

East Inshore and Offshore Marine Plans

Implementation and Monitoring Plan

June 2014



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Chapter 1 Introduction and Summary

This implementation and monitoring plan supports the East Inshore and East Offshore Marine Plans asadopted on 2 April 2014. It replaces the Outline of the East Inshore and Offshore Marine Plan Implementation and Monitoring Approach document published alongside the East marine plans. Taking account of requirements in the Marine and Coastal Access Act 2009 (referred to as The Act), it sets out an approach to marine plan implementation describing in detail the monitoring approach adopted by the Marine Management Organisation

In terms of implementation, this document is especially relevant to government organisations, local authorities, Inshore Fisheries Conservation Authorities and statutory nature conservation bodies holding decision making functions with potential to affect the marine area. This document describes what is required, alongside suggestions as to how these requirements may be met. For monitoring, the content describes the Marine Management Organisation's approach, how engagement with other decision makers on monitoring has been - and will be - carried out.

This plan is primarily aimed at decision makers responsible for authorisation or enforcement decisions in the marine area, including the Marine Management Organisation itself. It will also be of interest to public authorities witha duty to have regard to the marine plans and the Marine Policy Statement, when taking any decision which relates to the exercise functions capable of affecting the whole or any part of the UK marine area and stakeholders such as those applying for consents for development.

1.1 Legal requirements for implementation, monitoring, reporting and subsequent review and amendment

Implementation

It is a legal duty under Section 58 (1) of The Act for all public authorities taking authorisation or enforcement decisions to make them in accordance with the appropriate marine policy documents. In the East plan areas these are the East Inshore and East Offshore Marine Plans and the Marine Policy Statement, unless relevant considerations indicate otherwise.

Section 58 (2) of <u>The Act</u> states that where an authorisation or enforcement decision is not taken in accordance with the appropriate marine policy documents, a public authority must state its reasons for doing so.

Public authorities taking decisions that are not concerned with authorisation or enforcement but which might affect the marine area, for example decisions about what representations they should make as a consultee or in the preparation of terrestrial plans, must have regard to the Marine Policy Statement and marine plans as stated in Section 58 (3) of The Act. Public authorities making decisions of this kind may include; the Marine Management Organisation, local authorities, and Inshore Fisheries Conservation Authorities.

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¹ Marine and Coastal Access Act (2009) s.58

Decisions made on an application for an order granting development consent under the Planning Act 2008 (c.29) must have regard to the appropriate marine policy documents in taking any decision capable of affecting the whole or any part of the UK marine area as per Section 58 (4). This includes of decisions such as those made in relation to nationally significant infrastructure projects (NSIPs), where decision makers in this context includes government departments. In these cases, while the public authority making such decisions must have regard to marine plans and the Marine Policy Statement, the decision must be made in accordance with the relevant National Policy Statement/s. Examples of nationally significant infrastructure projects could be a major port development or an offshore wind farm over 100MW.

Monitoring and Reporting

The monitoring and periodical reporting on the implementation of the marine plans is a legal requirement under Section 61 of <u>Act. There</u> are two reporting duties within <u>The Act</u> which are outlined in more detail below.

The three-yearly progress report

At intervals not more than three years after each marine plan is adopted there is a duty to report on:

- the effects of policies in the marine plan
- the effectiveness of those policies in securing plan objectives and
- the progress towards achieving any objectives set out for that region in a marine plan and the <u>Marine Policy Statement</u>

Once prepared these reports will be laid before Parliament by the Secretary of State. After the report is published the Secretary of State must decide whether or not to amend or replace the marine plan.

It is important that the progress report is clear and transparent, easily accessible by stakeholders and contains evidence presented in simple visual formats such as tables and charts with associated narrative. Detailed assessments of the evidence used to draft the report will also be made available.

The progress report will cover a number of themes for the East plans:

- a review of the context in which they sit
- evidence demonstrating effective implementation of the plans
- evidence demonstrating their effects
- stakeholder evaluation on the interpretation and implementation of the plans
- priority actions for implementation through the next reporting period, (for each policy, the report might seek to identify possible or actual reasons for under or overperformance against objectives, and how these may be addressed).

Potential actions identified through the report may include any of the following:

- a partial review of one or more of the East marine plan policies
- the need to review and revise the indicators, or the content of the implementation and monitoring plan to reflect any changes to the marine plan policies
- commissioning or undertaking further research

- working with partner organisations to identify or overcome identified obstacles to delivery of the plans
- changes in management or decision-making approaches in order to achieve the East plans' policies and/or objectives.

The six-yearly progress report

In addition, at intervals of not more than six years beginning with the date of the passing of
The Act there is a duty to report on:

- marine plans that have been prepared and adopted
- intentions for their amendment and
- intentions for the preparation and adoption of further marine plans.

The six-yearly report will be an update on the marine planning system in England as a whole. This will draw on any three-yearly reports which have been undertaken and wider information gathered throughout the marine planning process.

1.2 Possibility of early review of the East marine plans

Monitoring and review of the East marine plans is essential in ensuring that they remain fit for purpose, take account of any new/evolving influences where appropriate and provide information and lessons that can be applied to improve the marine planning system as a whole. As these are the first marine plans, learning through their implementation may lead to review and amendment of the plans sooner than assumed in the Analysis of the East Inshore and East Offshore Marine Plans document. Equally, if there are significant changes to the evidence base supporting the East marine plans, or there are other relevant considerations that have arisen since the plans were adopted such as new legislation, the Marine Management Organisation may need to recommend an earlier review to government. The scope of such a review and amendments will depend on the issues raised and available resources.

1.3 Principles for implementation and monitoring

The East marine plans will be delivered through existing regulatory and other decision-making mechanisms, including those intended for the management of existing and future assets and activities. The relevant public authorities, including the Marine Management Organisation, will adhere to the <u>better regulation principles</u> and act in a way that is proportionate, accountable, consistent, transparent and targeted. Both the Marine Management Organisation and the Department for Environment, Food and Rural Affairs have promoted awareness of marine planning, the participatory approach to plan-making enablin public bodies and other stakeholders to become familiar with, and involved in the development of, the marine plans and emerging marine planning system.

With this context in mind, and with specific reference to marine plans, the following principles should be applied:

 clarity on what the marine plans are seeking to achieve, what success looks like, the role and identity of those involved, and how delivery is being monitored

- implementation activity should be limited to that necessary to fulfil regulatory objectives and be targeted via a risk-based approach
- existing mechanisms and data will be used in preference to the establishment of any new or additional systems
- where evidence is insufficient, inconclusive or unclear, public authorities will need to apply precaution within an overall risk-based approach², in accordance with the <u>sustainable development policies of the UK Administrations</u>. This will apply equally to the protection of the natural marine environment, impacts on society and on economic prosperity
- a proportionate level of strategic and detailed assessment should be considered in decision-making, determined by the complexity, scale and sensitivity of the project or activity
- where the opportunity arises and resource allows, the Marine Management
 Organisation will work with other parties effectively in a manner consistent with the
 duties placed upon them under <u>The Act</u> and the duty to co-operate as set out in the
 Localism Act 2011
- the Marine Management Organisation will focus on requirements as set out in legislation to direct its monitoring and be informed by the understanding that: (i) monitoring will seek to capture the full impact of marine plans by looking beyond identifying the direct effect of policies; and (ii) the best possible evidence available will be drawn upon with an ambition of monitoring all aspects of marine plans, (though the wide range of topics covered mean there will be variability in the confidence that can be assigned to the information gathered).

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² This means that if the risks from an activity are uncertain, preventative measures may be required if there is concern that human activities may harm human health, living resources and marine ecosystems or interfere with other legitimate uses of the sea, or have other social and economic impacts. This would need consideration based on risk.

Chapter 2 Implementation

2.1 How marine plans will be implemented

This chapter sets out further detail on:

- decisions affected by marine plans
- implementation of the plans for applicants and advisors
- the role of decision makers.

2.2 Decisions affected by marine plans

Proposals

The East marine plans refer to 'proposals' in plan policies³. These can mean something new, a change in use (including developments) and uses subject to management by public authorities, eg fishing or certain recreation, together with management measures, and may relate to either authorisation or enforcement decisions.

Legislation

The bodies and types of decision that marine plans may have a role in informing are described in section 1.1 of this document. While decisions relating to proposals within a given marine plan area are clearly relevant in terms of utilising marine plans, Section 58(3) of The Act sets out that marine plans should play a part in all decisions that 'relate to the exercising of any function capable of affecting the whole or any part of the UK marine area'. If an activity adjacent to a plan area where a marine plan has been adopted has the potential to impact that plan area, then decisions related to this activity should be taken in light of that marine plan.

Implementation approach

In order for public bodies to effectively implement marine plans, they need to understand how best this can be done in the context of their day-to-day activities through due consideration in decision making. In implementation, decision makers may wish to use the Marine Management Organisation's tools and guidance available (section 2.5), consider the Marine Management Organisation's experiences (section 2.4), and be aware of related engagement undertaken to date (see Annex.8).

2.3 Implementation for applicants and advisors

In providing advice to applicants, public authorities may wish to highlight their obligations in terms of making their decisions in accordance with Section 58 of <u>The Act</u>. Public authorities will be able to signpost applicants to the plan and provide advice on how applicants can demonstrate that their proposal is in accordance with it.

³ East Inshore and East Offshore Marine Plans (2014), Annex 1 – Glossary

Efficient ways for decision makers to ensure proper consideration of marine plans may be found through use of existing processes. This could include consideration of marine plan policies at the pre-application stage and/or, incorporation of marine plan policy assessment using existing assessments currently completed by applicants⁴.

Consideration of the plan in its entirety is appropriate given multiple marine plan policies will be relevant to any given proposal.

2.4 Implementation within the Marine Management Organisation

This section sets out how the Marine Management Organisation is implementing the East marine plans, providing examples of howthat implementation could be undertaken. It is expected that these examples can be adapted and applied by other decision makers as appropriate, to aid marine plan implementation through their own functions.

The Marine Management Organisation is implementing the marine plans across all decision-making functions including marine licensing. The marine licensing team have produced internal desk notes which provide information to case officers on how to use the plans when making authorisation decisions. The desk note includes a plan policy analysis of the East marine plans, with a suggested approach as to how each policy might be considered in assessing proposals submitted to the Marine Management Organisation. These desk notes are not definitive as there is a requirement to accommodate the wide variation in proposal-specific elements that need to be considered on a case by case basis. The Marine Management Organisation's desk notes focus on its decision making functions, so public authorities may wish to produce desk notes directly applicable to them and the decisions they make. A description of the decisions made by the marine licensing function that are delivered in line with adopted marine plans is set out on the Marine Management Organisation website.

The following reflects the Marine Management Organisation approach that may be useful to others in implementing marine plans:

• In confirming decisions are in accordance with or have regard to the East marine plans, there is a need to ensure other relevant considerations are taken into account. For the majority of decisions there will be relevant considerations other than the marine plans, such aslegislation, regulations, policies, or existing measures which are already being implemented. These relevant considerations may well have more influence on the decision than the marine plan/s policies. Decisions may be made that are not in accordance with the marine plan if relevant considerations indicate that another course of action is more appropriate. Where that is the case, decision makers reasons for doing so should be recorded to inform assessment, (this information may also be useful for the purposes of reviewing marine plans and in the event of any challenge).

⁴ One example of this is the supporting assessments and evidence provided for relevant applications under The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)

- Marine planning should be considered through existing decision-making processes.
 It is anticipated that policies set out in marine plans can be considered alongside other requirements that are checked or assessed through existing ways of working⁵.
- When considering how marine plans will guide decision making, the Marine Management Organisation has:
 - identified what decisions may require consideration of marine plans and how marine plan policies will be assessed as part of decision making, eg at what stages within the application process should plans be considered
 - o identified gaps between the information currently provided by applicants and others and that needed to inform assessment against marine plans
 - reviewed current systems and processes and identified how these can be effectively adapted.
- Decision makers are responsible for providing advice on marine planning in relation to individual decisions. The scope of advice provided is at the discretion of these decision makers but may be determined in line with current practice, guided by the approach to provision of advice on other matters.
- Decision makers are encouraged to record and share lessons learnt from the application of marine plans. This will support refinement of marine plans and therefore assist decision makers directly in their day-to-day application.
- Implementation of marine plans is currently focussed on the East plan areas, where
 there is an adopted plan; therefore more effort may be justified in relation to
 decisions affected by those plans. However, compliance with section 58 of The Act
 should be assured in all areas around England, this includes taking account of the
 Marine Policy Statement.

Where decision makers think a legal perspective is needed either a) in reviewing their decision-making process or b) in making an individual decision, they should use existing arrangements in place for obtaining legal advice in support of decision making.

2.5 Summary of guidance and tools to support implementation

In order to support implementation of the East marine plans the following documents and tools are available for decision makers and interested parties:

Marine information System (MIS)

The <u>Marine Information System tool</u> displays policies from the East marine plans in an accessible online format for use by all. Functionality includes:

- providing a gateway to access marine plans as they are developed across England's marine area
- policy considerations for the East marine plans that will inform plan users during application and decision-making processes
- multi-layer Geographical Information System-based mapping information, allowing a locally focussed search of activities and resources within the East plan areas

⁵ Such as within supporting documents accompanying application for a Marine License such as an environmental statement

• a 'Policy Check' within the East marine plan areas, enabling users to define an area on a map andidentify which marine plan policies apply (note that this functionality is expected to be made available later in 2014).

Planning Advisory Service Soundness Toolkit

To support local authorities the Planning Advisory Service (PAS) updated their <u>Soundness</u> <u>Toolkit</u>providing guidance on preparing or revising local plans, to include obligations under <u>The Act</u>, the <u>Marine Policy Statement</u> and marine plans as they are adopted.

Marine Planning: A Guide for Local Authority Planners

The Marine Management Organisation has produced <u>a guide for terrestrial planners</u> which explains the marine planning process and requirements under <u>The Act</u> and the <u>Marine Policy Statement</u>, drawing comparisons between land-use and marine planning, assisting land-use planners in their understanding of important links at the coast and beyond.

Other material that may be of assistance

The following plan-related material may be useful in providing wider context to marine plans and marine planning:

- Marine Planning Portal the <u>marine planning portal</u> is a key part of marine plan development and can be used to view and appraise the marine planning evidence base, including through the on-line comment function
- **key development documents** this <u>chronological list of documents</u> produced in developing the East marine plans includes research project reports, reports on key stages of the planning process and the East plan areas Evidence and Issues report.
- assessments of the <u>adopted East marine plans</u>, the final reports of assessments including a <u>Sustainability appraisal</u> and <u>Habitats Regulations assessment</u> were also published that assess the plan against the requirements of relevant European directives.
- evidence reports marine evidence and data required for the work of the Marine Management Organisation, including marine planning, are systematically acquired and managed. The Marine Management Organisation ensures that data and evidence are publicly available where possible and interpreted to a high standard for use in its decision making.

Chapter 3 Monitoring

3.1 Key considerations

Through their objectives and policies marine plans provide guidance and/or direction by which all decisions in relation to marine activities, designations and the environment can be made strategically, according to the plans vision. Conformity with the Marine Policy Statement ensures that decisions made within a plan area contribute to the delivery of the overarching vision for the UK marine area. In order to show contributions made by themarine plan/s,

an approach that is both proportionate and achievable in line with the principles outlined in section 1.1, identifies a number of key considerations sections 3.2 to 3.7.

3.2 Process and Outcome monitoring

To understand why the East marine plans are operating in a certain way, and are having the effect they are, requires the monitoring approach to address two main components. Firstly, it is important to understand whether the marine plans are being effectively implemented (process monitoring). Secondly, we must monitor the outcome of the plans themselves. While process monitoring alone cannot determine whether the plans have been effective, it can give useful insight into why objectives were or were not met.

3.3 Taking a framework approach

The overall monitoring approach will be appropriate for all marine plans but must recognise that planning is still developing and the monitoring approach may also need to evolve. To do this, the framework should articulate how the activities resulting from planled decision-making link to the plan objectives and in turn the Marine Policy Statement objectives. This approach allows subsequent plan objectives to fit into one framework, and provide an explicit link to the Marine Policy Statement, allowing monitoring of the cumulative effect of planning and wider effects/benefits.

Such an approach will look at the plans as a whole, recognising that plan policies will contribute to a number of objectives and each plan objective will impact on economic, social and environmental outcomes, even if that is not immediately apparent. There will be direct and indirect pathways to their achievement, single indicators possibly appropriate as a measure across multiple objectives. Two examples are provided to illustrate this point:

- all sector policies contribute towards Objectives 1 and 2; however a single indicator of Gross Value Added across marine sectors or employment across marine sectors will provide suitable information against each one
- objective 6 seeks to maintain a healthy, resilient and adaptable marine ecosystem and its direct impact is on ecological/environmental outcomes. However, since in turn this can affect the welfare/ health of local people there are implications for social outcomes

3.4 Plans are not the sole instrument of change

It is important to recognise that there are a number of other influences within the marine plan areas, some with overlapping objectives, together with other factors influencing change (such as changes to the licensing system and market forces). The marine plans are therefore not the sole instrument of change; this is recognised in the marine plans through signposting to other relevant information, such as local authority policies. As a result it will be challenging, and in some cases it may be impossible, to assess how an outcome (such as a higher rate of employment) or what portion of an outcome can be attributed solely to the East marine plans. When reporting, the Marine Management Organisation will instead explore the contribution marine plans have made to an outcome, rather than attempting to assess the contribution of plans in relation to other contributing measures, or to explain the reasons why the wider outcome has or has not been achieved.

3.5 Taking account of best practice and existing approaches

Development of the monitoring framework has been informed by the <u>Government's Magenta Book</u>, the <u>Marine Policy Statement</u> and the Department for Environment, Food and Rural Affairs' <u>marine planning description document</u>. Case studies from marine and terrestrial, statutory and non-statutory plans have also been considered, along with stakeholder feedback from Marine Management Organisation led decision-maker workshops held in 2013⁶ and engagement throughout the marine planning process.

3.6 Promoting join up

There are a number of monitoring programmes in place to measure outcomes such as health, wellbeing, employment and environmental change. The Marine Management Organisation has undertaken an assessment to determine which requirements for plan monitoring can be met through existing programmes of work. This will avoid duplication of effort and will draw on these sources of evidence where possible. Where an appropriate monitoring programme or indicator is not available, the Marine Management Organisation will specify the gaps or weaknesses and consider possible future solutions based on the significance of the gap and the resource implications of filling it.

The Marine Management Organisation consulted with other decision-makers and data owners in order to assist the development of the monitoring approach, to promote join-up and to encourage ownership of the Implementation and Monitoring Plan.

Separately, a suite of monitoring targets and indicators is being developed by the Department for Environment, Food and Rural Affairs and the Devolved Administrations to determine progress towards achieving or maintaining Good Environmental Status under the Marine Strategy Framework Directive. Once finalised, where appropriate these will be embedded within the monitoring framework for each marine plan to demonstrate how planning is contributing to the Marine Strategy Framework Directive.

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⁶ The MMO has also commissioned advice on the monitoring framework and in particular on measuring social outcomes through MMO1061

3.7 Meeting requirements of the <u>Sustainability Appraisal</u> Report, <u>Habitat</u> Regulations Assessment, and Analysis of Impact

In addition to the legal requirements for monitoring laid out in <u>The Act</u> there are a number of other considerations, such as monitoring the context in which the plans operate and the assumptions they are based on, and meeting the requirements of the <u>sustainability</u> <u>appraisal</u> and <u>habitats regulations assessment</u>.

The Act requires that the marine plan-making process is subject to a Sustainability Appraisal, which considers the economic, social and environmental impacts of the plan. This identifies likely significant effects along with steps to avoid and/or mitigate these as well as identifying opportunities to maximise the plans' sustainability. Monitoring of marine plans will test the effects of implementing the plans against any significant effects predicted. This helps ensure significant effects are identified and remedial action is implemented accordingly. Details of the monitoring requirements for the sustainability appraisal and how they are met are in annex 5.

Marine plans are given effect through decisions; the East marine plans alone will not lead to direct effects on sustainability. However, a wide range of potential effects are possible when the plans are used in decision-making (eg to grant consent for particular activities, promote new initiatives, or support new designations within the marine environment).

The East marine plans' Sustainability Appraisal concludes, 'the East marine plans are broad spatial plans, which are but one driver in the marine area, that although monitoring of the marine plans will be able to identify whether there are improvements in conditions and trends within the marine area generally, it will not necessarily be possible to attribute this to the marine plans specifically'. This conclusion reinforces the points made in section 3.4. It also provides valuable information as to how to potentially improve the link between marine plans and the effects they have.

The <u>sustainability appraisal</u>, habitats regulations assessment and <u>Analysis of the East Inshore and Offshore Marine Plans</u> documents each contain useful information contributing to plan monitoring such as baselines against which outcomes will be monitored. They also contain a number of predicted future effects and therefore are to some extent based on assumptions. As evidence is gathered to support monitoring, this can improve the accuracy of assumptions made, leading to better predictions in the future.

As a result of these key considerations, we have adopted the following approach.

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⁷ The SA incorporates the requirements of the European Union (EU) Strategic Environmental Assessment (SEA) Directive (<u>Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment).</u>

Chapter 4 What we will monitor

4.1 Monitoring whether the East marine plans have been implemented effectively

4.1.1 Process Monitoring

An important element of monitoring will involve evaluating whether the East marine plan policies have been implemented effectively. This is also known as 'process monitoring' and will help the Marine Management Organisation to understand:

- if the East plans are being implemented as intended and if not, why not
- how implementation has affected people's work
- the 'why' behind if the East plan objectives have, or have not, been met.
- whether (and how) the East plans need to be revised in the future.

Process monitoring cannot determine whether an East marine plan policy 'worked'; this can only be achieved through monitoring any outcomes that arise from successful implementation (described in more detail in section 3.2). It will complement outcome monitoring by providing crucial insights into why a policy did, or did not, work. For example, whether any issues were related to poor implementation/ communication, rather than a policy itself being ineffective. Information gathered through process monitoring will be analysed, recommendations for changes to the plan or plan implementation laid out in the East Inshore and Offshore Marine Plans progress report to the Secretary of State. Monitoring whether the East marine plans have been implemented effectively will be especially important in the early stages after plan adoption, as the information gathered will be used to help us address any initial implementation difficulties as they arise.

4.1.2 Monitoring the wider benefits of marine plan implementation

In the East marine plans, there are particular synergies between requirements for process monitoring and requirements for monitoring objective 10 (Governance), which aim to ensure integration with other plans and governance structures, enabling effective management of key activities and issues in the plan areas.

Objective 10 is closely linked to the successful introduction of the marine planning system as a whole, and it is therefore important that we consider how we can measure whether some of the wider benefits of marine planning are being achieve,d such as streamlined decision making or confidence in plan-led management. Indicators for process monitoring can be found in more detail under Objective 10 in annex 4.

Time spent processing applications is already measured by the Marine Management Organisation (through database systems including its Marine Case Management System, the European Fisheries Fund database and the payment processing system (BillQuick). In addition to using these database systems, other indicators for streamlined decision-making will include surveys, the monitoring focus group and marine planning customer insight group, which will allow the measure of time for both pre-application and application phases. It is important to consider that these indicators may initially show an increase in

the time taken to process applications while marine planning is still in its infancy (as people familiarise themselves with the new processes involved in plan-led management). Indicators for wider confidence will also include key performance indicators and survey results (please see annex 4 for more detail on selected indicators).

4.1.3 Monitoring the plan making context and progress

In addition to monitoring whether the East marine plans have been implemented effectively, process monitoring will also assess a number of other factors such as the wider marine planning context and the plan-making process itself. This will firstly involve a review to check that the policies and objectives in the plans still conform with other high level policy drivers such as the National Planning Policy Framework. It will also involve such things as reporting on progress in delivering legal requirements to develop marine plans, the number of stakeholders consulted during plan development and review, and the usefulness of evidence projects commissioned to support marine planning. This information will be collected by the Marine Management Organisation every three years to fulfil legal reporting obligations under the The Act and will assist understanding of whether and how plan amendments are needed.

4.1.4 Indicators for monitoring effective implementation

There are a wide range of qualitative and quantitative data collection instruments that will allow us to monitor whether plans are being implemented effectively. The instruments have been selected based on their suitability for particular indicators (further detail on the indicators being used for process monitoring can be found under objective 10, set out in Annex 6.3). These include Marine Management Organisation systems managing applications and decisions (including authorisation and enforcement decisions, and all other decisions capable of affecting the East marine plan areas), such as the Marine Case Management System (MCMS) and the database to manage European Fisheries Fund (EFF) applications. The Marine Management Organisation has undertaken some minor system changes, such as enabling the databases to assign an application to a particular plan area, and through adding questions and check boxes. Marine Management Organisation key performance indicators (KPIs) will also be of use for process monitoring, as they will allow for consistent measurements year on year.

As much of the information needed for monitoring processes is new and specific to those using the plans for decision-making, the Marine Management Organisation will be drawing heavily on sources of information such as surveys and focus groups. A bespoke East marine plan monitoring survey has been developed which will allow the Marine Management Organisation to ask questions to a targeted audience. The survey will be issued to a wide range of recipients including decision-makers and licence applicants (including Marine Management Organisation staff). A sample list of questions can be found in annex 6. The annual customer survey will be used to assess general awareness of the East marine plans amongst a much larger group of stakeholders.

There are some stakeholders that the Marine management Organisation requires a greater level of detail from on a more regular basis, such as frequent licence applicants and decision- makers. The Marine Management Organisation Customer Insight Group currently collects information from frequent licence applicants; this will be widened to

include a number of key decision making bodies for whom successful plan implementation will be the most critical. The group will be contacted at intervals of three to six months for discussions centred around plan implementation (see annex 7 for sample questions). Information collected will include detail on how the plans are being used in decision-making, particularly with reference to specific licensing cases.

In developing the monitoring approach, the Marine Management Organisation has been working with a select group of decision makers who have been advising on how best to monitor the East marine plans, (known as the Monitoring Advisory Group). This group will continue to be relied upon at important stages in the monitoring and review process, and will discuss monitoring evidence gathered and any resulting actions required. This will include discussion on the process used for monitoring and whether any improvements can be made.

4.2 Monitoring the outcome of marine plans

The eleven objectives stated in the East marine plans reflect objectives in the Marine Policy Statement that are relevant to local circumstances within the East plan areas. Numerous supporting documents and literature was used to develop a series of logic models in line with government guidance, demonstrating the pathways by which East plan policies contribute to change in those wider economic, social and environmental outcomes.

This approach enables the identification of the relevant social, environmental and economic outcomes to be monitored for each objective. The logic chain analysis undertaken for each objective is shown in annex 4.

It is important to establish a baseline against which to measure progress in achieving the plan objectives. For the purpose of marine planning, the baseline is not intended to describe the plan area in an unaltered or undeveloped state, instead it provides an assessment of the plan area currently, and what is predicted to have happened in the absence of a plan. This approach acknowledges that baselines are dynamic and would be expected to change over time due to a range of other factors⁹.

4.2.1 Mapping East Plan Objectives to Outcomes

Table 1 shows the result of mapping the East plans' objectives onto the relevant outcomes. It provides a summary of the direct (in bold) and indirect outcomes under each outcome type. It acts as both a simple guide for the indicator search and selection process (see Section 4), and as a useful tool to understand where multiple objectives are likely to contribute to the same outcomes and therefore utilise the same or similar indicators. The Marine Policy Statement High Level Marine Objectives are included to demonstrate how plan outcomes link to Marine Policy Statement outcomes.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220542/magenta_book_combined.pdf

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⁹ See annex 2.3 for more information on baselines

Table 1: Relationship between objectives and outcomes. NB, this a guide to the more obvious links rather than being definitive.

Achieving a sustainable economy		nd just	Living withi								Using sound science responsibly
Increase in total economic productivity across all marine sectors.	Increase in income levels.	Vibrant sustainable communities with reduced deprivation and improved health and well-being.	Increased Renewabl e energy capacity in East plan areas.	Quality and value of heritage assets, nationally protected landscapes and seascape retained.	A clean, safe and biologically diverse environment. A healthy and resilient ecosystem.	Biodiversity is protected, conserved & where appropriate, recovered.	The objectives of MPAs are met at a site level and as part of an ecologically coherent network.	Action on climate change mitigation and adaptation is facilitated.	Effective and efficient management of marine activities.	Successful integration between marine and terrestrial plans.	An improved evidence base is available to support implementation, monitoring and review of the East marine plans.
	sustainable economy Increase in total economic productivity across all marine	Achieving a sustainable economy lncrease in total economic productivity across all marine	sustainable economy healthy and just society Increase in total in sustainable conomic productivity across all marine sectors. which is a sustainable communities with reduced deprivation and improved health and	Achieving a sustainable economy Increase in total economic productivity across all marine sectors. Ensuring a strong, healthy and just society Increase Vibrant sustainable communities with reduced deprivation and improved health and Living withing the strong with reduced deprivation and improved health and	Achieving a sustainable economy Increase in total economic productivity across all marine sectors. Ensuring a strong, healthy and just society Vibrant sustainable communities environment lincreased Renewabl en energy capacity in and areas. Living within environment value of value of energy capacity in assets, nationally protected landscapes and well-being.	Achieving a sustainable economy Increase in total economic productivity across all marine sectors. Marine Sectors. Communities Commu	Achieving a sustainable economy Increase in total economic productivity across all marine sectors. Ensuring a strong, healthy and just society Living within environmental limits Renewabl value of and is protected, conserved & where deprivation and improved health and well-being. Living within environmental limits A clean, safe and value of and is protected, conserved & where appropriate, recovered.	Achieving a sustainable economy Increase in total economic productivity across all marine sectors. Ensuring a strong, healthy and just society Living within environmental limits Living within environmental limits Living within environmental limits Biodiversity is protected, objectives of heritage and biologically diverse environment. East plan areas. Ensuring a strong, healthy and just society Living within environmental limits Biodiversity is protected, conserved & MPAs are deprivation and areas. East plan areas. Fast plan areas. Fas	Achieving a sustainable economy Increase in total economic productivity across all marine sectors. Achieving a sustainable economy Ensuring a strong, healthy and just society Communities economic income levels. East plan areas. Ensuring a strong, healthy and just society Communities economic income levels. East plan areas. Ensuring a strong, healthy and just society Communities energy capacity in areas. Ensuring a strong, healthy and just society Communities energy capacity in areas. Ensuring a strong, healthy and just society Communities energy capacity in areas. Ensuring a strong, healthy and just society Communities energy capacity in areas. Ensuring a strong, healthy and just society Communities energy capacity in areas. 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Ensuring a strong, healthy and just society Increase in in sustainable communities with reduced deprivation and marine sectors. Ensuring a strong, healthy and just society Increase in in sustainable communities with reduced deprivation and and improved health and well-being. Ensuring a strong, healthy and just society Increase in in sustainable communities with reduced deprivation and improved health and well-being. East plan areas. Quality and value of and biologically diverse diverse assets, nationally protected. A healthy and recovered. Action on climate objectives of climate change met at a site level and as part of an ecologically coherent network. Effective and efficient management of marine activities. Fromoting good governance services.

NB: = Direct effect = Indirect effect

4.2.2 Monitoring indicator set

This section sets out the indicators that the Marine Management Organisation will use to meet the monitoring requirements as described in
The Act. Details for each objective/indicator are included in the annex10">https://example.com/html/>
The Act. Details for each objective/indicator are included in the annex10.

Table 2: Plan objectives and associated output and outcome indicators

Plan objective	Output indicators	Outcome indicators
1.Sustainable economic production	 1.1. GVA increase by marine sector across the East plan areas and Local authority areas bordering them (Source: Office for National Statistics)' 1.2. Decision makers' report an improved consideration of economic productivity in applications (Source: East Marine Plans monitoring survey) 	1A Total GVA change across all marine sectors, across the East plan areas and Local authority areas bordering them (Source: Office for National Statistics)
2. Sustainable Employment and skill levels	 2.1. Employment change by marine sector across all Local authority areas bordering the East marine plan areas (Source: Office for National Statistics) 2.2. Decision makers' report an improved consideration of employment in applications (Source: East Marine Plans monitoring survey) 	2A Change in Gross Domestic Household Income across all Local authority areas bordering the East marine plan areas (Source: Office for National Statistics)
3. Sustainable renewable energy potential	 3.1. Gross Value Added change in relevant sectors (ports, shipping, renewable energy, cabling (Source: Office for National Statistics) 3.2 Jobs created in renewables GVA and employment increase or decrease in relevant sectors (ports, shipping, wind) (Source: Office for National Statistics) 	3A GW installed capacity in East plan areas (Source: Department for Energy and Climate Change)
4 – Health and well being	 4.1. Decision makers report improved consideration within applications of provision for access to marine-related recreational activities. (Source: East Marine Plans monitoring survey). 4.2. Increased numbers of people engaged with the marine/coastal natural environment (Source: Natural England Monitor of Engagement with the Natural Environment (MENE) Survey) 	4A Increase in the numbers of people with medium – high measures of personal well-being. (Source: Office for National Statistics)

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¹⁰ All data will be apportioned to make it relevant to the East marine plan area specifically.

Plan objective	Output indicators	Outcome indicators
5 – Heritage Assets, protected areas and seascape	5.1. Decision makers report improved consideration within applications of provision for heritage assets, nationally protected landscapes and local seascape (marine character and visual resource). (Source: East Marine Plans monitoring survey)	 5A Decreased percentage of designated heritage assets at risk (including Historic Ship Wrecks at Risk). (Source: English Heritage Heritage at Risk Register). 5B Quality and value of Seascape retained (Source: MMO Seascape Assessment). The Broads Authority/Areas of Outstanding Natural Beauty State of the Environment Reporting.
6 – Healthy , resilient ecosystem	 6.1. Decision makers report an improved consideration of a) cumulative impact assessments and b) collision risk. (Source: East Marine Plans monitoring survey). This will be coupled with a quality check of assessments for larger proposals. 6.2. The ratio of near misses to collisions leading to hazardous substance release increases. (Source: MAIB) 	6A. Marine Strategy Framework Directive Good Environmental Status Reporting (use monitoring data so can disaggregate to Plan Area scale). (Source: SNCBs) 6B. Water Framework Directive Good Ecological/Chemical Status/Potential Reporting (aggregated to Plan Area scale). (Source: Environment Agency) NB: As Marine Strategy Framework Directive complements Water Framework Directive in coastal and transitional waters both measures are required.
7 –Biodiversity	7.1. Decision makers report an improved consideration of a) biodiversity and b) opportunities to incorporate features that enhance biodiversity and geological interests. (Source: East Marine Plans monitoring survey). This will be coupled with a quality check of assessments for larger proposals.	 7A Marine Strategy Framework Directive Good Environmental Status Reporting (use monitoring data so can disaggregate to Plan Area scale). (Source: SNCBs) 7B Water Framework Directive Good Ecological/Chemical Status/Potential Reporting (aggregated to Plan Area scale). (Source: Environment Agency NB: As Marine Strategy Framework Directive complements Water Framework Directive in coastal and transitional waters both measures are required.
8 – MPAs	8.1. Decision makers report an improved consideration of the MPA network in strategic level assessments (Source: East Marine Plans monitoring survey).	8A Site condition assessment reports show increased percentage of MPAs have achieved or are progressing towards favourable status (Source: SNCBS) NB: As guidance on considering a network in decision-making is yet to be agreed by Government, the outcome indicator focuses on individual sites at this stage. This will be kept under review.
9 – Climate Change	9.1. Decision makers' report an improved consideration of climate change adaptation and mitigation measures within applications. (Source: East Marine Plans monitoring survey)	 9A Decision makers' report that activities of marine sectors in the East plan areas are more resilient to the potential impacts of climate change, in comparison to similar activities: (i) in areas where plans are not adopted and/or (ii) made in a plan area before a plan was adopted, 9B Increase in both the number and capacity (installed gigawatts) of renewable energy installations. (Source: Department for Energy and Climate Change Digest of UK energy statistics, DUKES)

Plan objective	Output indicators	Outcome indicators
10 – Good Governance	 10.1. Increase in the percentage of decisions made in accordance with the East marine plans (Source: Marine Case Management System and East marine plan monitoring survey) 10.2. Increase in the percentage of licence applications citing each plan policy (Source: Marine Case Management System) 10.3. Increase in the percentage of applicants and decision-makers who feel the East plans have been implemented successfully (Source: East marine plan monitoring survey) 10.4. Increase in the percentage of terrestrial plans that reference the East marine plans (including specific policies and objectives) (Source: Internal Marine Management Organisation analysis) 10.5. Decision-makers report improved consideration in decision-making of a) terrestrial infrastructure b) co-existence and c) displacement in (Source: East marine plan monitoring survey) 	 10A Increased confidence in plan-led management and a decrease in decision making process time both in pre-application and application phases¹¹ (Source: Marine Case Management System, Marine Management Organisation Key Performance Indicator 1C1; East marine plan monitoring survey, Monitoring Focus Group and Customer Insight Group) 10B Increase in the percentage of Local Authorities bordering the East Plan Areas that are satisfied they have been able to integrate marine plans into their decision-making framework (Source: East marine plan monitoring survey)
11 – Evidence	 11.1. Increase in the number of new data sources available on the Marine Management Organisation Master Data Register that benefit the East Plan Areas (Source: Internal assessment of datasets) 11.2. Increase in the number of evidence projects developed in collaboration with other parties that the Marine Management Organisation has either led or been involved with that benefit the East plan areas(Source: MMO internal assessment) 11.3. Increase in the number of datasets available on INSPIRE geoportal that benefit the East Plan Areas (Source: Internal assessment of datasets) 11.4. Increase in the average quality assurance scores of evidence (Source: Internal assessment) 	11A Increase in the percentage of survey respondents who are satisfied that they have seen an improvement to the East Plan Areas evidence base. (Source: East marine plan monitoring survey)

¹¹ It is anticipated that this indicator may highlight an initial rise in decision-making process time while the plans are in their infancy.

4.3 Quality assurance and data management

Data and information collected for plan monitoring will be an important consideration when revising the marine plans. For this reason it is crucial t we ensure it is robust, fit for purpose and that appropriate quality assurance processes are in place both internally and with the third party data providers. The Marine Management Organisation has its own quality assurance processes where evidence is assessed for its validity, accuracy, timeliness, reliability, relevance and completeness.

As data is gathered, attention will be paid to its format, storage, management, accessibility, analysis, synthesis and interpretation. Data collected will be stored in a way that is compliant with the Marine Environmental Data and Information Network (MEDIN), Metadata Discovery Standards, the Marine Management Organisation seeking to ensure data provided by third parties is also compliant with them ¹².

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¹² http://www.marinemanagement.org.uk/evidence/gathering.htm

Annexes

1 How a plan delivers on its objectives

Through their objectives and policies marine plans provide guidance and/or direction by which all decisions capable of affecting the marine area can/should be made strategically, according to the plans vision. As the plans are in conformity with the Marine Policy Statement, this ensures that decisions made within a plan area contribute to the delivery of overarching vision for the UK marine area. It should be noted that the marine plans do not provide the only set of policies for marine activities. A number of existing policies and regulatory measures are already in place which direct how and where activities are undertaken. The marine plans seek to complement these, either reaffirming existing policies and regulations, or augmenting them through the creation of new policies in order to provide new or improved direction 13.

The <u>policies and objectives</u> of marine plans should 'control and influence, to varying degrees, the form, scale, timeframe and location of designations, uses and developments'. They do not establish any delivery mechanisms (ie instruments) by which to achieve plan objectives. Plans will be implemented through the use of existing regulatory and non-regulatory decision-making mechanisms. Even those under control of the Marine Management Organisation such as marine licensing, are empowered by legislation such as <u>The Act</u>, not marine plans.

1.1 Linking the Marine Policy Statement high level marine objectives with marine plans

The <u>UK Government's vision</u> is for 'clean, healthy, safe, productive and biologically diverse oceans and seas'. There are 21 high level objectives which articulate this vision. These objectives are reaffirmed in the <u>Marine Policy Statement</u>. They reflect a combined set of objectives for both the vision and all policies (not just marine plan policies) in the marine area. The high level marine objectives which set out the outcomes sought by Government are articulated in the context of the five sustainable development principles:

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

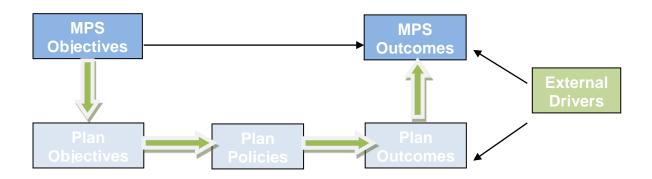
Marine plans interpret those high level objectives for a plan area reflecting the relative priorities established at the local level. These Plan level objectives are similarly set out under the five principles of sustainable development.

A marine plan then sets specific policies which guide activity in order to deliver particular outcomes relating to the plan objectives and contributing to the delivery of the <u>Marine Policy Statement</u> objectives. This process is depicted in Figure 3.

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¹³ MMO1061 – Method and data to monitor the social outcomes of marine plans (in press)

Figure 1 Relationship between Marine Policy Statement (MPS), Plan objectives and outcomes and external drivers (adapted from MMO1061¹⁴)



2 Developing a monitoring framework

In order to develop a monitoring framework which is appropriate for all marine plans we require two key things. The first is a framework that articulates how plan activities link to both Marine Policy Statement High Level Marine Objectives and marine plan objectives. This will allow the objectives of future marine plans to fit within one monitoring framework, whilst recognising that marine planning is developing and the framework may need to evolve. This will enable an explicit link to be made back to the objectives of the Marine Policy Statement to allow monitoring of marine planning in general (ie cumulative effect of all marine plans). The second is that we have a monitoring plan that outlines the key components of an evaluation logic chain that is in line with HM Government guidance (Magenta 15, Green 16 (Magenta, Green Book) and identifies the indicators that will be used to track the effects of plans.

2.1 Defining pathways to reflect a 'theory of change'

The starting point in developing the implementation and monitoring plan was to define the pathways by which plan policies can contribute to the economic, social and environmental outcomes of the High Level Marine Objectives and thereby to sustainable development. These pathways should reflect a 'theory of change'. This considers how the activities that the plan allows or encourages affect the local economy, society and environment and achieve the objectives in the marine plans. The next step is to outline the 'logic chain' that spells out inputs, activities, outcomes, outcomes and impacts as they relate to the plan objectives and policies. This process is illustrated in Figure 2.

^{4.4}

¹⁴ MMO1061 – Method and data to monitor the social outcomes of marine plans (in press)

¹⁵ https://www.gov.uk/government/publications/the-magenta-book

¹⁶ https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent

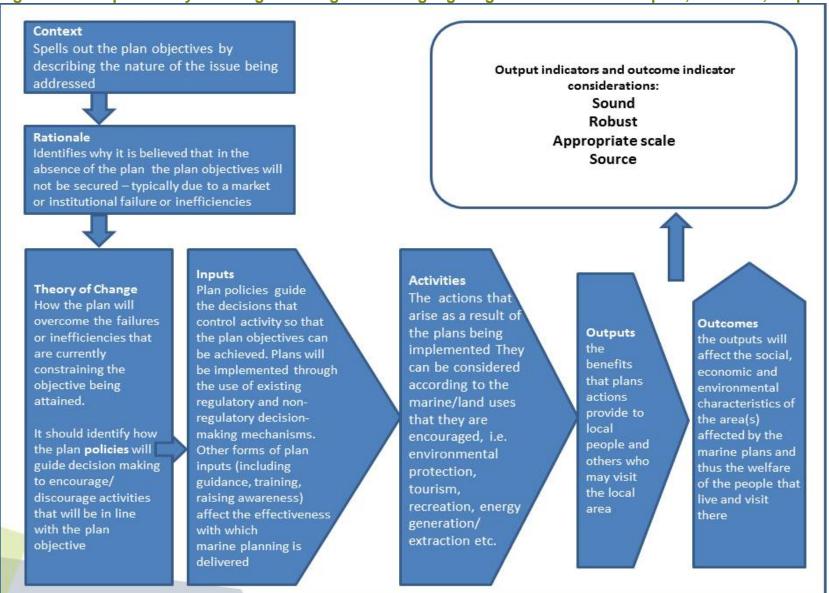
Figure 2 Theory of Change and Logic Chain



The plan objectives describe the context or nature of the specific issue being addressed. The rationale for intervention identifies why it is believed that in the absence of the plan the plan objectives will not be secured. The rationale for intervention (in this case the presence of a marine plan) is usually based on the existence of some form of market or institutional failure, for example regulation or management may be failing or not working at maximum efficiency. The theory of change describes how it is felt that the marine plans will overcome the market/institutional failures/inefficiencies that are currently constraining the objective(s) being achieved. In the case of marine plans, it should identify how the plan policies will guide the decisions to encourage/ discourage activities that will be in line with the plan objectives. Using the logic chain approach, we can define and highlight the links between:

- inputs: in the context of marine planning, these are the decision making processes relating to plan policies and existing mechanisms that control activity, so that the plan objectives can be achieved. For example, the policies may prevent an activity from taking place or condition the interaction of one sector with another. There are other forms of inputs that also assist in the delivery of plan policies such as the provision of guidance, training and workshops to raise awareness of plans and how to use them, increase join up of decision makers and applicants and improved consultation
- activities: that arise as a result of the marine plans being implemented through decision making. They can be considered according to the marine/land uses that are encouraged, ie environmental protection, tourism, recreation, energy generation/ extraction etc.
- outputs: the products or benefits that the actions will deliver
- **outcomes:** how the outputs will affect the wider social, economic, environmental and governance characteristics of the East marine plan areas. The Marine Management Organisation will provide a narrative as to how the marine plans have contributed to the outcome and will continue to develop and test the efficacy of such models working with others as necessary. See Figure 3.

Figure 3 Example 'theory of change' and logic chain highlighting the links between inputs, activities, outputs and outcomes



It should be recognised that each plan objective will impact on economic, social and environmental outcomes even if that is not immediately apparent in its statement. For example, objective 6 seeks to maintain the ecosystem and its direct impact is on ecological/environmental outcomes. However, since in turn this can affect the welfare and health of local people there are implications for the social domain. There will be direct and indirect pathways to the attainment of impacts associated with all objectives. A central issue was to establish which pathways generated strong or weak effects and the extent to which the pathways are understood and measurable.

A further issue is that actions in the plan area may well have impacts in adjacent areas and vice versa (known as leakage¹⁷). A central issue is to establish the boundaries of the effects arising from the Marine plan¹⁸. This is particularly important because some marine plan objectives seek to coordinate or harmonise impacts between the plan area and its surrounding areas (such as objective 10). This is not straightforward. In some cases it may be easy to identify a strong and direct relationship for those benefitting from the plans as they have a stake in the plan area (either the activity is undertaken in the East marine plan areas or they are directly affected by the plan). In other cases, however, this relationship is weaker. For example some may only benefit from improvements in the quality of the place when they visit it, or pass through it on the way to somewhere else. It is important to establish the different groups of people who may benefit according to their socio-economic characteristics. Similarly it is also necessary to be clear about the duration and durability of the impacts that will arise.

We are not yet able to identify and isolate the impact of marine plan objectives and policies and instead identify where they will contribute to outputs and outcomes, alongside other drivers. As such, it is also not possible to identify leakage that might occur as a result of the plan policies, or to quantify or try to measure boundary effects. It is anticipated that the implementation and monitoring of the East marine plans may yield information that should help to identify such effects in the future.

Leakage is a term that describes the process of economic benefit (primarily flows of capital and employment, though it can be applied to people and knowledge too) moving beyond a boundary away from where the benefit was intended to occur, or away from where it is desirable for it to occur. For the implementation of policy, it is useful to be able to understand this leakage, in order to account for it in policy design or to help explain any variance between expectations of a policy and the results of implementation.

¹⁸ Boundary Effects

These are effects that occur where a boundary (in this case the marine plan area boundaries) does not match the area affected by activities that a policy or plan is trying to manage. As an example, an increase in aggregate extraction may have benefits within the marine plan area where the activity occurs, but will also have positive benefits outside the area, through the provision of resource for use in supply chains that extend beyond the plan area and through an increase in economic benefit which will be felt beyond the marine plan areas. One particular type of boundary effect is the spillover effect, when a change in something affects those not directly involved. In the example above, spillover effects would be felt by those from the construction activity that the aggregate extraction enabled. Because of the global, interconnected nature of many of the activities that occur in the marine plan areas, which do not stop at the marine plan boundaries, there will be boundary effects from the activities that the marine plans affect.

¹⁷ Leakage

2.2 Selection of suitable indicators

The indicator set for marine plans has been developed with input from decision makers in the East marine plan areas, and based on a series of sequential steps:

- development of logic chains for each objective
- a scoping exercise of major data and indicator sets to ascertain their relevance for marine plan monitoring
- appraisal of a list of relevant indicators for each objective.

It is not always possible for an indicator to meet all criteria; however a clear rationale and understanding of gaps or issues should be noted. There are instances where data is not easily available or circumstances when indicators are outlined as a proxy measure. As such, indicators may evolve as better measures or data becomes available. In order to deal with the issue of data availability/suitability of an indicator, the Office of National Statistics has taken an approach of identifying a set of 'essential' and also 'aspirational' criteria, providing flexibility to the data used, while acknowledging improvements are possible as data availability/type changes in the future ¹⁹.

As such the following set of appraisal criteria (Table 3) were used to aid indicator selection.

Table 3 criteria for indicator appraisal

Indicator	Title
Description	What the indicator is measuring/ data it captures
Rationale	Why the indicator/data is suitable and useful for the monitoring of
	change of any given objective
Source (URL	Where the data can be obtained and the role/responsibilities of those
link)	involved in data collection
Conceptual	Relevance to measuring and monitoring across the geography/
soundness	population. Capable of informing policy (marine and future policy
	considerations) in a time-bound manor. Level at which the meaning of
	the data is clear and its application easily understood by stakeholders.
	Extent the logic chain of the data is identifiable
Technical	The data is statistically validated and quality meets defined standards/
robustness	codes of practice. Also covers issues such as consistency of data
	(spatial scales) and transparency/ reputation and requirement for
	ongoing data capture
Spatial Scale	Availability, reliability and consistency of data at differing spatial scales
	(local, sub-regional, national etc) to be suitable to the outcomes being
	monitored

By ensuring as far as is practical any outcomes are linked back to actions, policies, plan objectives and ultimately <u>High Level Marine Objectives</u>, we can make sure that any future plans or plan iterations fit within the same overall monitoring framework. There will be a number of indicators that are 'core' to all plans through the framework, and some that will be bespoke to each individual plan.

¹⁹ MMO1061 – Method and data to monitor the social outcomes of marine plans (in press)

2.3 Establishing a baseline

For each output indicator, baseline data has been gathered to establish a threshold against which to measure progress. As the outcome indicators all relate to existing monitoring programmes, the best available baseline will be used.

For the purpose of marine planning, the baseline is not intended to describe the plan area in an unaltered or undeveloped state; instead it provides an assessment of the plan area currently, and what is predicted to have happened in the absence of a plan (this is sometimes referred to as the counterfactual). This approach acknowledges that baselines are dynamic and would be expected to change over time due to a range of other factors. Measuring the change from a baseline needs to take account of the counterfactual, and may involve measuring a deviation from the predicted trend, as well as any movement from the baseline itself.

Establishing the counterfactual is not easy, since by definition it cannot be observed, it is what would have happened if the plan had not gone ahead.

As described in section 3.4, it is recognised that attribution to broad spatial plans can be very difficult, particularly where many drivers contribute to the outcomes. In conjunction with Plan monitoring, the sources below may offer some comparison to provide a narrative on the Plans' contribution. Should future plans be more spatially specific, it will become easier to assess change against the counterfactual:

- The Business As Usual (BAU) approach in the sustainability appraisal or any analysis or impact assessment that accompanies the marine plans, and evidence gathered at the outset of planning in each marine plan area
- 2. Observations of areas without a marine plan. For example, it may be possible to monitor whether changes in the indicators are more prevalent under marine plan areas compared to those where the Marine Policy Statement remains the appropriate marine planning document.
- 3. Coastal typologies developed under MMO 1050 provide an overview of the types of coastal communities and their characteristics including current position and recent trends. Rather than comparing local trends against national ones, the baseline for each area could be taken against all areas in the same typology. As these have similar characteristics, observed differences in change are more likely to reflect real impact rather than background change.

Some baseline data is already available through existing monitoring programmes (including Marine Management Organisation key performance indicators) and data collected for the East Plan Analysis of Impacts and Sustainability Appraisal Reports. Where baselines are not currently available, data collection will commence as soon as possible, however it may take time to collect sufficient data to establish an adequate baseline.

3 High Level Marine Objectives

List of High Level Marine Objectives²⁰

1. Achieving a sustainable marine economy

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

6. Ensuring a strong, healthy and just society

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

13. Living within environmental limits

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

17. Promoting good governance

- 18. All those who have a stake in the marine environment have an input into associated decision-making.
- 19. Marine, land and water management mechanisms are responsive and work effectively together for example through integrated coastal zone management and river basin management plans.
- 20. Marine management in the UK takes account of different management systems that are in place because of administrative, political or international boundaries.
- 21. Marine businesses are subject to clear, timely, proportionate and, where appropriate, plan-led regulation.

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²⁰ http://wayback.archive-

it.org/3011/20130202040413/http://scotland.gov.uk/Topics/marine/seamanagement/marineact/Ourseas

22. The use of the marine environment is spatially planned where appropriate and based on an ecosystems approach which takes account of climate change and recognises the protection and management needs of marine cultural heritage according to its significance.

23. Using sound science responsibly

- 24. Our understanding of the marine environment continues to develop through new scientific and socio-economic research and data collection.
- 25. Sound evidence and monitoring underpins effective marine management and policy development.
- 26. The precautionary principle is applied consistently in accordance with the UK Government and Devolved Administrations' sustainable development policy.

4 Monitoring Indicator Set and Logic Chains

This section details the indicator set that will be used for the East Inshore and Offshore Marine Plans together with information on how it relates to the East Plan logic chains and the source of the indicators or method by which to construct the indicator.

Objective 1 outcome and ouput indicator tables and logic chain

Objective 1: outcome indicator 1A

Indicator	Total Gross Value Added across all marine sectors, across the
	whole plan areas and areas bordering them
Description	This indicator is measuring the change in Gross Value Added (GVA), which is a measure of economic performance, across all marine sectors. It is covering the East marine plan areas and those Local authority areas bordering the East Inshore Marine Plan area.
Rationale	This indicator is of use because it provides one of the best overall measures of the economic performance of the areas where the East marine plans will be most likely to have an effect; within their boundaries and in the Local authority areas along the length of the inshore boundary.
Source (URL link)	The indicator is a composite measure. It uses data from the Office for National Statistics, which is then disaggregated to focus solely on marine sectors (as identified by a bespoke piece of work commissioned by the Marine Management Organisation and undertaken in consultation with the Office for National Statistics).
Conceptual soundness	The main outcome of Objective 1 is to improve economic performance. This indicator measures the total performance for the sectors directly affected by the East marine plans in an area that covers both the plan areas and the local authority districts that border them. This should capture the majority of the direct economic benefit gained from the East marine plan areas, as most of the economic benefit will be realised in the East marine plan areas or when products are come ashore in the Local authority areas bordering them. Looking at the total sector data at the level of the plan areas and aggregated across all Local authority areas bordering the East marine plan areas gives information at a level suitable for assessment of an outcome of an objective; more disaggregated information may be more applicable to looking at particular aspects of policies that help to achieve this objective. The source data for this indicator are collected at least annually, if not more regularly, and have been since before marine planning started. This makes the timescales and intervals in data collection appropriate for the purpose of monitoring the effect of plans, with a view to reporting on them within three years.
Technical robustness	This indicator relies upon information with well-established methodologies, collected by those at the forefront of this type of data collection and use, the Office for National Statistics. There is a novel element, which relates to the disaggregation of information collected by Standard Industry Classification codes, which do not match the marine sectors identified in the East marine plans. The methodology for this has been developed in consultation with the Office for National Statistics, in order to be as consistent and robust as possible,

Indicator	Total Gross Value Added across all marine sectors, across the whole plan areas and areas bordering them
	recognising and accounting for the characteristics of the source data.
Spatial Scale	The source data for this indicator is publicly available at the scale of English regions and on request at the level of Local authority areas. As the East marine plans span multiple regions, the use of Local authority area level data is appropriate and allows for aggregation to the level of the East marine plans.

Objective 1: output indicator 1.1

Indicator	Gross Value Added change by marine sector across the East plan
	areas and Local authority areas bordering them
Description	This indicator measures the economic productivity, as measured by
	Gross Value Added (GVA) per sector.
Rationale	This indicator is of use because it provides the best measure of the economic productivity of each sector likely to be affected by the
	policies in the East marine plans that relate to economic productivity (the sector-based policies and EC1). It covers the areas where the
	East marine plans will be most likely to have a direct effect; within their
	boundaries and in the local authority areas along the length of the inshore boundary.
Source (URL	The indicator is a composite measure. It uses data from the Office for
link)	National Statistics, which is then disaggregated to focus solely on
	marine sectors (as identified by a bespoke piece of work commissioned by the Marine Management Organisation and
	undertaken in consultation with the Office for National Statistics).
Conceptual	The main outcome of Objective 1 is to improve economic performance.
soundness	This indicator measures the individual performance for the sectors
	directly affected by the East marine plans in an area that covers both
	the plan areas and the Local authority areas that border them. This
	should capture the majority of the direct economic benefit gained from the East marine plan areas, as most of the economic benefit will be
	realised in the East marine plan areas or when products are come
	ashore in the Local authority areas bordering them.
	Looking at the individual sector data at the level of the plan areas and
	at the level of individual Local authority areas bordering the East marine plan areas gives information at a level suitable for assessment
	of an output; it should help to identify how well particular sector based
	policies are working. The source data for this indicator are collected at
	least annually, if not more regularly, and have been since before
	marine planning started. This makes the timescales and intervals in
	data collection appropriate for the purpose of monitoring the effect of plans, with a view to reporting on them within three years.
Technical	This indicator relies upon information with well-established
robustness	methodologies, collected by those at the forefront of this type of data
	collection and use, the Office for National Statistics. There is a novel
	element, which relates to the disaggregation of information collected
	by Standard Industry Classification codes, which do not match the marine sectors identified in the East marine plans. The methodology
	for this has been developed in consultation with the Office for National

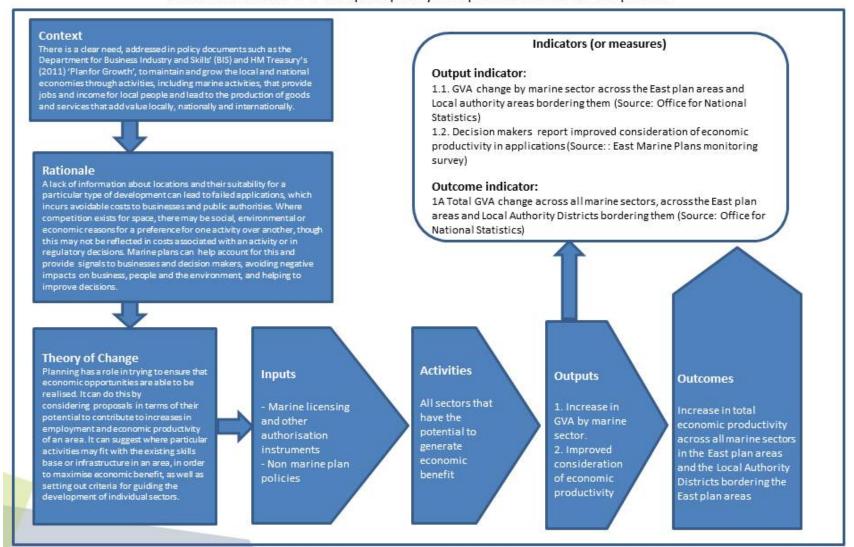
Indicator	Gross Value Added change by marine sector across the East plan areas and Local authority areas bordering them
	Statistics, in order to be as consistent and robust as possible,
	recognising and accounting for the characteristics of the source data.
Spatial Scale	The source data for this indicator is publicly available at the scale of
	English regions and on request at the level of Local authority areas. As
	the East marine plans span multiple regions, the use of Local authority
	area level data is appropriate and allows for aggregation to the level of
	the East marine plans.

Objective 1: output indicator 1.2

Indicator	Decision makers report improved consideration of economic
	productivity in applications
Description	This indicator measures the change in the quality of applications to decision makers, in relation to how applications consider economic productivity benefits.
Rationale	This indicator will help us to understand how effective policy EC1 is, in relation to increasing the consideration of aspects of economic productivity in applications.
Source (URL link)	The data for this indicator will come from the East marine plans monitoring survey, commissioned by the Marine Management Organisation.
Conceptual soundness	This indicator will measure decision makers' opinion that there has been an improved consideration of economic productivity in applications. This survey will cover all relevant decision makers and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond. The potential to measure 'improved consideration' in different ways
	was considered, with a number of factors, such as resource required for analysis, influencing the choice of a survey method. Using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring policy effectiveness.
Technical robustness	This indicator will use a survey that will be designed according to well-established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust. The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively
Spatial Scale	and quantitatively. The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Objective 1: To promote the sustainable development of economically productive activities taking account of spatial requirements of other activities of importance to the East marine plan areas.

Related to HLMO 1-5 and plan policy EC1 plus all sector-based policies



Objective 2 outcome and ouput indicator tables and logic chain

Objective 2: outcome indicator 2A

Indicator	Change in Gross Domestic Household Income across the Local
	authority areas bordering the East marine plan areas
Description	This indicator will measure the change in Gross Domestic Household Income. This indicator measures the amount of money that individuals in households have available for spending or saving after income distributions measures (for example taxes, social contributions and benefits) have taken affect. It covers the households in the Local authority areas bordering the East Inshore Marine Plan area.
Rationale	This indicator is of use because it provides one of the best overall measures of the economic benefit felt by the residents of the areas where the East marine plans are intended to have their most direct effect for this objective. By looking at changes to gross domestic household income we can start to see how changes in economic growth filter down (which will be mainly through increased employment) to those areas where the benefit is most intended to be felt.
Source (URL link)	The indicator uses data from the Office for National Statistics.
Conceptual soundness	The main outcome of Objective 2 is to improve employment levels, particularly in the Local authority areas bordering the East marine plan areas. Improved employment levels should mean more household income in these areas too. This indicator measures whether that is the case for the areas that should be most directly affected by the policies that support this objective. When considered alongside information about employment levels, this should capture the majority of the direct economic benefit gained from the East marine plan areas.
	Looking at the data at the level of the plan areas and aggregated across all Local authority areas bordering the East marine plan areas gives information at a level suitable for assessment of an outcome of an objective. The source data for this indicator are collected at least annually and have been since 1995. This makes the timescales and intervals in data collection appropriate for the purpose of monitoring the effect of plans,
	with a view to reporting on them within three years.
Technical robustness	This indicator relies upon information with well-established methodologies, collected by those at the forefront of this type of data collection, the Office for National Statistics. The methodology for this has been developed with the Office for National Statistics, in order to be as consistent and robust as possible.
Spatial Scale	The source data for this indicator is publicly available at the scale of English regions and at the level of Local authority areas, on request. As the East marine plans span multiple regions, the use of Local authority area level data is appropriate and allows for aggregation the level of the East marine plans.

Objective 2: output indicator 2.1

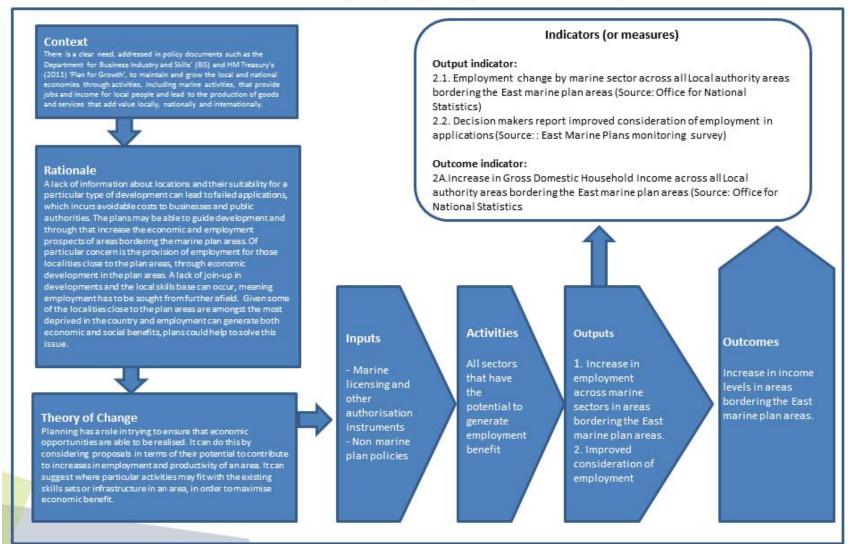
Objective 2: output indicator 2.1		
Indicator	Employment change by marine sector across all Local authority	
	areas bordering the East marine plan areas	
Description	This indicator measures the change in the number of people employed in marine sectors across all Local authority areas bordering the East marine plan areas.	
Rationale	This indicator is used as it measures those sectors and spatial areas of the economy most likely to be affected by the East marine plans, from the point of view of employment, which is the focus of this Objective.	
Source (URL link)	The indicator is a composite measure. It uses data from the Office for National Statistics, which is then disaggregated to focus solely on marine sectors (as identified by a bespoke piece of work commissioned by the Marine Management Organisation and undertaken in consultation with the Office for National Statistics).	
Conceptual soundness	The main outcome of Objective 2 is to improve the number of jobs available in marine sectors. This indicator measures the individual performance for the sectors directly affected by the East marine plans in an area that covers both the plan areas and the Local authority areas that border them. This should capture the majority of the direct employment benefit gained from the East marine plan areas, as the policies relating to this objective aim to manage activity in the east plan areas and suggest that employment benefits should be directed to the areas near to the East plans areas where possible.	
Tachnical	Looking at the individual sector data at the level of the plan areas and at the level of individual local authority areas bordering the East marine plan areas gives information at a level suitable for assessment of an output; it should help to identify how well particular sector based policies are working. The source data for this indicator are collected at least annually, if not more regularly, and have been since before marine planning started. This makes the timescales and intervals in data collection appropriate for the purpose of monitoring the effect of plans, with a view to reporting on them within three years.	
Technical robustness	This indicator relies upon information with well-established methodologies, collected by those at the forefront of this type of data collection and use, the Office for National Statistics. There is a novel element, which relates to the disaggregation of information collected by Standard Industry Classification codes, which do not match the marine sectors identified in the East marine plans. The methodology for this has been developed in consultation with the Office for National Statistics, in order to be as consistent and robust as possible, recognising and accounting for the characteristics of the source data.	
Spatial Scale	The source data for this indicator is publicly available at the scale of English regions and on request at the level of Local authority areas. As the East marine plans span multiple regions, the use of Local authority area level data is appropriate and allows for aggregation to the level of the East marine plans.	

Objective 2: output indicator 2.2

Indicator	Decision makers report improved consideration of employment in
maroaro	applications
Description	This indicator measures the change in the quality of applications to decision makers, in relation to how applications consider employment benefits.
Rationale	This indicator will help us to understand how effective policy EC2 is, in relation to increasing the consideration of aspects of employment in applications.
Source (URL link)	The data for this indicator will come from the East marine plans monitoring survey, commissioned by the Marine Management Organisation.
Conceptual soundness	This indicator will measure decision makers' opinion that there has been an improved consideration of employment in applications. This survey will cover all relevant decision makers and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond.
	The potential to measure 'improved consideration' in different ways was considered, with a number of factors, such as resource required for analysis, influencing the choice of a survey method. Using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring policy effectiveness.
Technical robustness	This indicator will use a survey that will be designed according to well- established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust.
	The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Objective 2: To support activities that create employment at all skill levels, taking account of the spatial and other requirements of activities in the East marine plan areas.

Related to HLMO 1-5 and plan policy EC2, plus all sector-based policies



Objective 3 outcome and ouput indicator tables and logic chain

Objective 3: outcome indicator 3A

Indicator	GW installed renewable capacity in the East marine plan areas
Description	This indicator measures the change in the amount of renewable
	energy generating capacity in the East marine plan areas.
Rationale	This indicator will help us to understand how effective policy EC3 is, in
	relation to supporting the deployment of renewable energy in the East
	marine plan areas.
Source (URL	The data will come from national datasets supplied by the Department
link)	for the Environment and Climate Change.
Conceptual	The main outcome of Objective 3 is to support the development of
soundness	renewable energy in the East marine plan areas, because of the
	economic benefits this will bring. This indicator measures the amount
	of renewable energy capacity installed in the East marine plan areas.
	Measured over time, this will provide information on the rate and scale
	of developments, which will provide useful information on how
	Objective 3 is being achieved.
Technical	This indicator is based on well-established and independently assured
robustness	data and as such is technically robust.
Spatial Scale	The source data for this indicator is publicly available at the national
	scale but is able to be disaggregated to the level of the East marine
	plans areas.

Objective 3: output indicator 3.1

Indicator	Gross Value Added change in relevant sectors (ports, shipping, renewable energy, cabling)
Description	This indicator is measuring the change in Gross Value Added (GVA) in the renewable energy sector and sectors that will have related activity. It covers the Local authority areas bordering the East Inshore Marine Plan area.
Rationale	This indicator is of use because it provides a useful measure of the economic benefit felt as a result of the development of offshore wind energy and other renewables in the East marine plan areas, in those areas directly bordering them.
Source (URL link)	The indicator is a composite measure. It uses data from the Office for National Statistics, which is then disaggregated to focus solely on certain marine sectors that relate to renewable energy (as identified by a bespoke piece of work commissioned by the Marine Management Organisation and undertaken in consultation with the Office for National Statistics).
Conceptual soundness	The main outcome of Objective 3 is to encourage the development of renewable energy, particularly offshore wind, in the East marine plan areas. Increased development of renewable energy should lead to economic benefits, as well as electricity generation and reduction in carbon emissions. This indicator measures whether that is the case from an economic aspect for the areas next to the East marine plan areas. This should capture most of the economic benefit gained from renewable energy development in the East marine plan areas.

Indicator	Gross Value Added change in relevant sectors (ports, shipping, renewable energy, cabling)
	Looking at the aggregated data across all local authority areas bordering the East marine plan areas, gives information at a level suitable for assessment of an output for an objective.
	The source data for this indicator are collected annually and have been since before marine planning started. This makes the timescales and intervals in data collection appropriate for the purpose of monitoring the effect of plans, with a view to reporting on them within three years.

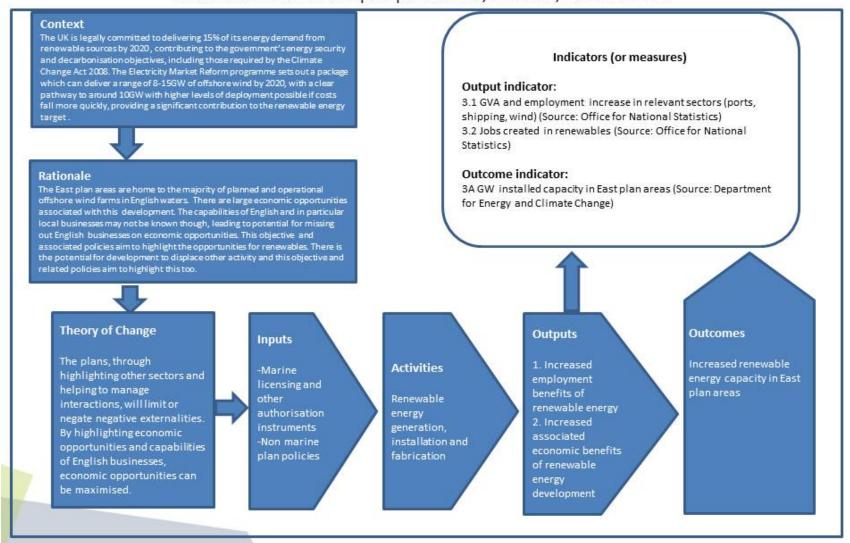
Objective 3: output indicator 3.2

Indicator	Employment increase in relevant sectors (ports, shipping,
	renewable energy, cabling)
Description	This indicator will measure the change in employment in the renewable energy sector and sectors that will have related activity. It covers the Local authority areas bordering the East Inshore Marine Plan area.
Rationale	This indicator is of use because it provides a useful measure of the economic benefit felt as a result of the development of offshore wind and other renewables in the East marine plan areas, in those areas directly bordering them.
Source (URL link)	The indicator is a composite measure. It uses data from the Office for National Statistics, which is then disaggregated to focus solely on certain marine sectors that relate to renewable energy (as identified by a bespoke piece of work commissioned by the Marine Management Organisation and undertaken in consultation with the Office for National Statistics).
Conceptual soundness	The main outcome of Objective 3 is to encourage the development of renewable energy, particularly offshore wind energy, in the East marine plan areas. Increased development of renewable energy should lead to economic benefits, as well as electricity generation and reduction in carbon emissions. This indicator measures whether that is the case from an economic aspect for the areas next to the East marine plan areas. This should capture the employment benefit gained from renewable energy development in the East marine plan areas.
	Looking at the aggregated data across all local authority areas bordering the East marine plan areas, gives information at a level suitable for assessment of an output of an objective.
	The source data for this indicator are collected annually and have been since before marine planning started. This makes the timescales and intervals in data collection appropriate for the purpose of monitoring the effect of plans, with a view to reporting on them within three years.
Technical robustness	This indicator relies upon information with well-established methodologies, collected by those at the forefront of this type of data collection, the Office for National Statistics. There is a novel element,

Indicator	Employment increase in relevant sectors (ports, shipping, renewable energy, cabling)
	which relates to the disaggregation of information collected by Standard Industry Classification codes, which do not match the marine sectors identified in the East marine plans, particularly for renewable energy. The methodology for this has been developed in consultation with the Office for National Statistics, in order to be as consistent and robust as possible, recognising and accounting for the characteristics of the source data.
Spatial Scale	The source data for this indicator is publicly available at the scale of English regions and at the level of Local authority areas, on request. As the East marine plans span multiple regions, the use of Local authority area level data is appropriate and allows for aggregation to the level of the East marine plans.

Objective 3: To realise sustainably the potential of renewable energy, particularly offshore wind, which is likely to be the most significant transformational economic activity over the next 20 years in the East marine plan areas, helping to achieve the UK's energy security and carbon reduction objectives.

Related to HLMO 1-5 and plan policies EC3, WIND1-3, PS1-3 and TR2



Objective 4 outcome and ouput indicator tables and logic chain

Objective 4: outcome indicator 4A

Indicator	Increase in the numbers of people with medium – high measures
	of personal well-being.
Description	The Measuring National Well-being programme is a set of National
	Statistics which monitors national well-being including quality of life and health.
Rationale	Marine plans are one of a number of drivers that seek to reduce deprivation and support vibrant, sustainable communities through improving health and social well-being. The national well-being measures provide an overall subjective score of peoples' satisfaction with their life, health and well-being. Can be established to represent particular coastal community populations.
Source (URL link)	National well-being measures, March 2014 containing the latest and time series data plus links to data sources, from the Office for National Statistics.
Conceptual soundness	The Measuring National Well-being programme provides an overview of well-being in the UK. Well-being is discussed in terms of the economy, people and the environment. Information such as the unemployment rate or number of crimes against the person are presented alongside data on peoples' thoughts and feelings, for example, satisfaction with our jobs or leisure time and fear of crime. Together, a richer picture on 'how society is doing' is provided. For the purposes of monitoring objective 4 those measures most relevant to marine plans have been identified (see technical robustness).
Technical robustness	There are 41 measures of national well-being split across 10 domains. The measures of relevance to this objective are:
	 Peoples' satisfaction with their lives overall Peoples' rating of how worthwhile the things they do are Peoples' happiness yesterday Peoples' anxiety yesterday Population mental well-being Healthy life expectancy at birth (male/female) Peoples' satisfaction with their health.
	Updated national well-being measures data will be published in Spring and Autumn each year.
	The data used for these measures is derived variously from respondents' self-assessments or from other ONS measures.
Spatial Scale	Interactive charts showing the latest data for selected measures by region and country. The regions relevant to the East marine plans are: Yorkshire and the Humber, East Midlands and East of England. The data will be able to be spatially expressed at a marine plan-area scale in collaboration with ONS. 2012 is the latest published data set.

Objective 4: output indicator 4.1

Indicator	Decision makers report improved consideration within applications of provision for access to marine-related recreational activities.
Description	A measure of the extent to which access to marine-related recreational activities are taken into account by applicants for authorisations.
	The data will be gathered from the East Marine Plans Monitoring Survey. It will generate quantitative numerical values from a qualitative survey of decision-makers opinions on improved consideration of provision for marine access in applications.
Rationale	This indicator will monitor the level of consideration of the provision for access to the coast and marine area in applications. Reference to this marine plan objective and policy (and recreation access) in applications is a strong indicator of effective implementation of the marine plans by developers and decision-makers.
Source (URL link)	The data for this indicator will come from the East marine plans monitoring survey, commissioned by the MMO.
Conceptual soundness	This indicator will measure decision makers' opinion that there has been an improved consideration of provision for access to marine related recreational activities in applications. This survey will cover all relevant decision makers and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond.
	The potential to measure 'improved consideration' in different ways was considered, with a number of factors, such as resource required for analysis, influencing the choice of a survey method. Using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring policy effectiveness.
Technical robustness	This indicator will use a survey that will be designed according to well- established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust.
	The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Objective 4: output indicator 4.2

Indicator	Increased numbers of people engaged with the natural
	environment
Description	Since 2009 Natural England, Defra and the Forestry Commission have commissioned the Monitor of Engagement with the Natural Environment survey. The survey gathers detailed information on people's visits, use and enjoyment of the natural environment. It also gathers information on attitudes and behaviours such as their motivation to protect the natural environment.
Rationale	Marine plans are one of a number of drivers that seek to reduce deprivation and support vibrant, sustainable communities through improving health and social well-being. The Monitor of Engagement with the Natural Environment survey provides a direct indicator of an output from Objective 4 and policy SOC1: access to the coast and marine area.
Source (URL link)	Monitor of Engagement with the Natural Environment Annual Report from the 2012-13 Survey is indicative:
Conceptual soundness	The survey relates to engagement with the natural environment including the coastline. The main focus is on visits; time spent outdoors in the natural environment; away from home and private gardens.
Technical robustness	An "in-home" survey technique has been employed to obtain over 45,000 respondents each year across England. The survey is robust and classified as "Official Statistics" by the UK Statistics Authority. It provides data that monitors changes in use and enjoyment of the natural environment over time, at a range of different spatial scales and for key groups within the population.
Spatial Scale	The three regions utilised by the Monitor of Engagement with the Natural Environment survey that cover the East marine plan areas are the Yorkshire and the Humber, East Midlands and East England. Visits are "destination geo-coded" by city, town and village, and then by locality using an Ordnance Survey 1: 50,000 Scale Gazetteer. In addition to the survey reports, the complete datasets and metadata are available from Natural England. It is, therefore, possible to interrogate the resulting data for the East plan areas.

Objective 4: To reduce deprivation and support vibrant, sustainable communities through improving health and social well-being.

Related to HLMO 7-9, 11 and plan policies SOC1-3, EC1-2, ECO1-2, BIO1-2, MPA1, GOV1-3, FISH1, TR1-3

Context A number of local authority areas within and adjoining the East Inshore Marine Plan Area are recognised as experiencing social deprivation with key measures (educational attainment, employment, health and crime) lower than the national average. Rural areas can have poor connectivity to areas of employment and a lack of local amenities and services. Life expectancies for Indicators (or measures) both men and women are shorter than the national average in Kingston upon Hull, North East and North Lincolnshire. The East Inshore Marine Plan Area **Output indicator:** includes many towns and cities that have lost their primary markets and are 4.1 Decision makers report improved consideration within applications of provision for facing challenges identifying alternatives. Amongst these, fishing has declined access to marine-related recreational activities (Source: East Marine Plans Monitoring as a significant contributor to employment and economy in towns such as Grimsby, Cleethorpes, Lowestoft and Great Yarmouth though it retains strong social and heritage value. Access to the coast is identified as providing social 4.2 Increased numbers of people engaged with the natural environment (Source: Natural benefits to health and well-being. England Monitor of Engagement with the Natural Environment (MENE) Survey) Outcome indicator: Rationale 4A Increase in the numbers of people with medium - high measures of personal wellbeing (Source: Office of National Statistics National Well-being Measures). This objective aims to increase opportunities for activities that improve the health and well-being of local people, by recognising the importance of a healthy marine environment. and biodiversity, providing access to marine-related recreational activities and ensuring that all people have equal opportunities to benefit from marine activities. Outputs Outcomes Activities Examples include: Marine licensing and other Theory of Change Full consideration in Vibrant sustainable All relevant sectors that authorisation instruments. plans and decisionson communities Marine plans can provide a greater emphasis affect the quality of the LA Rights of Way experiencing reduced proposals of impacts on maximising social benefits from decisions, marine environment and Improvement Plans. deprivation and on health and welland joining-up plans and policies, that affect biodiversity, and that National Park, AONB, MPA or improved health and being including the marine plan areas. Opportunities exist to support and maximise other designations' well-being (Increased provision of more, and improve peoples' health and well-being social benefits through Recreation and Access employment/Income/ access to, marinethrough: supporting access to the coast; affecting or delivering strategies. life expectancy/skills, related recreational promotion of activities for healthy lifestyles; access to marine-related Natural England Coastal reduced crime. activities. and job creation (increasing self esteem and recreational activities. Access Scheme and enhanced social disposable income). Ensuring that the natural Those related to tourism proposals. capital). and historic environment are protected and and energy generation IFCA sea angling strategies maintained can help to stimulate investment, (wind) are particularly Community support sustainable tourism, engender pride, relevant. engagement/raising facilitate a sense of place and promote health Awareness and well-being. Non-marine plan

Objective 5 outcome and ouput indicator tables and logic chain

Objective 5: outcome indicator 5A

Indicator	Decreased percentage of designated heritage assets at risk
	(including Historic Ship Wrecks at Risk).
Description	The Heritage at Risk Register (HAR) is a way of understanding the overall state of England's historic sites. It covers historic buildings, archaeological sites, conservation areas, registered parks and gardens, registered battlefields, and protected shipwrecks. The register identifies those sites that are most at risk of being lost as a result of neglect, decay or inappropriate development.
Rationale	The objective seeks to conserve heritage assets. The register provides an indicator of condition of designated heritage assets within the coast and marine area. The register is updated every year so it is possible to monitor sites and the degree to which they are at risk (ie being conserved) over time.
Source (URL link)	The programme and register are managed by English Heritage. North east: http://www.english-heritage.org.uk/publications/har-2013-registers/em-HAR-register-2013.pdf South east: http://www.english-heritage.org.uk/publications/har-2013-registers/se-HAR-register-2013.pdf
Conceptual soundness	The indicator identifies all designated heritage assets that are at risk throughout England. The register is publically available and understood by stakeholders. Once the risks have been managed or reduced such that the asset is no longer assessed as "at risk" it is removed from the register. This permits an assessment on an annual basis of the conservation of the asset as a measure of the outcomes contributed to by management measures and decisions.
Technical robustness	The indicator provides an assessment of designated heritage assets that are at risk using an accepted methodology that is applied throughout England on an annual basis. English Heritage has produced the register since 2008 and is committed to maintaining it for use by agencies and the public.
Spatial Scale	The information on the publically available register covers all designated heritage assets on an asset by asset basis for the whole of England. It is gathered in a consistent way that facilitates comparisons between assets and over time.

Objective 5: outcome indicator 5B

objective 3. dateonic indicator 3B	
Indicator	Quality and value of seascapes retained.
Description	Seascape (marine character and the visual resource) is assessed as part of the development of the evidence base for the East marine plans. Seascape character assessments characterise, map and describe seascape character (and its natural, cultural/social and perceptual/aesthetic elements) of the sea and adjoining coast.
Rationale	The objective seeks to retain the quality and value of the seascapes of the East marine plans. The seascape character assessment undertaken prior to development of the East marine plans provides an

Indicator	Quality and value of seascapes retained.
	indicator of the baseline character of the areas. The Marine
	Management Organisation's intention is to review the assessment
	every three years, depending on resource availability as part of the
	monitoring and review of the East marine plans.
Source (URL	The assessment is managed by the Marine Management
link)	Organisation.
	http://www.marinemanagement.org.uk/marineplanning/areas/east_sea
	scape.htm
Conceptual	Seascape is described in the East marine plans as being comprised of
soundness	two components: marine character and the visual resource. The visual
	resource component of seascape will not change significantly over the
	plan period, so is ineffective as an indicator. Marine character can
	change over time due to changes in flora and fauna, coastal features,
	infrastructure and use of the sea and coast. The indicator assesses
	the marine character of the seascape of the plan areas. The
	assessment is published as part of the Marine Management
	Organisation's evidence base and is publically available and
	understood by stakeholders. A review of the seascape assessment
	every three to six years permits trends over time to be identified as a
	measure of the outcomes contributed to by management measures
— , , ,	and decisions.
Technical	The indicator assesses seascape using an approach developed from
robustness	the well-established, and widely used, process of Landscape
	<u>Character Assessment</u> . It is a qualitative assessment of the character
	component of seascape using a rigorous, structured and repeatable
0	approach.
Spatial Scale	The East marine plans seascape assessment (2013) identifies and
	describes nine marine character areas in the inshore and offshore
	areas. The assessment is undertaken in a consistent way that
	facilitates comparisons between the delineation, character and visual
	resource maps over time.

Objective 5: output indicator 5.1

Indicator	Decision makers report improved consideration within applications of provision for heritage assets, nationally protected landscapes and local seascape (marine character and visual resource).
Description	A measure of the extent to which heritage assets, nationally protected landscapes and local seascape (marine character and visual resource) are taken into account by applicants for authorisations.
	The data will be gathered from the East Plans Monitoring Survey. It will generate quantitative numerical values from a qualitative survey of decision-makers opinions on improved consideration of provision for heritage assets, nationally protected landscapes and local seascape (marine character and visual resource) within applications.
Rationale	This indicator will help us to monitor the level of assessment and provision for heritage assets, nationally protected landscapes and local seascape (marine character and visual resource) in

Indicator	Decision makers report improved consideration within applications of provision for heritage assets, nationally protected landscapes and local seascape (marine character and visual resource).
	applications. Reference to this marine plan objective and policies (and heritage assets, nationally protected landscapes and local seascape) in applications is a strong indicator of effective implementation of the marine plans by developers and decision-makers.
Source (URL link)	The data for this indicator will come from the East marine plans monitoring survey, commissioned by the MMO.
Conceptual soundness	This indicator will measure decision makers' opinion that there has been an improved consideration of provision for heritage assets, nationally protected landscapes and local seascapein applications. This survey will cover all relevant decision makers and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond.
	The potential to measure 'improved consideration' in different ways was considered, with a number of factors, such as resource required for analysis, influencing the choice of a survey method. Using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring policy effectiveness.
Technical robustness	This indicator will use a survey that will be designed according to well- established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust.
	The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Objective 5: To conserve heritage assets, nationally protected landscapes and ensure that decisions consider the seascape of the local area.

Related to HLMO 7,8,11 and plan policies SOC2-3, TR1, TR3

Output indicator:

Outcome indicator:

Context

Historic sites, landscapes and seascapes have intrinsic value in the natural and historic environment. These assets also have great social value for present and future generations. They assist in strengthening social capital through engagement activities, and bring direct and indirect economic benefits to the tourism and recreation sector.

Rationale

Heritage assets, nationally protected landscapes and local seascapes will be undervalued in decisions made by present generations under prevailing market mechanisms. The plans must ensure that the value of such assets etc. is included in cost-benefit analyses supporting decisions.

Theory of Change

By ensuring that consideration is given to heritage assets (including non-designated assets), nationally protected landscapes and to local landscape and seascape character, their intrinsic and derived value should be better protected. This will enhance the contribution to the delivery of direct and indirect social and economic benefits.

Inputs

Marine licensing and other authorisation instruments.
4-point assessments of heritage/character area impacts by applicants.
Non marine plan policies.

Activities

sectors that have the potential to affect heritage assets and seascape (marine character areas and visual resource).

Outputs

Indicators (or measures)

5.1 Decision makers report improved consideration within applications of provision for

5B Quality and value of Seascape retained (Source: MMO Seascape Assessment).

visual resource). (Source: East Marine Plans Monitoring Survey).

at Risk). (Source: English Heritage Heritage at Risk Register).

heritage assets, nationally protected landscapes and local seascape (marine character and

5A Decreased percentage of designated heritage assets at risk (including Historic Ship Wrecks

Full consideration of heritage assets, nationally protected landscapes and seascape (marine character and visual resource) in plans and decisions on proposals.

Outcomes

Quality and value of heritage assets, nationally protected landscapes and seascape (marine character areas and visual resource) retained.

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Objective 6 outcome and ouput indicator tables and logic chain

Objective 6 & 7: outcome indicator 6A/7A

Indicator	: outcome indicator 6A/7A Marine Strategy Framework Directive Good Environmental Status
	Reporting (use monitoring data so can disaggregate to Plan Area
	scale)
Description	The aims of the Marine Strategy Framework Directive are consistent with the UK Government's objective of clean, healthy, safe, productive and biologically diverse oceans and seas, the Marine Policy Statement 'Living within environmental limits' High Level Marine Objective, as well as with the commitments made in the UK Government's Natural Environment White Paper. The Marine Strategy Framework Directive requires Member States to put in place the necessary management measures to achieve Good Environmental Status (GES) in their marine waters by 2020. The monitoring programme to measure progress towards GES will be complete in July 2014, with reporting every six years.
Rationale	Plan objectives 6 and 7 seek to protect biodiversity and ensure healthy, resilient and functioning ecosystems, particularly in relation to cumulative impacts and hazardous substance release. Marine Strategy Framework Directive sets out 11 descriptors of Good Environmental Status ²¹ . The 'Pressure' descriptors that relate to human-induced pressures are particularly relevant to objective 7; of these 8 and 9 relate to contaminants and 2, 5, 7, 10 and 11 combined could give an indication of cumulative effects. The 'State' descriptors that characterise biodiversity (1: biological diversity, 4: marine food webs and 6 :sea floor integrity) are particularly relevant to plan objective 6. Descriptor 3 is both a state and pressure indicator as it is related to aspects such as the level of fishing activity and population, size and biomass.
Source (URL link)	Each descriptor has a number of associated targets and indicators. The programme is managed by Department for Environment, Food and Rural Affairs: https://www.gov.uk/government/policies/protecting-and-sustainably-using-the-marine-environment/supporting-pages/implementing-the-marine-strategy-framework-directive
Conceptual soundness	The programme will draw on a number of existing surveys and monitoring programmes, many of which are mature and have enough data to be operational by 2014. However for some targets the corresponding supporting indicators have not been developed or there is currently insufficient data or baselines.
Technical robustness	The indicators will provide a wide ranging assessment of the status of UK waters. Proposals for monitoring were developed with input from experts and policy-makers across the UK administrations working through the UKMMAS evidence groups ²² .
Spatial Scale	All UK waters are covered in two Marine Strategy Framework Directive

http://jncc.defra.gov.uk/page-5231#GES.

UK Marine Monitoring and Assessment Strategy (UKMMAS) - Clean and Safe Seas (CSSEG); Healthy and Biologically Diverse Seas (HBDSEG), Ocean Processes (OPEG) and Productive Seas (PSEG): http://www.defra.gov.uk/mscc/groups/uk-marine-monitoring-and-assessment-strategy/

Indicator	Marine Strategy Framework Directive Good Environmental Status Reporting (use monitoring data so can disaggregate to Plan Area scale)
	sub-regions of the Greater North Sea and the Celtic Seas; as such Marine Strategy Framework Directive is appropriate for all plan areas. Although reporting will be communicated at Marine Strategy Framework Directive regional scale, the initial assessment made reference to the status of UK waters at the Marine Strategy Framework Directive sub-regional scale, and informal assessment regions were based on the Charting Progress 2 regional sea scale.
	(The Southern North Sea regional sea largely matches the East plan boundaries, although it extends beyond these to include the South East plan area). Given scale issues it may be necessary to obtain pre-aggregated data for analysis.

Objective 6 and 7: outcome indicator 6B/7B

Indicator	Water Framework Directive Good Ecological/Chemical
	Status/Potential Reporting (aggregated to Plan Area scale)
Description	The Water Framework Directive Good Ecological/Chemical
	Status/Potential Reporting delivers state of the environment
	assessments for coastal and transitional waters that are within the plan
	area but beyond the spatial scope of Marine Strategy Framework
	<u>Directive</u> .
Rationale	Plan objectives 6 and 7 seek to protect biodiversity and ensure
	healthy, resilient and functioning ecosystems, particularly in relation to cumulative impacts and hazardous substance release.
	Preamble 12 of the Marine Strategy Framework Directive states that
	coastal waters ²³ , including their seabed and subsoil, are an integral
	part of the marine environment, and as such should also be covered
	by the directive, only in so far as particular aspects of the
	environmental status of the marine environment are not already
	addressed through the Water Framework Directive, so as to ensure
	complementary while avoiding unnecessary overlaps ²⁴ . As such, for
	coastal and transitional waters it will be necessary to complement
	Marine Strategy Framework Directive reporting with that for Water Framework Directive.
Source (URL	The programme is managed by the Environment Agency
link)	
Conceptual	The programme will draw on a number of existing surveys and
soundness	monitoring programmes at a river basin and water body level, many of
	which are mature and have enough data to be operational by 2014.
	However there are still some uncertainties around how Water
	Framework Directive metrics and assessments will combine with
	Marine Strategy Framework Directive monitoring and assessment.

²³ as defined in Directive 2000/60/EC of the EU Water Framework Directive (WFD)
²⁴ DIRECTIVE 2008/56/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)

Indicator	Water Framework Directive Good Ecological/Chemical Status/Potential Reporting (aggregated to Plan Area scale)
Technical robustness	The indicators are specifically targeted at chemical and ecological water quality. Monitoring was developed with input from experts and policy-makers across the UK administrations.
Spatial Scale	Water Framework Directive covers all UK coastal and transitional waters and is therefore appropriate for all plan areas. As assessments are made at a sub-plan area level it may be necessary to aggregate results.

Objective 6: Output indicator 6.1

Output Indicator	Decision makers report improved consideration of:
	a) cumulative impact assessmentsb) collision risk
	(Source: East marine plans monitoring survey. NB: A quality check of cumulative impact assessments for larger proposals
	will also be undertaken)
Description	 These indicators will be provide a measure of the extent to which: a) cumulative impacts are considered by applicants and decision makers through the presence and quality of a cumulative impact assessment in the application process. b) Improved consideration of collision risk by applicants and decision makers within the application process.
Rationale	The need for cumulative impact assessments is highlighted in the marine plans through signposting and inclusion of ECO1. As such it is expected that there will be an improvement in the quality of assessments provided by applicants. Improved quality assessments are expected to reduce negative impacts on the environment. A quality check of assessments for larger proposals processed by the Marine Management Organisation will provide additional evidence.
	The need to consider the potential for release of hazardous substances from collision risk is highlighted in the plan through the inclusion of ECO2. As such it is expected that there will be an improvement in the quality of consideration of hazardous substance release and collision risk by applicants within the plan area.
	In the case of cumulative impact assessments, there are currently limited guidance and standards present which means that it is not possible to develop consistent quantitative metrics. The East marine plans monitoring survey avoids the additional burden that the development of new quantitative metrics and associated recording and returns system would incur. The perceived improvement in assessments will indicate the level of awareness of cumulative impacts and collision risk and the improving ability to address them.
Source (URL link)	The data for this indicator will come from the East marine plans monitoring survey, commissioned by the Marine Management Organisation.
Conceptual soundness	This indicator will measure decision makers' opinion that there has been an improved consideration of cumulative impact assessments in

Output Indicato	Decision makers report improved consideration of: a) cumulative impact assessments b) collision risk
	(Source: East marine plans monitoring survey. NB: A quality check of cumulative impact assessments for larger proposals will also be undertaken)
	applications. This survey will cover all relevant decision makers and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond.
	The potential to measure 'improved consideration' in different ways was considered, with a number of factors, such as resource required for analysis, influencing the choice of a survey method. Using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring policy effectiveness.
Technical robustness	This indicator will use a survey that will be designed according to well- established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust.
	The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Objective 6: Output indicator 6.2

Output Indicator	The ratio of near misses to collisions leading to hazardous
	substance release increases. (Source: MAIB)
Description	The ratio of near misses to collisions that result in hazardous
	substance release that occur in the East Plan areas.
Rationale	Plan objective 6 seeks to ensure healthy, resilient and functioning
	ecosystems. The East Plans Evidence and Issues report recognised
	that the current and future increasing density of shipping movements
	and static marine infrastructure was a particular issue for the East plan
	areas. As such, the increased collision risk and potential for pollution
	incidents was highlighted. As the reported numbers of collisions
	resulting in hazardous substance release are low, taking the ratio of
	near misses to collisions is likely to provide a more robust measure.
Source (URL	The Department for Transport Marine Accident Investigation Branch
link)	(MAIB) maintains a database of reportable accidents which have
	occurred since 1991.
	http://www.maib.gov.uk/about_us/

Output Indicator	The ratio of near misses to collisions leading to hazardous substance release increases. (Source: MAIB)
Conceptual soundness	The database provides an overview of trends in marine accidents and forms a comprehensive and readily accessible store of information. Statistics are published in the Chief Inspector's Annual Report to the Secretary of State.
Technical robustness Spatial Scale	Reporting of accidents is mandatory for all commercially operated vessels in UK waters and for all UK registered vessels worldwide. The MAIB remit and statistics cover all English waters including the East plan areas

Objective 6: To have a healthy, resilient and adaptable marine ecosystem in the East marine plan areas. Related to HLMO 6 and ECO1-2, BIO1-2, CC1-2, FISH2, MPA1, GOV3, PS1-2 and all sector specific policies

Context

The marine environment provides social and economic benefits to people through ecosystem services and as a physical space in which society can exist. It also has an intrinsic value or inherent worth. Policies and commitments to the marine ecosystem are set out in the MPS, including those to do with MSFD and Water Framework. Directive (WFD), as well as other environmental, social and economic considerations.

The East Plan areas are, busy, have some of the highest shipping densities in the world and will see increased competition for space in future e.g. for energy generation. Increased competition for space brings increased risk of collisions and in turn greater potential for hazardous substance release. Release could have significant environmental and in turn social and economic impacts.

There is concern that the collective pressures of increasing activities will cause cumulative impacts including in relation to seahed habitat loss and physical change. There is an expectation that marine plans will play a role in the implementation of MSFO, and descriptors 5, 6 and 8 are particularly relevant to this plan objective.

Rationale

In the absence of the Plan, market, information and institutional failure or inefficiencies may lead to insufficient consideration being given to potential cumulative impacts and/or direct and indirect effects of hazardous substance release due to increased collision risk. Activities may be undertaken in ways that lead to significant environmental impacts and, in turn, social and economic impacts.

Theory of Change

The plan signposts to a range of policies and measures in place that contribute to the plan objective to reduce the risk of market, information or institutional failure, recognising that marine plans are one of a number of mechanisms through which the objective will be addressed.

Marine plans (especially ECO1) will go further than existing measures to ensure that the collective pressure of human activities (cumulative impacts) are assessed and kept within levels compatible with achievement of GES through greater consideration in decision-making and application of guidance.

ECO2 will provide greater emphasis on assessing the direct and indirect effects of collision risk in decision-making and consideration of the interactions between sectors.

Indicators (or measures)

Output indicators:

6.1 Decision makers report improved consideration of a) cumulative impact assessments and b) collision risk (Source: East Marine Plans monitoring survey). A quality check of cumulative impact assessments for larger proposals will also be undertaken.

6.2 The ratio of near misses to collisions leading to hazardous substance release increases. (Source: MAIB)

Outcome indicators:

6A Marine Strategy Framework Directive Good Environmental Status Reporting (use monitoring data so can disaggregate to Plan Area scale) (Source: SNCBs)

6B Water Framework Directive Good Ecological/Chemical Status/Potential Reporting (aggregated to Plan Area scale) (Source: Environment Agency)

NB: As MSFD complements WFD in coastal and transitional waters both measures are required.

Inputs

- Marine plan policies
- Enforcement& authorisation instruments
- -Non Marine plan policies
 Assessments required
 by regulatory processes
 (such as EIA, SEA, HRA)
 -Research (especially on
 seabed habitats,
 pressures and
 sensitivities) and new
 guidance/tools

Activities

All activities that may result in environmental impacts, particularly cumulative impacts and those causing hazardous substance release through collision.
All proposals made in conformity with those policies relevant to this objective, particularly BIO1-2, ECO 1-2, FISH2, MPA1, GOV3, PS1-2.

Outputs

- Increased consideration of cumulative impacts in decision making.
 Cumulative impacts identified and appropriately avoided and /or mitigated.
- A reduction in hazardous substance release as a result of collisions.

Outcomes 1. A clean, safe and

biologically diverse environment. A healthy and resilient ecosystem that is more tolerant of sustainable development allowing greater growth of the economy.

Objective 7 outcome and ouput indicator tables and logic chain

Objective 7: Outcome 1
See the Objective 6 Outcome indicators

Objective 7: output indicator 7.1

Objective 7: outp	
Output Indicator	Decision makers report an improved consideration of:
	a) biodiversity
	b) opportunities to incorporate features that enhance
	biodiversity and geological interests
	(Source: East marine plans monitoring survey). This will be
	coupled with a quality check of assessments for larger proposals.
December	The section disease will be used the section of the
Description	These indicators will provide a measure of the extent to which
	proposals are:
	a) taking account of biodiversity and improved quality of assessment
	b) increasingly taking opportunities (where they exist) to incorporate
D (')	features that enhance biodiversity and geological interests.
Rationale	The need for protection and enhancement of biodiversity is highlighted
	in the marine plans through signposting and inclusion of BIO1 and
	BIO2. As such it is expected that there will be an improved
	consideration of biodiversity features in assessments provided by
	applicants. A quality check of larger proposals processed by the
	Marine Management Organisation will provide additional evidence.
	There are currently limited guidance and standards present to guide
	the inclusion and nature of environmental enhancements in
	developments which means that it is not possible to develop consistent
	quantitative metrics. The East marine plans monitoring survey avoids
	the additional burden that the development of new quantitative metrics
	and associated recording and returns system. The perceived
	improvement in consideration will indicate the level of awareness of
	biodiversity and enhancement opportunities and the improving ability
	to address them.
Source (URL	The data for this indicator will come from the East marine plans
link)	monitoring survey, commissioned by the Marine Management
	Organisation.
Conceptual	
soundness	This indicator will measure decision makers' opinion that there has
	been an improved consideration of cumulative impact assessments in
	applications. This survey will cover all relevant decision makers and
	whilst returns to the survey cannot be guaranteed, all those who have
	the information required will be given the chance to respond.
	The potential to measure 'improved consideration' in different ways
	was considered, with a number of factors, such as resource required
	for analysis, influencing the choice of a survey method. Using a survey
	allows the measuring of stakeholder opinion and change in that over
	time, which is deemed to be a credible and easily measurable indicator
	for measuring policy effectiveness.
Technical	This indicator will use a survey that will be designed according to well-

Output Indicator	Decision makers report an improved consideration of: a) biodiversity b) opportunities to incorporate features that enhance biodiversity and geological interests (Source: East marine plans monitoring survey). This will be coupled with a quality check of assessments for larger proposals.
robustness	established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust. The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East. The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Objective 7: To protect, conserve and, where appropriate, recover biodiversity that is in or dependent upon the East marine plan areas.

Related to HLMO 5, 8-10, 13-16, 19, 22-26 ECO1-2, BIO1-2, CC1-2, FISH2, MPA1, TR3, all sector specific policies

Context Biodiversity has intrinsic value and plays an essential role in healthy, functioning ecosystems, provision of ecosystem services, supporting sustainable development and enhancing quality of Indicators (or measures) life. For example, wildlife and habitats adjacent to and within marine plan areas are important Output indicators: factors attracting tourists to the region. 7.1 Decision makers report an improved consideration of a) biodiversity and b) The UK Government is committed to halting the loss of biodiversity and restoring it so far as opportunities to incorporate features that enhance biodiversity and geological possible. This is reflected in the Natural Environment and Rural Communities (NERC) Act, and through a wider commitment to the EU Biodiversity Strategy, which highlights the need to 'protect, value and appropriately restore biodiversity for its intrinsic value and essential contribution to human wellbeing and economic prosperity'. The Natural Environment White Paper (NEWP) also sets the objective of achieving no net loss of biodiversity. Both the MPS and interests. (Source: East Marine Plans monitoring survey). This will be coupled with a quality check of assessments for larger proposals. MSFD highlight the need to conserve wider biodiversity. Outcome Indicator: There are a range of existing policies and measures which provide protection to habitats and 7A Marine Strategy Framework Directive Good Environmental Status Reporting species. However, the East marine plan areas include a wide range of habitats and species (use monitoring data so can disaggregate to Plan Area scale) (Source: SNCBs) which do not receive statutory protection both within and outside of designated sites.. The MPS also seeks opportunities for enhancement of biodiversity and geological interests where 7B Water Framework Directive Good Ecological/Chemical Status/Potential Reporting (aggregated to Plan Area scale) (Source: Environment Agency NB: As MSFD complements WFD in coastal and transitional waters both measures are required. Rationale In the absence of the Plans, market, information and institutional failure and inefficiencies may lead to insufficient consideration being attached to the protection, conservation and, where appropriate, recovery of biodiversity that is in or dependent upon the East marine plan areas. Therefore activities Activities Inputs Outputs may be undertaken in ways that lead to significant environmental impacts and, in turn, social and economic impacts. Opportunities to enhance Marine plan policies All activities that 1. Proposals - Enforcement & may result in biodiversity and geological interests may be missed, including provision of demonstrate Outcomes authorisation instruments impacts and/or consideration of wider 1. Biodiversity is Non Marine plan policies enhancements to biodiversity and protected, -Research (such as biodiversity. All protected habitats and Theory of Change conserved and improved habitat maps. proposals made in Through signposting the plan will improve awareness of existing and understanding of where appropriate, conformity with 2. Proposals requirements to consider statutory protection of habitats and species and recovered ecosystem service those policies increasingly the need to address the protection of wider biodiversity both within and relevant to this incorporate features beyond protected sites. This includes the general principle that development should aim to avoid harm to biodiversity including through location, mitigation and consideration of reasonable alternatives. Advice packages for objective, that enhance particularly BIO1-2, protected habitats and biodiversity and species. ECO 1-2, CC1-2. geological interests, The Plans provide clear direction that proposals that enhance benefits to -Formal assessments FISH2 and MPA1. biodiversity and geological interests should be preferred, and that required by existing healthy, resilient and enhancement is not a substitute for avoidance, protection or mitigation regulatory processes adaptable marine measures. The plans also signpost to the best available evidence relating to - Guidance ecosystem.

biodiversity to ensure appropriate consideration in decision-making.

Objective 8 outcome and ouput indicator tables and logic chain

Objective 8: Outcome indicator 8A

Indicator	Site condition assessment reports show increased percentage of
maioator	MPAs have achieved or are progressing towards favourable
	status
Description	This indicator will assess the percentage of MPAs which have achieved or are progressing towards favourable condition status. In turn this indicates that potential impacts are successfully being identified, avoided, minimised and mitigated (in line with requirements of HRA monitoring). Condition assessment monitors the features for which sites were designated to determine if they are in satisfactory condition. Key attributes of the feature (eg extent, quality, supporting processes) are identified and targets set for each. Each attribute is then measured and compared against the target value set. If all the targets are met, the feature is in favourable condition. Human activities and other factors which are likely to be affecting the site adversely, and the conservation measures taken to maintain or restore the site, are also recorded. Condition may be reported as favourable (if the conservation
	objectives for the site are being achieved), unfavourable recovering (moving towards the desired state), unfavourable no change, unfavourable declining, or destroyed/part destroyed. Under relevant legislation it is a requirement to regularly assess the ecological condition of features within MPAs (SPAs, SACs, SSSIs), on a sixyearly cycle.
Rationale	Objective 8 supports the conservation objectives of individual MPAs that are within and intersect the East plan areas and the MPA network as a whole. As guidance on considering a network in decision-making is yet to be agreed by Government, the outcome indicator focuses on individual sites at this stage. This will be kept under review. This indicator will show overall trends in condition in sites across the
	plan areas and as such will provide an indication of the condition of the network as a whole.
Source (URL link)	Site condition assessment reports (Source: Statutory Nature Conservation Bodies)
Conceptual soundness	Aggregated assessment reporting, specifically relating to the state of the environment, has been used in peer reviewed regional and sub-regional assessments such as Charting Progress 2. http://chartingprogress.defra.gov.uk/ Condition monitoring is well established and baselines are available.
Technical	The SNCBs are the competent authorities in protected site monitoring
robustness	and have a track record of delivering robust evidence based reporting. http://jncc.defra.gov.uk/page-2217
Spatial Scale	The SNCBs have a combined remit and reporting responsibilities that cover all MPAs in the East plan areas.

Indicator	Site condition assessment reports show increased percentage of MPAs have achieved or are progressing towards favourable status
	There is currently no single report or evidence source that gives an overall status assessment on a plan scale. However, overall summaries of the % of sites in each category is provided, which can also be broken down to site level to search only those sites of marine relevance.

Objective 8: Outp	
Output Indicator	Decision makers report an improved consideration of the MPA
	network in strategic level assessments. (Source: East marine
	plans monitoring survey)
Description	This indicator will be an expert informed qualitative measure of the extent to which impacts to Marine Protected Areas at a network level are being increasingly considered where appropriate and avoided, minimised and mitigated by applicants and decision makers in the application process.
Rationale	Objective 8 supports the marine related protected sites that are within and intersect the East plan areas. While management measures and by-laws are being developed for specific sites, The Act and Marine Policy Statement require that the ecological coherence of the network is considered. The overall trends and change in awareness and consideration of marine protected areas at the network level through the content of applications reviewed by decision makers, indicates the contribution that plans are making to the condition of the overall network.
	There is currently limited guidance for consideration of MPAs at the network level which means that it is not possible to develop consistent quantitative metrics. The East marine plans monitoring survey avoids the additional burden that the development of new quantitative metrics and associated recording and returns system would incur. The perceived improvement in strategic level assessments will indicate the level of awareness of the need to consider the MPA network and the improving ability to do so.
Source (URL link)	The data for this indicator will come from the East marine plans monitoring survey, commissioned by the Marine Management Organisation.
Conceptual soundness	This indicator will measure decision makers' opinion that there has been an improved consideration of cumulative impact assessments in applications. This survey will cover all relevant decision makers and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond.
	The potential to measure 'improved consideration' in different ways was considered, with a number of factors, such as resource required for analysis, influencing the choice of a survey method. Using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring policy effectiveness.

Output Indicator	Decision makers report an improved consideration of the MPA network in strategic level assessments. (Source: East marine plans monitoring survey)
Technical robustness	This indicator will use a survey that will be designed according to well- established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust.
	The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Objective 8: To support the objectives of Marine Protected Areas (and other designated sites around the coast that overlap, or are adjacent to the East marine plan areas), individually and as part of an ecologically coherent network.

Related to HLMO 5, 8-10, 13-16, 19, 22-26 ECO1-2, BIO1-2, FISH2, MPA1

Context

UK Administrations are committed to completing an ecologically coherent network of Marine Protected Areas (MPAs). This will include SSSIs, SPAs, SACs, Ramsar sites and, MCZs, and will contribute to a wider European MPA network under OSPAR. Contributing to coherent and representative networks is a key measure towards achieving GSS as required by the MSFD. The MCAA sets out the UK. Administrations' commitment to designate MCZs alongside other 'relevant conservation sites' in order to form a network of MPAs in the UK marine area. The MPS furthers this through a commitment to 'substantially complete an ecologically coherent network as part of a broad based approach to nature conservation', while the NPPF also refers to the need to establish "coherent, ecological networks that are more resilient to current and future pressures".

The East marine plan areas are particularly significant for MPAs, with 39% made up of either existing or proposed SACs or SPAs and with 78% of all English SACs and 42% of all English SPAs located here. There are also many other sites designated for conservation that either overlap or are adjacent to the East marine plan areas. Protection of features within and outside sites is provided for by a range of existing measures. The management measures for designated sites could have implications for activities across the East marine plan areas. The importance of the East plan areas for future marine development, in addition to current activities, may present risks to implementing a coherent network, e.g. from potential currulative effects. Delivering both a network of MPAs and additional new development is therefore a significant challenge in the East marine plan areas which can be met if it is given appropriate attention.

Rationale

In the absence of the Plan, market, institutional or information failure or inefficiencies may lead to insufficient consideration being given to the objectives of MPAs, individually and as part of an ecologically coherent network. Activities may be undertaken in ways that may present risks such as potential cumulative effects to implementing a coherent network (e.g. ensuring appropriate site connectivity and/or replication).

Theory of Change

The plan signposts to a range of policies and measures that contribute to the plan objective to reduce the risk of market, information or institutional failure/inefficiencies, recognising that marine planning policy is one of a number of mechanisms through which plan objectives will be addressed. The plan supports and complements protection of sites and the overall network through providing a framework and context for site-based measures such as to:

- help ensure decision-making considers impacts on designated sites within or adjacent to the marine plan areas:
- highlight the relevance of areas outside of designated sites to the delivery of conservation objectives for sites individually and as part of a network;
- encourage decision-makers to consider cumulative effects arising within and outside of designated sites on both individual sites and an ecologically coherent network.

MPA1 provides clarity that impacts on the MPA network as a whole should be considered in strategic level assessments by reference to government guidance.

Indicators (or measures)

Output indicators:

8.1 Decision makers report an improved consideration of the MPA network in strategic level assessments (Source: East Marine Plans monitoring survey).

Outcome indicator:

8A Site condition assessment reports show increased percentage of MPAs have achieved or are progressing towards favourable status (Source: SNCBS)

NB: As guidance on considering a network in decision-making is yet to be agreed by Government, the outcome indicator focuses on individuals ites at this stage. This will be kept under review.

Inputs

- Marine plan policies
- Enforcement & other authorisation instruments
- · Non Marine plan policies
- Research (improved habitat maps, and on what a coherent network of MPAs looks like)
- Guidance on an ecologically coherent network
- Site and network
- management measures
 Advice packages for protected habitats and species

Activities

All activities that may affect MPAs at a site or network level, this may include for example impacts to connectivity and replication. Consideration of the MPA network is of particular relevance for those activities which require a strategic level

assessment.

Outputs

1. Increased

measures and

assessments.

 The objectives of MPAs are met both at a site level and as part of an ecologically coherent network.

Outcomes

Objective 9 outcome and ouput indicator tables and logic chain

Objective 9: outcome indicator 9A

Indicator	Decision makers report improved consideration of resilience of
	activities to the impacts of climate change (Source: East Plans
	Monitoring Survey)
Description	This indicator will measure the contribution of marine plans in enhancing the resilience of proposals to the potential impacts of climate change through decision making. This will be based upon: • external and marine licensing decision-makers in their authorisation decisions • terrestrial decision-makers in their plans • developers in their proposals • public authorities in their management measures. Information will be gathered through the East Plans Monitoring Survey and will be qualitative, indicating the contribution of marine plans to increasing the resilience of marine sector activities.
Rationale	This indicator will monitor the level of active provision for the increased resilience necessary for the potential impacts of climate change. In responding to question(s) on this indicator, survey respondents may refer to marine plans as cited in external documents, proposals and decisions.
	Survey respondent submissions that compare consideration given to climate change adaptation measures in approved activities either (i) in areas where plans are not adopted and/or (ii) were made in a plan area before a plan was adopted, may be particularly useful.
Source (URL link)	The data for this indicator will come from the East marine plans' monitoring survey, commissioned by the Marine Management Organisation.
Conceptual soundness	This indicator will measure decision makers' opinion that there has been an improved consideration of adaptation measures related to climate change in approved applications. This survey will cover all relevant decision makers and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond.
	The potential to measure 'improved consideration' in different ways was considered, with a number of factors, such as resource required for analysis, influencing the choice of a survey method. Using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring policy effectiveness.
	The survey will draw on the expertise of decision makers that have experience before/after marine plan adoption, giving them a position to judge and monitor change and impacts.
Technical robustness	This indicator will use a survey that will be designed according to well- established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust.

Indicator	Decision makers report improved consideration of resilience of activities to the impacts of climate change (Source: East Plans Monitoring Survey)
	The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Objective 9: outcome indicator 9B

Indicator	Increase in both the number and capacity (installed gigawatts) of renewable energy installations. (Source: Department for Energy
	and Climate Change Digest of UK energy statistics, DUKES)
Description	This indicator, which is related to that established for Objective 3, will measure the extent to which activities in marine plan areas contribute to wider greenhouse gas emission reduction aims and the extent to which marine plan policies play a part. This comprises the contribution to reduction in UK greenhouse gas emissions related to electricity generation as a result of renewable energy installations. The information will include quantitative values (eg related to electricity generation).
Rationale	This indicator will help us to monitor the provision for climate change mitigation, in relation to supporting the deployment of renewable energy in the East marine plan areas.
Source (URL link)	Data on identified indicators related to renewable energy generation will be drawn from the Department for Energy and Climate Change Digest of UK energy statistics (DUKES) reporting: https://www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes , https://restats.decc.gov.uk/cms/regional-renewable-statistics/
Conceptual soundness	Information collected would provide a measure of the contribution of marine plans to reducing greenhouse gas emissions directly related to activities in marine plan areas.
Technical robustness	Data collected by the Department for Energy and Climate Change is subject to UK Government quality assurance processes and is updated yearly.
Spatial Scale	Department for Energy and Climate Change Digest of UK energy statistics (DUKES) reporting is available by region in England.

Objective 9: output indicator 9 1

Objective 9: out	put indicator 9 1
Indicator	Decision makers report improved consideration of climate
	change adaptation and mitigation measures within applications
	(Source: East Pans Monitoring Survey)
Description	This wide-ranging indicator concerns itself with monitoring the changes brought about by marine plans with regards climate change adaptation and mitigation measures. It complements the outcome indicators and includes consideration of (i)Steps taken to minimise greenhouse gas emissions arising indirectly in relation to proposals eg through displacement of other activities(ii) Identification and minimisation of impact upon existing adaptation measures
	Information will be gathered through the East Plans Monitoring Survey and will be qualitative, indicating the contribution of marine plans to consideration of indirect greenhouse gas emissions and / or impacts upon existing climate change adaptation measures.
Rationale	This indicator will monitor the level of consideration given to climate change adaptation and mitigation in proposals (as distinct from the measures adopted in approved activities). The purpose of gaining a view on the level of consideration given to climate change in proposals is to understand the level to which applicants are utilising plans (independent of whether or not approved activities include measures that respond to these considerations).
	In responding to question(s) on this indicator, survey respondents may reflect upon proposals in light of any reference made to marine plans as these can be viewed as markers for consideration of marine plans. Furthermore, the level of assessment of, and active provision for, direct and indirect considerations in relation to climate change in marine plan areas can be drawn upon.
Source (URL link)	The data for this indicator will come from the East marine plans monitoring survey, commissioned by the Marine Management Organisation.
Conceptual soundness	This indicator will measure decision makers' opinion that there has been an improved consideration of adaptation and mitigation measures related to climate change in applications. This survey will cover all relevant decision makers and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond.
	The potential to measure 'improved consideration' in different ways was considered, with a number of factors, such as resource required for analysis, influencing the choice of a survey method. Using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring policy effectiveness.
	Marine Management Organisation decision makers survey will draw on the expertise of decision makers that have experience before/after marine plan adoption, giving them a position to judge and monitor change and impacts. This approach also avoids the additional burden that the development of new quantitative metrics and associated

Indicator	Decision makers report improved consideration of climate change adaptation and mitigation measures within applications (Source: East Pans Monitoring Survey)
	recording and returns system would incur.
Technical robustness	This indicator will use a survey that will be designed according to well- established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust.
	The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Objective 9: To facilitate action on climate change adaptation and mitigation in the East marine plan areas. Related to HLMO 5, 8-10, 13-16, 19, 22-26 and plan policies CC1, CC2, WIND, EC3, TIDE, CCS, GOV2, BIO1

Context

In terms of adaptation, proposals are likely to face challenging conditions in the future as a result of climate change including changes in the intensity of weather events as indicated by the MPS. While ensuring that the proposals themselves are appropriate given the expected conditions, they will also have to be appropriate in terms of complementing the adaptation efforts of others.

With respect to mitigation, the UK government has committed to the EU Renewable Energy Directive (RED), which obligates the UK to generate 15% of all its energy requirements from renewable sources by 2020. This target will contribute to the reduction of the UK's carbon budget in line with the Climate Change Act. The marine plans support a transition to a low carbon future informed by the MPS and NPPF.

Rationale

In the absence of the Plan the prevailing pricing system for goods and services may lead to insufficient attention being given to taking long term action on climate change adaptation and mitigation in the East marine plan areas. As such, activities may be undertaken in ways that lead to significant environmental and economic impacts (e.g. arising from marine infrastructure failure) and, in turn, social impacts.

Theory of Change

There are a range of policies and measures beyond the marine plans that will contribute to the plan objective such as Shoreline Management Plans. The plan signposts to these policies and measures to promote facilitate action on climate change, recognising that marine planning policy is one of a number of mechanisms through which plan objectives will be addressed.

The plan encourages all users of the marine plan areas to incorporate relevant climate change considerations into their practices such as hor climate change will affect them and how they might impact on the adaption and mitigation measures of others. This additional forethought will help deliver sustainable development over the life time of the plans.

As well as directly setting out to minimise and mitigate emissions related to proposals, other marine plan policies can make a contribution to climate change mitigation. In line with UK national policies and moves towards a low carbon economy via specific marine plan policies such as EC3, and the WIND, TIDE, GOV2 and CCS policies.

Indicators (or measures)

Output indicator:

9.1 Decision makers report improved consideration of climate change adaptation and mitigation measures within applications (East Marine Plans Monitoring Survey).

Outcome indicator:

9A Decision makers report improved consideration of resilience of activities to the impacts of climate change (East Marine Plans Monitoring Survey)

9B Increase in both the number and capacity (installed gigawatts) of renewable energy installations. (Source: Department for Energy and Climate Change Digest of UK energy statistics, DUKES)

Inputs

- Marine licensing & other authorisation instruments decisions that lead to projects related to policies EC3, WIND, TIDE, GOV2, and CCS
- Forward looking plan analysis of sector trends & spatial requirements
- Research to better understand the implications of climate change including in relation to the distribution and importance of biodiversity
 Non Marine plan
- Non Marine plan policies

Activities (

All activities that may be affected by climate change or contribute to greenhouse gas

Proposals seek to ensure that emissions of greenhouse gases resulting directly and indirectly from proposals are minimised and mitigated.

Outcomes

- Action on climate change adaptation and mitigation is facilitated.
- Progress is made towards realising renewable energy targets.

emissions.

Objective 10 outcome and ouput indicator tables and logic chain

Objective 10: outcome indicator 10A

Indicator	Increased confidence in plan-led management and a decrease in decision making process time both in pre-application and application phases (Source: Marine Management Organisation Bill Quick system and KPI 1C1; East marine plan monitoring survey, Monitoring Focus Group and Customer Insight Group)
Description	This indicator will measure confidence in plan-led management; an important element of which will be a reduced decision making time. The indicator will be measured both and quantitatively.
Rationale	An important element of understanding whether plans have been implemented successfully is measuring some of the wider effects of marine plans, such as change in decision-making time and confidence in plan-led management.
	One of benefits of having a marine plan is to streamline decision-making as developers have access to the information they need during their pre-application phase. This may result in a reduction to overall decision-making time (although there may be an initial increase whilst plans are in their infancy).
	Measuring these indicators will help us to assess the value of marine plans within existing marine decision-making frameworks, and will help to understand the 'why' behind whether plans are being effectively implemented or not.
Source (URL link)	Information on decision time will be sourced from the Marine Management Organisation Bill Quick system and information on confidence will be sourced from Marine Management Organisation Key Performance Indicator 1C1, the East marine plan monitoring survey, monitoring focus group and customer insight group
Conceptual soundness	Decision making time is a useful indicator to assess whether decision making is becoming more streamlined. This information is already collected by the Marine Management Organisation so baselines are readily available for comparison between pre and post plan adoption.
	By using complimentary channels (such as surveys) to collect information, we can be sure to target different types of stakeholders including decision makers, applicants and other interested groups. This will allow us to filter results to see if they differ across different groups.
	This survey will cover all relevant decision makers and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond.
Technical robustness	Data collected and stored will be required to undergo the Marine Management Organisation's internal quality assurance process for aspects such as accuracy and robustness.
	This indicator will use a survey that will be designed according to well- established qualitative research methods. Information will be

Indicator	Increased confidence in plan-led management and a decrease in decision making process time both in pre-application and application phases (Source: Marine Management Organisation Bill Quick system and KPI 1C1; East marine plan monitoring survey, Monitoring Focus Group and Customer Insight Group)
	interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust. The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively and quantitatively.
	As it will be difficult to assess whether the same people are replying to the surveys, consistency will be a key consideration. Survey participants will be required to state whether they are a decision maker, applicant or interest group so that relative participation levels can be assessed. This will highlight any inconsistencies between data from one year to the next. For the monitoring focus group and customer insight group, consistency should not be a concern since these are closed groups where members are invited for a specific reason.
Spatial Scale	Decision making process time will be measured for those applications that fall within the East plan areas (they will be compared against those in areas that do not have a marine plan).
	The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East. The Customer Insight Group and Monitoring Focus Group participants will be selected for their particular interest in the East marine plans. The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Objective 10: outcome indicator 10B

Indicator	Increase in the percentage of Local Authorities bordering the East Plan Areas that are satisfied they have been able to integrate marine plans into their decision-making framework (Source: East marine plan monitoring survey)
Description	This indicator will measure the extent to which local authorities are satisfied they have been effectively able to implement the marine plans, by integrating them into their existing decision-making framework.
Rationale	Measuring successful plan implementation is an important aspect of process monitoring. If we do not know whether plans have been implemented effectively, we cannot have a full understanding of whether a plan objective may be failing because of flawed policy or flawed implementation. An important element of successful implementation is the integration of marine plans into terrestrial decision making.
Source (URL	The data for this indicator will come from the East marine plans

Indicator	Increase in the percentage of Local Authorities bordering the East Plan Areas that are satisfied they have been able to integrate marine plans into their decision-making framework (Source: East marine plan monitoring survey)
link)	monitoring survey, commissioned by the Marine Management Organisation.
Conceptual soundness	This indicator will measure local authority satisfaction that they have integrated the East marine plans into their decision-making framework and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond.
	The potential to measure this indicator in different ways was considered, with a number of factors, such as resource required for analysis, influencing the choice of a survey method. Using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring policy effectiveness.
Technical robustness	This indicator will use a survey that will be designed according to well- established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust. The survey has been designed in a way to allow the qualitative
	information received to be displayed and analysed both qualitatively and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers, which will then be filtered to local authority.
	The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Indicator	Increase in the percentage of decisions made in accordance with the East marine plans (Source: Internal Marine Management Organisation systems and East marine plan monitoring survey)
Description	This indicator will measure the percentage of decisions that are made in accordance with the East marine plans.
Rationale	It is a legal requirement under section 58(1) and 58(3) of The Act for decisions affecting the marine area to be made (either in accordance with, or with regard) to the marine plans. For this reason we need to measure whether this has been achieved. Measuring successful plan implementation is an important aspect of process monitoring. If we do not know whether plans have been implemented effectively, we cannot have a full understanding of whether a plan objective is failing because of flawed policy or flawed
Source (URL	implementation. This will be measured through internal Marine Management
link)	Organisation systems (eg Marine Case Management System) and the

Indicator	Increase in the percentage of decisions made in accordance with the East marine plans (Source: Internal Marine Management Organisation systems and East marine plan monitoring survey)
Conceptual soundness	East marine plan monitoring survey. Quantitative information from systems is needed in order for us to understand whether the legal requirements have been met for all decisions.
	Acquiring such data from other decision-making bodies was deemed to create an unnecessary burden as it would require a range of system changes. For this reason it was decided that a survey would help to complement the data collected by including a wider range of decision-makers. The survey will cover all relevant decision makers and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond. Using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring policy effectiveness.
Technical robustness	Data from systems only requires a 'count' which is deemed to be technically robust.
	The survey that will be designed according to well-established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust. The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively and quantitatively.
Spatial Scale	Marine Management Organisation systems have been modified to allow them to filter applications by relevant plan area (therefore data will be extracted for the East only. The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Indicator	Increase in the percentage of licence applications citing each plan policy (Source: MCMS)
Description	This indicator will measure the percentage of Marine Management Organisation marine license applications citing each plan policy which will indicate consideration of the policies in the application process.
Rationale	It is a legal requirement under section 58(1) and 58(3) of the-Act for decisions affecting the marine area to be made (either in accordance with, or with regard) to the marine plans. For this reason we need to measure whether this has been achieved.

Indicator	Increase in the percentage of licence applications citing each
	plan policy (Source: MCMS)
	Measuring successful plan implementation is an important aspect of process monitoring. If we do not know whether plans have been implemented effectively, we cannot have a full understanding of whether a plan objective is failing because of flawed policy or flawed implementation.
	If plan policies are cited frequently, this will help us to understand the extent to which the East plans are being considered. Using the percentage increase rather than numbers allows us to measure increased implementation of the policy rather than a change that may be due to increasing numbers of applications.
Source (URL link)	Outputs from the Marine Management Organisation Marine Case Management System.
	NB: While it would be useful to have this information from other organisations (not just the Marine Management Organisation), to do so would require a significant level of burden on other decision-makers to ensure their systems are able to collect such information and then filter it by whether or not it is likely to have an effect on the East plan areas. For this reason, this indicator will be confined to the Marine Management Organisation alone, yet combined with other indicators (that consider other decision-makers) to give a wider perspective on whether plans have been implemented effectively.
Conceptual soundness	This indicator will measure the extent to which plan policies are being taken account of in decision making. It will provide us with quantitative information on which policies are being considered more or less frequently.
	NB: An important limitation of this indicator is that it only measures quantity not quality. For example, a policy may be cited multiple times, but that does not necessarily mean that either a) the policy was implemented correctly or b) there was any visible output or outcome from the implementation. For this reason, this indicator will need to be combined with evidence from the East marine plans monitoring survey.
Technical	This indicator only requires a 'count' which is deemed to be technically
robustness	robust.
Spatial Scale	This information will only be extracted from the Marine Management Organisation, Marine Case Management System for those applications that will have an effect on the East plan areas.

	utput indicator 10.3
Indicator	Increase in the percentage of applicants and decision-makers
	who feel the East plans have been implemented successfully
D ' '	(Source: East marine plan monitoring survey)
Description	This indicator will measure stakeholder satisfaction levels in the
	implementation of the East marine plans through the use of the East
	marine plan monitoring survey.
Rationale	It is a legal requirement under section 58(1) and 58(3) of the Act for
	decisions affecting the marine area to be made (either in accordance
	with, or with regard) to the marine plans.
	Measuring successful plan implementation is an important aspect of
	process monitoring. If we do not know whether plans have been
	implemented effectively, we cannot have a full understanding of
	whether a plan objective is failing because of flawed policy or flawed
	implementation.
Source (URL	The data for this indicator will come from the East marine plans
link)	monitoring survey, commissioned by the Marine Management
	Organisation.
Conceptual	This survey will cover a range of decision makers and applicants and
soundness	whilst returns to the survey cannot be guaranteed, all those who have
	the information required will be given the chance to respond.
	The potential to measure successful implementation in different ways
	was considered, with a number of factors, such as resource required
	for analysis, influencing the choice of a survey method. Using a survey
	allows the measuring of stakeholder opinion and change in that over
	time, which is deemed to be a credible and easily measurable indicator
	for measuring policy effectiveness.
Technical	This indicator will use a survey that will be designed according to well-
robustness	established qualitative research methods. Information will be
	interpreted and used in line with best practice for qualitative data. As
	such, this information will be technically robust.
	The survey has been designed in a way to allow the qualitative
	information received to be displayed and analysed both qualitatively
	and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers,
	comprising national decision-making bodies and local organisations
	with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact
	the East plan areas specifically (including decisions made across the
	whole of the East marine plans areas and the local authority areas
	adjacent to it).

Indicator	Increase in the percentage of terrestrial plans that reference the
	East marine plans (including specific policies and objectives)
	(Source: Internal Marine Management Organisation analysis)
Description	This indicator will measure the extent to which plans are being taken
	account of by terrestrial decision makers. The data yielded will be a
	quantitative numerical value which can then be translated into a
	percentage of external decision documents that consider marine plans.
	Results can be compared year on year.
Rationale	This indicator will monitor the level of integration of marine plans into
	terrestrial decision making. Reference to marine plans in external
	documents is a strong indicator of integration as it highlights effective
	implementation of the marine plans by terrestrial decision makers.
Source (URL	This data would be collected by the Marine Management Organisation
link)	through an exercise every 3 years for plan review.
Conceptual	Data collected will provide a solid understanding of the effective
soundness	implementation of plans through the level of integration between
	marine and terrestrial plans. If integration is not deemed to be
	successful, this will provide important context when assessing whether
	plan policies have been effective. Where integration has been
	successful, the Marine Management Organisation can be confident
	that the introduction of marine plans has contributed to any observed
-	impacts (eg: an increase in Gross Value Added from marine industry).
Technical	This indicator only requires a 'count' which is deemed to be technically
robustness	robust.
Spatial Scale	The data would include both an assessment of national policy
	documents and local documents that border the East plan areas. The
	former would indicate the level of integration at a higher level (with
	references to marine plans in general) and the latter at a local level
	with references to the East marine plans specifically.

Indicator	Decision-makers report improved consideration in decision-
	making of a) terrestrial infrastructure b) co-existence and c)
	displacement (Source: East marine plan monitoring survey)
Description	This indicator will measure satisfaction that there has been an
	improved level of consideration of terrestrial infrastructure, co-
	existence and displacement in decision-making.
Rationale	This indicator will help us to monitor the effectiveness of policies
	GOV1, GOV2 and GOV3 in the East marine plans.
Source (URL	The data for this indicator will come from the East marine plans
link)	monitoring survey, commissioned by the Marine Monitoring Organisation.
Conceptual	This indicator will measure decision makers' opinion that there has
soundness	been an improved consideration of terrestrial infrastructure, co-
	existence and displacement in applications. This survey will cover all
	relevant decision makers and whilst returns to the survey cannot be
	guaranteed, all those who have the information required will be given
	the chance to respond.
	The potential to measure 'improved consideration' in different ways
	was considered, with a number of factors, such as resource required
	for analysis, influencing the choice of a survey method. Using a survey
	allows the measuring of stakeholder opinion and change in that over
	time, which is deemed to be a credible and easily measurable indicator
T I I	for measuring policy effectiveness.
Technical	This indicator will use a survey that will be designed according to well-
robustness	established qualitative research methods. Information will be
	interpreted and used in line with best practice for qualitative data. As
	such, this information will be technically robust.
	The survey has been designed in a way to allow the qualitative
	information received to be displayed and analysed both qualitatively
	and quantitatively.
Spatial Scale	The survey will be issued to a targeted group of decision-makers,
Opanai Coaic	comprising national decision-making bodies and local organisations
	with a specific interest in the East.
	The questions asked will all relate to decisions made that will impact
	the East plan areas specifically (including decisions made across the
	whole of the East marine plans areas and the local authority areas
	adjacent to it).

Objective 10: To ensure integration with other plans and regulation and management of key activities and issues in the East marine plan, and adjacent areas. Related to HLMO 17-22 and plan policies GOV1 – 3 NB: ALL POLICIES IN THE EAST MARINE PLANS CONTRIBUTE TOWARDS THIS OBJECTIVE

Context

Marine planning is a new process which needs to integrate itself within the existing plan-led decision-making mechanisms on land and to bring planled management to the marine area. Coastal areas must be managed in an integrated, holistic way.

Rationale

Without the information provided in marine plans, decisions may be made that unnecessarily displace other activities, that do not maximise opportunities for colocation, or that do not fully consider how they will integrate with other plans (land or marine). The process of decision-making may also take longer without marine plans due to uncertainty regarding relevant policy and the increased effort needed to gather disparate information.

Theory of Change

Integrating the plans into existing decision-making processes will allow for more informed decisions, increased decision-making efficiency and more sustainable use of marine resources. The integration of land and marine planning will ensure appropriate provision is made on land to support marine activities (and vice versa). Opportunities for co-existence will be maximised and displacement avoided where possible.

Inputs

- -Marine authorisation and enforcement decisions
- Non-marine plan policies
 Changes to IT systems and processes
- -New training and guidance for decision makers
- -MMO setting up a 'Marine Information System'
- -New research projects e.g.
 (e.g. Co-location project)
- -Appointing a marine specialist within an organisation
- -Ensuring integration with local authority or other statutory plans

Indicators (or measures)

Output Indicators:

10.1. Increase in the percentage of decisions made in accordance with the East marine plans (Source: MCMS and East marine plans monitoring survey)

10.2 Increase in the percentage of licence applications citing each plan policy (Source: MCMS) NB: THIS INDICATOR WILL BE APPLIED TO ALL OBJECTIVES 1-10

10.3 Increase in the percentage of applicants and decision-makers who feel the East plans have been implemented successfully (Source: East marine plans monitoring survey)

10.4 Increase in the percentage of terrestrial plans that reference the East marine plans (including specific policies and objectives) (Source: Internal MMO analysis)
10.5 Decision-makers report improved consideration in decision-making of a)
terrestrial infrastructure b) co-existence and c) displacement (Source: East marine plans monitoring survey)

Outcome Indicators:

10A Increased confidence in plan-led management and a decrease in decision making process time both in pre-application and application phases (Source: MCMS, MMO KPI 1C1; East marine plans monitoring survey, Monitoring Focus Group and Customer Insight Group)

10B Increase in the percentage of Local Authorities bordering the East Plan Areas that are satisfied they have been able to integrate marine plans into their decision-making framework (Source: East marine plans monitoring survey)

Activities

All activities which affect the marine area, are undertaken in accordance with (or with regardto) marine plans and have the potential to promote coexistence, cause displacement or require the provision of infrastructure across land and sea.

Outputs

 Consistent use of plans in decisionmaking.

2.Increased consideration of land based infrastructure, co-existence and displacement in decision making

Outcomes

Effective and efficient management of marine activities

2. Successful integration between marine and terrestrial plans

Objective 11 outcome and ouput indicator tables and logic chain

Objective 11: Outcome indicator 11A

Indicator	Increase in the percentage of survey respondents who are
indicator	satisfied that they have seen an improvement to the East Plan
	Areas evidence base. (Source: East marine plan monitoring
Description	Survey) This indicator will measure the percentage of stakeholders who are
Description	satisfied they have seen an improvement in the East plan areas
	evidence base.
Rationale	Measuring the quality of the evidence base is an important aspect of ensuring the Marine Management Organisation continues its focus on the East plans rather than moving onto new plan areas alone. As plans are reviewed at regular intervals we need to ensure the evidence base stays up to date so that plan revisions are grounded in the best available evidence.
Source (URL link)	The data for this indicator will come from the East marine plans monitoring survey, commissioned by the Marine Management Organisation.
Conceptual soundness	This indicator will measure decision makers' opinion that they have seen an improvement to the evidence base. This survey will cover all relevant decision makers and applicants and whilst returns to the survey cannot be guaranteed, all those who have the information required will be given the chance to respond.
	The potential to measure improvement in different ways was considered; however using a survey allows the measuring of stakeholder opinion and change in that over time, which is deemed to be a credible and easily measurable indicator for measuring effectiveness of objective 11.
Technical robustness	This indicator will use a survey that will be designed according to well-established qualitative research methods. Information will be interpreted and used in line with best practice for qualitative data. As such, this information will be technically robust. The survey has been designed in a way to allow the qualitative information received to be displayed and analysed both qualitatively
Spatial Scale	and quantitatively. The survey will be issued to a targeted group of decision-makers, comprising national decision-making bodies and local organisations, and frequent licence applicants with a specific interest in the East. The questions asked will all relate to decisions made that will impact the East plan areas specifically (including decisions made across the whole of the East marine plans areas and the local authority areas adjacent to it).

Indicator	Increase in number of new data sources available on the Marine Management Organisation Master Data Register that benefit the East Plan Areas
Description	This indicator will measure the number of new spatial datasets available on the Master Data Register that benefit the East plan Areas.
Rationale	Through our commitment to continuous improvement of the planning evidence base under objective 11, it is important to know whether the evidence base has improved, an important element of which is number of evidence sources available to the planning team (not just those selected in the final plan).
Source (URL link)	The source would be the Marine Management Organisation Master Data Register.
Conceptual soundness	This indicator is conceptually sound as it is clear and gives us a quantitative representation of evidence base improvements. It tells us not just the number of datasets directly referenced in the plan, but the wider evidence base available. As the Master Data Register only stores spatial datasets once they have undergone a quality assurance process, it therefore adds a useful quality element to the assessment. The data will complement that collected through measuring the number of evidence sources (since the Master Data Register stores spatial data alone).
Technical	This indicator only requires a 'count' which is deemed to be technically
robustness	robust.
Spatial Scale	The datasets on the Master Data Register are generally at a national scale that spans all plan areas. This indicator will measure both national datasets and those that apply only to the East plan areas.

Indicator	Increase in the number of evidence projects developed in collaboration with other parties that the Marine Management Organisation has either led or been involved with that benefit the East plan areas (Source: Marine Management Organisation internal assessment)
Description	This indicator will measure the number of new evidence project that benefit the East plan areas. These could be projects led by the Marine Management Organisation or that the Marine Management Organisation has some involvement in through collaborative projects such as the Marine Planning Exchange.
Rationale	Through our commitment to continuous improvement of the planning evidence base under objective 11, it is important to know whether the evidence base has improved, an important element of which is number of evidence projects.
	An important aspect of improving the marine planning evidence base involves collaborative working with relevant organisations. This ensures that organisations with similar objectives can share resources efficiently and effectively.
Source (URL link)	This information would be sourced from internal Marine Management Organisation records.

Indicator	Increase in the number of evidence projects developed in collaboration with other parties that the Marine Management Organisation has either led or been involved with that benefit the East plan areas (Source: Marine Management Organisation internal assessment)
Conceptual soundness	The contribution that this indicator makes to understanding improvements to the evidence base is clear. However, the 'number' of evidence sources alone is limited as an indicator, since it is not merely quantity that would inform us whether the evidence base has improved- for this reason we need to consider quantity alongside 'quality' which would be achieved through the East marine plan monitoring survey.
Technical robustness	This indicator only requires a 'count' which is deemed to be technically robust.
Spatial Scale	The information for this indicator would relate to evidence projects that benefit the East plan areas only.

Indicator	Increase in the number of datasets available on INSPIRE				
	geoportal that benefit the East Plan Areas (Source: MMO assessment of datasets)				
Description	This indicator measures the number of datasets that can be directly accessed through the INSPIRE portal and therefore shared across organisations.				
Rationale	An important element of the East marine plan objective 11 is the commitment to data sharing and transparency. Counting the number of relevant datasets on the INSPIRE portal will offer a sense of to what extent data sharing is becoming more wide spread.				
Source (URL link)	http://inspire-geoportal.ec.europa.eu/				
Conceptual soundness	The INSPIRE geoportal represents the best mechanism through which marine data is directly shared with third parties. As the INSPIRE Directive seeks to share spatial data across the European Community it is a sound indicator for data sharing.				
Technical robustness	This indicator only requires a 'count' which is deemed to be technically robust.				
Spatial Scale	The datasets will apply across a European scale but can be filtered for those that benefit the East plan areas.				

Indicator	Increase in the average QA scores of evidence (Source: MMO assessment)
Description	This indicator measures any change to the average quality assurance scores for the marine planning evidence base (both spatial and nonspatial evidence).
Rationale	It is important to understand the quality of the evidence used in decision-making in addition to change in quantity In order to measure improvement in the evidence base.

Indicator	Increase in the average QA scores of evidence (Source: MMO assessment)
Source (URL link)	The Marine Management Organisation Master Data Register and the marine planning evidence quality assurance spreadsheet.
Conceptual soundness	Evidence quality can be measured using a number of variables (such as timeliness, accuracy, peer review etc) and the Marine Management Organisation quality assurance process has been designed to consider these factors in combination. Measuring change to scores is the best current mechanism through which quality of the planning evidence base can be assessed.
Technical robustness	The technical robustness of average quality assurance scores can be measured by the robustness of the process itself which has been deemed to be sound, in line with the government's Chief Scientific Advisor's guidelines.
Spatial Scale	The scores would be at the scale of each particular dataset (which could be national, UK, plan area or local scale). Scores for evidence will also span a range of spatial scales (depending on the particular evidence source). However, scores would be filtered to those evidence sources that benefit the East plan areas.

Objective 11: To continue to develop the marine evidence base to support implementation, monitoring and review of the East marine plans.

Related to HLMO 23-26 (although there are no plan policies under objective 11 the need to develop the evidence base applies across all planning activities).

Context

The use of evidence is vital in ensuring policy development focuses on those issues of most importance to stakeholders. The UK government is committed to making policy using best available evidence and this is echoed in the Marine Policy Statement.

Marine plans must therefore be based on the best available evidence and we must continue to improve the evidence base beyond plan publication, both for plan monitoring and future plan iterations.

Rationale

Without this objective, improvements to the evidence base may not take place. Improvements may be more focussed on new areas to be planned rather that continuing to support the East.

Theory of Change

Continued development of the evidence base will aid the review of the East plans (ensuring that the evidence available for plan review is up to date) and may lead to the future refinement of marine plan policies (or indeed brand new policies where needed). Through this objective, focus will remain on the East rather that shifting wholly to new plan areas.

Inputs •MMO

Strategic EvidencePlan

•Marine Plan 3 and 6 year reviews.

•Evidence gathered for new plan areas (yielding collation of national datasets e.g. scp)

•Evidence gathered through plan monitoring

 Non marine plan policies

Indicators (or measures)

Output indicators:

11.1 Increase in the number of new data sources available on the MMO Master Data Register that benefit the East Plan Areas (Source: MMO assessment of datasets)

11.2 Increase in the number of evidence projects developed in collaboration with other parties that the MMO has either led or been involved with that benefit the East plan areas (Source: MMO internal assessment)

11.3 Increase in the number of datasets available on INSPIRE geoportal that benefit the East Plan Areas (Source: MMO assessment of datasets)

11.4 Increase in the average QA scores of evidence (Source: MMO assessment)

Outcome indicators:

11A Increase in the percentage of survey respondents who are satisfied that they have seen an improvement to the East Plan Areas evidence base. (Source: East marine plans monitoring survey)

Activities

 New evidence projects commissioned (in line with Strategic Evidence Plan priorities) and published on MMO website.

The MMO will work with third parties to acquire evidence.

 Display of data (e.g. Gathered through SSE or monitoring) on the marine planning portal.

 Encouraging transparency, openness and removal of barriers to data sharing.

 Arranging data sharing with holders of marine data including international bodies.

Outputs

Increased number of MMO and third party evidence sources available and increased number of collaborative evidence projects
 Increased data sharing among holders of marine data

Increased quality of evidence base.

Outcomes

1.An improved evidence base is available to support implementation, monitoring and review of the East marine plans

5 Sustainability Appraisal monitoring requirements and indicators

The monitoring recommendations within the <u>sustainability appraisal</u> have been mapped against those proposed under this monitoring framework, to ensure that they will deliver this statutory requirement. The results of this work can be seen in the table below, which demonstrates that the requirements are fulfilled by the current approach. This can then be used to assess difference from the baseline predicted by the <u>sustainability appraisal</u> to ensure we have the fullest picture of how the plans are performing.

The monitoring requirements of the <u>habitats regulations assessment</u> and the <u>Analysis of the East Marine Plans</u> focus upon the integrity of existing and future European marine sites and priority species and the potential economic benefits of the plans respectively. They will be covered by monitoring under Objectives 6, 7 and 8 for the <u>habitats regulations assessment</u> and Objectives 1, 2 and 3 for the <u>Analysis of the East marine plans</u>.

Table 4 Sustainability Appraisal monitoring requirements and indicators (NB: The first three columns are extracted directly from the East plans Sustainability

Appraisal).

Topic	Effect to be monitored	Monitoring measure	Where these measures are covered in the East marine plans monitoring approach
Air and climate	The plans are expected to have a positive effect on the development of offshore windfarms. The plans should have the effect of avoiding sterilisation of areas suitable for Carbon Captures and Storage and tidal stream technologies. The sustainability appraisal would like attention on the appropriateness of the policy support that is given in relation to greenhouse gas offsetting at the expense of minimisation.	The actual trajectory of offshore renewable wind energy development (ie installed capacity) should be reviewed regularly in-light of the expected baseline trajectory. It may also be useful to monitor the success rate of applications before and after adoption of the plans. Depending on the number of applications that come forward it may also be possible to analyse the influence of the plans through discussion with applicants. The sterilisation of areas suitable for Carbon Captures and Storage or tidal stream technology should be monitored closely. The scale of greenhouse gas offsetting that is allowed (at the expense of minimisation) should be monitored closely.	These effects will be monitored through: Objective 9 Objective 10 Objective 11

Topic	Effect to be monitored	Monitoring measure	Where these measures
			are covered in the East marine plans monitoring approach
Communities and Health	The positive effect of the plan on offshore windfarm development is expected to result in economic growth at locations where this has the potential to address existing socio-economic problems. The negative effect of the plan on ports and shipping could have negative implications in terms of communities and health. No significant effects are expected in terms of fishing communities, although there is some uncertainty. The plan supports tourism and recreation development, where it will result in tourism diversification.	The Marine Management Organisation should support local authorities as they look to monitor the drivers of socio- economic deprivation / regeneration in certain coastal communities A suite of indicators could be developed to monitor the success of ports and related business activities. The health of fishing fleets should be monitored closely. Use of Policy TR3 as part of Local Authority decision- making could be monitored.	These effects will be monitored through: Objective 1 Objective 2 Objective 4 Objective 10 Objective 11
Cultural Heritage	Many marine activities have the potential to result in adverse impacts on the historic environment. There is uncertainty about the scale and location of new activities. The East marine plans seek to reinforce existing heritage protection policy and in some cases slightly add to it. Effects are likely to be neutral to minor positive.	Review of archaeological assessments and surveys completed as part of development consent process for offshore schemes. Review of National Heritage Protection Plan research. Review of coastal historic seascapes research. Encourage completion of online access to the index of archaeological investigations records.	These effects will be monitored through: Objective 5 Objective 10 Objective 11
Marine Ecology	Effect of developments which have the potential to undermine Water Framework Directive and Marine Strategy Framework Directive targets for criteria related to biodiversity and ecology. Effect of developments which have the potential to undermine management measures/conservation objectives of Marine Protected Areas designated wholly or in part for ecological criteria, and for other habitats and species of principal importance for the conservation of biodiversity. Though providing some further definition to the Marine Policy Statement,	Number, extent, condition and trajectory of Marine Protected Areas and the features for which they have been selected. Review of ecosystem appraisals as part of the OSPAR and UK Charting Progress assessments, and any assessments undertaken to support the implementation of the Marine Strategy Framework Directive. Review the achievement of Good Ecological Status indicators and targets associated with Marine Strategy Framework Directive descriptors 1, 2, 4, 5, 6, 7, 8, 10 and 11 for the east inshore and offshore marine plan areas. Fulfilment of evidence	These effects will be monitored through: Objective 6 and 7: Objective 6 Objective 7 2 Objective 8 Objective 8 Objective 10 Objective 11

Topic	Effect to be monitored	Monitoring measure	Where these measures
			are covered in the East marine plans monitoring approach
	there is still some uncertainty about the potential scale and location of new activities and developments within the overall context of the potential resource areas (eg aggregates, offshore wind, Carbon Captures and Storage, gas storage and extraction), and the possible nature of displacement that could take place (eg fisheries). Related to the above, gaps remain in the marine ecology evidence base for the east marine plan areas	gaps/priority research areas outlined in the Strategic Evidence Plan, and achievement of commitments to evidence gathering under plans paragraph 441. Applications made in conformity with those policies relevant to this SA topic (see Annex 5), though particularly BIO1-2 and MPA1. Review of Marine Licence (eg formerly Food and Environmental Protection Act licence) monitoring for individual offshore windfarm/marine renewables developments.	
Economy	The positive effect of the plan on offshore windfarm development is expected to result in economic growth at locations where this has the potential to address existing socio-economic problems. The negative effect of the plan on ports and shipping could have negative implications given the importance of ports for sustainable economic growth.	Organisation should support local authorities as they look to monitor the drivers of socioeconomic deprivation / regeneration in certain coastal communities A suite of indicators could be developed to monitor the success of ports and related business activities.	Objective 10
Geology, Geomorpholog y and Coastal Processes	Marine and coastal activities have the potential to influence coastal processes including sediment dynamics, which may have deleterious effects, including generating or exacerbating coastal flood and erosion risk. Effect of developments which generate physical disturbance on Water Framework Directive and Marine Strategy Framework Directive targets which include morphological criteria. Effect of developments which generate physical disturbance on Marine	Review the achievement of GES indicators and targets associated with Marine Strategy Framework Directive descriptor 7 for the east inshore and offshore marine plan areas. Review of achievement of Good Ecological Status / Good Ecological Potential with regards to water body morphological status associated with the Water Framework Directive (eg coastal and estuarine waters). Number and extent of Marine Protected Areas designated wholly or in part for geological or geomorphological criteria,	These effects will be monitored through: Objective 6, Objective 7 Objective 8 Objective 9 Objective 10 Objective 11

Topic	Effect to be monitored	Monitoring measure	Where these measures are covered in the East
			marine plans monitoring approach
	Protected Areas designated wholly or in part for geological or geomorphological interests.	the condition of these features and their trajectory of change. Applications made in conformity with those policies relevant to this SA topic (see Annex 5), though particularly CC1, BIO1 and MPA1.	
Landscape and Seascape	Offshore activities can have effects on the coastal landscape and seascape whether these are permanent or transient. These may affect both designated areas (eg AONBs, Heritage Coasts, Scheduled Monuments, National Parks), and all other landscapes which will have cultural and historical associations for particular individuals. There is some uncertainty about the location of new activities.	Review of seascape and visual assessments completed as part of development consent process where available. Review of consenting decisions in relation to policy SOC3. Review of changes in each character area relevant to the east marine plan areas. Marine Management Organisation report to government on the delivery of marine plan objectives and policies.	These effects will be monitored through: Objective 5 Objective 10 Objective 11
Water Environment	Developments and other activities at the coast and sea can have adverse effects on water including failure to meet environmental objectives established under the Water Framework Directive and in due course the Marine Strategy Framework Directive. There is uncertainty about the scale and location of new activities. The East marine plans are not expected to significantly affect the water environment.	Relevant indicators collated by the Clean and Safe Seas Evidence Group (part of the UK Marine Monitoring and Assessment Strategy) may be of relevance Monitoring carried out as part of Water Framework Directive and Marine Strategy Framework Directive commitments	These effects will be monitored through: Objective 6 Objective 7 Objective 10 Objective 11

6 East Marine Plans monitoring survey

NB- If you are a decision-making authority, please complete section 1. If you are a licence applicant, please complete section 2.

Section 1 (for decision-making authorities only)

Implementation of the East marine plans

1. To what extent are you satisfied with the following statements. Please mark the relevant box:

	Very	Satisfied	Dissatisfied	Very	Don't
Statement	satisfied			dissatisfied	know
There is a high level of					
awareness of the East					
marine plans among the					
relevant staff in my					
organisation					
I have seen an increase in					
the number of decision-					
makers using the East					
marine plans over the last					
12 months					
My organisation is					
contributing to the delivery					
of plan-led management					
The relevant staff in my					
organisation understand the					
plan policies/ objectives and					
how to implement them					
My organisation's decisions					
are made in accordance					
with the East marine plans					
The relevant staff in my					
organisation have received					
the appropriate training to					
successfully implement the					
marine plans					
My organisation has been					
able to integrate marine					
plans into its decision					
making framework					
I used the Marine					
Management Organisation					
Marine Information System					
to help me apply the East					
marine plans					

Statement	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied	Don't know
I have a good understanding of the					
benefits of plan-led management in the East					

If you have any additional comments on implementing the East marine plans, please give further details here:

The effects of the East marine plans

2. How satisfied are you that you have seen an <u>improved consideration</u> of the following factors in decision-making in the East plan areas over the last 12 months:

Factor	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied	Don't know
Economic productivity					
Employment					
Conserving heritage assets					
Conserving nationally protected landscapes					
The seascape of the local area					
Access to marine related recreation activities					
Cumulative effects					
The risk of release of hazardous substances due to collision risk					
Wider biodiversity (including habitats and species protected or of conservation concern)					
Proposals incorporating features that enhance biodiversity or geological interests					
Any impacts on the overall Marine Protected Area network					
Climate change adaptation and mitigation measures					

Factor	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied	Don't know
Resilience of activities to the impacts of climate change					
Provision for infrastructure on land which supports activities in the marine area					
Opportunities for co- existence					
Avoiding displacement of other activities					

3. To what extent are you satisfied with the following statements:

Statement	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied	Don't know
I have seen an improvement to the East plan areas evidence base over the last 12 months					
Using the East Marine Plans has streamlined decision-making in the East plan areas.					
Effective integration has been achieved between marine and terrestrial plans					
The East marine plans have assisted me in making decisions in the East Inshore and Offshore areas					

If you have noticed any other changes that you believe to result from East marine plans, please give further details here:

Additional questions

- 4. Please select the category that best describes your organisation:
 - a) Local authority,

- b) Government department,
- c) Government agency or non-departmental public body
- d) Other (please specify)
- 5. Please select the category that best describes your current role:
 - a) Direct delivery, b) Support function
- 6. If there have been any changes to your role or responsibility since the last survey, please give details below:

Section 2 (marine licence applicants)

1. To what extent are you satisfied with the following statements:

Statement	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied	Don't know
The East marine plans were easy to use					
The East marine plans will improve the sustainable development of our seas					
The East marine plans have saved my organisation time in the pre-application phases of projects					
The East marine plans have saved my organisation time in the formal application process of projects					
The East marine plans have saved my organisation money					
I used the Marine Management Organisation, Marine Information System to help me apply the East plans					
I referenced the East marine plans in relevant applications					

Statement	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied	Don't know
The relevant staff in my					
organisation understand					
the plan policies/ objectives and how to					
apply them					
There is a high level of					
awareness of marine plans					
among the relevant staff in					
my organisation					
The relevant staff in my					
organisation have received					
the appropriate training to					
successfully apply the					
marine plans					
I have a good					
understanding of the					
benefits of plan-led					
management in the East					

If you have noticed any other changes that you believe to result from East marine plans, please give further details here:

2.	Please list the typ 12 months	es of marine related authorisations you have applied for in the last
		regate dredging
	☐ Buri	al at sea
	□ Cab	les
	☐ Con	struction (including renewables)
	☐ Dep	osit and use of explosives
	☐ Dred	dging
	☐ Disp	posal of dredged material
	☐ Disp	osal of fish and shellfish waste
	☐ Dive	ers
	☐ Pipe	elines
	•	noval
	☐ Scie	entific instruments and tracers

7 Exploratory questions for the Customer Insight Group and Monitoring Focus Group

For decision-makers

- 1. How were the marine plans delivered by your organisation?
- 2. What did you do to raise awareness of the marine plan to your staff and to applicants?
- 3. Were there any issues in implementing the East marine plan and how were/could these issues be overcome?
- 4. How have the East marine plans affected your work?
- 5. Did you use the Marine Information System?
- 6. How might the East marine plans (policy/objectives) be refined or improved?
- 7. Which East plan policies/objectives seem to have led to an observed outcome?
- 8. Have the East marine plans affected the numbers of contentious cases, if so, how?
- 9. Has there been a change in success rate of applications before and after the adoption of East marine plans? And to what extent do you believe this is due to the existence of the East marine plans?
- 10. Has there been a change in the level of join up with other decision makers since the East marine plans were adopted? And if so, how?
- 11. Has your understanding of the marine policy context changed since the adoption of the East marine plans and if so, how?
- 12. Have you noticed a change in the applications you have received in the East plan areas, if so please explain.
- 13. Have you noticed any change to your decision-making time? If so, please give details (eg what stage in the process was the change noticed).

For applicants

- 1. Did vou use the Marine Information System?
- 2. Have you noticed any change in the time it takes you to apply for a marine licence? If so, please give details (eg stage in the process where change was noticed)
- 3. How have you used East marine plan policies in support of your applications?
- 4. If you have had an application refused as a result of the content of the East marine plans? If so, please state which ones and the grounds for refusal.
- 5. How might the East marine plans (policy/objectives) be refined or improved?
- 6. Were there any issues in using the East marine plans and how were/could these issues be overcome?
- 7. What did you do to raise awareness of the marine plans to your staff?

8 Marine Management Organisation engagement on implementation to date

The Marine Management Organisation has segmented its engagement programme into internal and external implementation.

Internal

Within the Marine Management Organisation each function has been given a tailored implementation session appropriate for the decisions they make. Each team received marine planning awareness- raising sessions. This achieved an understanding of the marine planning process, and the marine plans, and gave staff within the organisation an understanding of how the marine plans will be implemented through the decisions they make.

The marine planning team worked with the head of each team to formulate a bespoke implementation programme. This included marine plan policy analysis sessions which highlighted to each team how to assess each policy against proposals. This identified processes and mechanisms to be applied to empower staff and assist applicants to consider the adopted East marine plans within proposals. For example, work included the production of desk notes, updates to existing systems such as the marine licensing team's Marine Case Management System and development of the Marine Information System.

External

The adopted marine plans will be implemented through decisions made by public authorities as stated within Section 58 of The Act. The Marine Management Organisation recognised the need to articulate to decision makers what an adopted marine plan means for them. To commence this process in September 2013 the Marine Management Organisation held the decision makers workshops at Hull, Peterborough and London.

The aim of the workshops was to discuss:

- consideration and monitoring of existing plans in decision making
- consideration and evaluation of marine plans in decision making
- Implementation and monitoring action planning, with a view to establishing an implementation and monitoring plan.

The outputs of the workshop are summarised in the <u>Decision Makers Workshop Summary Report</u>. One of the outputs of the report highlighted the appetite of decision makers for further support from the Marine Management Organisation on how to implement the East marine plans. As a result, the Marine Management Organisation has further developed its implementation strategy and is undertaking bespoke implementation sessions with the following decision makers:

- local authorities (located in the East plan areas)
- Eastern Inshore Fisheries Conservation Authority
- North Eastern Inshore Fisheries Conservation Authority
- Environment Agency
- The Planning Inspectorate
- Department for Communities and Local Government
- The Royal Town Planning Institute

- The Planning Officers Society
- Department of Energy and Climate Change
- The Crown Estate
- Department for Transport
- Natural England
- Joint Nature Conservation Committee

The sessions cover:

- Implications of section 58 of The Act
- The Marine Management Organisation's current approach to implementation and monitoring
- A policy analysis session to identify how marine plan policies should be considered in your decision making
- Topics specific to each decision making organisation (eg for local authorities the relevant implications of duty to co-operate when producing local plans/core strategies)

The sessions are helping decision makers identify which system and processes may change, encouraging the development of mechanisms to enable compliance with Section 58 of The Act. As discussed in section 1.3 of this document, the Marine Management Organisation will continue to work with decision makers as resource allows, supporting an effective transition to marine plan led decision making. Those interested in speaking with the Marine Management Organisation regarding implementation or monitoring of the marine plans can do so via the following contact details:

Marine Planning Team Marine Management Organisation

Telephone: 0191 376 2790

Email: planning@marinemanagement.org.uk