preferred option as respondents favoured this option feeling that it was a well-balanced option that would allow for achievable improvements.

## **3 Results of the Appraisal – Communities, Health and Wellbeing**

### **3.1 Introduction**

- This section of the report addresses the performance of the draft South Marine Plans in relation to communities, health and well-being. The results of the assessment of the South Marine Plan objectives;
- The results of the options assessment;
- Results of the draft South Marine Plans assessment, the mitigation measures suggested and the response of the MMO.

### **3.2 Results of the assessment of the Draft South Marine Plans objectives**

The results of the assessment of the draft South Marine Plans objectives is shown in Annex A. The assessment found that on the whole the draft South Marine Plans objectives were consistent with the SA objectives. There were no recommendations made in relation to the communities, health and wellbeing topic.

Please see the assessment of the draft South Marine Plans for more details (Section 3.4 below) of how the draft South Marine Plans effect on communities, health and wellbeing has been addressed.

### **3.3 Results of the options assessment**

The assessment of the alternative options is shown in Annex C (Table C.1). Annex D shows the recommendations that were made at the options stage and the MMO's response to this.

The SA consultants assessed the three options against the following sub topics:

- Health and wider determinants of health;
- Coastal communities;
- Fishing communities; and
- Tourism focused communities.

The assessment found no major / significant negative effects or uncertain effects. In general the options had a score of minor positive against most of the SA sub topics.

The options performed most positively against the fishing communities sub topic as option 1 and 3 were found likely to have a major / significant positive effect on fishing communities. The options included several policies aimed at protecting the fishing industry and recreational fishing activities including strong policies aimed at

protecting feeding grounds, migration routes and spawning areas, reducing the effects of spoil disposal, protecting fishing activity.

### **3.4 Results of the Draft South Marine Plans assessment**

The assessment of the draft South Marine Plans is shown in Annex C (Table C.1). Table 3.2 presents a summary of the significant and uncertain effects identified, the mitigation measures recommended for the potential significant and uncertain effects, records the MMO's response to this and clarifies what the residual effects of the draft South Marine Plans will be if decision makers implement the changes. Enhancement measures suggested for other effects can be found in the assessment matrices.

As part of the Sustainability Appraisal process, mitigation measures are outlined. These are measures outlined to prevent, reduce or offset effects. Where the draft South Marine Plans have a significant adverse effect, measures should be implemented to prevent, reduce or offset these effects. This may take the form of compensatory measures to be implemented prior to the final South Marine Plan itself being implemented or it can take the form of a change in wording of policy laid out in the draft South Marine Plans. In addition, any uncertain effects should have mitigation suggested in order to reduce uncertainty and the potential for this to give rise to a significant negative effect as part of this assessment. In addition, where relevant, enhancement measures have been suggested to reduce the minor negative, and enhance the positive or neutral effects of policies.

The assessment found no major / significant negative effects or uncertain effects. In general the options had a score of minor positive against most of the SA sub topics. One major / significant positive effect was found and this is discussed in Table 3.2.

**Table 3.2: Significant and uncertain effects and mitigation measures (communities, health and well-being)**

Potential significant / uncertain effect identified	Mitigation measures identified for significant and uncertain effects	Response of the MMO's	Residual effect
<p>Major / significant positive effect on fishing communities</p> <p>This is because draft South Marine Plans include many policies related to protecting and supporting the fishing industry, feeding grounds, essential habitats, reducing the spread of non-indigenous species and draft South Marine Plans also include additional protection for herring through policy S-FISH-4-HER.</p>	<p>NA</p>	<p>NA</p>	<p>Major / significant positive effect on fishing communities</p>

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## **4 Results of the Appraisal – Cultural Heritage**

### **4.1 Introduction**

This section of the report addresses the performance of the draft South Marine Plans in relation to cultural heritage. It outlines:

- The results of the assessment of the draft South Marine Plans objectives;
- The results of the options assessment;
- Results of the draft South Marine Plans assessment, the mitigation measures suggested and the response of the MMO.

### **4.2 Results of the assessment of the Draft South Marine Plans objectives**

The results of the assessment of the draft South Marine Plans objectives is shown in Annex A. The assessment found that on the whole the draft South Marine Plans objectives were consistent with the SA objectives. There were no recommendations made in relation to the cultural heritage topic.

Please see the assessment of the draft South Marine Plans for more details (Section 4.4 below) of how the draft South Marine Plans effect on cultural heritage has been addressed.

### **4.3 Results of the options assessment**

The assessment of the alternative options is shown in Annex C (Table C.2). Annex D shows the recommendations that were made at the options stage and the MMO's response to this.

The SA team assessed the three options against the following sub topics:

- Coastal assets
- Marine assets

The assessment found no major / significant negative effects or major / significant positive effects. All of the options recorded an uncertain score against both of the sub topics.

With regard to both coastal and marine heritage assets, the effect was uncertain because of a lack of clarity at the options stage regarding whether draft South Marine Plans have influence over the effects on designated assets.

### **4.4 Results of the Draft South Marine Plans assessment**

The assessment of the draft South Marine Plans is shown in Annex C (Table C.2). Table 4.2 presents a summary of the significant and uncertain effects identified, the mitigation measures recommended for the potential significant and uncertain effects,

records the MMO's response to this and clarifies what the residual effects of draft South Marine Plans will be if decision makers implement the changes. Enhancement measures suggested for other effects can be found in the assessment matrices.

The assessment found no major / significant negative effects or major significant positive effects. The draft South Marine Plans recorded an uncertain score against both of the sub topics and this is discussed in Table 4.2.

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**Table 4.2: Significant and uncertain effects and mitigation measures (cultural heritage)**

Potential significant / uncertain effect identified	Mitigation measures identified for significant and uncertain effects	Response of the MMO	Residual effect
<p>Uncertain effect on coastal assets and marine assets</p> <p>This is because the draft policy on heritage (S-HER-1) refers only to ‘newly-discovered heritage assets’ and ‘non-designated assets that are yet to be assessed for designation’. The policy makes no reference to other classes of heritage asset. There is also uncertainty because of the way in which the policy is framed, i.e. ‘Proposals with the potential to have a significant adverse impact [on heritage assets] are more likely to be supported if ...’ This suggests a presumption to support proposals that have significant adverse impacts on heritage assets, which contrasts with Options 1-3 considered previously and the way that other receptors are treated in the draft South Marine Plans</p>	<p>The uncertain effects of the draft South Marine Plans could be mitigated by rewording the draft policy on heritage so that it is comprehensive in its application to different categories of heritage asset, including heritage assets and their settings; gives effect to a presumption on proposals that affect the conservation of heritage assets that is consistent with the UK MPS and other relevant policies; and is able to balance other plan policies that are likely to have a negative effect on heritage assets.</p>	<p>After discussion with Heritage England policy to be reworded to encompass all heritage assets.</p> <p>Policy will include a presumption on proposals that is consistent with the Marine and Coastal Access Act.</p>	<p>Minor positive effect on coastal assets</p>

## **5 Results of the Appraisal – Marine Ecology**

### **5.1 Introduction**

This section of the report addresses the performance of the draft South Marine Plans in relation to marine ecology. It outlines:

- The results of the assessment of the draft South Marine Plans objectives;
- The results of the options assessment;
- Results of the draft South Marine Plans assessment, the mitigation measures suggested and the response of the MMO.

### **5.2 Results of the assessment of the Draft South Marine Plans objectives**

The results of the assessment of the draft South Marine Plans objectives is shown in Annex A. The assessment found that on the whole the draft South Marine Plans objectives were consistent with the SA objectives. There were no recommendations made in relation to this topic.

Please see the assessment of the draft South Marine Plans for more details (Section 5.4 below) of how the draft South Marine Plans effect on marine ecology has been addressed.

### **5.3 Results of the options assessment**

The assessment of the alternative options is shown in Annex C (Table C.3). Annex D shows the recommendations that were made at the options stage and the MMO's response to this.

The SA team assessed the three options against the following sub topics:

- Plankton
- Seabed habitats/Benthos
- Fish and Shellfish
- Cephalopods
- Birds
- Marine mammals
- Conservation sites

The assessment found no major / significant negative effects, major / significant positive effects or uncertain effects. All of the options were found to have a score of minor positive against all of the SA sub topics.

#### **5.4 Results of the Draft South Marine Plans assessment**

The assessment of the draft South Marine Plans is shown in Annex C (Table C.3). Table 5.2 presents a summary of the significant and uncertain effects identified, the mitigation measures recommended for the potential significant and uncertain effects, records the MMOs' response to this and clarifies what the residual effects of the draft South Marine Plans will be if decision makers implement the changes. Enhancement measures suggested for other effects can be found in the assessment matrices.

The assessment found no major / significant negative effects or major / significant positive effects. One uncertain effect was found and this is discussed in Table 5.2. The majority of the rest of the scores were minor positive with a few instances of minor negative effects.

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**Table 5.2: Significant and uncertain effects and mitigation measures (marine ecology)**

Potential significant / uncertain effect identified	Mitigation measures identified for significant and uncertain effects	Response of the MMO	Residual effect
<p>Uncertain effect on seabed habitats / benthos</p> <p>This is due to a lack of clarity regarding the policies supporting certain types of development. Policy S-OG-1 regarding oil and gas development, Policy S-AQ-2 on aquaculture and Policy S-INF-1 could be deemed to have higher priority than other plan activities or environmental sensitivities due to the way the policies are phrased.</p>	<p>There is a mismatch between supporting text and the policies (specifically S-OG-1, S-AQ-2 and S-INF-1). The policies as worded imply that these activities will be supported in preference to other considerations. The supporting text does contain information regarding environmental safeguards and issues related to co-existence with other activities (and there is existing protection through other measures). However, we would recommend a stronger link between policy wording and supporting text.</p>	<p>The draft South Marine Plans should be used as a whole which includes policies across all aspects of sustainable development – economic, social and environmental. Proposals would still have to comply with existing legislation such as EIA and therefore there is unlikely to be any additional negative effects caused by the policies in question. The strength of the policies may offer some degree of priority over other activities but as many of the environmental and social policies are also worded strongly (ie are musts) they must also be adhered to</p>	<p>Although it is appreciated that the risk of negative effects is low due to the presence of existing legislation, within the draft South Marine Plans there is a lack of clarity on the application of the policies. Therefore, an uncertain effect remains related to seabed habitats / benthos</p>

## 6 Results of the Appraisal – Economy

### 6.1 Introduction

This section of the report addresses the performance of the draft South Marine Plans in relation to the economy. It outlines:

- The results of the assessment of the draft South Marine Plans objectives;
- The results of the options assessment;
- Results of the draft South Marine Plans assessment, the mitigation measures suggested and the response of the MMO.

### 6.2 Results of the assessment of the Draft South Marine Plans objectives

The results of the assessment of the draft South Marine Plans objectives is shown in Annex A. The assessment found that on the whole the draft South Marine Plans objectives were consistent with the SA objectives. There were no recommendations made in relation to this topic.

Please see the assessment of the draft South Marine Plans for more details (Section 6.4 below) of how the draft South Marine Plans effect on economy has been addressed.

### 6.3 Results of the options assessment

The assessment of the alternative options is shown in Annex C (Table C.4). Annex D shows the recommendations that were made at the options stage and the MMO's response to this.

The SA consultants assessed the three options against the following sub topics:

#### Economy activity and GVA

- Ports and shipping
- Fisheries
- Leisure (please note this includes recreation)
- Tourism
- Marine manufacturing and defence<sup>4</sup>

#### Other marine activities

- Aggregates
- Oil and gas
- Renewables
- Carbon capture and storage

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<sup>4</sup> This sub-topic has been altered from 'Marine industry' more accurately describe the coverage of this sub-topic.

- Nuclear
- Subsea cabling<sup>5</sup>

### Coastal typologies

No major / significant negative effects were recorded. The options were strongly positive in most regards. The assessment found:

- Options 1 and 3 have potential major / significant positive effects for ports and shipping due to strong policies which protect shipping routes, ports and harbours and support development of skills;
- Options 1 and 3 have potential major / significant positive effects for fisheries due to strong policies which support the diversification of the fishing industry and enhance fishing industry resilience and support development of skills.
- Options 1 and 3 have potential major / significant positive effects for leisure due to strong policies which protect recreational boating routes, policies supporting tourism and recreation proposals and protection of recreation activities during development.
- Option 3 has potential major / significant positive effects for tourism due to strong policies which protect passenger vessel routes, provide protection for the environment and policies directly supporting tourism
- Options 1 and 3 have potential major / significant positive effects for marine manufacturing and defence due to strong policies which protect Ministry of Defence Danger and Exercise Areas, support the immediate and future development of the skills base within the local community and seek to enhance employment opportunities
- All of the options have potential major / significant positive effects for aggregates due to strong policies which require the consideration of existing licenses for extraction of aggregates and through support for the use of sustainable sources of aggregate.
- All of the options have a potential uncertain impact on oil and gas as the options did not include any reference to oil and gas.
- Option 1 has potential major / significant positive effects for renewables due to strong policies which aim to increase social benefits of wind and tidal developments, protect the tidal stream resource and support the development of the skills base in local communities.
- Option 1 has potential major / significant positive effects for carbon capture and storage due to a strong policy which offers protection for areas of potential use for Carbon Capture and Storage, requiring compatibility and the minimisation and mitigation of potential effects.
- All of the options have an uncertain impact on the nuclear industry as the options did not include any reference to the nuclear industry.
- Option 3 has potential major / significant positive effects for subsea cabling due to strong policies which require the avoidance of landfall sites and support the development of the skills base.
- All of the options have a potential uncertain impact on coastal typologies as the options did not include any reference to coastal typologies.

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<sup>5</sup> This sub-topic has been altered from 'Subsea communications' to reflect the fact that not all sub-sea cables relate to communications e.g. energy infrastructure.



Apart from those effects listed above the majority of the effects recorded were minor positive. There was one instance of a minor negative effect recorded.

#### **6.4 Results of the Draft South Marine Plans assessment**

The assessment of the draft South Marine Plans is shown in Annex C (Table C.4). Table 6.2 presents a summary of the significant and uncertain effects identified, the mitigation measures recommended for the potential significant and uncertain effects, records the MMO' response to this and clarifies what the residual effects of the plan will be if decision makers implement the changes. Enhancement measures suggested for other effects can be found in the assessment matrices.

No major / significant negative effects were recorded. The options were strongly positive in most regards but there were some uncertainties and these are discussed in Table 6.2.

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<b>Table 6.2: Significant and uncertain effects and mitigation measures (economy)</b>			
<b>Potential significant / uncertain effect identified</b>	<b>Mitigation measures identified for significant and uncertain effects</b>	<b>Response of the MMO</b>	<b>Residual effect</b>
<p>Major / significant positive effect on ports</p> <p>This is due to strong policies which protect shipping routes, ports and harbours and support development of skills</p>	NA	NA	Major / significant positive effect on ports
<p>Major / significant positive effect on fisheries</p> <p>This is due to strong policies which support the diversification of the fishing industry and enhance fishing industry resilience and support development of skills.</p>	NA	NA	Major / significant positive effect on fisheries
<p>Major / significant positive effect on marine manufacturing and defence</p> <p>This is due to strong policies which protect Ministry of Defence Danger and Exercise Areas, support the immediate and future development of the skills base within the local community and seek to enhance employment opportunities</p>	NA	NA	Major / significant positive on marine manufacturing and defence
<p>Major / significant positive effect on aggregates</p> <p>This is due to strong policies which</p>	NA	NA	Major / significant positive on aggregates

**Table 6.2: Significant and uncertain effects and mitigation measures (economy)**

Potential significant / uncertain effect identified	Mitigation measures identified for significant and uncertain effects	Response of the MMO	Residual effect
require the consideration of existing licenses for extraction of aggregates and through support for the use of sustainable sources of aggregate.			
<p>Major / significant positive effect on oil and gas</p> <p>This is due to the fact that the draft South Marine Plans give strong support to the oil and gas sector through policy S-OG-1.</p>	NA	NA	Major / significant positive on oil and gas

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## **7 Results of the Appraisal – Geology, Geomorphology and Coastal Processes**

### **7.1 Introduction**

This section of the report addresses the performance of the draft South Marine Plans in relation to geology, geomorphology and coastal processes. It outlines:

- The results of the assessment of the draft South Marine Plans objectives;
- The results of the options assessment;
- Results of the draft South Marine Plans assessment, the mitigation measures suggested and the response of the MMO.

### **7.2 Results of the assessment of the Draft South Marine Plans objectives**

The results of the assessment of the draft South Marine Plans objectives is shown in Annex A. The assessment found that on the whole the draft South Marine Plans objectives were consistent with the SA objectives. There were no recommendations made in relation to this topic.

Please see the assessment of the draft South Marine Plans for more details (Section 4.4 below) of how the draft South Marine Plans effect on geology, geomorphology and coastal processes has been addressed.

### **7.3 Results of the options assessment**

The assessment of the alternative options is shown in Annex C (Table C.5). Annex D shows the recommendations that were made at the options stage and the MMO's response to this.

The SA consultants assessed the three options against the following sub topics:

- Seabed substrates and topography
- Coastal features and processes

The assessment found no major / significant negative effects or uncertain effects. Options 1 and 3 have a potential minor positive impact against both of the SA sub topics and Option 2 scored minor negative. This was because Option 2 provided less protection for Marine Protected Areas and does not provide general protection from development proposals in relation to geomorphology so is weaker than Option 1 and Option 3 in this regard.

### **7.4 Results of the Draft South Marine Plans assessment**

The assessment of the draft South Marine Plans is shown in Annex C (Table C.5). Table 7.2 presents a summary of the significant and uncertain effects identified, the

mitigation measures recommended for the potential significant and uncertain effects, records the MMO's response to this and clarifies what the residual effects of the plan will be if decision makers implement the changes. Enhancement measures suggested for other effects can be found in the assessment matrices.

The assessment found no major / significant negative effects, major / significant positive effects or uncertain effects. The draft South Marine Plans will have a minor positive effect against both of the SA sub topics.

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**Table 7.2: Significant and uncertain effects and mitigation measures (geology, geomorphology and coastal processes)**

Potential significant / uncertain effect identified	Mitigation measures identified for significant and uncertain effects	Response of the MMO	Residual effect
None	NA	NA	NA

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## 8 Results of the Appraisal – Landscape and Seascape

### 8.1 Introduction

This section of the report addresses the performance of the South Marine Plan in relation to landscape and seascape. It outlines:

- The results of the assessment of the draft South Marine Plans objectives;
- The results of the options assessment;
- Results of the draft South Marine Plans assessment, the mitigation measures suggested and the response of the MMO.

### 8.2 Results of the assessment of the Draft South Marine Plans objectives

The results of the assessment of the draft South Marine Plans objectives is shown in Annex A. The assessment found that on the whole the draft South Marine Plans objectives were consistent with the SA objectives. However, the analysis found that aspects of landscape are not addressed in any of the objectives or policies.

Please see the assessment of the draft South Marine Plans for more details (Section 8.4 below) of how the draft South Marine Plans effect on landscape and seascape has been addressed.

### 8.3 Results of the options assessment

The assessment of the alternative options is shown in Annex C (Table C.6). Annex D shows the recommendations that were made at the options stage and the MMO's response to this.

The SA consultants assessed the three options against the following sub topics:

- Statutory and non-statutory landscape designations
- Wider landscape and seascape character

The assessment found no major / significant negative effects or uncertain effects. All of the options will have a neutral effect against statutory and non-statutory landscape designations and all of the options could potentially have some minor negative and some minor positive effects on wider landscape and seascape character.

### 8.4 Results of the Draft South Marine Plans assessment

The assessment of the draft South Marine Plans is shown in Annex C (Table C.6). Table 8.2 presents a summary of the significant and uncertain effects identified, the mitigation measures recommended for the potential significant and uncertain effects, records the MMO's response to this and clarifies what the residual effects of the plan

will be if decision makers implement the changes. Enhancement measures suggested for other effects can be found in the assessment matrices.

The assessment found no major / significant negative effects or major / significant positive effects.

The draft South Marine Plans will have an uncertain effect against statutory and non-statutory landscape designations and this is discussed in Table 8.2. The draft South Marine Plans will potentially have some minor negative and some minor positive effects on wider landscape and seascape character.

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Table 8.2: Significant and uncertain effects and mitigation measures (landscape and seascape)			
Potential significant / uncertain effect identified	Mitigation measures identified for significant and uncertain effects	Response of the MMO	Residual effect
<p>Uncertain effect on statutory and non-statutory landscape designations</p> <p>There is an uncertainty regarding the coverage of the draft South Marine Plans in relation to landscape as it is not clear how the draft South Marine Plans will implement the intent of the MPS. In addition there is a lack of clarity between the policy and the supporting text.</p>	<p>It is recommended that the draft South Marine Plans need to be clearer regarding the coverage of landscape in the draft South Marine Plans. This is not necessarily a policy gap but it is felt that better explanation is needed in the supporting text.</p>	<p>As landscape does not feature as a policy area in the MPS we believe inclusion of a policy is going beyond the intent of MPS rather than a gap being created by not having a policy. However, further clarity will be provided to ensure draft South Marine Plans have clarity regarding landscape designations.</p>	<p>There is a lack of clarity regarding how draft South Marine Plans will implement the intent of the MPS in this version of draft South Marine Plans however this is likely to be addressed in a revised version.</p> <p>Therefore, at present an uncertain effect remains in relation to statutory and non-statutory landscape designations.</p>
<p>Uncertain effect on statutory and non-statutory landscape designations</p> <p>Uncertain effect due a lack of clarity regarding the policies supporting certain types of development. Policy S-OG-1 regarding oil and gas development, Policy S-AQ-2 on aquaculture and Policy S-INF-1 could be deemed to have higher priority than other plan activities or environmental sensitivities due to the way the policies are phrased.</p>	<p>There is a mismatch between supporting text and the policies (specifically S-OG-1, S-AQ-2 and S-INF-1). The policies as worded imply that these activities will be supported in preference to other considerations. The supporting text does contain information regarding environmental safeguards and issues related to co-existence with other activities (and there is existing protection through other measures). However, we would recommend a stronger link between policy wording and supporting text.</p>	<p>The draft South Marine Plans should be used as a whole which includes policies across all aspects of sustainable development – economic, social and environmental. Proposals would still have to comply with existing legislation such as EIA and therefore there is unlikely to be any additional negative effects caused by the policies in question. The strength of the policies may offer some degree of priority over other activities but as many of the environmental and social policies are also worded strongly (ie are musts) they must also be adhered to.</p>	<p>Although it is appreciated that the risk of negative effects is low due to the presence of existing legislation, within the draft South Marine Plans there is a lack of clarity on the application of the policies. Therefore, an uncertain effect remains in relation to statutory and non-statutory landscape designations</p>

## 9 Results of the Appraisal – Water

### 9.1 Introduction

This section of the report addresses the performance of the draft South Marine Plans in relation to water. It outlines:

- The results of the assessment of the draft South Marine Plans objectives;
- The results of the options assessment;
- Results of the draft South Marine Plans assessment, the mitigation measures suggested and the response of the MMO.

### 9.2 Results of the assessment of the Draft South Marine Plans objectives

The results of the assessment of the draft South Marine Plans objectives is shown in Annex A. The assessment found that on the whole the draft South Marine Plans objectives were consistent with the SA objectives.

Please see the assessment of the draft South Marine Plans for more details (Section 9.4 below) of how the draft South Marine Plans effect on water has been addressed.

### 9.3 Results of the options assessment

The assessment of the alternative options is shown in Annex C (Table C.7). Annex D shows the recommendations that were made at the options stage and the MMO's response to this.

The SA consultants assessed the three options against the following sub topics:

- Tides and currents
- Water temperature and salinity
- Pollution and water quality
- Eutrophication
- Contaminants
- Marine litter

The assessment found no major / significant negative effects or uncertain effects.

Option 1 and 3 have potential major / significant positive effects for contamination due to strong policies which aim to improve estuarine water quality and turbidity.

Option 1 and 3 have potential major / significant positive effects for marine litter due to strong policies in relation to the removal of marine litter.

#### **9.4 Results of the Draft South Marine Plans assessment**

The assessment of the draft South Marine Plans is shown in Annex C (Table C.7). Table 9.2 presents a summary of the significant and uncertain effects identified, the mitigation measures recommended for the potential significant and uncertain effects, records the MMO's response to this and clarifies what the residual effects of the draft South Marine Plans will be if decision makers implement the changes. Enhancement measures suggested for other effects can be found in the assessment matrices.

The assessment found no major / significant negative effects. The assessment found one major / significant positive effect and one uncertain effect and these are discussed in Table 9.2.

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Table 9.2: Significant and uncertain effects and mitigation measures (water environment)			
Potential significant / uncertain effect identified	Mitigation measures identified for significant and uncertain effects	Response of the MMO	Residual effect
<p>Uncertain effect on pollution and water quality</p> <p>Uncertain effect due a lack of clarity regarding the policies supporting certain types of development. Policy S-OG-1 regarding oil and gas development, Policy S-AQ-2 on aquaculture and Policy S-INF-1 could be deemed to have higher priority than other plan activities or environmental sensitivities due to the way the policies are phrased.</p>	<p>There is a mismatch between supporting text and the policies (specifically S-OG-1, S-AQ-2 and S-INF-1). The policies as worded imply that these activities will be supported in preference to other considerations. The supporting text does contain information regarding environmental safeguards and issues related to co-existence with other activities (and there is existing protection through other measures). However, we would recommend a stronger link between policy wording and supporting text.</p>	<p>The draft South Marine Plans should be used as a whole which includes policies across all aspects of sustainable development – economic, social and environmental. Proposals would still have to comply with existing legislation such as EIA and therefore there is unlikely to be any additional negative effects caused by the policies in question. The strength of the policies may offer some degree of priority over other activities but as many of the environmental and social policies are also worded strongly (ie are musts) they must also be adhered to.</p>	<p>Although it is appreciated that the risk of negative effects is low due to the presence of existing legislation, within the draft South Marine Plans there is a lack of clarity on the application of the policies.</p> <p>Therefore, an uncertain effect remains in relation to pollution and water quality</p>
<p>Major / significant positive effects on marine litter</p> <p>This is due to strong policies in relation to the removal of marine litter</p>	<p>NA</p>	<p>NA</p>	<p>Major / significant positive effects on marine litter</p>

## 10 Cumulative effects assessment

### 10.1 Introduction

The SEA Regulations require an assessment of cumulative effects. Cumulative effects arise where the effects of different elements of the draft South Marine Plans will have a combined significant effect or the draft South Marine Plans will have a cumulative effect on a receptor in combination with other plans and programmes. A cumulative effects assessment typically includes:

- Consideration of how different aspects of the draft South Marine Plans interact to cause cumulative effects; and
- How the draft South Marine Plans can cause cumulative effects in association with other programmes, plans, policies and projects.

The SA of the draft South Marine Plans considers the effects of the draft South Marine Plans as a whole against each SA issue rather than individual policies assessed and therefore it is considered that this approach picks up the total (or cumulative effect) of the draft South Marine Plans as far as it is possible to do so for a plan that is not spatially detailed. For the second aspect – cumulative effects in association with other programmes, plans, policies and projects, the SA scoping report (Section 2 of this SA report) outlines in full draft South Marine Plans, programmes and projects that are relevant to the South Marine Plan areas and Section 10.2 draws some conclusions based on broad consideration of these plans and programmes.

### 10.2 Cumulative effects - conclusions

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 large majority of the policies in the draft South Marine Plans are generic or criteria-based policies without a clear spatial dimension. It is therefore difficult to assess the extent to which the implementation of these policies might conflict with other existing economic, social or environmental policies other than at a high level as this will substantially be determined by the spatial locations where the marine policies are given effect. The policies in the draft South Marine Plans do not create a presumption in favour of development or allocate space for activities in the way that land-use plans can, instead they highlight key resource areas and support certain activities and co-location or co-existence where possible. In view of the above, and as these are amongst the first marine plans to ever be produced, it is unclear as to the extent of influence they will have on the implementation of marine activities compared to the situation without them. This is why monitoring of the implementation is vital so that information can be gathered to benefit future plans and their ongoing reviews. It is also, therefore, important to recognise these positive interactions and synergies with the existing framework of plans, policies and laws for the marine area.

The draft South Marine Plans are very clear that the acceptability of any development needs to be considered against the policies as a whole. The policies in the plan provide a wide range of community and environmental considerations which

should, to an extent, serve to limit the impacts of individual projects. Furthermore, it should be recognised that EIA procedures also provide mechanisms to assess and control potential environmental effects.

It is not predicted that the policies could potentially create conflict with existing UK environmental and community policies and generate adverse effects, as they reflect the existing policy and legislation and Marine Plans are additional to existing legislation. In terms of effects on adjacent state territories due to activities within the South Marine Plan areas, these are likely to be less than those within UK waters. Given the existing range of control mechanisms it is not anticipated that potential transboundary effects would be significant.

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## 11 Outline Monitoring Programme

### 11.1 Introduction

The Practical Guide<sup>6</sup> states that “the Directive's provisions on monitoring apply when the plan or programme is being put into effect, rather than during its preparation and adoption. However, preparations for monitoring will need to be considered in the course of preparing the plan or programme”.

The SEA Regulations require the significant environmental effects of plans and programmes to be monitored, in order to identify at an early stage unforeseen adverse effects, and to be able to take appropriate remedial action. The monitoring undertaken on the draft South Marine Plans as part of the Sustainability Appraisal and as part of the implementation and monitoring of the adopted South Marine Plan will help to:

- Monitor the significant positive and negative effects of the draft South Marine Plans;
- Track whether the draft South Marine Plans has had any unforeseen effects; and
- Ensure that action can be taken to reduce / offset the significant positive and negative effects of the plan.

The draft South Marine Plans 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 plan area.

The requirements of the SEA Regulations focus on monitoring the significant and unforeseen effects of the Plan. Therefore, the SA monitoring framework is focused only on monitoring those effects that are significantly negative or uncertain. The general monitoring mentioned above for the plan itself will also help to highlight any unforeseen effects although it may not always be possible to attribute trends to activities stemming from the plan.

The final SA monitoring programme will be included in the SA Adoption Statement (once the Plan is adopted) and this will reflect any changes made prior to adoption. However, at this stage it is possible to outline a draft monitoring programme. Table 11.1 sets out this draft monitoring programme. Please note that should the suggested mitigation be taken on board then there would be fewer resultant residual potential significant effects or uncertain effects and therefore the need for monitoring would be much less.

Due to the fact that no major / significant effects were identified the programme below focuses on the residual uncertain effects identified (after mitigation has been applied)

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<sup>6</sup> Office of the Deputy Prime Minister (2004): A Practical Guide to the Strategic Environmental Assessment Directive Practical guidance on applying European Directive 2001/42/EC “on the assessment of the effects of certain plans and programmes on the environment”

<b>Table 11.1: Monitoring measures</b>	
<b>Potential significant / uncertain effect identified</b>	<b>Monitoring required, source and frequency</b>
<p>Uncertain effect on seabed habitats / benthos / landscape / water pollution and water quality / landscape</p> <p>This is due to a lack of clarity regarding the policies supporting certain types of development. Policy S-OG-1 regarding oil and gas development, Policy S-AQ-2 on aquaculture and Policy S-INF-1 could be deemed to have higher priority than other plan activities or environmental sensitivities due to the way the policies are phrased</p>	<p>Information should be collected on how applications for the relevant development (infrastructure, oil and gas and aquaculture) are being decided to ascertain if policies are providing enough protection for the environment and other users of the marine environment. This information should be collected annually and fed into reviews of the effectiveness of draft South Marine Plans.</p>
<p>Uncertain effect on statutory and non-statutory landscape designations</p> <p>There is an uncertainty regarding the coverage of the draft South Marine Plans in relation to landscape as it is not clear how the draft South Marine Plans will implement the intent of the MPS. In addition there is a lack of clarity between the policy and the supporting text.</p>	<p>Information should be collected on how applications are using Policy S-SCP-1 and whether matters related to landscape are being addressed adequately in applications. The purpose of this is to ascertain if this policy is providing enough protection for landscape designations. This information should be collected annually and fed into reviews of the effectiveness of draft South Marine Plans.</p>



## Annex A: Assessment of the Draft South Marine Plans Objectives

These tables show the results of an assessment of the draft South Marine Plans Objectives. The purpose of this assessment is to ensure that the objectives of the draft South Marine Plans address the sustainability issues which are important in the plan area. NB: please note that the objectives were renumbered, and three were merged, to reduce repetition from the initial to second draft that was assessed. This is set out here along with the relevant SA objective for each of the second draft objectives:

First draft	Second draft (assessed by SA)	Merging detail	Relevant SA objective for second draft
Objective 1 (climate change)	Objective 1 (co-location)		Economy
Objective 2 (climate change)	Objective 2 (infrastructure)		Communities, health and well being; Economy
Objective 3 (MPAs)	Objective 3 (diversification)		Communities, health and well being; Economy
Objective 4 (GES)	Objective 4 (employment)		Communities, health and well being; Economy
Objective 5 (space for nature)	Objective 5 (displacement)		Communities, health and well being; Economy
Objective 6 (disturbance)	Objective 6 (access)		Communities, health and well being; Economy
Objective 7 (cumulative effects)	Objective 7 (climate change)	(merged first draft objectives 1 and 2)	Communities, health and well being; Economy, Cultural heritage, Marine ecology, Geology, geomorphology and coastal processes, Landscape and seascape, Water
Objective 8 (displacement)	Objective 8 (heritage assets)		Communities, health and well being; Economy, Cultural heritage
Objective 9 (access)	Objective 9 (seascape)		Landscape and seascape
Objective 10 (heritage assets)	Objective 10 (MPAs)		Marine ecology, Geology, geomorphology and coastal processes
Objective 11 (seascape)	Objective 11 (MSFD requirements)	(merged first draft objectives 4 and 6)	Marine ecology, Landscape and seascape, Water
Objective 12 (co-location)	Objective 12 (space for nature and cumulative effects)	(merged first draft objectives 5 and 7)	Marine ecology, Geology, geomorphology and coastal processes, Water

First draft	Second draft (assessed by SA)	Merging detail	Relevant SA objective for second draft
Objective 13 (infrastructure)			
Objective 14 (diversification)			
Objective 15 (employment)			

Key to Table 3	
✓	The draft South Marine Plans Objective should be consistent with this SA topic (see discussion below)
✗	The draft South Marine Plans Objective would not be expected to be consistent with this SA topic

Draft South Marine Plans Objective	1	2	3	4	5	6	7	8	9	10	11	12
<b>SA topic</b>												
<b>Communities health and well being</b>	✗	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓
<ul style="list-style-type: none"> <li>Objective 2: By providing infrastructure for industries reliant on fisheries and aquaculture the objective will be positive</li> <li>Objective 3: Supporting the regeneration, investment and diversification of activities which improve socio-economic conditions in south plan coastal communities will be positive if considered for all relevant sectors</li> <li>Objective 4: By helping to develop the local skills base through the support of marine activities there is a positive relationship with this SA topic</li> <li>Objective 5: By helping to protect the fishing industry, recreational boating and tourism and recreation activities and maximise social benefits the objective will help protect communities</li> <li>Objective 6: By helping to protect access for tourism and recreation activities the objective will help protect communities</li> <li>Objective 7: By reducing carbon emissions there will be positive impacts on all aspects of community wellbeing and individual's health and by improving the resilience of the plan area (and communities) to climate change this will have positive effects on communities and health through helping to protect against the effects of coastal change and climate change</li> <li>Objective 8: By protecting heritage assets there will be positive impacts on some aspects of community wellbeing and individual's health by providing an increase in local sites will be positive if considered by all relevant sectors</li> <li>Objective 9: By considering seascape there will be positive impacts on some aspects of community wellbeing and individual's health by preventing adverse impacts on nationally recognised character areas</li> <li>Objective 12: By helping to minimise effects on fisheries, the objective will help to protect fishing communities</li> </ul>												

Draft South Marine Plans Objective	1	2	3	4	5	6	7	8	9	10	11	12
<b>SA topic</b>												

Draft South Marine Plans Objective SA topic	1	2	3	4	5	6	7	8	9	10	11	12
<b>Cultural Heritage</b>	x	x	x	x	x	x	✓	✓	x	x	x	x
<ul style="list-style-type: none"> <li>Objective 7: By improving the resilience of the plan area to climate change this will have positive effects on heritage through helping to preserve artefacts and protect against the effects of coastal change</li> <li>Objective 8: By protecting heritage assets the objective will be positive in protecting heritage.</li> </ul>												

Draft South Marine Plans Objective SA topic	1	2	3	4	5	6	7	8	9	10	11	12
<b>Marine Ecology</b>	x	x	x	x	x	x	✓	x	x	✓	✓	✓
<ul style="list-style-type: none"> <li>Objective 7: By reducing carbon emissions there will be positive impacts on all aspects of ecology. By improving the resilience of the plan area to climate change this will have positive effects on ecology through reducing coastal squeeze and managing coastal change</li> <li>Objective 10: By protecting Marine Protected Areas (MPAs) and other non-designated sites there will be positive impacts on habitats (and therefore positive effects on species)</li> <li>Objective 11: By helping to protect ecosystems, minimise movement of non-indigenous species, minimise noise and helping to maintain Good Environmental Status and Good Ecological Status there will be positive impacts on habitats (and therefore positive effects on species)</li> <li>Objective 12: By helping to protect habitat and ensuring that habitats, species and ecosystem functioning are protected there will be positive impacts on species and habitats</li> </ul>												

Draft South Marine Plans Objective SA topic	1	2	3	4	5	6	7	8	9	10	11	12
<b>Economy</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Draft South Marine Plans Objective	1	2	3	4	5	6	7	8	9	10	11	12
<b>SA topic</b>												
<ul style="list-style-type: none"> <li>Objective 1: By helping to encourage co-existence of activities and protect existing marine industries the objective will be positive.</li> <li>Objective 2: By helping to provide infrastructure for marine industries the objective will be positive</li> <li>Objective 3: Supporting the regeneration, investment and diversification of activities which improve socio-economic conditions in south plan coastal communities will be positive if considered for all relevant sectors</li> <li>Objective 4: By helping to develop the local skill base the objective will be positive.</li> <li>Objective 5: By helping to protect key industries the objective will help protect marine economic activities.</li> <li>Objective 6: By helping to protect access for tourism and recreation activities the objective will help protect the leisure industry.</li> <li>Objective 7: By requiring licenced activities to reduce carbon emissions there will be a positive driver for efficiency and more renewable energy and transport options. By improving the resilience of the plan area (and local businesses) to climate change this will have positive effects and will also help to maximise business opportunities</li> <li>Objective 8: By protecting heritage assets, this provides services and brings economic benefit through tourism</li> <li>Objective 9: By protecting seascape elements, this provides space and brings economic benefit through tourism</li> <li>Objective 10: By supporting the Marine Protected Area network, a clean an healthy environment is provided bringing economic benefit through goods people consume</li> <li>Objective 11: By ensuring contribution to MSFD and WFD, a clean healthy environment provides space for people to use and goods for people to consume, contributing to the economy</li> <li>Objective 12: By helping to minimise effects on tourism and recreation, the objective will help to protect communities</li> </ul>												

Draft South Marine Plans Objective	1	2	3	4	5	6	7	8	9	10	11	12
<b>SA topic</b>												
<b>Geology, geomorphology and coastal processes</b>	x	x	x	x	x	x	✓	x	x	✓	x	✓
<ul style="list-style-type: none"> <li>Objective 7: By reducing carbon emissions there will be positive impacts on all aspects of coastal processes and change and this will have positive effects. By improving the resilience of the plan area to climate change this will have positive effects</li> <li>Objective 10: By supporting the Marine Protected Area network, features of geological and geomorphological interest are supported and contribute here</li> <li>Objective 12: By encouraging the continued provision of ecosystem goods and services (through minimising effects of dredging) this will be positive</li> </ul>												

Draft South Marine Plans Objective	1	2	3	4	5	6	7	8	9	10	11	12
<b>SA topic</b>												
<b>Landscape and seascape</b>	x	x	x	x	x	x	✓	x	✓	x	✓	x

Draft South Marine Plans Objective	1	2	3	4	5	6	7	8	9	10	11	12
<b>SA topic</b>												
<ul style="list-style-type: none"> <li>Objective 7: By improving the resilience of the plan areas to climate change this will have positive effects on landscape and seascape through helping to protect against the effects of coastal change</li> <li>Objective 9: By ensuring that the effects on seascape are addressed this will have positive impacts on seascape. Aspects of landscape are not addressed in any of the policies</li> <li>Objective 11: By ensuring that marine litter is reduced and managed this will have positive impacts on landscape and seascape.</li> </ul>												

Draft South Marine Plans Objective	1	2	3	4	5	6	7	8	9	10	11	12
<b>SA topic</b>												
<b>Water environment</b>	x	x	x	x	x	x	✓	x	x	x	✓	✓
<ul style="list-style-type: none"> <li>Objective 1: By minimising footprints explicitly, effects upon aquaculture within the water column and pollutants will be positive</li> <li>Objective 2: By helping to support flood risk management the objective will be positive</li> <li>Objective 7: By reducing carbon emissions there will be positive impacts on water as climate change is likely to cause some changes to water temperature and salinity. By improving the resilience of the plan areas to climate change this will have positive effects through reducing the effects of flooding and coastal inundation</li> <li>Objective 11: By helping to maintain Good Environmental Status and Good Ecological Status there will be positive impacts on the water environment</li> <li>Please note that the objective (previous objective 7) on estuarine water quality has been removed. However, the wider water quality policies remain applicable to estuaries.</li> </ul>												

## Annex B: Results of the Appraisal of Early Draft South Marine Plans

This table shows the results of a review of an early draft of draft South Marine Plans. This review took place in July 2015 and provided a brief review of the document and provided recommendations of how to improve the sustainability performance of draft South Marine Plans which were subsequently incorporated into the final draft which is the subject of this Environmental Report. It is not necessary for the MMO to respond directly to these recommendations. Any residual impacts have been picked up in the assessment of the draft South Marine Plans (see Annex C). Please also see the table at the start of Annex A to show the links between draft South Marine Plan objectives and the SA objectives.

Section of draft South Marine Plans	SA team comments
<p>Previous Objective 1: To reduce contributory drivers of climate change that result from human activities through specific action to minimise and mitigate emissions of greenhouse gases</p> <p>Amended Objective 1 (now 7): To mitigate against indirect or unintended contributions of proposals to the drivers of climate change</p>	<ul style="list-style-type: none"> <li>The new objective is simpler and easier to understand. The word minimised has been removed which could have been seen as a weakening of the objective. However, it's unclear why only indirect / unintended effects are addressed and if this is to remain it would need better explanation in the supporting text. We would recommend amending the objective to read more like " To reduce the contribution to climate change and to mitigate against indirect or unintended contributions of proposals to the drivers of climate change" in order to ensure that all emissions are addressed by this objective and the objective is more positive rather than just aiming to mitigate for negative effects.</li> <li>Policy S-CC-1 supporting this objective has been made clearer as it now defines minimised and mitigated (which was a recommendation of the options appraisal) and it requires emissions to be dealt with by applicants by applying a hierarchy of actions. This has responded well to consultee comments that policies should be more explicit to reduce potential for misinterpretation</li> <li>We would recommend that more examples are provided with regards to what is meant by an indirect effect. The example given of the effect on fishing (p41) is useful but more are needed and earlier in the text e.g. at p22 para 53.</li> </ul>

Section of draft South Marine Plans	SA team comments
<p>Previous objective 2: To minimise the environmental, social and economic risks of climate change, activities should take account of adaptation and mitigation measures, that reduce (net) vulnerability and/or improve resilience to climate and coastal change</p> <p>Amended objective 2 (now 7): To reduce the environmental, social and economic impacts of climate change, proposals should implement adaptation measures that reduce vulnerability and/or improve resilience to climate and coastal change.</p>	<ul style="list-style-type: none"> <li>• The objective is stronger in that it has changed “take account of” to “implement”. The objective was a little unclear before. However, the term minimise (previous objective) is stronger than reduce (new objective)</li> <li>• The number of policies has been reduced and this has made this section clearer. The policies that have been removed were not very practical in planning terms (and the way that the term coastal squeeze was used proved a little confusing) and would have been difficult to implement so this removal is unlikely to affect the performance of draft South Marine Plans.</li> <li>• Stakeholders wanted to see specific reference to coastal erosion and citing of Shoreline Management Plans and to ensure these are not overlooked and this has been included in supporting text</li> <li>• Policy S-CC-3: has been weakened with a change in the terminology from “must “ to “should”</li> <li>• Policy S-CC-4: has been weakened with a change in the terminology from “must “ to “may”</li> </ul>
<p>Previous objective 3: To support the objectives of Marine Protected Areas and the delivery of an ecologically coherent network by ensuring enhanced resilience and the capability to adapt to change.</p> <p>Amended objective 3 (now 10): To support the objectives of Marine Protected Areas and the delivery of an ecologically coherent network by ensuring enhanced resilience and the capability to adapt to change</p>	<ul style="list-style-type: none"> <li>• Objective 3 has not changed since the options assessment report</li> <li>• S-MPA-2 sets out clearly the hierarchy that applicants need to consider. This policy has been strengthened through the use of the terminology “must demonstrate” replacing “should” within the options. We would query whether this policy needs to have a reference to HRA and effects on site integrity and if this policy also afforded protection to individual MPAs and ensured that proposals support individual MPA site objectives</li> <li>• S-MPA-3 is much clearer than the previous policy. However, could it be broadened out to include site deterioration due to anthropogenic pressure as well as climate change as the supporting text recognises that these are both issues?</li> <li>• One policy has been removed – S-MPA-3b/3c related to the protection of non-designated habitats and species of importance. This would be a valuable addition to the plan and it would be useful to know why it was removed (because of the practicality of implementing it, the lack of available data, already covered by extant legislation etc.)? The supporting text relating to this section (para 167-169) is a little confusing with regard to the different designations and legislation</li> </ul>

Section of draft South Marine Plans	SA team comments
<p>Previous objective 4: Activities within and adjacent to the South marine plan areas must take account of the achievement or maintenance of Good Environmental Status (GEoS) and Good Ecological Status (GES) under the Marine Strategy Framework Directive and Water Framework Directives respectively</p> <p>Amended objective 4 (now 11): Activities within and adjacent to the South Marine Plan areas must contribute to the achievement or maintenance of Good Environmental Status (GES) under the Marine Strategy Framework Directive with respect to descriptors on litter and nonindigenous species, particularly where current measures need to be reconsidered or enhanced and where new measures are under development</p>	<ul style="list-style-type: none"> <li>• The amended objective relates to the MSFD descriptors and states that they should contribute to Good GES rather than just take account of it, which is clearer. The scope of this section of the report has changed from looking at GES in general to looking at marine litter and introduction of non-indigenous species. The plan makes it clear that other aspects of GES are addressed elsewhere in the plan. However, we would recommend including an overarching policy akin to S-GES-1c, especially as the majority of consultees supported more prescriptive policies to support the achievement of GES. In addition, the objective could then be made less specific which is more appropriate wording for an objective</li> <li>• Policy S-BIO-1 is positive in that it broadens out the consideration of the introduction of non-indigenous species. Consultees had some concerns about the focus on recreational boating as a vector and this has been addressed</li> <li>• Policy S-BIO-2 is positive and will still lead to targeting of beaches where litter is compromising achievement of MSFD targets through its focus on prioritised beaches</li> <li>• Policy S-BIO-3 is positive and was recommended by the SA options appraisal</li> <li>• Policy S-BIO-4b/4c has been removed. We assume that this is because this is not a priority of the plan. It would be helpful to have some explanation.</li> </ul>

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Section of draft South Marine Plans	SA team comments
<p>Previous objective 5: To safeguard space for the natural marine environment to enable continued provision of ecosystem goods and services.</p> <p>Amended objective 5 (now 12): To safeguard space for and quality of, the natural marine environment including enabling continued provision of ecosystem goods and services outside of designated sites particularly coastal and seabed habitats, associated fisheries, tourism and recreation activities</p>	<ul style="list-style-type: none"> <li>Objective 5 is stronger in that it now includes consideration of ecosystem quality. It also includes consideration of enabling continued provision of ecosystem goods and services outside of designated sites particularly coastal and seabed habitats, associated fisheries, tourism and recreation activities</li> <li>Policy S-FISH-1 is positive as it has removed the case for proceeding with proposals if it is not possible to minimise or mitigate the adverse impacts.</li> <li>Policy S-FISH-1-HER is positive in that it considers herring spawning mitigation. However, the policy could be more specific in regard to what proposals need to do to protect herring</li> <li>Policies S-BIO-4 to S-BIO-6 are more positive than some of the options tested as they remove the case for proceeding with proposals if it is not possible to minimise or mitigate the adverse impacts</li> <li>Policy S-BIO-7 is slightly less positive than the options tested as it has changed from “proposals must take steps to increase the extent of priority habitats” to “proposals must take steps to avoid reducing the distribution and net extent of priority habitats”. It would be useful if we could explore the rationale for this</li> <li>The options assessment recommended that a policy should be included that addresses the assessment of all geological changes from development proposals and suggests mitigation. This would include changes to sediment dynamics, effects on the geological qualifying features of protected sites and direct changes to seabed substrates and topography. It does not appear that this has been done and it would be useful to discuss the rationale for this</li> </ul>
<p>Previous objective 6: Disturbance impacts on mobile species, within or reliant on the South marine plan areas, resulting from new proposals and existing activities must be avoided, minimised or mitigated.</p> <p>Amended objective 6 (now combined in 11): To avoid, minimise, or mitigate adverse disturbance impacts resulting from new proposals and existing activities on highly mobile species reliant on the South Marine Plan areas.</p>	<ul style="list-style-type: none"> <li>Objective 6 is similar to the previous objective 6 however it would be useful to understand the difference between “highly mobile species” and mobile species</li> <li>Policy S-DIST-1 is more positive than some of the options tested as it removes the case for proceeding with proposals if it is not possible to minimise or mitigate the adverse impacts</li> <li>Policy S-DIST-3 has broadened out the consideration past areas of high impulsive or ambient noise. This means that introduction of noise to new areas will be assessed.</li> </ul>

Section of draft South Marine Plans	SA team comments
<p>Previous objective 7: Cumulative impacts affecting estuarine water quality within the South Inshore Plan area should be addressed through strategic management addressing terrestrial and marine drivers</p> <p>Amended objective 7 (now combined in 12): To avoid further deterioration and, where practical, improve the water quality of estuaries through addressing contributing factors arising from the management or use of the marine area.</p>	<ul style="list-style-type: none"> <li>Objective 7 has been reworded and is now clearer as to how developments can contribute practically to the achievement of the objective</li> <li>Policies S-WQ-1, 2, 3 and 4 will be positive in improving water quality and the plan has been strengthened by the addition of S-WQ-4</li> </ul> <p>Policy S-BIO-7 has been removed concerning natural networks the SA needs to examine whether this issue is adequately addressed by policies such as Policy S-BIO-6. A rationale for this removal would be helpful.</p>
<p>Previous objective 8: Displacement of marine activities should be avoided, minimised or mitigated in order to achieve a net gain in social benefits (especially to coastal communities)</p> <p>Amended objective 8 (now 5): To avoid, minimise or mitigate displacement of marine uses, particularly where of importance to adjacent coastal communities, and where this is not practical to ensure achievement of a net gain in social benefits.</p>	<ul style="list-style-type: none"> <li>Objective 8 is effectively the same</li> <li>Policies S-SOC-1 and Policy S-FISH-2 have removed the requirements that sets out that those with a potential adverse effect are unlikely or should not be supported (e.g. Proposals resulting in adverse effects through displacement of other existing or authorised (but yet to be implemented) activities are unlikely to be supported) therefore these policies could be viewed as being weaker.</li> <li>S-TR-2 appears to have been moved to Objective 9?</li> </ul>
<p>Previous objective 9: Maintenance and enhancement of access to, and within, the south plan areas (that is appropriate to its setting and equitable to users) will be supported</p> <p>Amended objective 9 (now 6): To maintain and enhance access to, and within, the South Marine Plan areas appropriate to its setting and in a way that is equitable to users.</p>	<ul style="list-style-type: none"> <li>Objective 9 is effectively the same</li> <li>Policy S-ACC-1 and 2 will help to maintain public access</li> </ul>

Section of draft South Marine Plans	SA team comments
<p>Previous objective 10: Features significant to the historic environment of the South marine plan areas, that are not designated as heritage assets, should be identified and conserved</p> <p>Amended objective 10 (now 8): To identify and conserve all heritage assets that are significant to the historic environment of the South Marine Plan areas.</p>	<ul style="list-style-type: none"> <li>Objective 10 is effectively the same</li> <li>Policy S-HER-1 helps to protect the historic environment but wording is un clear with regard to the term “proposals that do not adversely affect...” This could be mis-interpreted and could be clearer for example: “proposals which can demonstrate to have no adverse effects on newly-discovered heritage assets or other non-designated assets are more likely to be supported if...” In addition the policy should directly address issues related to the setting of heritage assets and also socio-cultural associations and how disturbance / harm may cause wider socio-cultural effects.</li> <li>Measures that place new information in the public realm would be a beneficial addition to the policies. However, it is recognised that it is not within the strict remit of marine plans</li> </ul>
<p>Previous objective 11: Decisions should consider the seascape of an area, and its constituent marine character and visual resource.</p> <p>Amended objective 11 (now 9): To maintain the seascape and landscape of the South Marine Plan areas, and their constituent marine character and visual resource.</p>	<ul style="list-style-type: none"> <li>Objective 11 has been amended to include landscape and this is positive however the policies do not make reference to landscape.</li> <li>Policy S-SCP-1 is slightly weaker in relation to its effect on seascape as it will now allow proposals to go ahead if they have public benefits. However, this will mean a more positive effect on the economy and communities.</li> <li>The new Policy S-LAN-1 refers to areas of undeveloped coast however areas of developed coast also have important landscape value and have these being picked up either within the draft South Marine Plans or through other mechanisms? Should the policy or supporting text refer to these? The SA at the options stage recommended the inclusion of appropriate policy wording for landscape issues including the potential for effects on the specific statutory purposes of designated areas as well as non-statutory areas of importance. There is a cross reference to the coverage of landscape issues in the supporting text but it is not clear where this refers to in this draft.</li> <li>The supporting text at 578 states “In principle, the intention is for this policy to be more strictly applied where the areas of seascape affected are adjacent to areas of high landscape value such as nationally designated landscapes (see Figure XXX)” however, it is unclear how the policy does this.</li> </ul>

Section of draft South Marine Plans	SA team comments
<p>Previous objective 12: To provide space to support existing, and facilitate future sustainable economic activity through the encouragement of colocation, mitigation of conflicts and minimisation of development footprints</p> <p>Amended objective 12 (now 1): To provide space to support existing, and facilitate future sustainable economic activity through the encouragement of co-existence, mitigation of conflicts and minimisation of development footprints</p>	<ul style="list-style-type: none"> <li>• The revised objective is the same other than the replacement of co-location with co-existence.</li> <li>• It is assumed that S-TIDE-2 is adequately covered by S-TIDE-1 which is why it has been removed?</li> <li>• Policy S-OG-1 is a new policy and was identified as a gap with relation to the economic aspects of the SA at the issues and options assessment. As worded this could have potentially negative economic and social effects and there should be some reference to assessment and mitigation within the policy wording.</li> <li>• Policy S-PS-1 and Policy S-PS-2 are slightly weaker than some of the options tested as they allow for proceeding with adverse effects.</li> <li>• Policy S-AGG-1 is stronger than any of the options tested.</li> <li>• Policy S-CCS-1 has been removed. It would be helpful to have the rationale behind this.</li> </ul>
<p>Previous objective 13: To manage existing, and where appropriate facilitate the provision of new, infrastructure which supports marine and terrestrial activity incorporating resilience to the effects of climate change where appropriate</p> <p>Amended objective 13 (now 2): To manage existing, and facilitate the provision of new, infrastructure supporting marine and terrestrial activity</p>	<ul style="list-style-type: none"> <li>• Objective 13 has removed the reference to climate change resilience, presumably because this is addressed elsewhere – it would be helpful to have this cross reference.</li> <li>• The policies will be broadly positive with regard to the facilitation of infrastructure</li> <li>• Policy S-INF-1 which addresses flood risk management adjacent to or within flood plains or natural features that play a role in coastal management has been removed. It would be useful to explore the rationale for this.</li> </ul>

Section of draft South Marine Plans	SA team comments
<p>Previous objective 14: Regeneration, investment in, and diversification of activities which improve socio-economic conditions in south plan coastal communities will be supported</p> <p>Amended objective 14 (now 3): To support diversification of activities which improve socio-economic conditions in south plan areas coastal communities</p>	<ul style="list-style-type: none"> <li>• The previous and revised objectives are broadly the same.</li> <li>• S-WIND-1: Is wind energy addressed elsewhere, as safeguarding areas of resource e.g. for tidal is included under objective 12.</li> <li>• Policy S-CC-5 does not make reference to climate change resilience and this has been removed from elsewhere in the plan. The term “provided they operate sustainably” could do with additional explanation to that given within the supporting text.</li> <li>• Policy S-AGG-4 has removed the reference to sustainably sourcing aggregates thus potentially weakening the policy in sustainability terms.</li> <li>• Policy S-FISH-4 is the weaker of the options assessed using the terminology “should” rather than “will”.</li> <li>• Policy S-TR-2 includes all tourism and recreation activities rather than just existing or additional.</li> <li>• References to proposals that increase a) the scope or diversity of social benefit or b) economic certainty in support of offshore wind infrastructure development have been removed (S-WIND-1)– this policy was heavily relied as part of the review of the options so it would be worth checking that all aspects covered by that policy are still being addressed.</li> </ul>
<p>Previous objective 15: To support marine activities that create and enhance employment opportunities at all skills levels, particularly where this reflects existing or developing skills among the workforce of coastal communities using the South marine plan areas</p> <p>Amended objective 15 (now 4): To support marine activities that increase and enhance employment opportunities at all skill levels, particularly where this reflects existing or developing skills among the workforce of coastal communities within the South Marine Plan areas.</p>	<p>Objective 15 has not changed</p> <ul style="list-style-type: none"> <li>• Consultees felt that it could be worth mentioning a focus on skills within the maritime sector to support the blue growth agenda and community regeneration. This has been done with the addition of Policy S-EMP-1.</li> </ul>

## Annex C: Assessment Matrices

These tables show the assessment of the second draft of the draft South Marine Plans and the three plan options broken down by sustainability topic. These are the main output of the SA and show the results of the assessment against each sustainability topic and also show all enhancement and mitigation measures suggested. Please note that the MMO have made some changes to the draft South Marine Plans for consultation on the basis of the SA recommendations and these are recorded in Tables 3.2 to 9.2.

The preferred option and appropriate strengths are outlined explicitly in section 2.3; Option 1 – Balanced option, Option 2 – Flexible option and Option 3 – Prescriptive option. The notation used for the assessment is shown below:

Notation	Description
<b>Degree to which baseline conditions may change (significance of change) compared with the future baseline situation</b>	
++	<b>Major Positive Effect (significant positive)</b> The Plan is likely to lead to significant improvements in baseline conditions.
+	<b>Minor Positive Effect</b> The Plan is likely to lead to some improvements in baseline conditions.
0	<b>Neutral Effect</b> The Plan is unlikely to alter baseline conditions significantly.
-	<b>Minor Negative Effect</b> The Plan is likely to lead to a deterioration in baseline conditions.
--	<b>Major Negative Effect (significant negative)</b> The Plan is likely to lead to a significant deterioration in baseline conditions.
+/-	<b>Positive and Negative Effect</b> The Plan is likely to lead to both a deterioration and an improvement in baseline conditions, perhaps in different areas or ways.
?	<b>Uncertain Effect</b> It is not known whether the Plan would lead to an improvement or deterioration in the baseline conditions.
<b>Direct / Indirect</b>	
D	Direct effect
I	Indirect effect
<b>Reversibility of effects</b>	
R	It is considered that the effects upon the receptor group could be reversed if activities were to change in the future. The receptor may hence be able to recover or indeed improvements could be diminished.
IR	It is considered that the effects upon the receptor group could not be reversed and would be permanent. This may apply to situations where, for example, features are destroyed for ever or systems/trends are irrevocably changed.
<b>Certainty of prediction / Likelihood</b>	
H	There is a high level of confidence in the assessment prediction. No identified data gaps.
M	There is a medium level of confidence in the assessment prediction. This means that the appraiser is largely certain of the direction of impact and some of the elements of prediction but there remains some doubt or certainty about some other elements.
L	There is low level of confidence in the assessment prediction. This may be as a result of significant baseline data gaps, there being very little control

over how an activity may come forward or there is limited evidence to support the prediction.

Table C.1: Communities, health and well being				
Potentially sensitive receptors/recept or groups	<ul style="list-style-type: none"> <li>• Communities dependant on the fishing industry.</li> <li>• Communities focused on activities supported by tourism.</li> <li>• Coastal communities – especially the elderly population that reside within these areas.</li> </ul>			
Current and future baseline conditions in absence of draft South Marine Plans	Current	<ul style="list-style-type: none"> <li>• The area generally has a greater proportion of elderly than the national average. Health deprivation and life expectancy is lowest within the urban areas.</li> <li>• Tourism and fishing are key sectors of the economy in the plan area. In addition, the area has a high recreational value. There is a need to support and diversify these industries and communities to improve resilience.</li> <li>• Access to recreation and leisure facilities for all age groups needs to be improved and enhanced to support participation and improve health and wellbeing.</li> <li>• Aquaculture and recreational boating currently provide opportunities for year-round employment.</li> </ul>		
	Future	<ul style="list-style-type: none"> <li>• Trends of a growing ageing population will continue, placing a potentially increasing burden on health services and making older people in coastal communities more vulnerable to consequences of climate change.</li> <li>• Climate change impacts such as longer hotter summers and rising sea temperatures resulting in a longer tourism season, potentially increased visitor numbers and an increased investment in supporting infrastructure. This could improve health and wellbeing within the plan area; however, it could also lead to loss of culture in rural communities.</li> <li>• Conversely, climate change may lead to increased storminess and damage to coastal facilities which could impact upon tourism demand and reduce employment opportunities.</li> <li>• Declining fish stocks in the short to medium term due to; quotas, environmental policy, climate change, and potential competition for current fishing grounds. This may lead to the erosion of 'way of life' for fishing communities.</li> </ul>		
Likely changes from baseline conditions as a result of draft South Marine Plans				
	Within plan review period	Within currency of plans	Beyond currency of plans	Summary
Health and wider determinants of health				

**Table C.1: Communities, health and well being**

Option 1	+ <b>IRM</b>	+ <b>IRM</b>	+ <b>IRM</b>	<p>Policy S-CC-1c: By reducing carbon emissions there should be positive impacts on all aspects of community wellbeing and individual's health, particularly in relation to air quality and increasing physical activity<sup>7</sup> and because of the importance of climate change this could have a positive effect. In addition, it is assumed that policies which avoid adverse effects on coastal change (policy S-CC-2c) and which mitigate and adapt to climate change (policies S-CC-3c, S-CC-4c, S-CC-5c, S-CC-6c, S-BIO-1c and S-INF-1c) should generally benefit health i.e. through protecting communities from storm damage and stress. This could have a positive effect.</p> <p>Policies which encourage, facilitate and protect recreational activities should result in positive outcomes in relation to health and the wider determinants of health. Policy S-TR-4b supports recreation activities. Policy STR-1b and 2d aim to protect current activities. Policy S-TR-3b aims to increase or maintain public access to the marine environment. Access to the water relates to physical and mental well-being. Adverse effects on access may still be possible but they should be mitigated through this policy. This should have a minor positive effect. In addition, policies which aim to protect landscapes and seascapes and reduce negative visual impacts could contribute to positive impacts with regards to health and the wider determinants of health. Policy S-CHA-1b could be more effective at protection of landscape, however (see landscape assessment for more details)</p> <p>Policies which aim to improve bathing water quality and remove marine litter could have a direct positive impact on health. This option includes strong policies related to improving water quality, though making a positive contribution to achieving Good Environmental Status and Good Ecological Status under MSFD and WFD respectively (policies S-GES-1c and S-ECO-1c). Other policies aim to improve estuarine water quality and turbidity (Policy S-WQ-1c, S-WQ-2c and S-WC-3c). In addition, this option includes strong policies with regards to the removal of marine litter (policies S-BIO-3c and S-BIO-4c). This should have a positive impact on health.</p>
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<sup>7</sup> The Lancet (2009) The health benefits of tackling climate change An Executive Summary for The Lancet Series



Table C.1: Communities, health and well being				
Option 2	+ IRM	+ IRM	+ IRM	<p>This option may achieve lower reductions in net greenhouse gas emissions (policy S-CC-1a) and protection of communities from the impacts of climate change (policies S-CC-2b, S-CC3b, S-CC-4b, S-CC-5b, S-CC-6b and S-BIO-1b) therefore a lower magnitude of health benefits than the other two options.</p> <p>As for option 1 with regards to seascape protection. This should still have a minor positive effect overall.</p> <p>Policies which encourage, facilitate and protect recreational activities should result in positive outcomes in relation to health and the wider determinants of health. Policy S-TR-4a supports recreation activities. Policy STR-1a aims to protect current activities. Policy S-TR-3a is slightly weaker than options 1 and 3 in that it states that proposals <u>should</u> promote improved access to and within the marine and coastal environment. This should have a minor positive effect on health.</p> <p>This option includes slightly weaker policies aimed at improving water quality (S-GES-1a and S-ECO-1a). This option includes slightly weaker policies within regards to estuarine water quality and turbidity and could result in adverse effects occurring as proposals could proceed if mitigation is not possible (policies S-WQ-1b, S-WQ-2b and S-WQ-3b) and this option includes weaker policies with regards to the removal of marine litter (policies S-BIO-3b and S-BIO-4b). Therefore, the effect on health is likely to be minor positive.</p>
Option 3	+ IRM	+ IRM	+ IRM	<p>Carbon emissions and coastal change as for option 1.</p> <p>As for option 1 with regards to seascape protection. This should have a minor positive effect overall.</p> <p>Policy S-TR-4c supports recreation activities. Policy STR-1c and 2d aim to protect current activities. Policy S-TR-3c aims to increase or maintain public access to the marine environment. Access to the water relates to physical and mental well-being. Adverse effects on access may still be possible but they should be mitigated through this policy. This should have an indirect minor positive effect on health.</p> <p>This option includes slightly stronger policies to improve water quality, though making a positive contribution to achieving Good Environmental Status and Good Ecological Status under MSFD and WFD respectively (policies S-GES-1c, S-BIO-2c and S-ECO-1c). Other policies aim to improve estuarine water quality and turbidity (Policy S-WQ-2b and S-WQ-3b). However, policy S-WQ-2b is slightly weaker in that it could allow adverse impacts to occur as proposals could proceed if mitigation is not possible. Same as option 1 for litter policies. Therefore, the effect on health is likely to be minor positive.</p>

**Table C.1: Communities, health and well being**

<p>draft South Marine Plans</p>	<p>+ <b>IRM</b></p>	<p>+ <b>IRM</b></p>	<p>+ <b>IRM</b></p>	<p>Policy S-CC-1 has been amended to address only greenhouse gas emissions from unintended consequences on other activities. This has reduced the scope of the policy. The draft South Marine Plans state that direct emissions from a proposal are addressed as part of other measures but it is felt that this could be set out more clearly within the document with the signposting being broken down to a greater level of detail. However, the focus of the policy on unintended consequences will be positive.</p> <p>The draft South Marine Plans includes several strong policies on coastal change and adapting to climate change which will improve flood defences (Policy S-CC-2 and S-CC-3). This could have a positive effect. With regard to landscape and seascape, please see the assessment of landscape in Table C.6.</p> <p>In terms of recreation and access policies, Policy S-TR-2 states that proposals must demonstrate that they will not adversely impact tourism and recreation activities. Policy STR-1 states that proposals should support, promote or facilitate tourism and recreation activities. Policy S-ACC-1 states that proposals must avoid adverse impacts on public access to the marine area. Policy S-ACC-2 states that proposals <u>will be supported</u> where they can demonstrate how they will enhance public access to the marine area. Protection for recreational boating has been removed from policy but the issue is discussed in the supporting text. Although this is not as strong a protection as in the options, Policy S-TR-2 will provide some protection.</p> <p>The draft South Marine Plans includes policies on reduction of litter (S-ML-1 and S-ML-2) and these are arguably stronger policies (especially Policy S-ML-2 as it includes a policy that states that the introduction of litter as a result of proposals should be avoided or minimised where practicable. With regard to effects on water quality please see the assessment of water in Table C.7.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>It would be more positive if policy ensured that projects protect recreational boating.</p> <p>The issue of direct greenhouse gas emissions could be set out more clearly within the document and there needs to be safeguards to ensure that all projects and impacts are covered by these other measures. This could be resolved through breaking the signposting down to a greater level of detail which sets out how the mechanisms discussed will impact upon new projects and how this will result in climate change mitigation measures.</p>
<p><b>Coastal communities</b></p>				

Table C.1: Communities, health and well being				
Option 1	+ D R M	+ D R M	+ D R M	<p>Coastal communities will benefit from resilience of the coast to climate change. Option 1 is clear that proposals that unduly affect coastal change will not be supported (policies S-CC-2c, S-CC-4c and S-CC-5c) and that proposals that do not exacerbate coastal squeeze must be supported (policy S-CC-3c). This could have a positive effect.</p> <p>Policies S-WIND-1c and S-TIDE-2c aim to increase social benefits of wind and tidal developments and this option includes policy S-EMP-1c which supports the immediate and future development of the skills base within the local community and enhancement of employment opportunities. This should have a positive effect.</p>
Option 2	+ D R M	+ D R M	+ D R M	<p>Option 2 provides more flexibility but therefore more uncertainty. Policy S-CC-2b steers proposals towards avoiding adverse effects on coastal change but could allow some adverse effects to occur. It also states that proposals that do not exacerbate coastal squeeze should be supported (policy S-CC-3b). This could still have a minor positive effect.</p> <p>Policies in relation to skills are also weaker in Option 2 with regard to Policies S-WIND-1b and S-TIDE-2b and S-EMP-1b which state that increases in social benefits of wind and tidal developments should be supported / access to education should be supported. Although this may be beneficial for communities it may not deliver benefits with regards to skills and employment as quickly as in Options 1 and 3. This could still have a minor positive effect.</p>
Option 3	+ D R M	+ D R M	+ D R M	<p>As for Option 1 in relation to climate change adaptation.</p> <p>As for Option 1, this option includes policy S-EMP-1c which supports the immediate and future development of the skills base within the local community and enhancement of employment opportunities. However, Policies S-WIND-1a and S-TIDE-2a state that proposals which do not adversely impact on social benefits of wind and tidal developments should be supported, which is slightly less strong compared to Option 1. This could still have an minor positive effect on coastal communities</p>

Table C.1: Communities, health and well being				
Draft South Marine Plans	+ D R M	+ D R M	+ D R M	<p>The draft South Marine Plans include several strong policies on coastal change and adapting to climate change which will improve flood defences (Policy S-CC-2 and S-CC-3). This could have a positive effect.</p> <p>The policies on skills and employment developed for the draft South Marine Plans S-EMP-1 and S-EMP-2 have been made less specific to wind and tidal energy so will be positive for a range of sectors. They are positive in that they will support development of skills and increases in employment. This could have a minor positive effect on coastal communities</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>The draft South Marine Plans would have a more positive effect on skills and employment if the relevant policies ensured that all proposals actively supported skills and employment.</p>
Fishing communities				
Option 1	++ D R M	++ D R M	++ D R M	<p>This option includes several policies aimed at protecting the fishing industry and recreational fishing activities. Option 1 includes strong policies aimed at protecting feeding grounds, migration routes and spawning areas (policy S-FISH-1c), reducing the effects of spoil disposal (policy S-DD-1c ), protecting fishing activity (policy S-FISH-2c) and policy S-GOV-1b which limits displacement of current marine activities, supporting the fishing industry (policy S-FISH-3b) and the provision of infrastructure including co-location, redistribution or diversification of infrastructure in support of the fishing and aquaculture industries (policy S-AQ-2a). Policy S-BIO-2a is also positive in that it will help to reduce the introduction on non-indigenous species. These policies should have a significant positive effect on fishing communities.</p>
Option 2	+ D R M	+ D R M	+ D R M	<p>This option performs the same as Option 1 but with more flexibility and therefore uncertainty and more potential for adverse effects being minimised or mitigated rather than avoided (policies S-FISH-1b, S-FISH-2b, and S-AQ-2a). The policy on dredging and disposal sites is also weaker. (Policy S-DD-1b). Policy S-BIO-2a is positive in that it will help to reduce the introduction on non-indigenous species.</p>

Table C.1: Communities, health and well being				
Option 3	++ DRM	++ DRM	++ DRM	Similarly to Option 1, Option 3 contains a number of strong policies supporting the fishing industry and communities, but includes some which are more prescriptive e.g. policy S-FISH-3c which states that proposals that support the diversification of the fishing industry and or enhances fishing industry resilience to the effects of climate change will be supported. Policy S-FISH-2d states that displacement of fishers from areas of fishing activity must not be supported unless adverse impacts can be minimised or mitigated. These policies should have a significant positive effect on fishing communities. Policy S-BIO-2c is also positive in that it will help to reduce the introduction on non-indigenous species although a slightly weaker policy than S-BIO-2a.
Draft South Marine Plans	++ DRM	++ DRM	++ DRM	<p>The draft South Marine Plans also include many policies related to protecting the fishing industry. With regard to protecting feeding grounds, policy S-FISH-4 is stronger on protecting essential habitats than any of the options and the draft South Marine Plans also include additional protection for herring through policy S-FISH-4-HER. However, the policy on dredging and disposal sites is slightly weaker (policy S-DD-2) than options 1 and 3. Policy S-NIS-1: is also positive in that it will help to reduce the introduction on non-indigenous species and is worded more strongly than any of the other options. With regard to promoting fishing activity, S-FISH-2 is worded as strongly as the option chosen and has been supplemented with the addition of policy S-FISH-3 which states that proposals that enhance access to, or within sustainable fishing or aquaculture sites will be supported. In addition policy S-SOC-1 limits displacement of current marine activities. With regard to supporting the industry, supporting the fishing industry policy S-FISH-1 is positive in that it is a strong policy protecting the industry and has also now applies specially to the sustainable fishing industry. Policy S-INF-1 and Policy S-AQ-2 are positive in that they will help to support infrastructure for fishing. Overall the effect of the policies on fishing communities should be positive.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>None</p>
<b>Tourism focused communities</b>				

Table C.1: Communities, health and well being				
Option 1	+ IRM	+ IRM	+ IRM	<p>Policies which encourage, facilitate and protect recreational activities should result in positive outcomes in relation to tourism. Policy S-TR-4b supports recreation activities. Policy STR-1b and 2d aim to protect current activities. Policy S-TR-3b aims to increase or maintain public access to the marine environment. Access to the water relates to physical and mental well-being. Adverse effects on access may still be possible but they should be mitigated through this policy. This should have a minor positive effect.</p> <p>Policies which aim to improve bathing water quality and remove marine litter could have a direct positive impact on tourism. This option includes strong policies related to improving water quality, though making a positive contribution to achieving Good Environmental Status and Good Ecological Status under MSFD and WFD respectively (policies S-GES-1c and S-ECO-1c). Other policies aim to improve estuarine water quality and turbidity (Policy S-WQ-1c, S-WQ-2c and S-WC-3c). In addition, this option includes strong policies with regards to the removal of marine litter (policies S-BIO-3c and S-BIO-4c). This should have a positive impact on tourism.</p>
Option 2	+ IRM	+ IRM	+ IRM	<p>Policies which encourage, facilitate and protect recreational activities should result in positive outcomes in relation to tourism. Policy S-TR-4a supports recreation activities. Policy STR-1a aims to protect current activities. Policy S-TR-3a is slightly weaker than options 1 and 3 in that it states that proposals <u>should</u> promote improved access to and within the marine and coastal environment. This should have a minor positive effect on tourism.</p> <p>This option includes slightly weaker policies aimed at improving water quality (S-GES-1a and S-ECO-1a). This option includes slightly weaker policies within regards to estuarine water quality and turbidity and could result in adverse effects occurring as proposals could proceed if mitigation is not possible (policies S-WQ-1b, S-WQ-2b and S-WQ-3b) and this option includes weaker policies with regards to the removal of marine litter (policies S-BIO-3b and S-BIO-4b). Therefore, the effect on tourism is likely to be minor positive.</p>
Option 3	+ IRM	+ IRM	+ IRM	<p>Policy S-TR-4c supports recreation activities. Policy STR-1c and 2d aim to protect current activities. Policy S-TR-3c aims to increase or maintain public access to the marine environment. Access to the water relates to physical and mental well-being. Adverse effects on access may still be possible but they should be mitigated through this policy. This should have an indirect minor positive effect on tourism.</p> <p>This option includes slightly stronger policies to improve water quality, though making a positive contribution to achieving Good Environmental Status and Good Ecological Status under MSFD and WFD respectively (policies S-GES-1c, S-BIO-2c and S-ECO-1c). Other policies aim to improve estuarine water quality and turbidity (Policy S-WQ-1c, S-WQ-2b and S-WQ-3b). However, policy S-WQ-2b is slightly weaker in that it could allow adverse impacts to occur as proposals could proceed if mitigation is not possible. Same as option 1 for litter policies. Therefore, the effect on tourism is likely to be minor positive.</p>

Table C.1: Communities, health and well being				
draft South Marine Plans	+ <b>IRM</b>	+ <b>IRM</b>	+ <b>IRM</b>	<p>In terms of recreation and access policies, Policy S-TR-2 states that proposals must demonstrate that they will not adversely impact tourism and recreation activities. Policy STR-1 states that proposals should support, promote or facilitate tourism and recreation activities. Policy S-ACC-1 states that proposals must avoid adverse impacts on public access to the marine area. Policy S-ACC-2 states that proposals <u>will be supported</u> where they can demonstrate how they will enhance public access to the marine area. Protection for recreational boating has been removed from policy but the issue is discussed in the supporting text. Although this is not as strong a protection as in the options, Policy S-TR-2 will provide some protection.</p> <p>The draft South Marine Plans include policies on reduction of litter (S-ML-1 and S-ML-2) and these are arguably stronger policies (especially Policy S-ML-2 as it includes a policy that states that the introduction of litter as a result of proposals should be avoided or minimised where practicable. With regard to effects on water quality please see the assessment of water in Table C.7. The overall effect of the draft South Marine Plans is minor positive.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>It would be more positive if policy ensured that projects protect recreational boating.</p>
<b>Key impact interactions(draft South Marine Plans)</b>	<p>Impacts on the environment and especially those that cause effects on landscape and seascape character, litter and bathing water quality should have secondary impacts on health, tourism and recreation.</p> <p>There are close links between employment and skills policies and effects on coastal communities</p> <p>Impacts on water quality, contaminants, pollution and benthic communities will have secondary impacts on fishing and fishing communities.</p> <p>There is also a strong link to recreation and tourism which is founded on a clean and safe environment (including clean bathing water).</p>			
<b>Uncertainties (draft South Marine Plans)</b>	None specific to the subject area			

**Table C.2: Cultural Heritage**

<p>Potentially sensitive receptors/receptor groups</p>	<ul style="list-style-type: none"> <li>• Marine heritage assets (both designated and non-designated) such as ship and aircraft wrecks and submerged prehistoric deposits and artefacts.</li> <li>• Coastal heritage assets (both designated and non-designated) including buildings, structures, works, sites, parks, gardens and other places that are important for their heritage value, ranging from early prehistory to the modern period.</li> </ul>	
<p>Current and future baseline conditions in absence of draft South Marine Plans</p>	<p>Current</p>	<ul style="list-style-type: none"> <li>• The marine plan area – from Samphire Hoe near Dover to Dartmouth -- is home to a large number of heritage assets. Relatively few heritage assets within the marine area (i.e. below high water) are subject to statutory designation</li> <li>• There are 17 Protected Wrecks in the plan area, plus a small number of Scheduled Monuments (such as the Solent forts and the D-Day Phoenix Caisson off Littlestone-on-Sea) and Listed Buildings (such as Beachy Head Lighthouse and various piers)</li> <li>• Non-designated heritage assets in the marine plan area include hundreds of merchant vessels and warships lost in the First and Second World War, when the south coast was a critical conduit for transport and for the conduct of each war. There is also high potential for the presence of aircraft wrecks from the Second World War in particular.</li> <li>• Several discoveries and investigations in the marine plan area point to the presence in the marine plan area of extensive prehistoric land surfaces and deposits which are of tremendous significance to our understanding of the early history of Britain and for the effects of climate change.</li> <li>• The coast adjacent to the plan area contains numerous heritage assets that are subject to statutory designation including Listed Buildings, Scheduled Monuments, Conservation Areas and Registered Historic Parks and Gardens. There are many more heritage assets at the coast that are not designated but which may be of equivalent importance.</li> <li>• Activities directed at heritage assets, including investigations by professional archaeologists and by community groups and volunteers, are an important feature of the marine plan area. Where archaeological investigations require a marine licence, then they are subject to the full range of policies applicable to proposals in the marine plan area.</li> </ul>
	<p>Future</p>	<ul style="list-style-type: none"> <li>• The protection of non-designated heritage assets within the marine plan area is subject to piecemeal consideration in the course of licensing, resulting in unmitigated damage to some heritage assets; and uncertain and uneven expectations with respect to provision by developers for the historic environment in their proposals.</li> <li>• Proposals in the marine plan area damage the setting of heritage assets on the adjacent coast.</li> <li>• Access to heritage assets for tourism and recreation in the marine plan area is prevented or interrupted by poor siting of proposals and by disruption associated with construction.</li> <li>• Opportunities are lost to make full use of the social and economic benefits of heritage in the course of regenerating coastal areas.</li> <li>• Archaeological investigations are able to proceed without being subject to other plan policies.</li> <li>• Proposals result in adverse impacts on coastal change, which cause erosion that damages and destroys heritage assets at the coast and on the seabed.</li> <li>• The absence of heritage data – especially for the South Offshore marine plan area – continues to hinder effective management of the historic environment.</li> </ul>
<p><b>Likely changes from baseline conditions as a result of draft South Marine Plans</b></p>		



Table C.2: Cultural Heritage				
	Within plan review period	Within currency of plans	Beyond currency of plans	Summary
<b>Coastal assets</b>				
Option 1	?	?	?	<p>Coastal change and coastal squeeze are a key threat to coastal heritage assets and option 1 is clear that proposals that unduly affect coastal change will not be supported (policy S-CC-2c) and that proposals that do not exacerbate coastal squeeze <u>must</u> be supported (policy S-CC-3c).</p> <p>The option sets out a number of policies on climate change. By improving the resilience of the plan area to climate change this will have positive effects on heritage through helping to preserve artefacts and protect against the effects of coastal change.</p> <p>All of the policies which could result in infrastructure development could pose a threat to heritage and should consider mitigation within the policy. However, the effect of this would be neutral as the relevant policies include safeguards. For example, the S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>) and policy S-HER-1c will also provide protection for certain assets.</p> <p>The option sets out a policy on heritage assets (S-HER-1c) which states that proposals will avoid compromising or harming newly-discovered or non-designated heritage assets. This is a clearly worded policy and will have a positive effect for newly discovered or non-designated heritage assets. However, it is unclear whether the Marine Plan has influence over the effects on designated assets. If this is not the case this will need to be explained in the draft South Marine Plans. This is an uncertainty.</p>
Option 2	?	?	?	<p>Option 2 is more flexible in relation to the effects that proposals can have on coastal change (policy S-CC-2b) and it also states that proposals that do not exacerbate coastal squeeze <u>should</u> be supported (policy S-CC-3b). However, this option could result in adverse impacts on archaeology. This policy needs to be clearer on the issues that will need to be mitigated. The preservation/recording of coastal heritage assets will be key.</p> <p>All of the policies which could result in infrastructure development could pose a threat to heritage and should consider mitigation within the policy. However, the effect of this would be neutral as the relevant policies include safeguards. For example, the S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>) and policy S-HER-1b will also provide protection for certain assets (albeit a lesser form of protection than S-HER-1c).</p> <p>The option sets out a policy on heritage assets (S-HER-1b) which states that proposals should (rather than will) avoid compromising or harming newly-discovered or non-designated heritage assets. This is a less strongly worded policy so will have a more limited positive effect as it is unclear at this stage how the policy will be implemented. In addition, there is the same concern that it is unclear whether the Marine Plan has influence over the effects on designated assets. If this is not the case this will need to be explained in the draft South Marine Plans. This is an uncertainty.</p>

Table C.2: Cultural Heritage				
Option 3	?	?	?	As Option 1
draft South Marine Plans	?	?	?	<p>The effect of the draft South Marine Plans on coastal heritage assets is uncertain because the draft policy on heritage (S-HER-1) refers only to 'newly-discovered heritage assets' and 'non-designated assets that are yet to be assessed for designation'. The policy makes no reference to other classes of heritage asset, such as<sup>8</sup>.</p> <p>The approach to selectivity in the draft policy is also different from Options 1-3 and does not reflect the approach of the UK Marine Policy Statement (UK MPS) although it is acknowledged that the safeguards of the MPS remain in place<sup>9</sup>.</p> <p>The effect of the draft South Marine Plans is also uncertain because of the way in which the policy is framed, i.e. 'Proposals with the potential to have a significant adverse impact [on heritage assets] are more likely to be supported if ...'. This suggests a presumption to support proposals that have significant adverse impacts on heritage assets, which contrasts with Options 1-3 considered previously and the way that other receptors are treated in the draft South Marine Plans. The uncertain effect of the draft South Marine Plans with respect to coastal heritage assets is all the greater because the presumption in the draft policy seems to be at odds with the UK MPS<sup>10</sup>.</p> <p>Therefore, the effect is uncertain – because the draft policy on heritage appears not to offer equivalent provision for identifying and conserving heritage assets relative to current practice and to the provisions of the UK MPS and related policies.</p> <p>However, there are a number of policies that could have positive effects on coastal heritage assets, including the following S-TR-1 on promoting and facilitating tourism and recreation; S-EMP-1 on developing skills; S-SOC-1 on displacing existing beneficial activities; S-TR-2 on impacts on recreation and tourism during construction etc; S-ACC-1 on impacts on public access; S-ACC-2 on enhancing public access; S-CC-4 on proposals that have an adverse impact on coastal change; S-NIS-1 on non-indigenous species (which may degrade heritage assets).</p>

<sup>8</sup> designated assets that remain subject to proposals under the (marine) planning system; non-designated assets that are not going to be assessed because of limitations in statutory provision (e.g. prehistoric 'sites without structures'); non-designated assets that are not going to be assessed because designation is not appropriate irrespective of their importance; and non-designated assets that have been assessed and remain undesignated

<sup>9</sup> The UK MPS makes express reference to the need for marine plan authorities to consider important non-designated heritage assets as being subject to the same policy principles as designated heritage assets (as reiterated in para. 3.6.9. of the draft SMPs)

<sup>10</sup> The UK MPS states that 'heritage assets ... should be conserved through marine planning in a manner appropriate and proportionate to their significance. ... The more significant the asset, the greater should be the presumption in favour of its conservation. Substantial loss or harm to designated assets [and non-designated assets of equivalent significance] should be exceptional, and should not be permitted unless it can be demonstrated that the harm or loss is necessary in order to deliver social, economic or environmental benefits that outweigh the harm or loss'.

Table C.2: Cultural Heritage				
				<p><b>Mitigation for uncertain and uncertain effects</b></p> <p>The uncertain effects of the draft South Marine Plans could be mitigated by rewording the draft policy on heritage so that it is comprehensive in its application to different categories of heritage asset, including heritage assets and their settings; gives effect to a presumption on proposals that affect the conservation of heritage assets that is consistent with the UK MPS and other relevant policies; and is able to balance other plan policies that are likely to have a negative effect on heritage assets.</p>
Likely changes from baseline conditions as a result of draft South Marine Plans				
	Within plan review period	Within currency of plans	Beyond currency of plans	Summary
Marine assets				
Option 1	?	?	?	<p>All of the policies which could result in infrastructure development could pose a threat to heritage and should consider mitigation within the policy. However, the effect of this would be neutral as the relevant policies include safeguards. For example, the S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>) and policy S-HER-1c will also provide protection for certain assets.</p> <p>The option sets out a policy on heritage assets (S-HER-1c) which states that proposals will avoid compromising or harming newly-discovered or non-designated heritage assets. This is a clearly worded policy and will have a positive effect for newly discovered or non-designated heritage assets. However, it is unclear whether the Marine Plan has influence over the effects on designated assets. If this is not the case this will need to be explained in the draft South Marine Plans. This is an uncertainty.</p>
Option 2	?	?	?	<p>All of the policies which could result in infrastructure development could pose a threat to heritage and should consider mitigation within the policy. However, the effect of this would be neutral as the relevant policies include safeguards. For example, the S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>) and policy S-HER-1b will also provide protection for certain assets (albeit a lesser form of protection than S-HER-1c).</p> <p>The option sets out a policy on heritage assets (S-HER-1b) which states that proposals should (rather than will) avoid compromising or harming newly-discovered or non-designated heritage assets. This is a less strongly worded policy so will have a more limited positive effect as it is unclear at this stage how the policy will be implemented. In addition, there is the same concern that it is unclear whether the Marine Plan has influence over the effects on designated assets. If this is not the case this will need to be explained in the draft South Marine Plans. This is an uncertainty.</p>
Option 3	?	?	?	As Option 1

**Table C.2: Cultural Heritage**

Draft South Marine Plans	?	?	?	<p>The effect of the draft South Marine Plans on marine heritage assets is uncertain because the draft policy on heritage (S-HER-1) refers only to 'newly-discovered heritage assets' and 'non-designated assets that are yet to be assessed for designation'. The policy makes no reference to other classes of heritage asset, such as<sup>11</sup>.</p> <p>The approach to selectivity in the draft policy is markedly different from Options 1-3 and does not reflect the approach of the UK Marine Policy Statement (UK MPS) although it is acknowledged that the safeguards of the MPS remain in place.<sup>12</sup></p> <p>The effect of the draft South Marine Plans is also uncertain because of the way in which the policy is framed, i.e. 'Proposals with the potential to have a significant adverse impact [on heritage assets] are more likely to be supported if ...'. This suggests a presumption to support proposals that have significant adverse impacts on heritage assets, which contrasts with Options 1-3 considered previously and also contrasts with the approach taken and the approach taken towards other important receptors in the draft South Marine Plans.</p> <p>The uncertain effect of the draft South Marine Plans with respect to coastal heritage assets is all the greater because the presumption in the draft policy seems to be at odds with the UK MPS<sup>13</sup>.</p> <p>Moreover, the draft policy on heritage makes no reference to the conduct of archaeological investigations as a heritage activity within the marine plan area, where those investigations require a licence and become 'proposals' for the purposes of the marine plan. For example, the draft policy does not indicate whether proposals for archaeological investigations will be supported; nor does it indicate what prerequisites or conditions – such as adherence to applicable policies and guidance – would apply to such support.</p> <p>There needs to be clarification regarding the policies supporting certain types of development. Policy S-OG-1 regarding oil and gas development, Policy S-AQ-2 on aquaculture and Policy S-INF-1 could be deemed to have higher priority than other plan activities or environmental sensitivities due to the way the</p>
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<sup>11</sup> designated assets that remain subject to proposals under the (marine) planning system; non-designated assets that are not going to be assessed because of limitations in statutory provision (e.g. prehistoric landsurfaces and deposits; heritage assets in the Offshore marine plan area); non-designated assets that are not going to be assessed because designation is not appropriate irrespective of their importance; non-designated assets that have been assessed and remain undesignated; and as-yet undiscovered heritage assets that have the potential to be present in marine areas.

<sup>12</sup> The UK MPS makes express reference to the need for marine plan authorities to consider important non-designated heritage assets as being subject to the same policy principles as designated heritage assets (as reiterated in para. 369 of the draft South Marine Plan). The UK MPS also makes specific reference to the potential for previously unknown assets to be discovered (para. 2.6.6.6).

<sup>13</sup> The UK MPS states that 'heritage assets ... should be conserved through marine planning in a manner appropriate and proportionate to their significance. ... The more significant the asset, the greater should be the presumption in favour of its conservation. Substantial loss or harm to designated assets [and non-designated assets of equivalent significance] should be exceptional, and should not be permitted unless it can be demonstrated that the harm or loss is necessary in order to deliver social, economic or environmental benefits that outweigh the harm or loss'.

**Table C.2: Cultural Heritage**

			<p>policies are phrased. It is accepted that the plan should be read as a whole and paragraph 32 states that all decision should be compliant with relevant legislation including those related to habitats and environmental impact assessment. However, these policies do give rise to uncertainty regarding the potential impact on the sustainability objectives considered within the SA as it is left to the supporting text to guide the applicant in the consideration of potential sustainability effects. Therefore, there is a mismatch between supporting text and the policies. For example, paragraph 79 (referencing the oil and gas policy) states that “This policy gives clarity on how national policy is applied where other activities may want to use the same space.” However, the policy does not seem to do this.</p> <p>Several policies are likely to have a negative effect on proposals for licensable archaeological activities. For example, draft policy S-AGG-1 on aggregates would seem to present an obstacle to archaeological investigations that require a marine licence within licensed extraction areas, even though archaeological investigations are very unlikely to detract in any way from aggregate dredging (the supporting text for this policy does give some guidance on how this policy is interpreted but as it stands the policy as worded is very prescriptive and is at odds with the supporting text). This problem arises where draft policies do not include a threshold of significance for potential impacts, i.e. the policy applies to all proposals however insignificant their impacts are likely to be.<sup>14</sup> draft South Marine Plans policies that create disproportionate barriers to archaeological proposals will have a negative effect on marine heritage assets.</p> <p>There are a number of policies that could have a positive effect on marine heritage assets, including S-TR-1 on promoting and facilitating tourism and recreation; S-EMP-1 on developing skills; S-SOC-1 on displacing existing beneficial activities; S-TR-2 on impacts on recreation and tourism during construction etc; S-ACC-1 on impacts on public access; S-ACC-2 on enhancing public access; S-CC-4 on proposals that have an adverse impact on coastal change; S-NIS-1 on non-indigenous species (which may degrade heritage assets).</p> <p>Overall, the policies with positive effects are negated by the uncertain effects of the draft policy on heritage, as outlined above.</p> <p><b><u>Mitigation for uncertain and uncertain effects</u></b></p> <p>The uncertain effects of the draft South Marine Plans could be mitigated by rewording the draft policy on heritage so that it is comprehensive in its application to different categories of heritage asset, including heritage assets and their settings outside the marine plan area; gives effect to a presumption on proposals that affect the conservation of heritage assets that is consistent with the UK MPS and other relevant policies; is able to balance other plan policies that are likely to have a negative effect on heritage assets</p> <p>Policy S-AGG-1 should be reworded as it is very prescriptive and is at odds with the supporting text). This</p>
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<sup>14</sup> For example, draft policy S-FISH-2 would require a community archaeology project to demonstrate the impact on fishing or aquaculture of a licensable archaeological investigation. A similar expectation is expressed with respect to MPAs (S-MPA-1) and sound (e.g. from excavation equipment) (S-UWN-2).

Table C.2: Cultural Heritage				
				<p>will ensure that the policy supports archaeological proposals that are consistent with applicable policies and guidance.</p> <p>There is a mismatch between supporting text and the policies (specifically S-OG-1, S-AQ-2 and S-INF-1). The policies as worded imply that these activities will be supported in preference to other considerations. The supporting text does contain information regarding environmental safeguards and issues related to co-existence with other activities (and there is existing protection through other measures). However, we would recommend a stronger link between policy wording and supporting text.</p> <p><b><u>Enhancement measures</u></b></p> <p>None</p>
<b>Key impact interactions(draft South Marine Plans)</b>	<p>The key impact interactions are between heritage and:</p> <ul style="list-style-type: none"> <li>• Policies that support activities and uses that can have adverse direct and indirect impacts on heritage assets and their settings, both within and adjacent to the marine plan area;</li> <li>• Policies that preclude or create disproportionate barriers to archaeological proposals; and</li> <li>• Policies on tourism, recreation, skills, public access etc. that could increase the environmental, economic and social benefits that arise from heritage assets within and adjacent to the marine plan area. Heritage assets both in and adjacent to the marine plan area are of fundamental importance to tourism and recreation. Although largely unquantified, heritage within and adjacent to the marine plan area gives rise to significant social and economic benefits.</li> </ul>			
<b>Uncertainties (draft South Marine Plans)</b>	<p>A major uncertainty is the lack of archaeological records for the South Offshore plan area. The accompanying map on p. 122 does not make it clear that the source used for historic shipwrecks only provides a systematic record of the Inshore area alone, giving a misleading impression of the overall extent of marine heritage assets.</p>			

**Table C.3: Marine Ecology**

<p>Potentially sensitive receptors/receptor groups</p>	<ul style="list-style-type: none"> <li>• Plankton, benthos, fish, shellfish, elasmobranches, diadromous species, cephalopods</li> <li>• Birds</li> <li>• Marine Mammals</li> </ul>
<p>Current and future baseline conditions in absence of Draft South Marine Plans</p>	<p>Current</p> <ul style="list-style-type: none"> <li>• Marine Protected Areas and existing legislation such as Marine Licensing currently afford protection to habitats and species within designated habitat.</li> <li>• Anthropogenic activities such as shipping, commercial fishing and oil and gas exploration produce marine noise which may affect marine mammals, fish and cephalopods.</li> </ul> <p><u>Species specific baseline:</u></p> <ul style="list-style-type: none"> <li>• Plankton - There is a low overall plankton biomass in the plan area.</li> <li>• Benthos - The English Channel is a biogeographical transition zone for many benthic species. The benthic habitats and species found within the area are typical of those found in north eastern Atlantic waters. Elasmobranchs - A number of elasmobranchs are present within the English Channel, with large open water species such as blue, thresher and porbeagle sharks occasionally reported. Dogfish and rays are relatively common and basking sharks are also occasionally sighted.</li> <li>• Diadromous species - Diadromous species e.g. eels are relatively abundant within the plan area, however the future outlook is of major concern.</li> <li>• Fish - The Channel supports a highly diverse species of invertebrates which are prey for pelagic and demersal species. The area supports important spawning and nursery grounds.</li> <li>• Shellfish - Substantial shellfish grounds are found along the coastline of the plan area. There are a number of aquaculture initiatives taking place in the marine plan area, with mussels, oysters, clams, cockles and scallops all being cultivated. The Solent native oyster fishery is currently closed due to low population numbers.</li> <li>• Cephalopods - Cephalopods molluscs such as squid, octopus and cuttlefish are present within the plan area.</li> <li>• Birds - The plan area has a range of estuarine and coastal habitats that are notable for breeding, wintering and passage bird species. In addition, the English Channel is a major migration route for a large number of species.</li> </ul>
	<p>Future</p> <ul style="list-style-type: none"> <li>• Climate change impacts such as rising sea temperatures, decreasing salinity, ocean acidification and rising sea levels pose a challenge to habitats and species will lead to some to a decline species and habitats whilst benefitting others.</li> <li>• Fishing impacts include the potential depletion of commercial fish stocks, damage to benthic habitats, and negative effects on seabirds, marine reptiles and cetaceans.</li> <li>• There is the potential for the spread of non-native species due to climate change which, when coinciding the introduction of hard substrates from offshore activities and developments to act as 'stepping stones' in the migration of non-native species.</li> <li>• Ocean acidification is predicted to have a negative impact on calcifying organisms which will resonate at higher trophic levels.</li> <li>• There is likely to be impacts upon benthic communities as a result of aggregate extraction, renewable energy installations and other anthropogenic activities</li> <li>• Species disturbance may arise from recreation activities, barrier and collision risk associated with offshore development.</li> <li>• The Marine Strategy Framework Directive sets out a number of key indicators of Good Environmental Status (GES) that each member state must work towards achieving by 2020.</li> </ul>
<p><b>Likely changes from baseline conditions as a result of draft South Marine Plans</b></p>	

Table C.3: Marine Ecology				
	Within plan review period	Within currency of plans	Beyond currency of plans	Summary
<b>Plankton</b>				
Option 1	+ D R M	+ D R M	+ D R M	<p>The main determinant of the health of plankton is water quality and water temperature. Some areas (particularly the Solent) have major water quality issues and changes due to climate change could also cause declines in plankton numbers or changes to their diversity.</p> <p>The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. The effect of this would be neutral as the relevant policy include safeguards. The S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>).</p> <p>This option includes strong policies related to improving water quality, though making a positive contribution to achieving Good Environmental Status and Good Ecological Status under MSFD and WFD respectively (policies S-GES-1c and S-ECO-1c).</p>
Option 2	+ D R M	+ D R M	+ D R M	<p>The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. The effect of this would be neutral as the relevant policy include safeguards. The S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>).</p> <p>This option includes slightly weaker policies aimed at improving water quality (S-GES-1a and S-ECO-1a) However, these should still have minor positive effects on water pollution.</p>
Option 3	+ D R M	+ D R M	+ D R M	<p>The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. The effect of this would be neutral as the relevant policy include safeguards. The S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>).</p> <p>This option includes slightly stronger policies though making a positive contribution to achieving Good Environmental Status and Good Ecological Status under MSFD and WFD respectively (policies S-GES-1c, S-BIO-2c and S-ECO-1c).</p>



**Table C.3: Marine Ecology**

Draft South Marine Plans	+ /- D R M	+ /- D R M	+ /- D R M	<p>The key policies with the potential to negatively affect plankton communities include S-OG-1, S-INF-1, S-AQ-1 and S-AQ-2 which all relate to the promotion of industrial activities and infrastructure installations. S-OG-1 for example is likely to contribute to an increase in carbon emissions from the areas of interest, with subsequent impacts likely to be devolved upon plankton communities through processes pertaining to climate change. S-AQ-1 and S-AQ-2 may contribute to localised increases in nutrient loads in the water column, increasing the likelihood of occurrence of plankton blooms. Depending on the scale and scope of development encouraged through the adoption of S-INF-1 further negative impacts may be devolved upon plankton communities through reductions in water quality in areas that are already experiencing the net effects of such an environmental pressure. Overall, the scale of the potential negative effects of these policies will be determined by the extent to which the developments which they are designed to promote are carried forwards, as will the extent to which these activities are well-regulated and well-managed.</p> <p>Some of the policies will have a minor positive effect on plankton populations include, but are not limited to, policies such as S-CO-1, S-MPA-1, S-NIS-1, S-BIO-2, S-WQ-1 and S-WQ-2. For instance, the adoption of policies S-WQ-1 and S-WQ-2 is likely to have a beneficial effect on plankton communities as these policies will contribute to the promotion of increased water quality across the plan areas. S-CC-1 is likely to contribute to the protection of plankton populations given that it may help to reduce carbon emissions across the plan area. The other policies noted above are also likely to result in minor positive effects on the plankton communities which occur across the area of interest.</p>
<b>Seabed habitats/benthos</b>				

Table C.3: Marine Ecology				
Option 1	+ D R M	+ D R M	+ D R M	<p>Climate change could cause rising sea temperatures, decreasing salinity and rising sea levels. Physical changes such as coastal change would affect coastal habitats and the temperature and salinity of the water will determine the diversity of benthos.</p> <p>This option includes a strong policy to reduce greenhouse gas emissions (S-CC-1c). On a macro scale, this could reduce impacts on seabed habitats and benthos.</p> <p>Policies will also seek to ensure that proposals build in climate resilience beyond their projected lifespan, without harming the environment's resilience to the effects of climate change. The overall effect of this option will be to lessen coastal squeeze and coastal change. Policies such as S-BIO-1c and S-BIO-6b will be particularly positive in safeguarding habitats that provide flood defence and/or carbon sequestration.</p> <p>Seafloor integrity is one of the targets related to achieving Good Environmental Status under the MFSD and Policy S-GES-1c states that proposals must incorporate factors that avoid compromising the achievement of these objectives.</p> <p>Other policies address introduction on non-native species and the impacts of dredging and disposal (policies S-BIO-2a and S-DD-1c) and these will all be positive.</p> <p>The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. The effect of this would be neutral as the relevant policy include safeguards. The S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>).</p>
Option 2	+ D R M	+ D R M	+ D R M	<p>This option may achieve lower reductions in net greenhouse gas emissions (policy S-CC-1a) compared to options 1 and 3 and is therefore slightly weaker than options 1 and 3.</p> <p>Negative effects on coastal change should be on the whole avoided, and coastal squeeze should be lessened overall. However, there may be some areas where coastal squeeze is being exacerbated, with localised negative social and environmental effects.</p> <p>With regard to habitats that provide flood defence and/or carbon sequestration, Policy S-BIO-1b, S-BIO-6a are slightly more flexible than S-BIO-1c and S-BIO-6b. They provide less certainty so will have a slightly less positive effect.</p> <p>With regard to seafloor integrity, Policy S-GES-1a is a lower strength policy in that it states that proposals should (rather than must) take account of the achievement of Good Environmental Status. This does not provide as much protection as Options 1 and 3</p> <p>Other policies address introduction on non-native species and the impacts of dredging and disposal (policies S-BIO-2a and S-DD-1b) and these will all be positive.</p> <p>The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. The effect of this would be neutral as the relevant policy include safeguards. The S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>).</p>

**Table C.3: Marine Ecology**

Option 3	+ <b>DRM</b>	+ <b>DRM</b>	+ <b>DRM</b>	<p>This option includes a strong policy to reduce greenhouse gas emissions (S-CC-1c) (the same policy as option 1). On a macro scale, this could reduce impacts on seabed habitats and benthos.</p> <p>There should be increasing numbers of proposals that build in climate resilience beyond their projected lifespan. Negative effects on coastal change should have been avoided, and coastal squeeze should be lessened overall, though in some places it may still be an issue. Policies such as S-BIO-1c will be particularly positive in safeguarding habitats that provide flood defence and/or carbon sequestration. Policy S-BIO-6c will be particularly positive in that it states that proposals must increase the extent of priority habitats.</p> <p>The effect on seafloor integrity and Good Environmental Status is as Option 1.</p> <p>Other policies address introduction on non-native species and the impacts of dredging and disposal (policies S-BIO-2c and S-DD 1c). The policy on non-native species is more stringent than options 2 and 3 so will have a more definite positive effect.</p> <p>The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. The effect of this would be neutral as the relevant policy include safeguards. The S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>).</p>
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**Table C.3: Marine Ecology**

<p>Draft South Marine Plans</p>	<p><b>+ / - / ?</b> <b>DRM</b></p>	<p><b>+ / - / ?</b> <b>DRM</b></p>	<p><b>+ / - / ?</b> <b>DRM</b></p> <p>There needs to be clarification regarding the policies supporting certain types of development. Policy S-OG-1 regarding oil and gas development, Policy S-AQ-2 on aquaculture and Policy S-INF-1 could be deemed to have higher priority than other plan activities or environmental sensitivities due to the way the policies are phrased. It is accepted that the draft South Marine Plans should be read as a whole and paragraph 32 states that all decision should be compliant with relevant legislation including those related to habitats and environmental impact assessment. However, these policies do give rise to uncertainty regarding the potential impact on the sustainability objectives considered within the SA as it is left to the supporting text to guide the applicant in the consideration of potential sustainability effects. Therefore, there is a mismatch between supporting text and the policies. For example, paragraph 79 (referencing the oil and gas policy) states that “This policy gives clarity on how national policy is applied where other activities may want to use the same space.” However, the policy does not seem to do this.</p> <p>Other policies which could cause negative impacts include S-AQ-1, S-CAB-2, S-FISH-3 S-AQ-1, and S-FISH-3. These may affect the seabed, particularly in areas where caged fish are kept, through changes to the seafloor arising from deposition of particulate matter. S-CAB-2 may result in localised and temporary destruction of benthic habitats. The overall extent of the negative impacts to the benthos caused by these activities will depend upon the scale of the activities themselves, as-well-as the manner in which these activities are managed.</p> <p>A number of policies were noted as being likely to have a minor positive impact upon the benthos of the relevant area. Policies such as S-WQ-1 and S-WQ-2, S-FISH-4, S-BIO-1, S-BIO-2, S-CC-4, S-CC-3, S-CC-2 were noted to be such policies. S-CC-3 and S-CC-4 should help to mitigate the impacts of coastal squeeze across the area. S-BIO-1, S-WQ-1 and S-WQ-2 will help to promote the integrity of the wider South Coast ecosystem, whilst S-FISH-4 will help to indirectly protect benthic habitats which help to support fish populations. S-BIO-4 which will require developers to demonstrate how they will avoid reducing the distribution and net extent of priority habitats. Hence, it has been classified as having the potential to make a minor positive contribution to the status of the benthos of the area of interest. The strength of this contribution could be increased through making references to habitat quality as well as distribution and extent.</p> <p>Other positive policies include, but are not limited to: S-DD-2 which may reduce the need for the disposal of dredge material at sea; S-BIO-3 which will help to limit the squeeze of benthic habitats at coastal margins; S-NIS-1 which will help to limit the risk of new introductions and the spread of known non-native species. These policies all provide better protection for benthic habitats and species occurring within the boundaries of designated sites.</p> <p>S-MPA-1 to 4 will help to provide enhanced protection for the benthic habitats and species which occur within designated sites.</p>
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Table C.3: Marine Ecology				
				<p><b>Mitigation for uncertain and significant negative effects</b></p> <p>There is a mismatch between supporting text and the policies (specifically S-OG-1, S-AQ-2 and S-INF-1). The policies as worded imply that these activities will be supported in preference to other considerations. The supporting text does contain information regarding environmental safeguards and issues related to co-existence with other activities (and there is existing protection through other measures). However, we would recommend a stronger link between policy wording and supporting text.</p> <p><b>Enhancement measures</b></p> <p>Policy S-BIO-4 should make a reference to habitat quality as well as extent and distribution.</p>
Fish and shellfish				
Option 1	+ D R M	+ D R M	+ D R M	Spawning and nursery grounds are vulnerable to disturbance. The option addresses this through policy S-FISH-1c which states that proposals that adversely impact essential fish habitat will not be supported unless impacts are minimised, mitigated or a case be made for proceeding regardless. This will mean that fish are protected during spawning and nursery phases of their life cycles, with only exceptional cases being allowed to have an unmitigated negative impact on spawning and nursery grounds.
Option 2	+ D R M	+ D R M	+ D R M	Policy S-FISH-1b is more flexible than S-FISH-1c as states that proposals should not be supported rather than will not be supported. This will mean fish have benefited from consideration of the spawning and nursery phases of their life cycles, with only a few cases being allowed to have a negative impact on spawning and nursery activity.
Option 3	+ D R M	+ D R M	+ D R M	As Option 1

**Table C.3: Marine Ecology**

Draft South Marine Plans	+ / - D R M	+ / - D R M	+ / - D R M	<p>S-AQ-1, S-AQ-2 and S-FISH-3 may have a slightly negative effect through contributing to the localised alteration of environmental conditions caused by the introduction of aquaculture infrastructure which may affect fish and shellfish abundances and community structure. S-INF-1 may contribute to ecological disturbance of habitats at coastal margins, which often serve as productive nursery grounds for fish – helping to sustain future populations. S-CAB-2 may negatively affect elasmobranch populations and could cause short term distributions to shellfish populations through direct physical disturbance during construction and potential effects related to electro-magnetic field disturbance (although burial of cables is likely to reduce these impacts compared to surface laying). S-TR-1 has the potential to negatively impact fish populations through reductions in the abundances of species which are fished for sport. In addition to the above, numerous policies were identified as being likely to have a minor positive effect on fish and shellfish resources. Policies such as S-CO-1, S-FISH-1, S-CC-1, S-CC-2, S-CC-4, S-ML-2, S-BIO-1, S-BIO-2, S-BIO-4, S-DIST-1, S-DD-2, S-WQ-1 and S-WQ-2 were all identified a being likely to have a minor positive effect. A brief discussion of the positive effects of some of these policies is presented below:</p> <p>S-CO-1 is likely to have a beneficial effect through reducing competition for space between competing interests across the area of interest. S-CC-1, S-CC-2 and S-CC-4 are all likely to have minor positive effects on fish and shellfish populations through contributing to a reduction in the potential impacts of climate change. S-BIO-1, S-BIO-2, S-BIO-4, S-WQ-1 and S-WQ-2 should all contribute to a general improvement in ecological conditions across the plan area which should have a beneficial impact on fish and shellfish populations. S-DD-2, through reducing the need to dispose of dredge spoils at sea, should contribute to a reduction in disturbance effects to fish and shellfish populations.</p> <p>Several policies were also noted as being likely to have a major positive effect on fish and shellfish populations. Examples of such policies include S-MPA 1, S-MPA-2, S-MPA-3 and S-MPA-4 which will help to improve the balance and integration of marine protected areas across the plan area, providing protection for potentially import fish habitats. S-NIS-1 will help to control the introduction of invasive species across the plan area which could, in and of themselves, have serious implications for natural fish and shellfish populations. S-UWN-1 and S-UWN-2 will help to reduce the potential for fish injury and disturbance caused by acoustic means and S-BIO-3 will help to ensure that potentially important fish nursery areas at the coastal margins are given greater levels of protection. Several other policies may also have major positive impacts on fish and shellfish populations across the area of interest.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p>

Table C.3: Marine Ecology				
				<p><b>Enhancement Measure</b></p> <p>The negative impact of S-AQ-2 could be mitigated through amending the wording of the policy to reference 'sustainable fisheries' rather than simply 'fisheries'.</p>
Cephalopods / Birds / Marine mammals				
Option 1	+ D R M	+ D R M	+ D R M	<p>Policy S-DIST-1c aims to reduce cumulative adverse impacts on highly mobile species of importance. This is important because there is a relatively low density and diversity of marine mammals in the plan area and seabird populations have experienced declines in recent years.</p> <p>The descriptors for achieving good environmental status under the MSFD include keeping underwater noise at levels that do not adversely affect the marine environment. As well as direct disturbance, impacts from noise and pollution are important. The areas has one of the highest volumes of shipping traffic in the world so both these are issues.</p> <p>Policy S-DIST-2c and S-DIST-3c relate to underwater noise. Policy S-DIST-2c states proposals must contribute data to the noise registry and Policy S-DIST-3c states that proposals will ensure that adverse impacts are addressed. This is benefitting species that are sensitive to the level of noise that would otherwise have occurred.</p>
Option 2	+ D R M	+ D R M	+ D R M	<p>Policy S-DIST-1b appears to be the same as Policy S-DIST-1c.</p> <p>Policy S-DIST-2b and S-DIST-3b relate to underwater noise. Policy S-DIST-2b is less stringent than S-DIST-2c in that it states that proposals should contribute data to the noise registry. Policy S-DIST-3b is much less stringent in that it states that only in areas of high extant noise must proposals ensure there are no adverse impacts. However, this does not address the introduction of noise to new areas.</p>
Option 3	+ D R M	+ D R M	+ D R M	<p>As option 1</p> <p>Policy S-DIST-2c and S-DIST-3b relate to underwater noise.</p> <p>The effect of Policy S-DIST-2c is as option 1.</p> <p>The effect of Policy S-DIST-3b is as option 2.</p>

Table C.3: Marine Ecology				
Draft South Marine Plans	+ / - D R M	+ / - D R M	+ / - D R M	<p>Policies such as S-OG-1, S-AQ-1, S-CAB-2, S-AQ-2, S-TR-1 and S-FISH-3 are all likely to have a minor negative impact on the bird, cephalopod and marine mammal populations of the marine plan areas. S-AQ-1 and S-AQ-2 are likely to have a minor negative impact on the relevant resources through displacement and disturbance to marine mammal populations, particularly if acoustic deterrents are used to protect farmed fish stocks. S-TR-1 may cause negative impacts upon bird and marine mammal populations through increased potential for vessel disturbance. S-FISH-3 and S-OG-1 may cause negative impacts in ways previously discussed for other resources.</p> <p>Policies such as S-CO-1, S-FISH-1, S-CC-1, S-CC-2, S-CC-3, S-CC-4, S-BIO-1, S-BIO-2, S-BIO-4, S-DIST-1, S-WQ-1, S-WQ-2 and S-DD-2 will all have a minor positive effect on bird, cephalopod and marine mammal resources. S-CO-1 will reduce competing pressures for space. S-CC-1, S-CC-2, S-CC-3 and S-CC-4 should help the relevant populations adjust to climate change, particularly for the bird species which utilise coastal areas. BIO-1, S-BIO-2, S-BIO-4, S-WQ-1 and S-WQ-2 should all have minor beneficial effects through contributing to general improvements in ecological conditions across the area of interest.</p> <p>Policies such as S-FISH-4, S-BIO-3, S-UWN-1 and S-UWN-2, S-ML-1 and S-ML-2 and S-MPA-1-4 combined with others should all have a positive effect on bird, cephalopod and marine mammal species. The key effects of these major beneficial policies include reductions in the potential for acoustic disturbance and injury to marine mammals and birds, the reduced impact of litter at coastal margins on bird species, better protection for coastal habitats which may serve as foraging grounds for bird and general improvements in the ecological condition of the area as a whole through the establishment of a robust MPA network.</p>
Conservation sites				
Option 1	+ D R M	+ D R M	+ D R M	<p>Policies are presented which help to protect MPAs (policies S-MPA-1c, S-MPA-2c, S-MPA-4c, S-MPA-3c and S-MPA-5c). These state that proposal must take account of adverse impacts and should not be supported if they prevent MPAs ability to adapt to climate change. They also ensure that proposals do not sterilise potential MPAs and also address boundary changes. This will mean that overall, the ecological coherence of the Marine Protected Area network has been taken into account in proposals, ensuring that the network has been able to remain resilient to pressures placed upon it by new proposals.</p> <p>In addition policy S-ECO-1c states that cumulative impacts on the ecosystem of the plan area should be assessed and mitigated and S-BIO-5b S-BIO-7b aim to protect natural habitat and species adaptation, migration and connectivity and natural networks.</p> <p>This means that a well-managed, ecologically coherent network should remain in place; and the importance of space for nature is better recognised in decision making. Habitats and species are more adaptable and resilient as allowances are made in most cases for the need for species to migrate, and the need to maintain connectivity between habitats.</p>



**Table C.3: Marine Ecology**

Option 2	+ <b>DRM</b>	+ <b>DRM</b>	+ <b>DRM</b>	<p>The policies regarding MPAs are slightly less stringent. Policy S-MPA-1b states that strategic level measures and assessments must take into account adverse impacts on the MPA network. Policy S-MPA-2b states that proposals should demonstrate that they have considered the need for MPAs to adapt to climate change. Policy S-MPA-4a states that appropriate weight must be given to features of conservation importance. Policy S-MPA-3b is also slightly more flexible than S-MPA-3c. this will mean that as some proposals have been authorised in close proximity to Marine Protected Areas, and activities continue to cause pressure to some features, individual Marine Protected Area and the network are less able to adapt to change and respond to adverse impacts (from for example, climate change).</p> <p>In addition, policy S-ECO-1a states that cumulative impacts on the ecosystem of the plan area should be addressed (Policy S-ECO-1c states that they must be addressed). Policy S-BIO-5a and S-BIO-7a address natural habitat and species adaptation, migration and connectivity and natural networks but are less stringent than S-BIO-7b.</p> <p>This will have a slightly less positive effect than option 1. This means that areas outside of Marine Protected Areas that are important for the overall coherence of the network have been considered and impacts upon them have been avoided, minimised and mitigated wherever possible. However in a limited number of cases, features may be compromised and shortfalls have occurred, affecting the ecological coherence of the network.</p>
Option 3	+ <b>DRM</b>	+ <b>DRM</b>	+ <b>DRM</b>	<p>With regard to MPAs, the effect is mostly as option 1. S-MPA-4b is a slightly more flexible version of S-MPA- 4c. The version in option 3 states that proposals should demonstrate that they will not sterilise potential MPAs. Option 1 is a higher strength policy as it states that proposals must not sterilise potential MPAs. Option 1 will have a more positive effect in that it provides more certainty.</p> <p>This means that overall, the ecological coherence of the Marine Protected Area network has been taken account of in proposals, ensuring that the network has been able to remain resilient to pressures placed upon it by new proposals.</p> <p>Policy S-ECO-1d outlines that proposals must identify their contribution to cumulative adverse impacts on ecosystems. This is a slightly more certain policy than S-ECO-1c.</p> <p>Policy S-BIO-5c and S-BIO-7c address natural habitat and species adaptation, migration and connectivity and natural networks and are slightly more certain than options 1 and 2. This means that adverse impacts upon biodiversity and upon habitats that provide ecosystem services have been limited in all cases, with remaining impacts minimised and mitigated.</p>

**Table C.3: Marine Ecology**

<p>Draft South Marine Plans</p>	<p><b>+ D R M</b></p>	<p><b>+ D R M</b></p>	<p><b>+ D R M</b></p>	<p>The key plan policies which relate to conservation sites are policies S-MPA-1, S-MPA-2, S-MPA-3 and S-MPA-4. S-MPA-1 states that proposals must take account of the conservation objectives of not only individual protected sites, but also the overarching integrity of the MPA network, helping to afford protection for priority habitats and species across the long-term. S-MPA-2 seeks to ensure that the impacts of proposals which have the potential to reduce the ability of an MPA to adapt to climate change give clear consideration to impact avoidance or mitigation. This policy should contribute towards the maintenance of MPA site and network integrity over the long-term. S-MPA-3 suggests that changes to site boundaries which might be required to avoid the deterioration of a site will be supported where taking such measures are consistent with other policies. This policy should promote the long-term adaptability of the MPAs. However, the fact that this policy will not take precedence over other policies may mean that the potential ability of some MPAs to meet their conservation objective may be impaired where features have the potential to move, migrate or vary spatially with time. S-MPA-4 states that proposals should not compromise the potential for non-designated habitats and species to be included within MPAs which might be designated in future. This policy should result in an administrative ability to future-proof the MPA network. The combination of these policies should have a positive effect on the status of designated conservation sites across the South Marine Plan areas as many of the policies contained in options 1-3 are reflected within the draft South Marine Plans.</p>
<p><b>Key impact interactions(draft South Marine Plans)</b></p>	<p>The key interactions lie between the marine ecology of the plan area and policies which relate to the impacts of development proposals and climate change. The draft South Marine Plans contain numerous policies which may assist with the adaptation of natural heritage resources to the impacts of climate change and these are likely to result in positive effects on the marine ecology of the area of interest. With regard to proposals pertaining to development and industrial use of the area of interest, it will be important to ensure that marine ecological interests are given due, material consideration and when consenting decisions are made to ensure that ecological resources are adequately protected across the long-term. In the majority of cases such consideration, and ultimately protection, is likely to be achieved through the application of policies pertaining to the protection of marine ecology within the relevant plans and also the Environmental Impacts Assessment process.</p>			
<p><b>Uncertainties (draft South Marine Plans)</b></p>	<p>None specific to the subject area</p>			

Table C.4. Economy		
Potentially sensitive receptors/receptor groups	<ul style="list-style-type: none"> <li>• Communities dependant on the fishing industry.</li> <li>• Communities focussed on activities supported by tourism.</li> <li>• Port and shipping industry.</li> <li>• Aggregates industry.</li> <li>• Energy industry.</li> </ul>	
Current and future baseline conditions in absence of draft South Marine Plans	Current	<p><u>Industry specific baseline:</u></p> <ul style="list-style-type: none"> <li>• Ports: There are 47 ports and harbours within the plan area which are important for supporting the employment of low-skilled labour. The Solent is nationally important and a world leader in terms of commercial port activity, defence, marine leisure and recreation.</li> <li>• Fisheries: More fish is landed in the south marine plan areas than any other marine plan area. Fishing ports of Brixham and Radipole are particularly reliant on the local fishing industry.</li> <li>• Tourism and recreation: The plan area is estimated to support 300,000 jobs (2013/14), with tourism accounting for half of these jobs, however domestic tourism has been declining over the past 15 years due to increased competition from abroad. The GVA of coastal tourism is estimated to be around £1.5 million, with tourism being the largest component of Dorset's economy. Recreational boating within the plan area accounts for over 60% of the overall UK industry.</li> <li>• Marine aggregates: The plan area is the second busiest area in England for marine aggregate extraction (48% of national extraction).</li> <li>• Energy: There are currently no active wind farms, offshore oil and gas operations or commercial carbon capture and storage projects within the plan area. There is one nuclear power station (Dungeness B) within the plan area.</li> <li>• Aquaculture: There are 34 designated shellfish waters within the plan area (5% of the marine plan area).</li> </ul>
	Future	<p><u>Industry specific:</u></p> <ul style="list-style-type: none"> <li>• Ports: Ports are likely to see an increase in the amount of large vessels, with the port of Southampton expected to increase in size which may have implications for biodiversity and marine conservation. Ports may lose out to cheap flights from regional airports, however the cruise sector is expected to expand.</li> <li>• Fisheries: Future fishing trends are uncertain due to potential impacts of the changes to the Common Fisheries Policy and a range of pressures including increased fuel costs, customer demand, marine conservation measures and climate change which could result in social and economic impacts for local communities within the plan area. However, there are opportunities for future growth in the aquaculture industry.</li> <li>• Tourism and recreation: The tourism market is predicted to increase, however growth may be erratic. The effect of climate change on the tourism economy is uncertain; milder weather and longer summers could increase visitor's numbers, whilst wetter weather and storms may result in a decrease, therefore economic diversification may be necessary to prevent seasonal unemployment and encourage growth.</li> <li>• Marine aggregates: Marine aggregate extraction is set to increase in line with construction activity associated with population growth and continued beach replenishment for coastal protection.</li> <li>• Energy: The marine economy is expected to grow; in particular the low carbon energy industry is developing quickly in response to a range of policy and financial mechanisms, potentially leading to conflict between activities and increased environmental impacts.</li> <li>• It is likely that there will be a loss of jobs and energy production within the plan area due to the decommissioning of Dungeness A and B nuclear power stations, however there is the potential for increased renewable energy production, especially the development of offshore wind energy. This could provide employment opportunities but may impact upon fishing areas, commercial shipping routes and visual impact.</li> </ul>
Likely changes from baseline conditions as a result of draft South Marine Plans		

Table C.4. Economy				
	Within plan review period	Within currency of plans	Beyond currency of plans	Summary
<b>Ports and shipping</b>				
Option 1	++ DRM	++ DRM	++ DRM	<p>Objective 12 Policies S-PS-1b, SPS-2c and S-PS-3c will not support static sea surface infrastructure or that which significantly reduce under-keel clearance within or between International Maritime Organization routing systems or proposals that significantly adversely impact commercial vessel transits. This particularly benefits shipping.</p> <p>S-PS-4b requires consideration of the potential impact of activities on the operation of ports and harbours requiring as a minimum the provision of the case for proceeding if it is not possible to minimise or mitigate the interference.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>It should be noted that other policies within the plan could conflict with ports and shipping activities, such as those which protect the environment (e.g. S-BIO-5b, S-BIO-6b and S-MPA-1c and support other activities such as power generation and fisheries (e.g. Policy S-TIDE-1b, Policy S-AQ-1b and Policy S-FISH-2c). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
Option 2	+ DRL	+ DRL	+ DRL	<p>Objective 12 Policy S-PS-2b will only authorise proposals for static sea surface infrastructure or that significantly reduce under-keel clearance that which encroaches upon important navigation routes where there are exceptional circumstances. This option therefore performs less positively than Option 1.</p> <p>Policy S-PS-1a just requires a consideration of International Maritime Organization routing systems where they spatially overlap with vessel traffic.</p> <p>Policy S-PS-3b gives consideration to proposals that may have an adverse impact upon the economic viability of passenger services and the potential impact of activities on the operation of ports and harbours, requiring as a minimum the provision of the case for proceeding if it is not possible to minimise or mitigate the interference.</p> <p>Policy S-EMP-1b will facilitate improved access to education and employment, but is a slightly less strongly worded policy than Policy S-EMP-1c.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>It should be noted that other policies within the plan could conflict with ports and shipping activities, such as those which protect the environment (e.g. S-BIO-5a, S-BIO-6b and S-MPA-1b and support other activities such as power generation and fisheries (e.g. Policy S-TIDE-1a, S-AQ-1a and Policy S-FISH-2b). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>

**Table C.4. Economy**

Option 3	<p>++ DRH</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>Objective 12 Policies S-PS-1b, SPS-2c and S-PS-3c are the same as option 1 and will not support static sea surface infrastructure or that which significantly reduce under-keel clearance within or between International Maritime Organization routeing systems or proposals that significantly adversely impact commercial vessel transits.</p> <p>Policy S-PS-4c offers the strongest protection against significant adverse impact upon ports and harbours.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>It should be noted that other policies within the plan could conflict with ports and shipping activities, such as those which protect the environment (e.g. S-BIO-5c, S-BIO-6c and S-MPA-1c and support other activities such as power generation and fisheries (e.g. Policy S-TIDE-1a, S-AQ-1c and Policy S-FISH-2d). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
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**Table C.4. Economy**

<p>Draft South Marine Plans</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>Policy S-PS-2 provides strong support for shipping and will not allow proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance within International Maritime Organization routing systems. Similarly, Policy S-PS-3 supports the shipping sector but could require some compromises to be reached with other activities within high density navigation routes and for passenger services. Policy S-INF-1 supports land-based infrastructure in the marine area (and vice versa) which also strongly supports the ports and shipping sector.</p> <p>Although Policy S-PS-1 supports the ports and shipping sector it could allow some proposals to proceed if it is not possible to minimize or mitigate for any interference to ports and shipping.</p> <p>Other policies, such as Policy S-AQ-1, Policy S-TR-2 and Policy S-FISH-2 allow flexibility which could support the ports and shipping sector.</p> <p>Policies S-TIDE-1 and S-OG-1 could potentially constrain shipping routes. Policies S-CC-1, S-CC-2, S-CC-3, S-CC-4, S-SCP-1, S-HER-1, S-MPA-2, S-UWN-2, S-BIO-1, S-BIO-3, S-DIST-1, S-FISH-4, S-FISH-4-HER, S-DD-2, S-WQ-1 could make permissions for some large scale activities / developments more costly or harder to gain. A minor negative effect is therefore recorded in the assessment. However, these policies all allow mitigation to be put in place should adverse effects be identified in relation to ports and shipping and the risk of constraints to development and activities could therefore be low.</p> <p>Policies S-MPA-1, S-NIS-1, S-MPA-4 and S-BIO-4 which offer stronger protection to biodiversity and water quality than the policies listed immediately above, could potentially constrain ports and shipping activities. However, it may be possible to put in place measures within proposals in order to avoid adverse effects.</p> <p>Policies S-EMP-1 and Policy S-EMP-2 should result in major positive effects for all economic sectors.</p> <p>The draft South Marine Plans include policy S-PS-3 which also protects commercial vessel transits as well as passenger vessel transits.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>None</p>
<p><b>Fisheries</b></p>				

Table C.4. Economy				
Option 1	++ DRH	++ DRH	++ DRH	<p>Under Objective 5 &amp; 8 policies S-FISH-1c and S-FISH-2c this option states proposals “will not” be supported unless they demonstrate specific requirements. The policy under Objective 13 is the same across all of the options.</p> <p>Objective 8 Policy S-FISH-3b: states that proposals that support the diversification of the fishing industry and or enhances fishing industry resilience to the effects of climate change should be supported.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>Other policies within the draft South Marine Plans, such as policies which support the renewables sector and shipping, could conflict with fishing and aquaculture. The impact of the draft South Marine Plans as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
Option 2	+ DRL	+ DRL	+ DRL	<p>Under Objective 5 &amp; 8 policies S-FISH-1b and S-FISH-2b this option states proposals “should not” be supported unless they demonstrate specific requirements and therefore does not offer the same level of protection as options 1 &amp; 3.</p> <p>The policy under Objective 13 is the same across all of the options and the policy under Objective 8 is the same as option 1.</p> <p>Policy S-EMP-1b will facilitate improved access to education and employment, but is a slightly less strongly worded policy than Policy S-EMP-1c.</p> <p>Other policies within the plan, such as policies which support the renewables sector and shipping, could conflict with fishing and aquaculture. The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
Option 3	++ DRM	++ DRM	++ DRM	<p>Under Objective 5 &amp; 8 policies S-FISH-1c and S-FISH-2d this option is the same as option 1 and states proposals “will not” be supported unless they demonstrate specific requirements.</p> <p>The policy under Objective 13 is the same across all of the options</p> <p>Objective 8 Policy S-FISH-3c: Proposals that support the diversification of the fishing industry and or enhances fishing industry resilience to the effects of climate change will be supported.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>Other policies within the plan, such as policies which support the renewables sector and shipping, could conflict with fishing and aquaculture. The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>

Table C.4. Economy				
Draft South Marine Plans	<p>++ DRM</p>	<p>++ DRM</p>	<p>++ DRM</p>	<p>Policies S-AQ-1, S-INF-1, S-AQ-2, S-FISH-1, S-FISH-2, S-FISH-3, S-FISH-4, S-FISH-4-HER strongly support the fisheries sector. Most of the policies listed above allow mitigation for the fisheries sector if other activities were to adversely affect it.</p> <p>Some policies, such as policies S-OG-1 and S-AGG-1 could negatively affect the fisheries sector, by competing for space for fishing or through potentially releasing pollution and sediments. Policies S-CC-1, S-CC-2, S-CC-3, S-CC-4, S-HER-1, S-NIS-1, S-BIO-4, S-DIST-1, S-WQ-1 could also potentially constrain activities, such as in relation to aquaculture developments. However, these policies all allow mitigation to be put in place should adverse effects be identified in relation to fisheries activities and the risk of constraints to development and activities could therefore be low.</p> <p>A number of enhancement measures are identified below which will help to improve the performance of the draft South Marine Plans with regards to fisheries.</p> <p>Policies S-EMP-1 and Policy S-EMP-2 should result in major positive effects for all economic sectors.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>None</p>
Leisure				
Option 1	<p>++ DRH</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>Objective 8 Policy S-TR-2c requires a strong consideration of the impact of static objects on recreational boating routes.</p> <p>Under Objective 5 policy S-TR-1b this option offers the opportunity to present a case for proceeding even if it is not possible to minimise or mitigate impacts.</p> <p>Under Objective8 Policy S-TR-2d require mitigation in the case of adverse effects on existing facilities.</p> <p>Under Objective 14 (policy S-TR-4b) proposals which support or facilitate existing facilities should be supported.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>Other policies within the plan could potentially constrain leisure activities and developments, such as S-DIST-1c, S-HER-1c and S-MPA-1c. The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>



Table C.4. Economy				
Option 2	+ DRL	+ DRL	+ DRL	<p>Objective 8 Policy S-TR-2b gives a more general consideration to the spatial and temporal aspects of tourism and recreation and employ suitable planning and management approaches.</p> <p>Under Objective5 policy S-TR-1a this option offers limited protection requiring proposals should “wherever possible consider....”</p> <p>Under Objective 8 there is no policy requirement for mitigation in the case of adverse effects on existing facilities.</p> <p>Under Objective 14 (policy S-TR-4a) proposals should demonstrate ways in which to support existing facilities however this does not seem to imply that they need to offer a level of support.</p> <p>Policy S-EMP-1b will facilitate improved access to education and employment, but is a slightly less strongly worded policy than Policy S-EMP-1c.</p> <p>Other policies within the plan could potentially constrain leisure activities and developments, such as S-DIST-1b, S-HER-1b and S-MPA-1b. The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
Option 3	++ DRM	++ DRM	++ DRM	<p>Option 3 is the same as option 1 for Objective 8 Policy S-TR-2c, requiring a strong consideration of the impact of static objects on recreational boating routes.</p> <p>Under Objective 5 policy S-TR-1c this option provides the strongest protection for recreation activities.</p> <p>Under Objective 8 Policy S-TR-2d require mitigation in the case of adverse effects on existing facilities.</p> <p>Under Objective 14 Policy S-TR-4c proposals which support or facilitate existing facilities will be supported.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors. Other policies within the plan could potentially constrain leisure activities and developments, such as S-DIST-1c, S-HER-1c and S-MPA-1c. The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>

**Table C.4. Economy**

<p>Draft South Marine Plans</p>	<p><b>+ D R M</b></p>	<p><b>+ D R M</b></p>	<p><b>+ D R M</b></p>	<p>Policy S-TR-1: Proposals supporting, promoting or facilitating tourism and recreation activities, particularly where this creates additional utilisation of related facilities beyond typical usage patterns, should be supported.</p> <p>Policy S-TR-2 also provides strong protection for recreation activities and facilities but allows mitigation to take place if adverse effects from other activities/developments could cause an adverse effect on recreation.</p> <p>There is no specific policy within the draft South Marine Plans which protects recreational boating routes from new static objects in the plan areas.</p> <p>Other policies, such as Policy S-AQ-1, and Policy S-FISH-2 allow flexibility which could support the leisure sector.</p> <p>Policies S-CC-1, S-CC-2, S-CC-3, S-CC-4, S-HER-1, S-MPA-1, S-NIS-1, S-BIO-1, S-DIST-1, S-WQ-1 could also potentially constrain leisure activities and developments. However, these policies all allow mitigation to be put in place should adverse effects be identified in relation to leisure activities and the risk of constraints to leisure activities and developments could therefore be low. In the case of S-DIST-1 new byelaws, codes of practice, memoranda of understanding etc may need to be introduced in order to implement this policy. Aspects of the economy rely on having a good quality environment which links to the positive effects of these policies as outlined above.</p> <p>Policies S-EMP-1 and Policy S-EMP-2 should result in major positive effects for all economic sectors.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>Policy wording could be included which specially protects recreational boating routes from new static objects.</p>
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**Table C.4. Economy**

<b>Tourism</b>				
Option 1	+ <b>DRH</b>	+ <b>DRH</b>	+ <b>DRH</b>	<p>Under Objective 5 policy S-TR-1b this option offers the opportunity to present a case for proceeding even if it is not possible to minimise or mitigate impacts</p> <p>Under Objective 8 Policy S-TR-2d require mitigation in the case of adverse effects on existing facilities.</p> <p>Under Objective 14 proposals which support or facilitate existing facilities should be supported.</p> <p>Objective 12 Policies S-PS-1b, SPS-2c and S-PS-3c will not support static sea surface infrastructure or that which significantly reduce under-keel clearance within or between International Maritime Organization routing systems or proposals that significantly adversely impact passenger vessel transits.</p> <p>Policies which aim to improve bathing water quality and remove marine litter could have a direct positive impact on tourism. This option includes strong policies related to improving water quality, though making a positive contribution to achieving Good Environmental Status and Good Ecological Status under MSFD and WFD respectively (policies S-GES-1c and S-ECO-1c). Other policies aim to improve estuarine water quality and turbidity (Policy S-WQ-1c, S-WQ-2c and S-WC-3c).</p> <p>This option includes strong policies with regards to the removal of marine litter (policies S-BIO-3c and S-BIO-4c).</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>Other policies within the plan could potentially constrain tourism activities and developments, such as S-DIST-1c, S-HER-1c and S-MPA-1c. The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>

**Table C.4. Economy**

<p>Option 2</p>	<p>- <b>DRM</b></p>	<p>- <b>DRM</b></p>	<p>- <b>DRM</b></p>	<p>Under Objective 5 policy S-TR-1a this option offers limited protection requiring proposals should “wherever possible consider....”</p> <p>Under Objective 8 there is no policy requirement for mitigation in the case of adverse effects on existing facilities</p> <p>Under Objective 14 proposals should demonstrate ways in which to support existing facilities however this does not seem to imply that they need to offer a level of support.</p> <p>Policy S-PS-3b gives consideration to proposals that may have an adverse impact upon the economic viability of passenger services.</p> <p>This option includes slightly weaker policies aimed at improving water quality (S-GES-1a and S-ECO-1a).</p> <p>This option includes slightly weaker policies within regards to estuarine water quality and turbidity and could result in adverse effects occurring as proposals could proceed if mitigation is not possible (policies S-WQ-1b, S-WQ-2b and S-WQ-3b).</p> <p>This option includes weaker policies with regards to the removal of marine litter (policies S-BIO-3b and S-BIO-4b).</p> <p>Policy S-EMP-1b will facilitate improved access to education and employment, but is a slightly less strongly worded policy than Policy S-EMP-1c.</p> <p>Other policies within the plan could potentially constrain tourism activities and developments, such as S-DIST-1b, S-HER-1b and S-MPA-1b. The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
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**Table C.4. Economy**

<p>Option 3</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>Under Objective 5 policy S-TR-1c this option provides the strongest protection for tourism activities.</p> <p>Under Objective 8 Policy S-TR-2d require mitigation in the case of adverse effects on existing facilities.</p> <p>Under Objective 14 proposals which support or facilitate existing facilities will be supported.</p> <p>Objective 12 Policies S-PS-1b, SPS-2c and S-PS-3c are the same as option 1 and will not support static sea surface infrastructure or that which significantly reduce under-keel clearance within or between International Maritime Organization routing systems or proposals that significantly adversely impact passenger vessel transits.</p> <p>This option includes slightly stronger policies to improve water quality, though making a positive contribution to achieving Good Environmental Status and Good Ecological Status under MSFD and WFD respectively (policies S-GES-1c, S-BIO-2c and S-ECO-1c). Other policies aim to improve estuarine water quality and turbidity (Policy S-WQ-1c, S-WQ-2b and S-WQ-3b). However, policy S-WQ-2b is slightly weaker in that it could allow adverse impacts to occur as proposals could proceed if mitigation is not possible.</p> <p>As for option 1 with regards to marine litter.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>Other policies within the plan could potentially constrain tourism activities and developments, such as S-DIST-1c, S-HER-1c and S-MPA-1c. The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
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Table C.4. Economy				
Draft South Marine Plans	+ DRH	+ DRH	+ DRH	<p>Policy S-TR-1: Proposals supporting, promoting or facilitating tourism and recreation activities, particularly where this creates additional utilisation of related facilities beyond typical usage patterns, should be supported.</p> <p>Policy S-TR-2 also provides strong protection for recreation activities and facilities but allows mitigation to take place if adverse effects from other activities/developments could cause an adverse effect on recreation.</p> <p>Policies S-INF-1, S-PS-2 and S-PS-3 also directly support the tourism industry.</p> <p>Policies S-CC-1, S-CC-2, S-CC-3, S-CC-4, S-HER-1, S-SCP-1, S-MPA-1, S-NIS-1, S-BIO-3, S-BIO-4, S-DIST-1 and S-WQ-1 could also potentially constrain tourism developments. However, these policies all allow mitigation to be put in place should adverse effects be identified in relation to leisure activities and the risk of constraints to tourism developments could therefore be low. In the case of S-DIST-1 new byelaws, codes of practice, memoranda of understanding etc may need to be introduced in order to implement this policy. Aspects of the economy rely on having a good quality environment which links to the positive effects of these policies as outlined above. Policies S-ML-1 and S-ML-2 do provide support for the removal of beach litter which should have a positive effect on tourism. See the assessment against water (Table C.7 for discussion on effects on water quality).</p> <p>Policies S-EMP-1 and Policy S-EMP-2 should result in major positive effects for all economic sectors.</p> <p>Policy S-OG-1 could also constrain and, potentially, adversely affect the tourism sector. Policy S-OG-1 does not include mitigation within the policy and therefore an enhancement measure is identified in response to the uncertainty that this raises.</p> <p>The draft South Marine Plans do not include any policies which protect passenger vessel transits.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>Policy S-OG-1 should be worded in a similar way to other policies which support particular sectors, such as Policy S-TR-2. As it is currently worded, it supports the oil and gas sector over other sectors.</p> <p>The inclusion of more policy wording to improve water/bathing water quality and stronger policies regarding beach litter would improve the performance of the plan with regards to tourism. Policies S-TR-1 and S-TR-2 could be strengthened, e.g. S-TR-1 could include the words 'will be supported' instead of 'should be supported'.</p>
				<p>Policy wording could be included to protect passenger vessel transits, which provide some important transport for the tourism sector.</p>

Table C.4. Economy				
Marine manufacturing and defence				
Option 1	++ DRH	++ DRH	++ DRH	<p>Policy S-DEF-1b states proposals in or affecting Ministry of Defence Danger and Exercise Areas should not be authorised without agreement from the Ministry of Defence.</p> <p>This option includes policy S-EMP-1c which supports the immediate and future development of the skills base within the local community and enhancement of employment opportunities.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p>
Option 2	+ DRH	+ DRH	+ DRH	<p>Policy S-DEF-1b is the same as option a requiring agreement from the Ministry of Defence</p> <p>This option supports proposals facilitating improved access to education and employment opportunities for the local community which, although beneficial for communities, may not deliver benefits with regards to skills and employment as quickly as in Options 1 and 3.</p> <p>Policy S-EMP-1b will facilitate improved access to education and employment, but is a slightly less strongly worded policy than Policy S-EMP-1c.</p>
Option 3	++ DRH	++ DRH	++ DRH	<p>Policy S-DEF-1c is slightly stronger than options a and b is a little stronger as proposals “must not be authorised without agreement”</p> <p>As for Option 1, this option includes policy S-EMP-1c which supports the immediate and future development of the skills base within the local community and enhancement of employment opportunities.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p>

Table C.4. Economy				
Draft South Marine Plans	<p>++</p> <p>DRH</p>	<p>++</p> <p>DRH</p>	<p>++</p> <p>DRH</p>	<p>Policy S-DEF-1: Proposals in or affecting Ministry of Defence Danger and Exercise Areas should only be authorised with agreement from the Ministry of Defence. This policy offers strong protection to Ministry of Defence activities.</p> <p>Policy S-INF-1 supports land-based infrastructure in the marine area (and vice versa) should be supported which also supports the marine manufacturing and defence sector.</p> <p>Policy S-REN-1 supports proposals that support the development of supply chains associated with the deployment of renewable energy which could also benefit this sector.</p> <p>Policies S-EMP-1 and Policy S-EMP-2 should result in major positive effects for all economic sectors.</p> <p>Other policies within the draft South Marine Plans e.g. Policy S-AQ-1, Policy S-DD-1, S-AGG-2, S-AGG-3, and Policy S-FISH-2 allow flexibility which could also support marine manufacturing and defence.</p> <p>Policy S-OG-1 could constrain and, potentially, adversely affect the marine manufacturing and defence sector. Policy S-OG-1 does not include mitigation within the policy and therefore an enhancement measure is identified in response to the uncertainty that this raises.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>Policy S-OG-1 should be worded in a similar way to other policies which support particular sectors, such as Policy S-AQ-1. As it is currently worded, it supports the oil and gas sector over other sectors.</p>



**Table C.4. Economy**

<b>Aggregates</b>				
Option 1	<p>++ DRH</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>Under Objective 5 Policy S-DD-1c: requires dredging and disposal proposals to minimise use of disposal sites but provides the opportunity to mitigate and state the case for proceeding where this is not possible.</p> <p>Objective 8 Policy S-AGG-2c: states preference should be given to proposals that use the most sustainable source of aggregates supply.</p> <p>Objective 12 Policies S-AGG-3b, S-AGG-4c and S-DD-2b require the avoidance, minimisation or mitigation of impacts on aggregate extraction in areas of existing licenses for extraction of aggregates. Within defined areas aggregate extraction will not be prevented and proposals are required to demonstrate compatibility with the activity and as a minimum the case for proceeding will need to be demonstrated.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>It should be noted that other policies within the plan could conflict with aggregates activities, such as those which protect the environment (e.g. S-BIO-5b, S-BIO-6b and S-MPA-1c and support other activities such as ports and shipping, power generation and fisheries (e.g. Policy S-PS-4b, Policy S-TIDE-1b, Policy S-AQ-1b and Policy S-FISH-2c). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
Option 2	<p>++ DRH</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>Under Objective 5 Policy S-DD-1b: Proposals that re-use dredged spoil in a beneficial way will be supported.</p> <p>Objective 8 Policy S-AGG-2b: states preference may be given to proposals which use the most sustainable source of aggregates supply</p> <p>Objective 12 Policies S-AGG-3a, S-AGG-4b and S-DD-2a require the consideration of existing licenses for extraction of aggregates. Within defined areas any impacts on aggregate extraction will be avoided, minimised or mitigated. Proposals in areas of dredging and disposal activities should demonstrate compatibility with the activity and as a minimum the case for proceeding will need to be demonstrated.</p> <p>Policy S-EMP-1b will facilitate improved access to education and employment, but is a slightly less strongly worded policy than Policy S-EMP-1c.</p> <p>It should be noted that other policies within the plan could conflict with aggregates activities, such as those which protect the environment (e.g. S-BIO-5a, S-BIO-6b and S-MPA-1b and support other activities such as ports and shipping, power generation and fisheries (e.g. Policy S-PS-4b, Policy S-TIDE-1a, S-AQ-1a and Policy S-FISH-2b). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>

**Table C.4. Economy**

Option 3	<p>++ DRH</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>Option 3 is the same as option 1.</p> <p>Objective 8 Policy S-AGG-2d offers the strongest protection stating: Proposals that require aggregates as part of their construction should use the most sustainable source of aggregates supply</p> <p>Objective 12 Policies S-AGG-3c, S-AGG-4c and S-DD-2a require compatibility with licenses for extraction of aggregates. Within defined areas aggregate extraction will not be prevented. As option 2, proposals should demonstrate compatibility with the activity and as a minimum the case for proceeding will need to be demonstrated.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>It should be noted that other policies within the plan could conflict with aggregates activities, such as those which protect the environment (e.g. S-BIO-5c, S-BIO-6c and S-MPA-1c and support other activities such as ports and shipping, power generation and fisheries (e.g. Policy S-PS-4c, Policy S-TIDE-1a, S-AQ-1c and Policy S-FISH-2d). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
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**Table C.4. Economy**

<p>Draft South Marine Plans</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>++ DRH</p>	<p>The draft South Marine Plans provide strong support to the aggregates sector through Policy S-AGG-1 which states that proposals in areas where a licence for extraction of aggregates has been granted or formally applied for should not be authorised.</p> <p>Policy S-AGG-2 states that proposals within an area subject to an Exploration and Option Agreement with The Crown Estate should not be supported unless it is demonstrated that the other development or activity is compatible with aggregate extraction.</p> <p>Policy S-AGG-3 relates to areas where high potential aggregate resource occurs and states a preference to avoid impacts on aggregate extraction and if not, mitigation to be put in place or a case for proceeding if this is not possible.</p> <p>Policy S-AGG-4 states that where proposals require aggregates as part of their construction, preference should be given to using marine aggregates sourced from the South Marine Plan areas. If this is not appropriate, proposals should state why.</p> <p>Policy S-DD-1 also supports dredging and disposal activities.</p> <p>Policy S-TIDE-1: aggregate extraction could have a negative effect on tidal stream development and therefore could be restricted in certain areas through this policy.</p> <p>Policies S-EMP-1 and Policy S-EMP-2 should result in major positive effects for all economic sectors. Other policies such as S-TR-2 and S-FISH-2 allow flexibility which could also support this sector.</p> <p>Policies S-CC-1, S-CC-2, S-CC-3, S-CC-4, S-BIO-1, S-BIO-4, S-FISH-4, S-FISH-4-HER, and S-NIS-1 could also potentially constrain this sector. However, most of these policies allow mitigation to be put in place should adverse effects be identified in relation to leisure activities and the risk of constraints to aggregates extraction could therefore be low.</p> <p>Policy S-OG-1 could constrain and, potentially, adversely affect the aggregates sector. Policy S-OG-1 does not include mitigation within the policy and therefore an enhancement measure is identified in response to the uncertainty that this raises.</p> <p>Policy S-DD-2 aims to minimise use of dredge disposal sites by pursuing re-use opportunities through matching of spoil to suitable sites. This may not pose a constraint to this sector and should result in sustainability benefits.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p>
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Table C.4. Economy				
				<p><b>Enhancement measures</b></p> <p>Policy S-OQ-1 should be worded in a similar way to other policies which support particular sectors, such as Policy S-AQ-1. As it is currently worded, it supports the oil and gas sector over other sectors.</p>
<b>Oil and gas</b>				
Option 1	?	?	?	The options do not address oil and gas so the impact is uncertain
Option 2	?	?	?	The options do not address oil and gas so the impact is uncertain
Option 3	?	?	?	The options do not address oil and gas so the impact is uncertain
Draft South Marine Plans	<p>++</p> <p><b>DRL</b></p>	<p>++</p> <p><b>DRL</b></p>	<p>++</p> <p><b>DRL</b></p>	<p>The draft South Marine Plans gives strong support to the oil and gas sector through policy S-OG-1 which states that proposals relating to oil and gas activity should be supported.</p> <p>Other policies within the draft South Marine Plans could pose constraints to this industry, such as in relation to sharing space with renewable energy projects (Policy S-TIDE-1), aggregate extraction (Policy S-AGG-1, although such constraints may be temporary), policies S-CC-1, S-CC-2, S-CC-3, S-CC-4 (in relation to carbon emissions) and environmental protection policies such S-MPA-1, S-HER-1, S-SCP-1, S-NIS-1, S-UWN-2, S-BIO-1, S-FISH-4, and S-FISH-4-HER. However, most of these policies allow mitigation to be put in place should adverse effects be identified in relation to oil and gas activities and the risk of constraints to this sector could therefore be low.</p> <p>Policy S-PS-2 states that proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance should not be authorised within International Maritime Organization routeing systems and this could constrain developments in this sector. Policy S-PS-3 also constrains static sea surface infrastructure or that significantly reduces under-keel clearance which encroaches upon high density navigation routes, or that pose a risk to the viability of passenger services.</p> <p>Policies S-EMP-1 and Policy S-EMP-2 should result in major positive effects for all economic sectors.</p> <p>Confidence recorded is low as this sector is controlled predominantly by market forces.</p> <p><b>Mitigation for uncertain and significant negative effects</b></p> <p>None</p> <p><b>Enhancement measures</b></p> <p>None</p>

**Table C.4. Economy**

<b>Renewables</b>				
Option 1	++ DRL	++ DRL	++ DRL	<p>Policies S-WIND-1c and S-TIDE-2c aim to increase social benefits of wind and tidal developments.</p> <p>Policy S-TIDE-1b requires the consideration of areas identified as being of tidal stream resource requiring as a minimum the provision of the case for proceeding if it is not possible to minimise or mitigate the adverse impacts.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>It should be noted that other policies within the plan could conflict with renewables developments, such as those which protect the environment (e.g. S-BIO-5b, S-BIO-6b and S-MPA-1c and support other activities such as ports and shipping and fisheries (e.g. Policy S-PS-4b, Policy S-AQ-1b and Policy S-FISH-2c). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
Option 2	+ DRL	+ DRL	+ DRL	<p>Policies S-WIND-1b and S-TIDE-2b state that increases in social benefits of wind and tidal developments should be supported.</p> <p>S-TIDE-1a supports proposals which will not adversely affect the ability to harvest/harness/capitalise on the tidal resource requiring as a minimum the provision of the case for proceeding if it is not possible to minimise or mitigate the adverse impacts.</p> <p>Policy S-EMP-1b will facilitate improved access to education and employment, but is a slightly less strongly worded policy than Policy S-EMP-1c.</p> <p>It should be noted that other policies within the plan could conflict with renewables developments, such as those which protect the environment (e.g. S-BIO-5a, S-BIO-6b and S-MPA-1b and support other activities such as ports and shipping and fisheries (e.g. Policy S-PS-4b, S-AQ-1a and Policy S-FISH-2b). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>

**Table C.4. Economy**

Option 3	+ <b>D R L</b>	+ <b>D R L</b>	+ <b>D R L</b>	<p>Policies S-WIND-1a and S-TIDE-2a state that proposals which do not adversely impact on social benefits of wind and tidal developments should be supported, which is slightly less strong compared to Option 1.</p> <p>Option 3 is the same as Option 2 for S-TIDE-1a which supports proposals which will not adversely affect the ability to harvest/harness/capitalise on the tidal resource requiring as a minimum the provision of the case for proceeding if it is not possible to minimise or mitigate the adverse impacts.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>It should be noted that other policies within the plan could conflict with renewables developments, such as those which protect the environment (e.g. S-BIO-5c, S-BIO-6c and S-MPA-1c and support other activities such as ports and shipping and fisheries (e.g. Policy S-PS-4c, S-AQ-1c and Policy S-FISH-2d). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
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**Table C.4. Economy**

<p>Draft South Marine Plans</p>	<p><b>+ D R L</b></p>	<p><b>+ D R L</b></p>	<p><b>+ D R L</b></p>	<p>The draft South Marine Plans do not include any policies specifically related to wind energy developments but does include a policy (S-TIDE-1) which promotes the tidal industry. This seems inconsistent and does not lend support to the offshore wind sector.</p> <p>Policy S-REN-1 which supports the development of supply chains associated with the deployment of renewable energy supports this sector.</p> <p>Other policies within the draft South Marine Plans could pose constraints to this industry, such as in relation to sharing space with oil and gas activities (Policy S-OG-1), aggregate extraction (Policy S-AGG-1, although such constraints may be temporary), policies S-CC-1, S-CC-2, S-CC-3, S-CC-4 (in relation to carbon emissions) and environmental protection policies such as S-MPA-1, S-HER-1, S-SCP-1, S-NIS-1, S-UWN-2, S-BIO-1, S-FISH-4, and S-FISH-4-HER. However, most of these policies allow mitigation to be put in place should adverse effects be identified in relation to renewable energy developments and the risk of constraints to this sector could therefore be low.</p> <p>Policy S-PS-2 states that proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance should not be authorised within International Maritime Organization routing systems and this could constrain developments in this sector. Policy S-PS-3 also constrains static sea surface infrastructure or that significantly reduces under-keel clearance which encroaches upon high density navigation routes, or that pose a risk to the viability of passenger services.</p> <p>Policies S-EMP-1 and Policy S-EMP-2 should result in major positive effects for all economic sectors.</p> <p>Policy S-OG-1 could constrain and, potentially, adversely affect the renewables sector. Policy S-OG-1 does not include mitigation within the policy and therefore an enhancement measure is identified in response to the uncertainty that this raises.</p> <p>Confidence recorded is low as this sector is controlled predominantly by market forces and government support.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>Policy S-OG-1 should be worded in a similar way to other policies which support particular sectors, such as Policy S-AQ-1. As it is currently worded, it supports the oil and gas sector over other sectors.</p> <p>Include policy wording which supports the offshore wind sector or broader renewable energy developments, rather than specifically supporting the tidal sector.</p>
<p><b>Carbon capture and storage</b></p>				

Table C.4. Economy				
Option 1	++ DRH	++ DRH	++ DRH	Under Objective 12 policy S-CCS-1c offers protection for areas of potential use for Carbon Capture and Storage, requiring compatibility and the minimisation and mitigation of potential effects.  Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.
Option 2	+ DRH	+ DRH	+ DRH	Under Objective 12 policy S-CCS-1b offers less protection than option 1 for areas of potential use for Carbon Capture and Storage as it provides the option if mitigation is not practical they should state the case for proceeding.  Policy S-EMP-1b will facilitate improved access to education and employment, but is a slightly less strongly worded policy than Policy S-EMP-1c.
Option 3	+ DRH	+ DRH	+ DRH	Option 3 is the same as option 2. Under Objective 12 policy S-CCS-1b offers less protection than option 1 for areas of potential use for Carbon Capture and Storage as it provides the option if mitigation is not practical they should state the case for proceeding.  Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.
Draft South Marine Plans	0	0	0	The draft South Marine Plans do not include any policies which specifically support this sector. It has been agreed with the Crown Estate and the Carbon Capture and Storage Association that there is no need to have a CCS policy within draft South Marine Plans as it is currently unviable both in terms of economics and the infancy of the technology.  <b><u>Mitigation for uncertain and significant negative effects</u></b> None  <b><u>Enhancement measures</u></b> None
<b>Nuclear</b>				
Option 1	?	?	?	The option does not include any policies which specifically support this sector. Therefore an uncertain performance is recorded as it is not known whether the option supports the nuclear sector or whether such proposals would come forward.



Table C.4. Economy				
Option 2	?	?	?	The option does not include any policies which specifically support this sector. Therefore an uncertain performance is recorded as it is not known whether the option supports the nuclear sector or whether such proposals would come forward.
Option 3	?	?	?	The option does not include any policies which specifically support this sector. Therefore an uncertain performance is recorded as it is not known whether the option supports the nuclear sector or whether such proposals would come forward.
Draft South Marine Plans	0	0	0	<p>The draft South Marine Plans do not include any policies which specifically support this sector. However, policy is determined at a national level for nuclear infrastructure so it has been determined (in consultation with DECC) that a policy is not needed in draft South Marine Plans. As part of NPS EN-6 new Nuclear sites have already been identified and will remain protected against any other developments.”</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>None</p>
Subsea cabling				
Option 1	+ DRH	+ DRH	+ DRH	<p>This option (policies S-CAB-1b and S-CAB-2b) seeks to avoid constraining landfall sites and recommends consultation with effected parties to minimise or mitigate any impacts. Preference is for burial.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>It should be noted that other policies within the plan could conflict with sub-sea cabling developments, such as those which protect the environment (e.g. S-BIO-5b, S-BIO-6b and S-MPA-1c and support other activities such fisheries (e.g. Policy S-AQ-1b and Policy S-FISH-2c). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>

Table C.4. Economy				
Option 2	+ DRH	+ DRH	+ DRH	<p>This option (policies S-CAB-1a and S-CAB-2b) relies more strongly on mitigation. Preference is for burial.</p> <p>Policy S-EMP-1b will facilitate improved access to education and employment, but is a slightly less strongly worded policy than Policy S-EMP-1c.</p> <p>It should be noted that other policies within the plan could conflict with sub-sea cabling developments, such as those which protect the environment (e.g. S-BIO-5a, S-BIO-6b and S-MPA-1b) and support other activities such as fisheries (e.g. S-AQ-1a and Policy S-FISH-2b). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>
Option 3	++ DRH	++ DRH	++ DRH	<p>This option (policies S-CAB-1b and S-CAB-2b) requires the avoidance of landfall sites. Preference is for burial.</p> <p>Policy S-EMP-1c supports the development of the skills base in local communities and enhances employment opportunities, which would support all economic sectors.</p> <p>It should be noted that other policies within the plan could conflict with sub-sea cabling developments, such as those which protect the environment (e.g. S-BIO-5c, S-BIO-6c and S-MPA-1c) and support other activities such as fisheries (e.g. S-AQ-1c and Policy S-FISH-2d). The impact of the plan as a whole will need to be assessed once all of the policies have been developed as a draft South Marine Plans.</p>

Table C.4. Economy				
Draft South Marine Plans	+ DRH	+ DRH	+ DRH	<p>The draft South Marine Plans contain a number of policies which support this sector, specifically including policies S-CAB-1, S-CAB-2 and S-INF-1. Policy S-Cab-2 gives preference to buried cables but allows flexibility, presumably allowing for above-ground cabling where a case can be made. Policy S-CAB-1 could result in potential negative effects on existing landfall sites. It allows for mitigation and but also allows a case to be put forward where it is not possible to avoid landfall sites.</p> <p>There are a number of environmental protection policies within the draft South Marine Plans which could constrain new cabling developments and landfall sites, such as S-MPA-1, S-HER-1, S-SCP-1, S-BIO-1, S-BIOA-3, S-BIO-4, S-WQ-1, S-FISH-4, and S-FISH-4-HER. However, most of these policies allow mitigation to be put in place should adverse effects be identified in relation to cabling developments and the risk of constraints to this sector could therefore be low.</p> <p>Policy S-OG-1 could constrain and, potentially, adversely affect the sub-sea cabling sector. Policy S-OG-1 does not include mitigation within the policy and therefore an enhancement measure is identified in response to the uncertainty that this raises.</p> <p>Policies S-EMP-1 and Policy S-EMP-2 should result in major positive effects for all economic sectors.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>Stronger policy wording could be included within the inshore plan to protect existing landfall sites.</p> <p>Policy S-OG-1 should be worded in a similar way to other policies which support particular sectors, such as Policy S-AQ-1. As it is currently worded, it supports the oil and gas sector over other sectors.</p>
Coastal typologies				
Option 1	?	?	?	The option makes no reference to coastal typologies. Therefore an uncertain performance is recorded.
Option 2	?	?	?	The option makes no reference to coastal typologies. Therefore an uncertain performance is recorded.
Option 3	?	?	?	The option makes no reference to coastal typologies. Therefore an uncertain performance is recorded.

Table C.4. Economy				
Draft South Marine Plans	+ IRH	+ IRH	+ IRH	<p>The draft South Marine Plans contain several policies which will benefit all coastal typologies such as the S-CC-1 to S-CC-4 policies. Policies S-EMP-1 and Policy S-EMP-2 should result in major positive effects for all economic sectors and the economic prosperity of all coastal typologies.</p> <p>Policy S-REN-1 which supports the development of supply chains associated with the deployment of renewable energy supports typologies such as Coastal Challenges: Striving Communities and Cosmopolitan Resorts: Coastal Professionals and Coastal Fringe: Working Hard.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>None</p>
<b>Key impact interactions (draft South Marine Plans)</b>	There are key impact interactions between economy and skills and coastal communities.			
<b>Uncertainties (draft South Marine Plans)</b>	None specific to the subject area			

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**Table C.5: Geology, Geomorphology and Coastal Process**

<p>Potentially sensitive receptors/receptor groups</p>	<ul style="list-style-type: none"> <li>• Seabed features substrates and topography – including sediments, bed features, underlying geological formations and bathymetry.</li> <li>• Coastal features and processes – including coastal geological formations and physical processes caused by wind, tides and waves.</li> </ul>	
<p>Current and future baseline conditions in absence of draft South Marine Plans</p>	<p>Current</p>	<p><b>Substrates and Topography</b></p> <ul style="list-style-type: none"> <li>• The present distribution of geological strata, sediments and certain topographic features within the marine plan areas is determined by past geological and geomorphological processes.</li> <li>• Water depths within the plan area are generally shallow rarely exceeding 60m. Isolated areas of greater depths do occur for example, in the Northern Paleovalley (80-100m) and St Catherine’s Deep (60-70m) to the south of the Isle of Wight.</li> <li>• A number of extinct rivers form paleovalleys in the marine plans area some of which are now filled with sediments of up to 30m depth.</li> <li>• The surficial seabed substrates of the English Channel consist principally of a thin (generally 0-5m, though often only up to 0.5m) coarse, immobile lag deposits. Such deposits are derived from the underlying solid geology which is sometimes at or close to the seabed.</li> <li>• Less coarse sediments occur to the west and east of the Channel lag deposit where it is overlain by deeper (5-10m) sands and gravelly sands which have developed into large, mobile sandbanks.</li> <li>• A bedload parting zone is present in the central of the English Channel with a sediment sink located near the Straights of Dover where extensive tidal sand ridges and sandwaves/megaripples occur. Sand and gravel waves also occur in the West Solent.</li> </ul> <p><b>Coastal Features and Processes</b></p> <ul style="list-style-type: none"> <li>• Coastal topography is highly variable throughout the plan area including low lying estuary areas (e.g. Poole Harbour) and cliffs ranging in elevation from between less than 5m to nearly 200m (e.g. at Golden Cap, Dorset) with iconic formations at the White Cliffs of Dover (Kent) and the Severn Sisters chalk cliffs in Sussex.</li> <li>• The coastline of the plan area is geologically diverse and as such is designated by a number of Geological Conservation Reviews (GCR), earth science SSSI sites and geosites (e.g. Portland Bill GCR, Hastings Cliffs to Pett Beach SSSI, Needles Geosite).</li> <li>• Barrier beaches have formed at Hastings, Eastbourne and along an almost continuous stretch between Brighton and Chichester Harbour.</li> <li>• Notable shingle structures which are recognised as GCR sites include Chesil Beach and Dungeness.</li> <li>• The Jurassic Coast (Dorset and East Devon) is designated as a World Heritage Site for a combination of geological, paleontological and geomorphological features, and is noted for Triassic to Cretaceous rock cliffs.</li> <li>• Additional varied, coastal geological interest is present around the Isle of Wight.</li> <li>• Sediment flows, erosion rates and coastal landforms are greatly influenced by the tidal and wave environment.</li> <li>• The coast of the English Channel is subject to relatively high levels of coastal erosion and isostatic readjustment exacerbated by</li> </ul>

**Table C.5: Geology, Geomorphology and Coastal Process**

		<p>projected sea-level rise. A high proportion of the coast is protected by flood defences protecting infrastructure and populous south coast communities.</p> <ul style="list-style-type: none"> <li>The waves in the area are dominated by storm waves generated in the Atlantic and the English Channel.</li> <li>The majority of transitional and coastal water bodies within the plan area are classified under the Water Framework Directive are considered to be highly modified due to modification by man. Nearshore coastal processes across much of the plan area have been affected by structures such as ports, marinas, coastal defences, groynes, navigational dredging and aggregates dredging.</li> </ul>
	Future	<ul style="list-style-type: none"> <li>There are a number of marine activities which, without the draft South Marine Plans may individually, or cumulatively, affect geological and geomorphological receptors adversely, including: <ul style="list-style-type: none"> <li>The South Plan Area is adjacent to a number of areas of high, and increasing, population. Developmental pressure in the form of 'coastal squeeze' may result in the loss of geomorphological features and the narrowing of beaches in some locations.</li> <li>Gas and oil exploration activities may be undertaken within the English Channel and result in future production dependant on the commercial viability.</li> </ul> </li> <li>Sea level within the English Channel is expected to increase by 12-76cm over the next 100 years, outpacing isostatic uplift figures and exacerbating flooding in low lying coastal areas, resulting in the greater risk of erosion. This may lead to the realignment and reinforcement of current coastal defences, beach steepening or loss of coastal archaeological resource and potential land reclamation.</li> <li>A number of planning policies and initiatives (e.g. SMPs, RBMPs, the National and Regional Flood and Coastal Erosion Risk Management Strategies and Plans) are already in place that would assist with management of erosion and coastal flooding in the absence of a marine plan.</li> <li>Where polices in the draft South Marine Plans allow some changes to the shoreline may take place as it becomes uneconomic or undesirable to continue with current lines of flood defence.</li> </ul>

**Likely changes from baseline conditions as a result of draft South Marine Plans**

	Within plan review period	Within currency of plans	Beyond currency of plans	Summary
<b>Seabed substrates and topography</b>				
Option 1	+ D R M	+ D R M	+ D R M	<p>Policies will help to minimise some relevant topographical and geomorphological changes including some effects related to sediment dynamics This is through Policy S-DD-1c which is related to dredging and disposal. However, these safeguards could be broadened out.</p> <p>Policies are presented which help to protect MPAs (policies S-MPA-1c, S-MPA-2c, S-MPA-4c, S-MPA-3c and SMPA-5c) and these include features of geological or geomorphological interest. These state that proposal must take account of adverse impacts and should not be supported if they prevent MPAs ability to</p>

Table C.5: Geology, Geomorphology and Coastal Process				
				adapt to climate change. They also ensure that proposals do not sterilise potential MPAs and also address boundary changes. This will mean that overall, the ecological coherence of the Marine Protected Area network has been taken into account in proposals, ensuring that the network has been able to remain resilient to pressures placed upon it by new proposals.
Option 2	- <b>DRM</b>	- <b>DRM</b>	- <b>DRM</b>	<p>The policy related to dredged spoil (Policy S-DD-1b) is positive. However, the option does not provide general protection from development proposals in relation to geomorphology and is weaker than option 1 and option 3.</p> <p>The policies regarding MPAs are slightly less stringent. Policy S-MPA-1b states that strategic level measures and assessments must take into account adverse impacts on the MPA network. Policy S-MPA-2b states that proposals should demonstrate that they have considered the need for MPAs to adapt to climate change. Policy S-MPA-4a states that appropriate weight must be given to features of conservation importance. Policy S-MPA-3b is also slightly more flexible than S-MPA-3c. this will mean that as some proposals have been authorised in close proximity to Marine Protected Areas, and activities continue to cause pressure to some features, individual Marine Protected Area and the network are less able to adapt to change and respond to adverse impacts (from for example, climate change).</p>
Option 3	+ <b>DRM</b>	+ <b>DRM</b>	+ <b>DRM</b>	<p>Policies will help to minimise some relevant topographical and geomorphological changes including some effects related to sediment dynamics This is through Policy S-DD-1c which is related to dredging and disposal. However, these safeguards could be broadened out.</p> <p>With regard to MPAs, the effect is mostly as option 1. S-MPA-4b is a slightly more flexible version of S-MPA- 4c. The version in option 3 states that proposals should demonstrate that they will not sterilise potential MPAs. Option 1 is a higher strength policy as it states that proposals must not sterilise potential MPAs. Option 1 will have a more positive effect in that it provides more certainty.</p> <p>This means that overall, the ecological coherence of the Marine Protected Area network has been taken account of in proposals, ensuring that the network has been able to remain resilient to pressures placed upon it by new proposals.</p>
Draft South Marine Plans	+ <b>DRM</b>	+ <b>DRM</b>	+ <b>DRM</b>	<p>The Marine and Coastal Access Act (2009) provides means for conserving or protecting (<i>inter alia</i>) features of geological or geomorphological interest and the policies under Objective 10 (supporting the delivery of an MPAs network) are considered to be key. The policies reinforce the need for a coherent network of sites (S-MPA-1), provide some resilience to climate change (although falls short of providing total protection from such effects caused by draft South Marine Plans area development) (S-MPA-2) and allows boundary changes (S-MPA-3). A key policy is considered to be S-MPA-4, which requires any development to demonstrate they will not prevent the future inclusion of identified features within the network, thus providing longer-term protection to seabed features potentially meeting designation requirements. This policy will contribute to Marine Strategy Framework Directive descriptor 6 (sea-floor integrity).</p> <p>During the plan period it is considered that anthropogenic activities will not cause any wide-scale changes to the seabed with any effects are likely to be felt at smaller spatial scales in relation to provision of</p>

**Table C.5: Geology, Geomorphology and Coastal Process**

				<p>infrastructure (e.g. coastal defences etc.), oil and gas activities, aggregates extraction, navigational dredging etc. The existing, highly modified nature of the inshore plan area is noted with reference to the Water Framework Directive. The control of such marine activities is therefore an important element to consider within the planning framework and attendant policies in relation to seabed features. Policy S-CO-1 (minimisation of space use) will have a generic, beneficial outcome of reducing direct effects on the seabed and substrates and, comparative to similar but larger developments, is likely to reduce indirect effects too.</p> <p>A number of current oil and gas license blocks are present between the Isle of Wight and the Isle of Purbeck. S-OG-1 states that oil and gas activity should be supported and some minor adverse changes to seabed substrates would potentially occur especially within the inshore plan area given the supportive nature of this policy. However, seabed footprints are small and oil contamination risk is carefully considered by DECC's licensing process.</p> <p>The aggregates policies within the draft South Marine Plans relate primarily to protecting the lawful undertaking of any such activity and are considered to be neutral with respect to any impacts from this industry on the seabed. However, it is noted that such activity is regulated by The Crown Estate.</p> <p>On balance it is felt that the policies provide a number of mechanisms which would protect and enhance the seabed which would otherwise not be available if the draft South Marine Plans did not exist in the medium to longer term. Policy S-MPA-4 is considered key.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>None</p>
<b>Coastal features and processes</b>				
Option 1	+ D R M	+ D R M	+ D R M	Mitigation of unavoidable carbon emissions will help to reduce the impact of climate change and coastal change. Policies will also seek to ensure that proposals build in climate resilience beyond their projected lifespan, without harming the environment's resilience to the effects of climate change. In addition, it is assumed that policies which avoid adverse effects on coastal change (policy S-CC-2c) and which mitigate and adapt to climate change (policies S-CC-3c, S-CC-4c, S-CC-5c, S-CC-6c, S-BIO-1c and S-INF-1c) should generally benefit health i.e. through protecting communities from storm damage and stress. This could have a positive effect. The overall effect of this option will be to lessen coastal squeeze and coastal change
Option 2	-	-	-	Mitigation of unavoidable carbon emissions will help to reduce the impact of climate change and coastal



Table C.5: Geology, Geomorphology and Coastal Process				
	DRM	DRM	DRM	change. However, this option may achieve lower reductions in net greenhouse gas emissions (policy S-CC-1a) and protection of communities from the impacts of climate change (policies S-CC-2b, S-CC3b, S-CC-4b, S-CC-5b, S-CC-6b and S-BIO-1b). Negative effects on coastal change should be on the whole avoided, and coastal squeeze should be lessened overall. However, there may be some areas where coastal squeeze is being exacerbated, with localised negative social and environmental effects.
Option 3	+ DRM	+ DRM	+ DRM	Mitigation of unavoidable carbon emissions will help to reduce the impact of climate change and coastal change.  There should be increasing numbers of proposals that build in climate resilience beyond their projected lifespan. Negative effects on coastal change should have been avoided, and coastal squeeze should be lessened overall, though in some places it may still be an issue. The effects are as Option 1.
Draft South Marine Plans	+ DRM	+ DRM	+ DRM	Plan Objective 7 relates to the need to combat climate change through mitigation and adaption measures. As set out previously the South Inshore Plan area is adjacent to a number of low lying coastal areas where coastal flooding may be expected to increase over the duration of the draft South Marine Plans due to sea level rise and associated climate change effects such as changes to storm surge heights and frequencies. The coastal squeeze within some of the plan area will exaggerate effects locally. Overall the plan area is considered to be sensitive to coastal change due the large and significant number of designations and population.  With regard to climate change emissions,  Policy S-CC-1 has been amended to address only greenhouse gas emissions from unintended consequences on other activities. This has reduced the scope of the policy. The draft South Marine Plans states that direct emissions from a proposal are addressed as part of other measures but it is felt that this could be set out more clearly within the document with the signposting being broken down to a greater level of detail. However, the focus of the policy on unintended consequences will be positive.  With regard to adaptation and coastal change, Policy S-CC-3 is a relatively strongly worded policy relating to protection of the coastline so that proposals which are likely to have “a significant adverse impact on coastal change should not be supported.” This policy will reinforce other mechanisms (notably terrestrial Local Development Frameworks, Shoreline Management Plans, Local Flood Risk Management Plans etc.) to manage this issue.  Overall, it is considered that the draft South Marine Plans policies also contribute to the protection of coastal features and processes by a number of policies, notably those set out under Objective 7 relating to mitigation and adaption to climate change.  <b><u>Mitigation for uncertain and significant negative effects</u></b>

**Table C.5: Geology, Geomorphology and Coastal Process**

			<p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>The issue of direct greenhouse gas emissions could be set out more clearly within the document and there needs to be safeguards to ensure that all projects and impacts are covered by these other measures. This could be resolved through breaking the signposting down to a greater level of detail which sets out how the mechanisms discussed will impact upon new projects and how this will result in climate change mitigation measures.</p>
<b>Key impact interactions(draft South Marine Plans)</b>	There are links between coastal processes and the coastal communities and coastal users and links between geology and coastal process and ecology.		
<b>Uncertainties (draft South Marine Plans)</b>	None specific to the subject area		

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Table C.6: Landscape and Seascape				
Potentially sensitive receptors/receptor groups	<ul style="list-style-type: none"> <li>Landscape and seascape surrounding the plan area</li> </ul>			
Current and future baseline conditions in absence of draft South Marine Plans	Current	<ul style="list-style-type: none"> <li>Landscapes are currently protected through statutory mechanisms and are considered in the planning process through various terrestrial/national policy statements and the Marine Spatial Plan.</li> <li>There are four statutory and three non-statutory landscape designations in the South inshore marine plan area.</li> </ul>		
	Future	<ul style="list-style-type: none"> <li>Developments in the coastal zone have the potential to affect the landscape and seascape within the plan area.</li> </ul>		
Likely changes from baseline conditions as a result of draft South Marine Plans				
	Within plan review period	Within currency of plans	Beyond currency of plans	Summary
Statutory and non-statutory landscape designations				
Option 1	0	0	0	<p>No reference is made within the draft policy wording to landscape and specifically to statutory and non-statutory landscape designations. There is no reference to the potential impact on the specific statutory purposes of designated areas however it is understood that the intention is to signpost to the policy and regulations for nationally designated landscapes within the supporting / justification text. If this is included in a satisfactory manner the effect should be neutral.</p> <p>The emergence of round 3 windfarm development in the plan area could pose risks to nationally designated landscapes. The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. The effect of this would be neutral as the relevant policy include safeguards. The S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>).</p>
Option 2	0	0	0	As option 1
Option 3	0	0	0	As option 1

**Table C.6: Landscape and Seascape**

<p>Draft South Marine Plans</p>	<p>?</p>	<p>?</p>	<p>?</p> <p>There needs to be clarification regarding the policies supporting certain types of development. Policy S-OG-1 regarding oil and gas development, Policy S-AQ-2 on aquaculture and Policy S-INF-1 could be deemed to have higher priority than other plan activities or environmental sensitivities due to the way the policies are phrased. It is accepted that the draft South Marine Plans should be read as a whole and paragraph 32 states that all decision should be compliant with relevant legislation including those related to habitats and environmental impact assessment. However, these policies do give rise to uncertainty regarding the potential impact on the sustainability objectives considered within the SA as it is left to the supporting text to guide the applicant in the consideration of potential sustainability effects. Therefore, there is a mismatch between supporting text and the policies. For example, paragraph 79 (referencing the oil and gas policy) states that “This policy gives clarity on how national policy is applied where other activities may want to use the same space.” However, the policy does not seem to do this.</p> <p>No reference is made within policy to landscape and specifically to statutory and non-statutory landscape designations. The supporting text does signpost information on statutory and non-statutory designations. The sections of the draft South Marine Plans listed under rationale make several references to landscape and are slightly confusing. For example, Paragraph 391 states that “The effects of development (such as through wind and tidal energy projects, port development, coastal defences, cable landings and pipelines) on an area’s seascape and landscape should be considered. This is not only important for individual areas, but also often for any contribution they make to nationally designated areas, and their setting”. Paragraph 392 then goes on to state that “The objective will be achieved through policy (S-SCP-1) ...However, Policy S-SCP-1 does not appear to do this. In addition Box 2 states “The Marine Policy Statement (2.6.5.4) addresses proposed development within or relatively close to nationally designated areas, stating: “For any development proposed within or relatively close to nationally designated areas the marine plan authority should have regard to the specific statutory purpose of the designated areas.” It is not clear how the draft South Marine Plans do this through policy and therefore an uncertainty has been recorded.</p> <p>The emergence of round 3 windfarm development in the plan area could pose risks to nationally designated landscapes. The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. However, the effect of this would be neutral as the plan makes it clear at paragraph 32 that all decisions should be compliant with relevant legislation including those related to habitats and environmental impact assessment.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>It is recommended that the draft South Marine Plans need to be clearer regarding the coverage of landscape in the draft South Marine Plans. This is not necessarily a policy gap but it is felt that better explanation is needed in the supporting text.</p>
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Table C.6: Landscape and Seascape				
				<p>There is a mismatch between supporting text and the policies (specifically S-OG-1, S-AQ-2 and S-INF-1). The policies as worded imply that these activities will be supported in preference to other considerations. The supporting text does contain information regarding environmental safeguards and issues related to co-existence with other activities (and there is existing protection through other measures). However, we would recommend a stronger link between policy wording and supporting text.</p> <p><b><u>Enhancement measures</u></b></p> <p>None</p>
Wider landscape and seascape character				
Option 1	-/+ IRM	-/+ IRM	-/+ IRM	<p>The draft policy wording does not make specific reference to the character of the area. However the definition of seascape being used to draft the policy relates to the overall character.</p> <p>The draft policy makes reference to the minimisation and mitigation of adverse effects on seascape however it does not specify what an acceptable level of minimisation of mitigation might be. This could lead to a minor negative effect</p> <p>Policies included on reduction of litter (S-Bio-3 and S-Bio-4 policies) should have a minor indirect positive effect on seascape and landscape character. Other policies on coastal change and coastal habitats should also have a minor indirect positive effect.</p>
Option 2	-/+ IRM	-/+ IRM	-/+ IRM	As option 1
Option 3	-/+ IRM	-/+ IRM	-/+ IRM	As option 1

**Table C.6: Landscape and Seascape**

<p>Draft South Marine Plans</p>	<p>-/+ <b>IRM</b></p>	<p>-/+ <b>IRM</b></p>	<p>-/+ <b>IRM</b></p>	<p>The policy on seascape included in the draft South Marine Plans is more likely to have a negative effect as it has changed the assumptions of the policy and now seems more likely to support a project even if it has significant effects on the seascape of an area. However, the policy does include some safeguards to ensure that elements of seascape character are protected so this should be a minor negative effect. The issue of landscape character is not addressed but signposting is given in the document to terrestrial plans where this issue should be covered.</p> <p>Policies included on reduction of litter (S-ML-1 and S-ML-2) should have a minor indirect positive effect on seascape and landscape character. Other policies on coastal change and coastal habitats should also have a minor indirect positive effect.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>None</p>
<p><b>Key impact interactions(draft South Marine Plans)</b></p>	<p>Policies which protect the coastal area from significant coastal change and in particular protect coastal habitats such as salt marsh should have positive direct effects on ecology and positive indirect effects on landscape and seascape character essentially protecting the vulnerable interface between the sea and the land. Protecting landscape and seascape should help protect economics and communities reliant on an attractive environment.</p>			
<p><b>Uncertainties (draft South Marine Plans)</b></p>	<p>None specific to the subject area</p>			

Table C.7: Water Environment				
Potentially sensitive receptors/receptor groups	<ul style="list-style-type: none"> <li>Coastal water bodies</li> <li>Estuarine water bodies</li> <li>Terrestrial water bodies</li> </ul>			
Current and future baseline conditions in absence of draft South Marine Plans	Current	<ul style="list-style-type: none"> <li>There are two river basin management plans within the plan area. All coastal water bodies within the plan area are currently achieving moderate or good ecological status. One water body is failing to meet good chemical status.</li> <li>There are high concentrations of water treatment works and sewerage disposal points around the main settlements within the plan area.</li> <li>Marine pollution is decreasing but there is still a legacy input of substances from industrialised areas.</li> <li>There is a downward trend in the density of coastal and marine litter within the plan area; however the current presence of litter currently results in aesthetic, ecological and economic problems.</li> <li>Dredging activities result in temporary effects in the water column, resulting in increased turbidity.</li> </ul>		
	Future	<ul style="list-style-type: none"> <li>Climate Change impacts are likely to result in increased sea temperatures (between 1.5°C and 4°C by the end of the 21<sup>st</sup> Century), strength of seasonal stratification, wave heights and a decrease in the salinity. Coupled with topography of the south coast, this may result in the generation of currents and amplified flow or eddies.</li> <li>Population growth and associated infrastructure could lead to urban creep which has the potential to alter river catchment dynamics and may also result in additional demand on the sewage network.</li> <li>A decline in the pH of the ocean due to increased CO<sub>2</sub> uptake.</li> <li>The predicted expansion in nuclear power station in the region may result in an increase in radioactive discharge to the marine environment.</li> <li>The Water Framework Directive is likely to be a key driver of change for improving the ecological and chemical status within territorial waters.</li> </ul>		
Likely changes from baseline conditions as a result of draft South Marine Plans				
	Within plan review period	Within currency of plans	Beyond currency of plans	Summary
Tides and currents				
Option 1	+ D I R M	+ D I R M	+ D I R M	This option includes a strong policy to reduce greenhouse gas emissions (S-CC-1c). On a macro scale, this could reduce impacts on currents and sea level rise and have a positive (and irreversible) effect. The option also considers the effect of development on tidal resource (S-TIDE policies) and this should have a positive effect.
Option 2	+ D I R M	+ D I R M	+ D I R M	This option may achieve lower reductions in net greenhouse gas emissions (policy S-CC-1a) compared to options 1 and 3 and is therefore slightly weaker than options 1 and 3. The option also considers the effect of development on tidal resource (S-TIDE policies) and this should have a positive effect.

Table C.7: Water Environment				
Option 3	+	+	+	As for option 1
	<b>D I R M</b>	<b>D I R M</b>	<b>D I R M</b>	
Draft South Marine Plans	+	+	+	<p>Policy S-CC-1 has been amended to address only greenhouse gas emissions from unintended consequences on other activities. This has reduced the scope of the policy. The draft South Marine Plans state that direct emissions from a proposal are addressed as part of other measures but it is felt that this could be set out more clearly within the document with the signposting being broken down to a greater level of detail. However, the focus of the policy on unintended consequences will be positive.</p> <p>Other policies should have a minor positive effect on tides and currents such as S-TIDE-1 which should ensure that projects should not compromise the tidal environment in areas under agreement for tidal energy generation.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>The issue of direct greenhouse gas emissions could be set out more clearly within the document and there needs to be safeguards to ensure that all projects and impacts are covered by these other measures. This could be resolved through breaking the signposting down to a greater level of detail which sets out how the mechanisms discussed will impact upon new projects and how this will result in climate change mitigation measures.</p>
	<b>D I R M</b>	<b>D I R M</b>	<b>D I R M</b>	
Water temperature and salinity				
Option 1	+	+	+	This option includes a strong policy to reduce greenhouse gas emissions (S-CC-1c). By reducing carbon emissions there could be positive effects on water as climate change is likely to cause some changes to water temperature and salinity.
	<b>D I R M</b>	<b>D I R M</b>	<b>D I R M</b>	
Option 2	+	+	+	This option may achieve lower reductions in net greenhouse gas emissions (policy S-CC-1a) compared to options 1 and 3 and is therefore slightly weaker than options 1 and 3
	<b>D I R M</b>	<b>D I R M</b>	<b>D I R M</b>	
Option 3	+	+	+	As for option 1
	<b>D I R M</b>	<b>D I R M</b>	<b>D I R M</b>	



Table C.7: Water Environment				
Draft South Marine Plans	+ D I R M	+ D I R M	+ D I R M	See above in relation to Policy S-CC-1. <b><u>Mitigation for uncertain and significant negative effects</u></b> None <b><u>Enhancement measures</u></b> See above in relation to Policy S-CC-1.
Pollution and water quality				
Option 1	+ D R M	+ D R M	+ D R M	<p>The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. The effect of this would be neutral as the relevant policy include safeguards. The S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>).</p> <p>Policies that encourage burial of cables could have an impact on sediment re-suspension and pollution impacts. However, this impact should be temporary and effectively neutral.</p> <p>This option includes several strong policies on coastal change and adapting to climate change which will improve flood defences (policies S-CC-2a, S-CC-3c, S-CC-4c, S-CC-5c, S-CC-6c, S-BIO-1c and S-INF-1c). However, the development of flood defences e.g. moving materials resulting in suspended sediments, could have a minor negative effect on water quality.</p> <p>This option includes strong policies related to improving water quality, though making a positive contribution to achieving Good Environmental Status and Good Ecological Status under MSFD and WFD respectively (policies S-GES-1c and S-ECO-1c). Other policies aim to improve estuarine water quality and turbidity (Policy S-WQ-1c, S-WQ-2c and S-WC-3c) and policies on minimising dredge and disposal sites. This should have a positive impact on water quality.</p>

Table C.7: Water Environment				
Option 2	+ D R M	+ D R M	+ D R M	<p>The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. The effect of this would be neutral as the relevant policy include safeguards. The S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>).</p> <p>Policies that encourage burial of cables could have an impact on sediment re-suspension and pollution impacts. However, this impact should be temporary and effectively neutral.</p> <p>As for option 1, with regards to climate change adaptation.</p> <p>This option includes slightly weaker policies aimed at improving water quality (S-GES-1a and S-ECO-1a) and minimising dredge and disposal sites. However, these should still have minor positive effects on water pollution.</p> <p>This option includes slightly weaker policies within regards to estuarine water quality and turbidity and could result in adverse effects occurring as proposals could proceed if mitigation is not possible (policies S-WQ-1b, S-WQ-2b and S-WQ-3b).</p>
Option 3	+ D R M	+ D R M	+ D R M	<p>The effects of infrastructure development through wind and tidal energy projects, port development, cable landings and pipelines pose a potential threat and should be considered. The effect of this would be neutral as the relevant policy include safeguards. The S-INF policies state that infrastructure projects will be supported (<i>subject to appropriate environmental and socio economic assessment</i>).</p> <p>Policies that encourage burial of cables could have an impact on sediment re-suspension and pollution impacts. However, this impact should be temporary and effectively neutral.</p> <p>As for option 1, with regards to climate change adaptation.</p> <p>This option includes slightly stronger policies on minimising dredge and disposal sites and policies to improve water quality, though making a positive contribution to achieving Good Environmental Status and Good Ecological Status under MSFD and WFD respectively (policies S-GES-1c, S-BIO-2c and S-ECO-1c). Other policies aim to improve estuarine water quality and turbidity (Policy S-WQ-1c, S-WQ-2b and S-WQ-3b). However, policy S-WQ-2b is slightly weaker in that it could allow adverse impacts to occur as proposals could proceed if mitigation is not possible. However, these should still have minor positive effects on water pollution.</p>

**Table C.7: Water Environment**

<p>Draft South Marine Plans</p>	<p>+ / ? DRM</p>	<p>+ / ? DRM</p>	<p>+ / ? DRM</p>	<p>There needs to be clarification regarding the policies supporting certain types of development. Policy S-OG-1 regarding oil and gas development, Policy S-AQ-2 on aquaculture and Policy S-INF-1 could be deemed to have higher priority than other plan activities or environmental sensitivities due to the way the policies are phrased. It is accepted that the draft South Marine Plans should be read as a whole and paragraph 32 states that all decision should be compliant with relevant legislation including those related to habitats and environmental impact assessment. However, these policies do give rise to uncertainty regarding the potential impact on the sustainability objectives considered within the SA as it is left to the supporting text to guide the applicant in the consideration of potential sustainability effects. Therefore, there is a mismatch between supporting text and the policies. For example, paragraph 79 (referencing the oil and gas policy) states that “This policy gives clarity on how national policy is applied where other activities may want to use the same space.” However, the policy does not seem to do this.</p> <p>Policies that encourage burial of cables could have an impact on sediment re-suspension and pollution impacts. However, this impact should be temporary and minor and the supporting text highlights that it must be compliant with applicable legislation. Therefore the effect should be neutral.</p> <p>The draft South Marine Plans include several strong policies on coastal change and adapting to climate change which will improve flood defences (Policy S-CC-2 and S-CC-3). However, the development of flood defences e.g. moving materials resulting in suspended sediments, could have a minor negative effect on water quality. However, this should only be temporary so does not require mitigation.</p> <p>The policies on water quality have been changed in the draft South Marine Plans (Policy S-WQ-1, S-WQ-2 and S-WQ-3) and policies on estuarine water quality, resuspension of sediment and Good Environmental Status and Good Ecological Status have been removed. However, policies in the draft South Marine Plans are equally applicable to estuaries and policies have been removed after discussion with the Environment Agency after it was concluded that the draft South Marine Plans would duplicate the “clearing the waters guidance”. Policies have been added in regard to protecting, maintaining and enhancing habitats and species assemblages providing water filtration, nutrient assimilation or hazardous chemical sequestration ecosystem services policies S-WQ-1 and S-WQ-2 and this should be positive.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>There is a mismatch between supporting text and the policies (specifically S-OG-1, S-AQ-2 and S-INF-1). The policies as worded imply that these activities will be supported in preference to other considerations. The supporting text does contain information regarding environmental safeguards and issues related to co-existence with other activities (and there is existing protection through other measures). However, we would recommend a stronger link between policy wording and supporting text.</p>
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Table C.7: Water Environment				
				<p><b>Enhancement measures</b></p> <p>The draft South Marine Plans should make clearer references to the importance of estuaries and needs to be clearer about the status of the Environment Agency’s Clearing the Water” guidance. Policies have been removed on the basis that policies would duplicate the application of this guidance. However, the reference to the guidance in the draft South Marine Plans at the moment simply states that proponents <i>may wish to</i> consider the guidance.</p>
Eutrophication <sup>15</sup>				
Option 1	+ D I R M	+ D I R M	+ D I R M	<p>Sources of diffuse pollution from transport emissions can contribute to anthropogenic eutrophication. This option includes a strong policy to reduce greenhouse gas emissions (S-CC-1c) which could reduce emissions to air which can cause eutrophication e.g. nitrates. This could have a positive effect.</p> <p>Policy S-INF-2c supports infrastructure supporting activities in the marine area, which could include new or improved water treatment works or sustainable transport infrastructure, which could reduce emissions contributing to eutrophication. This could have a positive effect.</p>
Option 2	+ D I R M	+ D I R M	+ D I R M	<p>This option may achieve lower reductions in net greenhouse gas emissions (policy S-CC-1a) compared to options 1 and 3 and is therefore slightly weaker than options 1 and 3. This could have a positive effect.</p> <p>Policy S-INF-2b states that infrastructure supporting activities in the marine area should be supported, which is slightly weaker than Option 1. Such infrastructure could include new or improved water treatment works or sustainable transport infrastructure, which could reduce emissions contributing to eutrophication. This could still have a positive effect.</p>
Option 3	+ D I R M	+ D I R M	+ D I R M	<p>As for Option 1 with regards to greenhouse gas emissions.</p> <p>As for Option 2 with regards to infrastructure supporting activities.</p>

<sup>15</sup> Having waters rich in mineral and organic nutrients that promote a proliferation of plant life, especially algae, which reduces the dissolved oxygen content and often causes the extinction of other organisms. The process of eutrophication makes the water more eutrophic.

Table C.7: Water Environment				
Draft South Marine Plans	+ D I R M	+ D I R M	+ D I R M	<p>See section on tides and currents (towards the beginning of this table) in relation to Policy S-CC-1.</p> <p>Policy S-INF-1 states that infrastructure supporting activities in the marine area should be supported. Such infrastructure could include new or improved water treatment works or sustainable transport infrastructure, which could reduce emissions contributing to eutrophication. This could have a direct minor positive (and irreversible) effect.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>The issue of direct greenhouse gas emissions could be set out more clearly within the document and there needs to be safeguards to ensure that all projects and impacts are covered by these other measures. This could be resolved through breaking the signposting down to a greater level of detail which sets out how the mechanisms discussed will impact upon new projects and how this will result in climate change mitigation measures.</p>
Contaminants				
Option 1	++ D R M	++ D R M	++ D R M	The Solent has existing water quality issues and a legacy of substances from the industrialized areas. This option includes strong policies which aim to improve estuarine water quality and turbidity (Policy S-WQ-1c, S-WQ-2c and S-WC-3c) and would have a major positive effect on estuarine water quality.
Option 2	+ D R M	+ D R M	+ D R M	This option includes slightly weaker policies within regards to estuarine water quality and turbidity and could result in adverse effects occurring as proposals could proceed if mitigation is not possible (policies S-WQ-1b, S-WQ-2b and S-WQ-3b) and would have a minor positive effect on estuarine water quality.
Option 3	++ D R M	++ D R M	++ D R M	As for option 1

Table C.7: Water Environment				
Draft South Marine Plans	+ DRM	+ DRM	+ DRM	<p>The policies on water quality have been changed in the draft South Marine Plans (Policy S-WQ-1, S-WQ-2 and S-WQ-3) and policies on estuarine water quality, resuspension of sediment and Good Environmental Status and Good Ecological Status have been removed. However, policies in the draft South Marine Plans are equally applicable to estuaries and policies have been removed after discussion with the Environment Agency after it was concluded that the draft South Marine Plans would duplicate the “clearing the waters guidance”. Policies have been added in regard to protecting, maintaining and enhancing habitats and species assemblages providing water filtration, nutrient assimilation or hazardous chemical sequestration ecosystem services policies S-WQ-1 and S-WQ-2 and this should be positive.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>The draft South Marine Plans should make clearer references to the importance of estuaries and needs to be clearer about the status of the Environment Agency’s Clearing the Water” guidance. Policies have been removed on the basis that policies would duplicate the application of this guidance. However, the reference to the guidance in the draft South Marine Plans at the moment simply states that proponents <i>may wish to</i> consider the guidance.</p>
Marine litter				
Option 1	++ DRM	++ DRM	++ DRM	This option includes strong policies with regards to the removal of marine litter (policies S-BIO-3c and S-BIO-4c) and these should have a major direct positive effect on litter.
Option 2	+ DRM	+ DRM	+ DRM	This option includes weaker policies with regards to the removal of marine litter (policies S-BIO-3b and S-BIO-4b) and these should have a minor direct positive effect on litter.
Option 3	++ DRM	++ DRM	++ DRM	As for option 1

Table C.7: Water Environment				
Draft South Marine Plans	++ DRM	++ DRM	++ DRM	<p>The draft South Marine Plans includes policies on reduction of litter (S-ML-1 and S-ML-2) and these are arguably stronger policies (especially Policy S-ML-2 as it includes a policy that states that the introduction of litter as a result of proposals should be avoided or minimised where practicable. This should have a major direct positive effect on litter.</p> <p><b><u>Mitigation for uncertain and significant negative effects</u></b></p> <p>None</p> <p><b><u>Enhancement measures</u></b></p> <p>None</p>
<b>Key impact interactions(draft South Marine Plans)</b>	Impacts on water quality, contaminants and pollution should have secondary impacts on ecology and vice versa as some species provide water filtration services. There is also a strong link to recreation and tourism which is founded on a clean and safe environment (including clean bathing water).			
<b>Uncertainties (draft South Marine Plans)</b>	None specific to the subject area			

DRAFT

## Annex D: Recommendations at the Options Stage

Table D.1: Options stage recommendations and MMO's response (communities, health and well-being)		
SA sub topic	Recommendations	MMO response
Health and wider determinants of health	It would be helpful to include an explanation in the supporting/justification text as to what is meant by "minimised" and what is meant by "mitigated" and to ensure that this approach is consistent across the policies.	Explanations on minimisation and mitigation have been included within the policy text.
	Option 1 and 3: Policy S-CC-3c states that proposals must be supported if they do not exacerbate coastal squeeze. This level of prescription may not be necessary to avoid potential negative effects and this may be to the detriment of other sustainability objectives. The policy may be better if it outlines a set of decision making points (as Policy S-CC-2b does).	Policy has been developed further to address these points and changed to be worded negatively to avoid causing potential negative effects to other sectors.
Coastal communities	It would be helpful to include an explanation in the supporting/justification text as to what is meant by "minimised" and what is meant by "mitigated" and to ensure that this approach is consistent across the policies.	Explanations on minimisation and mitigation have been included within the policy text.
	Option 1 and 3: Policy S-CC-3c states that proposals must be supported if they do not exacerbate coastal squeeze. This level of prescription may not be necessary to avoid potential negative effects and this may be to the detriment of other sustainability objectives. The policy may be better if it outlines a set of decision making points (as Policy S-CC-2b does).	Policy has been developed further to address these points and changed to be worded negatively to avoid causing potential negative effects to other sectors.
	Reference should be made to other policies and plans e.g. shoreline management plans in relation to coastal squeeze etc. Policy S-CC-2b may provide more flexibility to reflect shoreline management plans.	Signposting has been included to address this.



**Table D.1: Options stage recommendations and MMO’s response (communities, health and well-being)**

SA sub topic	Recommendations	MMO response
	Policies should aim to achieve a net social benefit from wind and tidal developments.	Renewables policy aimed at improving supply chains which maximises wider benefits of wind and tidal.
Fishing communities	It would be helpful to include an explanation in the supporting/justification text as to what is meant by “minimised” and what is meant by “mitigated” and to ensure that this approach is consistent across the policies.	Explanations on minimisation and mitigation have been included within the policy text.
	Option 1: There could be a conflict between the more strongly worded policies (policy S-FISH-2c and policy S-FISH-3b) and policies which support the Marine Protected Area objectives (policies relating to Marine Plans Objectives 3, 5 and 6). Policies within the draft South Marine Plans should not conflict and the option chosen will need to manage these potentially conflicting activities.	Selected options are sufficiently weak to allow room to manage conflict – e.g. with Marine Protected Areas.
Tourism focused communities	It would be helpful to include an explanation in the supporting/justification text as to what is meant by “minimised” and what is meant by “mitigated” and to ensure that this approach is consistent across the policies.	Explanations on minimisation and mitigation have been included within the policy text.
	Option 1: There could be a conflict between the more strongly worded policies in support of the tourism industries (e.g. S-TR-1b, S-BIO-5b, S-TR-2c, and S-TR-2d) and policies which support the Marine Protected Area objectives (policies relating to Marine Plans Objectives 3, 5 and 6). Policies within the draft South Marine Plans should not conflict and the option chosen will need to manage these potentially conflicting activities.	Tourism policies have been merged, as have bio-policies. No conflict foreseen between the fully developed policies.

Table D.2: Options stage recommendations and MMO's response (cultural heritage)		
SA sub topic	Recommendations	MMO response
Coastal assets	Option 2: Policy S-CC-2b could result in adverse impacts on archaeology. This policy needs to be clearer on the issues that will need to be mitigated. The preservation/recording of coastal heritage assets will be key.	Justification text, as well as the merging of this policy, has made this clearer.
	Option 1 and 3: Policy S-CC-3c states that proposals must be supported if they do not exacerbate coastal squeeze. However, this may be to the detriment of other sustainability objectives. The policy may be better if it outlines a set of decision making points (as Policy S-CC-2b does).	Policy has been developed further to address these points and changed to be worded negatively to avoid causing potential negative effects to other sectors.
	The supporting text to the chosen policy should refer to shoreline management plans.	Shoreline Management Plans included in signposting.
	There could be links with cultural heritage protection policies and ecosystem services. Links between cultural heritage policies and policy S-BIO-6B could be made within the supporting text of draft South Marine Plans.	Links are now made within supporting text for bio policies.
Marine assets	All options: It is unclear whether the Marine Plan has influence over the effects on designated assets. If this is not the case this will need to be explained in the draft South Marine Plans.	This is clarified in supporting text.
	Options 1 and 3: This level of prescription may not be necessary to avoid potential negative effects.	Developed policy contains elements of all 3 options.
	All options: It would be useful if the policies directly address issues related to the setting of heritage assets and also socio-cultural associations and how disturbance/harm may cause wider socio-cultural effects.	Addressed through policy and supporting text.
	All options: Measures that place new information in the public realm would be a beneficial addition to the policies.	Not within the remit of marine plans.

**Table D.3: Options stage recommendations and MMO’s response (marine ecology)**

SA sub topic	Recommendations	MMO response
Plankton	The main determinant of the health of plankton is water quality and water temperature. Some areas (particularly the Solent) have major water quality issues and changes due to climate change could also cause declines in plankton numbers or changes to their diversity. The plan includes several policies related to reducing the threat and impact of climate change and improving water quality. Please see the water section of this assessment for more details.	NA
Seabed habitats/Benthos	Option 2: It would be helpful to include an explanation in the supporting/justification text as to what is meant by “minimised” and what is meant by “mitigated” and to ensure that this approach is consistent across the policies	Policy has been developed further to address these points and changed to be worded negatively to avoid causing potential negative effects to other sectors.
	Option 2: Policy S-BIO-1b needs to outline what factors may be considered as reasonable in outweighing a proposal’s effect on ecosystem services. For example, would a project need to have regional or national scale economic and social benefits that outweigh its negative effects (i.e. the IROPI test)? There are measures related to environmental benefits of seabed habitats currently being studied by consultants. This MCZ assessment project (CEFAS) could be used as an IROPI example for offshore. The supporting text of the offshore plan should include cross references to the liability regulations in relation to mitigation / minimisation of adverse impacts on the seabed.	Addressed through justification text.
	Options 1 and 2: Policies S-BIO-6b and S-BIO-6a need to outline what factors may be considered as reasonable in outweighing a proposal’s effect on coastal habitats. For example, would a project need to have regional or national scale economic and social benefits that outweigh its negative effects? The policies are also slightly contradictory in that they state that proposals must/should increase the extent of priority habitats yet also say that where loss is unavoidable	Addressed through justification text. A, B, C, D text is listed in order of preference.

Table D.3: Options stage recommendations and MMO's response (marine ecology)		
SA sub topic	Recommendations	MMO response
	the case should be stated for proceeding with the proposal.	
	Policies S-GES-1c and S-GES-1a could make direct reference to the seafloor integrity descriptor 6 of the MSFD (as policy S-DIST-2c and S-DIST-2b make reference to the MSFD descriptor 11 - introduction of energy including noise).	Objective has been reorganised but MSFD heavily referenced in justification text as well as front end of Plan.
Fish and Shellfish	It would be helpful to include an explanation in the supporting/justification text as to what is meant by "minimised" and what is meant by "mitigated" and to ensure that this approach is consistent across the policies.	Policy has been developed further to address these points and changed to be worded negatively to avoid causing potential negative effects to other sectors.
	Policies S-FISH1c and S-FISH-1b need to outline what factors may be considered as reasonable in outweighing a proposal's effect on essential fish habitats. For example, would a project need to have regional or national scale economic and social benefits that outweigh its negative effects?	Included in supporting text.
	Option 2: Policy S-FISH-1B needs to also cover migratory fish and migratory routes.	This policy has not been taken forward.
	All options: policies need to recognise that fish stocks and bird numbers are linked. If there is a crash in herring numbers there will be a crash in gull numbers. Reference should also be made to the carrying capacity of certain habitats and this should be tied into the Common Fisheries Policy.	Policy is specific to fish stocks but role in ecosystems is cited within the justification text along with reference to MSFD descriptors.
	BIO-2 – the wording needs to be clear about how non-indigenous species are dealt with e.g. provision of facilities for dealing with them, with less focus on introduction.	Policy designed to address the introduction of species as this has been identified as a gap in existing legislation where there are already biosecurity measures etc. coming out of MSFD that address the points raised by this comment.
	Draft South Marine Plans should include policies which ensure that the diversification of fishing doesn't cause environmental damage.	Included within BIO policies.

**Table D.3: Options stage recommendations and MMO’s response (marine ecology)**

SA sub topic	Recommendations	MMO response
Cephalopods Birds Marine mammals	Cephalopods, marine mammals and birds need to have separate policies in the plan. It is not clear from policy S-DIST-1c and S-DIST-1b what factors may be considered as reasonable in outweighing a proposal’s effect on mobile species. For example, would a project need to have regional or national scale economic and social benefits that outweigh its negative effects?	Clarified through justification text.
	Policy S-DIST-3b does not address the introduction of noise to new areas or the cumulative impacts of noise and the policy should be amended to do this.	Addressed through the development of the policy.
	Policies S-DIST-2c and S-DIST-2b make reference to the MSFD descriptor 11. It would be useful to make reference to other MSFD descriptors in policy. <sup>16</sup> or within supporting text.	References to MSFD have been strengthened and table included in front end of Plans.
	<p>The disturbance policies are quite narrow in terms of the objectives they are trying to meet. Further consideration of disturbance / displacement from projects is needed. The JNCC has guidance on what constitutes disturbance / harm. For marine mammals, the Habitat Regulations / European protected species guidance needs signposting within the supporting text.</p> <p>There should be a policy specifically on defence and marine mammals. Testing and use of seismic technology can adversely affect marine mammals. The MOD has a memorandum of understanding with the Joint Nature Conservation Council through which the impact of military</p>	Policies have been designed to address gaps within existing legislation and therefore a police specifically to address this has not been considered necessary. Signposting has been included under the objective 6 to highlight existing provisions.

<sup>16</sup> The descriptors are: Descriptor 1. Biodiversity is maintained / Descriptor 2. Non-indigenous species do not adversely alter the ecosystem / Descriptor 3. The population of commercial fish species is healthy / Descriptor 4. Elements of food webs ensure long-term abundance and reproduction /Descriptor 5. Eutrophication is minimised /Descriptor 6. The sea floor integrity ensures functioning of the ecosystem /Descriptor 7. Permanent alteration of hydrographical conditions does not adversely affect the ecosystem /Descriptor 8. Concentrations of contaminants give no effects /Descriptor 9. Contaminants in seafood are below safe levels /Descriptor 10. Marine litter does not cause harm /Descriptor 11. Introduction of energy (including underwater noise) does not adversely affect the ecosystem.

**Table D.3: Options stage recommendations and MMO’s response (marine ecology)**

SA sub topic	Recommendations	MMO response
	activities is regulated and this should be referred to within the supporting text.	
Conservation sites	Option 2: It is not clear what is meant by a strategic level measure and assessment (Policy S-MPA-1b) and this should be clarified if this policy is taken forward and some illustrative examples given.	Clarified through policy justification text.
	Option 2: It is not clear from Policy S-MPA-2b and S-ECO-1a what factors may be considered as reasonable in outweighing a proposal’s effect on resilience of MPAs to climate change/ effects on ecosystem services. For example, would a project need to have regional or national scale economic and social benefits that outweigh its negative effects?	Clarified through policy justification text.
	Options 2 and 3: It is not clear from Policy S-BIO-5b and S-BIO-5a what factors may be considered as reasonable in outweighing a proposal’s effect on habitats and species. For example, would a project need to have regional or national scale economic and social benefits that outweigh its negative effects?	Clarified through policy justification text.
	The plan policies need to ensure that the overall coherence of the MPA network is maintained. Individual MPAs have their own objectives related to issues such as sediment transport. Policies should support individual MPA site objectives.	Included within justification text.
	All options: Policies S-MPA-1c and S-MPA-1b may not be worded strongly enough to protect European Marine Sites with reference to the EU Habitats Directive and the EU Wild Birds Directive. Any proposals which could adversely affect such sites would require assessment under these Directives with the aim of maintaining site integrity. The Marine and Coastal Access Act also affords protection to sites.	Highlighted within signposting; policies not designed to replace existing designations.

**Table D.3: Options stage recommendations and MMO's response (marine ecology)**

SA sub topic	Recommendations	MMO response
	<p>Option 1 S-Eco-1c puts the onus on the decision makers. Option 3 S-Eco-1d puts the onus on applicants. However, it is actually the responsibility of both parties and the chosen plan policies should reflect this.</p> <p>All options: policies S-MPA-5b and 5c: In reference to climate change changing site boundaries, JNCC should lead any boundary changes. How can it be provide that deterioration is due to climate change? It is recommended that the chosen policy refers to deterioration for any reason.</p>	<p>Policy removed as cumulative effects need to be dealt with throughout the whole plan (ie. the plan is the tool to address cumulative effects), so we discuss them at the front of the plan</p>

**Table D.4: Options stage recommendations and MMO's response (economy)**

SA sub topic	Recommendations	MMO response
Ports and shipping	<p>The baseline identifies a need for additional port capacity within the plan area with the current focus of ports around the Solent. It is likely that the largest absolute increases in trade volume are likely to occur through the Port of Southampton. Significant port expansion would be required to realise predicted increased trade volumes. The Port of Southampton Master Plan (2009-2030) identifies plans for future development at Dibden Bay, as also recognised by New Forest District Council. The focus of the draft South Marine Plans policy options is the safeguarding of wharfage from other uses, however, there could be a potential conflict between ecological constraints and port expansion developments.</p> <p>The baseline also identifies an increase in the amount and the scale of the vessels in UK shipping over the next few years and identifies a potential conflict with off-shore renewables development.</p> <p>Options 1 and 3 are very similar however option 3 offers the strongest protection against significant adverse impact upon ports and harbours, therefore it is recommended that given</p>	<p>Option 1 selected but developed policies have included elements of 3.</p>

**Table D.4: Options stage recommendations and MMO’s response (economy)**

SA sub topic	Recommendations	MMO response
	the importance of this sector within the draft South Marine Plans area that option 3 would be the most consistent with the SA objectives.	
	It would be helpful to include an explanation in the supporting/justification text as to what is meant by “minimised” and what is meant by “mitigated” and to ensure that this approach is consistent across the policies.	Included within justification text.
	All options: Policies SPS-1b, SPS-2c, SPS-3c. Policies related to under-keel clearance shouldn't automatically assume that you can reduce clearance without considering the environment.	Clarified through policy text.
	There are no policies which relate to places for refuge e.g. guiding ships towards less sensitive areas. Compulsory pilotage is needed in areas such as the Solent which is a key shipping route.	Not considered to be an issue that draft South Marine Plans are able to deal with.
Fisheries	Options 1 & 3 offer greater protection to aquaculture and fisheries than option 2. With relation to the diversification and resilience of the industry to climate change, option 3 is strongest.	Policy 1 selected although developed policies include elements of 2 and 3.
	There could be a conflict between the more strongly worded policies (policy S-FISH-2c and policy S-FISH-3b) and policies which support the Marine Protected Area objectives (policies relating to Marine Plans Objectives 3, 5 and 6). Policies within the draft South Marine Plans should not conflict and the option chosen will need to manage these potentially conflicting activities.	No conflict foreseen with chosen option.



Table D.4: Options stage recommendations and MMO's response (economy)		
SA sub topic	Recommendations	MMO response
	The connection between the fishing industry and coastal communities and character should be recognised within the draft South Marine Plans, e.g. fishing activity and supporting activities (e.g. fish processing, presence of fishing vessels, supply chain) could affect the character of coastal communities	Recognised within supporting text.
	Draft South Marine Plans should include policies which ensure that the diversification of fishing doesn't cause environmental damage.	Covered through existing legislation and signposted within objectives on disturbance.
Leisure	Option 3 offers the greatest protection to recreation activities and would be consistent with the SA objectives due to the importance of the draft South Marine Plans area for tourism and recreation	Option 1 selected but elements of 3 included.
	It would be helpful to include an explanation in the supporting/justification text as to what is meant by "minimised" and what is meant by "mitigated" and to ensure that this approach is consistent across the policies.	Explanations on minimisation and mitigation have been included within the policy text.
	There could be conflict with strong policies which support recreational boating, e.g. policy S-TR-1c, and policy S-BIO-2a-2c which is strongly worded to protect against movement and introduction of non-indigenous species via recreational boat fouling. Draft South Marine Plans will need to manage and avoid such conflict within the chosen policies.	Chosen policies and justification text allow sufficient room for decision-makers to manage potential conflicts.
	Definitions of 'leisure', 'recreation' and 'tourism' should be provided within the draft South Marine Plans with recognition that although each can result in overlapping activities, they are different sectors with potentially conflicting drivers and outcomes.	Clarified through policy text
	Draft South Marine Plans need to consider and manage potential conflicts between infrastructure and environmental	Conflicts considered and dealt with in a number of a different policies and objective 12 deals with a number of these.

Table D.4: Options stage recommendations and MMO's response (economy)		
SA sub topic	Recommendations	MMO response
	protection policies. Policies within draft South Marine Plans will need to consider the disturbance effects of anchorage sites.	
Tourism	There are a number of large seaside resorts in the draft South Marine Plans area. The area has a higher combined holiday spend of any MPA.  Option 3 offers the greatest protection to tourism activities and would be consistent with the SA objectives due to the importance of the draft South Marine Plans area for tourism and recreation.	NA
	It would be helpful to include an explanation in the supporting/justification text as to what is meant by "minimised" and what is meant by "mitigated" and to ensure that this approach is consistent across the policies.	Explanations on minimisation and mitigation have been included within the policy text.
	Definitions of 'leisure', 'recreation' and 'tourism' should be provided within the draft South Marine Plans with recognition that although each can result in overlapping activities, they are different sectors with potentially conflicting drivers and outcomes	Definitions of recreation and tourism included within the glossary; leisure not considered necessary.
Marine manufacturing and defence	The draft South Marine Plans draft policies make reference to defence within its policies with Option 3 providing the greatest support for this sector.	Defence policy included within objective 12.
	Policies exist on co-existence and displacement of activities. The draft South Marine Plans should include a definition of infrastructure.	Infrastructure included in glossary.
<b>Other marine activities</b>		
Aggregates	Under Objective 5 Option 2 appears to be the most sustainable option with regards to re-use of dredged	NA

**Table D.4: Options stage recommendations and MMO's response (economy)**

SA sub topic	Recommendations	MMO response
	<p>materials.</p> <p>Under Objective 8 it is unsure whether Option 3 will be viable as requiring the most sustainable source of aggregate supply may not be practical in every case however this option does perform best with relation to the sustainability objective particularly as the draft South Marine Plans area is currently the second busiest area for marine aggregate extraction and this is set to increase.</p>	
	<p>The draft South Marine Plans should include a definition of sustainability in the supporting text with regards to 'most sustainable source of aggregate supply'.</p>	<p>Clarified within policy text</p>
	<p>Under Objective 12 option 1 appears to offer the strongest support for the aggregates industry. Option 3 provides compatibility with other activities.</p>	<p>Option 1 selected but elements of 3 incorporated.</p>
	<p>Cross refer to other sectors in supporting text of draft South Marine Plans, e.g. wind and tidal.</p>	<p>Signposting included where relevant.</p>
<p>Oil and gas</p>	<p>The baseline identifies that there is currently no active marine oil or gas although some exploration licenses have been granted for blocks off the coast of the Isle of Wight and the Wessex Basin. Production could begin in the next 20 years but it is not guaranteed that exploration sites will develop into full production. Therefore it is recommended that reference to this sector is made within the draft South Marine Plans to facilitate future exploration and potential production. Policies facilitating future exploration and potential production should recognise the potential environmental impacts of exploration and production activities, although the licensing process does require environmental impact assessment.</p>	<p>Policy on Oil and gas included in obj 12 – OG1</p>
<p>Renewables</p>	<p>The draft South Marine Plans policies make reference to renewables only with relation to the potential social benefits. The policy options specifically mention wind and tidal energy</p>	<p>Current modelled data shows no potential for wave energy.</p>

**Table D.4: Options stage recommendations and MMO’s response (economy)**

SA sub topic	Recommendations	MMO response
	<p>generation but in order to be future-proofed, the policies could have a broader coverage to take into account improvements in technologies which could allow other developments, such as wave energy.</p> <p>There are two areas of activity for offshore windfarms (Navitus Bay and Rampion). Tidal resources exist around the Isle of Wight and Portland Bill and there is a recommendation in the evidence base to avoid sterilizing areas with the potential for tidal energy.</p>	
	<p>The wording of policies included within option 2 and 3 in policy S-TIDE-1a may be difficult to interpret as it does not specify areas identified as being a tidal stream resource and therefore could be too generic. However, this could be read in conjunction with the Crown Estates technical resources map with regards to safeguarded areas. As option 1 relates the policy to specific areas this may be more appropriate however this assumes that appropriate baseline surveys have been undertaken across the draft South Marine Plans area. Relevant evidence should be referred to within the policy supporting text.</p>	<p>Wording of tidal policy doesn’t specifically relate to existing projects so does allow for new projects. Technology is at an early stage so it is unlikely that there will be commercial deployment in the next 20 years.</p>
	<p>The chosen policy with regard to tidal energy should be flexible enough to allow testing small devices whilst at the same time safeguarding tidal resource areas.</p>	<p>Signposting to Crown Estate technical resources included under objective.</p>
Carbon capture and storage	<p>The baseline states that CCS could be worth £3 billion by 2030 in the UK but it is not yet commercially proven. The focus is likely to be within the east of the plan area. Policies which are more flexible are considered by the Steering Group to be most appropriate i.e. options 2 and 3.</p>	<p>No policy for CCS as this is unlikely to be developed in the South in the next 20 years.</p>
	<p>It would be helpful to include an explanation in the supporting/justification text as to what is meant by “minimised” and what is meant by “mitigated” and to ensure that this approach is consistent across the policies.</p>	<p>Explanations on minimisation and mitigation have been included within the policy text.</p>
Nuclear	<p>The baseline references the decommissioning of Dungeness B nuclear power station in 2018 and a government review which demonstrated that there are no other suitable sites in</p>	<p>Draft South Marine Plans mention nuclear power within much of the supporting text.</p>

**Table D.4: Options stage recommendations and MMO's response (economy)**

SA sub topic	Recommendations	MMO response
	the MPA. However, an application has been made for a 10 year extension to Dungeness B. Therefore it is recommended that draft South Marine Plans reference ongoing nuclear energy production e.g. outfalls and the need for sea defences as well as activities associated with the eventual decommissioning of Dungeness B. Nuclear power is supported by national policy.	
Subsea cabling	Option 3 offers the greatest protection to sub-sea cables as there is no flexibility in the protection of landfall sites.	Option 1 was preferred option.
Coastal typologies	The draft South Marine Plans does not contain any spatial policies which make reference to coastal typologies. As this is a specific aspect within the baseline and an SA sub objective it is recommended that this is considered, potentially in relation to the landscape and seascape policies.	Landscape policy tested in first draft but thought to duplicate what is covered under NPPF. Very little evidence on undeveloped coast and other areas covered by existing legislation.

**Table D.5: Options stage recommendations and MMO's response (geology, geomorphology and coastal processes)**

SA sub topic	Recommendations	MMO response
Seabed substrates and topography	A policy should be included that addresses the assessment of all relevant topographical and geomorphological changes from development proposals and suggests mitigation. This would include changes to sediment dynamics, effects on the geological qualifying features of protected sites and direct changes to seabed substrates and topography.	Included as signposting but no issues picked up relating to this and therefore no policy drafted in response to this. Elements of this are picked up by policies under heritage and objective 5.
	There are currently no policies which aim to protect dive sites. Consideration should be given to protecting dive sites within the draft South Marine Plans with regards to geomorphology, heritage assets and biodiversity. This also relates to tourism and leisure.	No specific policy related to dive sites but we consider this to be picked up by heritage and tourism policies.
Coastal features and processes	It would be helpful to include an explanation in the supporting/justification text as to what is meant by "minimised" and what is meant by "mitigated" and to ensure	Explanations on minimisation and mitigation have been included within the policy text.

**Table D.5: Options stage recommendations and MMO's response (geology, geomorphology and coastal processes)**

SA sub topic	Recommendations	MMO response
	that this approach is consistent across the policies.	

**Table D.6 Options stage recommendations and MMO's response (landscape and seascape)**

SA sub topic	Recommendations	MMO response
Statutory and non-statutory landscape designations	The SA would recommend the inclusion of appropriate policy wording for landscape issues (including typologies) including the potential for effects on the specific statutory purposes of designated areas as well as non-statutory areas of importance.	Landscape policy tested in first draft but thought to duplicate what is covered under NPPF. Very little evidence on undeveloped coast and other areas covered by existing legislation.
Wider landscape and seascape character	There are no differences between options as it is considered that the policy presented is the strongest realistic policy out of all reasonable alternatives and the inclusion of the strongest realistic policy wording is compatible across all of the policy options. Justification for no reasonable alternatives will need to be included within the SA report  Reference could be made within the supporting / justification text to the seascape study of the draft South Marine Plans area and any seascape studies undertaken for the relevant local authority areas which would help to define the appropriate character for the area. There should be a positive policy which states that proposals which support character would be supported.	Signposting to seascape studies have been included under signposting.
	The supporting/justification text should include the definition of seascape being used to in the context of the draft South Marine Plans.	Definition of seascape included within glossary.
	It is recommended that the level to which minimisation and mitigation should be applied is specified e.g. c) how, where these adverse impacts on the seascape of an area cannot be minimised, they will be mitigated against <b>to a level where no</b>	Explanations on minimisation and mitigation have been included within the policy text.

**Table D.6 Options stage recommendations and MMO's response (landscape and seascape)**

SA sub topic	Recommendations	MMO response
	<p><b><i>significant negative effects will occur.</i></b></p> <p>It would be helpful to include an explanation in the supporting/justification text as to what is meant by “minimised” and what is meant by “mitigated” and to ensure that this approach is consistent across the policies</p>	

**Table D.7: Options stage recommendations and MMO's response (water environment)**

SA sub topic	Recommendations	MMO response
Tides and currents	<p>All options: It would be helpful to include a policy that ensures that proposals include an assessment of the impact on changes to currents, sediment movement and scour. Sediment resuspension is addressed in policy but this could be broadened out.</p>	<p>Considered to be covered under existing legislation, particularly Water Framework Directive and EIA legislation.</p>
Water temperature and salinity	<p>It would be helpful to include an explanation in the supporting/justification text as to what is meant by “minimised” and what is meant by “mitigated” and to ensure that this approach is consistent across the policies.</p>	<p>Explanations on minimisation and mitigation have been included within the policy text.</p>
Pollution and water quality	<p>It would be helpful to include an explanation in the supporting/justification text as to what is meant by “minimised” and what is meant by “mitigated” and to ensure that this approach is consistent across the policies. This could be duplicating WFD delivery elsewhere.</p>	<p>Explanations on minimisation and mitigation have been included within the policy text.</p>
	<p>Plan objective 7 on water quality needs to refer to general water quality and not just estuarine.</p>	<p>Some policies merged and deleted and signposting to Water Framework Directive compliance assessments included under the objective.</p>

Table D.7: Options stage recommendations and MMO's response (water environment)		
SA sub topic	Recommendations	MMO response
	The policies relating to water quality should refer to the MSFD descriptor 7 (Permanent alteration of hydrographical conditions does not adversely affect the ecosystem). The MSP should not allow deterioration of water quality in some areas. There should be some flexibility, however, as some areas can tolerate a decline in water quality without harm.	MSFD descriptors included in front end of text with table detailing which objectives relate to each descriptor but objective 7 merged with objective 5.
	There are currently no policies relating to avoiding or dealing with pollution incidents at sea. This should relate to shipping. The channel is likely to get much busier so the plan needs to be future proofed in this regard.	We consider this to be covered by existing legislation.
Eutrophication <sup>17</sup>	There is a policy gap with regards to reducing eutrophication. It is recommended that this is addressed through support for the reduction in nitrate discharges into the marine environment.	We consider this to be addressed through terrestrial planning.
Contaminants	There is a policy gap with regards to contamination events such as oil spills. The growing traffic in heavy fuel oils through the region raises the risk of accidental spillages occurring although international efforts to improve the quality of ships and crews are likely to have the most significant benefit to this. There may be scope for the draft South Marine Plans to help minimise this risk further.	We consider this to be covered by existing legislation.
Marine litter	None of the options address sources of marine litter which draft South Marine Plans could influence, particularly in relation to development projects / port expansions. The policies do not mention bycatch which could be considered litter.	The majority of litter is from terrestrial sources and is therefore outside of the MMOs remit. Policy ML-3 discusses activities to reduce marine litter which therefore covers ports.  Bycatch is not considered litter and a very specific definition of litter is

<sup>17</sup> Having waters rich in mineral and organic nutrients that promote a proliferation of plant life, especially algae, which reduces the dissolved oxygen content and often causes the extinction of other organisms. The process of eutrophication makes the water more eutrophic.



**Table D.7: Options stage recommendations and MMO's response (water environment)**

SA sub topic	Recommendations	MMO response
		given within the policies and within the MSFD.

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