



Marine
Management
Organisation

North East, North West, South East and South West Marine Plans Approach to Monitoring



ENVIRONMENT
ISO 14001
CERTIFIED



QUALITY
ISO 9001
CERTIFIED



INVESTORS
IN PEOPLE

Bronze



© Marine Management Organisation 2020

You may use and re-use the information featured on this publication (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. Visit www.nationalarchives.gov.uk/doc/open-government-licence/ to view the licence or write to:

Information Policy Team
The National Archives
Kew
London
TW9 4DU
Email: psi@nationalarchives.gsi.gov.uk

Information about this publication and further copies are available from:

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

Tel: 0300 123 1032
Email: info@marinemanagement.org.uk
Website: www.gov.uk/mmo

If referencing this document, please cite as: North East, North West, South East and South West Marine Plans Approach to Monitoring

Contents

1	Introduction	4
1.1	Marine plan implementation	4
1.2	Monitoring and reporting	5
1.2.1	The three-yearly progress report	5
1.2.2	The six-yearly progress report	6
2	Background to monitoring	7
2.1	Monitoring of plan implementation and outcomes	7
2.2	Taking a framework approach.....	7
2.3	Plans are not the sole instrument of change	8
2.4	Taking account of best practice and lessons learned	8
2.5	Promoting join up with existing monitoring	9
2.6	Considering the Sustainability Appraisal and Habitats Regulations Assessment	10
3	What will be monitored and how?	12
3.1	Logic models	12
3.2	Characteristics of logic chains and logic models	13
3.3	Indicators	19
3.4	Indicator selection	21
3.5	Types of indicator	21
3.6	Establishing a baseline	22
3.7	Quality assurance and data management.....	22

Figures

Figure 1: The relationship between inputs and impacts in a logic chain and the increasing influence of external factors over time	14
Figure 2: Marine plan-level logic model.....	17
Figure 3: Marine policy-level logic model	18

Tables

Table 1: Logic model and definition of terms for marine planning logic model	13
Table 2: Example marine plan indicator data	19
Table 3: Criteria for indicator quality assurance.....	23

1 Introduction

1. This document supports the North East, North West, South East and South West Marine Plans (hereby referred to as “the marine plans”). Whilst each of these is a separate set of plans they will be subject to the same monitoring approach as set out in this document; plan-specificity will be realised in the detailed application of the approach. Taking account of the requirements in the [Marine and Coastal Access Act 2009](#) Section 58, this document outlines how the Marine Management Organisation will monitor the marine plans once they have been adopted.
2. As monitoring will be an important part of how marine plans are reported on, including to identify content that may need amending, this document is of interest to all those involved with developing, implementing, and using marine plans on a day-to-day basis. This includes public authorities using marine plans when making any decisions capable of affecting the whole, or any part, of the UK marine area, and stakeholders such as those applying for consents for development. More information on the responsibilities of decision makers can be found in the report [External Decision Making and Implementation Mapping of Marine Plans \(MMO1155\)](#).
3. There are two documents that relate to monitoring of the marine plans:
 - Approach to Monitoring (this document): sets out why we are monitoring marine plans, provides background on the approach being taken and explains how we will monitor (with examples)
 - Annex of Indicators: provides detailed information on indicators to be used and specific steps to be taken in relation to monitoring of the marine plans. This will follow the Approach to Monitoring document and be available upon request once completed

1.1 Marine plan implementation

4. It is a legal duty under the [Marine and Coastal Access Act 2009](#) Section 58(1) for all public authorities making authorisation or enforcement decisions (as defined in Section 58(4)) to do so in accordance with the appropriate marine policy documents, unless relevant considerations indicate otherwise. For decisions relating to the north east, north west, south east and south west marine plan areas (hereby referred to as “the marine plan areas”), the appropriate marine policy documents are the adopted marine plans and the [Marine Policy Statement](#).
5. The [Marine and Coastal Access Act 2009](#) Section 58(2) 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.
6. Public authorities taking decisions that are not concerned with authorisation or enforcement but which might affect the marine plan areas, for example decisions about what representations they should make as a consultee or relating to the preparation of terrestrial plans, must have regard to the [Marine Policy Statement](#) and

the marine plans as stated in the [Marine and Coastal Access Act 2009](#) Section 58(3).

7. The duty in the [Marine and Coastal Access Act 2009](#) Section 58(1) does not apply to decisions made on an application for an order granting development consent under the [Planning Act 2008](#)¹. When taking decisions relating to Nationally Significant Infrastructure Projects (as defined in the Planning Act 2008), the relevant Secretary of State must have regard to the appropriate marine policy documents as per the [Marine and Coastal Access Act 2009](#) Section 58(3).
8. The marine plans include some detail intended to support implementation. General information about the vision, objectives and policy considerations can be found in the marine plan technical annexes. The [Explore Marine Plans](#) digital service can also be used to view policy supporting text, the spatial extents of policies, and supporting spatial information, enabling marine plan users to get the most from marine plans. Plan-users can also utilise the guidance on [Application of Marine Plans](#) to support decision-making.

1.2 Monitoring and reporting

9. Monitoring and periodic reporting on marine plans is a legal requirement under Section 61 of the [Marine and Coastal Access Act 2009](#). There are two reporting duties within the Marine and Coastal Access Act 2009 which are outlined in Sections 1.2.1 and 1.2.2 below. Section 54 is also relevant to this activity, setting out matters related to meeting the requirements of Section 61.

1.2.1 The three-yearly progress report

10. At intervals of not more than three years after each marine plan is adopted there is a duty to report on:
 - (a) the effects of policies in the marine plan;
 - (b) the effectiveness of those policies in securing that the objectives for which the marine plan was prepared and adopted are met;
 - (c) the progress being made towards securing those objectives;
 - (d) if a [Marine Policy Statement](#) governs marine planning for the marine plan authority's region, the progress being made towards securing that the objectives for which the Marine Policy Statement was prepared and adopted are met in that region.
11. Once prepared, this report will be laid before Parliament by the Secretary of State. After the report is published, the Secretary of State must decide whether to amend or replace the marine plan.
12. It is important that the 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 assessment of the evidence used to draft the report will also be made available.

¹ As amended by the [Planning Act 2008 \(Commencement No. 3\) \(England\) Order 2017](#)

13. The [Marine and Coastal Access Act 2009](#) Section 61(8) requires successive reports (following the first report under Section 61(4)) to be published at intervals of no more than 3 years following the date of publication of the previous report. The deadline for publishing subsequent reports depends on when the previous report was published, rather than when the plan was adopted.

1.2.2 The six-yearly progress report

14. At intervals of not more than six years beginning with the date of the [Marine and Coastal Access Act 2009](#) receiving assent (November 2009), there is a duty to report on:
- marine plans that have been prepared and adopted
 - intentions for their amendment
 - intentions for the preparation and adoption of further marine plans
15. The six-yearly report is an update on the marine planning system in England as a whole. It draws on any three-yearly reports which have been produced and wider information gathered throughout the marine planning process. The first of these, the [Six-year report on the progress with marine plans in England \(for the period 2009 to 2015\)](#), was laid before Parliament in November 2015.
16. After the first report has been published under Section 61(10) of the [Marine and Coastal Access Act 2009](#), Section 61(11) requires the following reports to be published at intervals of no more than six years following the laying of the previous report, rather than at successive six yearly intervals from the passing of the [Marine and Coastal Access Act 2009](#). The next six-yearly report is due in November 2021.

2 Background to monitoring

17. Marine plans provide a strategic approach to decision-making, considering future use and providing a clear approach to managing resources, activities and interactions within the marine plan areas. Marine plans themselves align with the [Marine Policy Statement](#), ensuring that decisions made within a plan area contribute to the vision for the UK marine area, expressed through high level marine objectives.
18. The content herein sets out how the monitoring requirements of the [Marine and Coastal Access Act 2009](#) will be met including how the adopted marine plans will contribute to the UK's high level marine objectives outlined in the [Marine Policy Statement](#). Relevant high level marine objectives, ie those which are mainly delivered through plan policies, are used as the objectives within the marine plans following stakeholder feedback, together with experience and lessons learned from the development of the East and South Marine Plans.
19. Monitoring activities and effort will be guided by the resources available, using a proportionate approach. The ability to obtain information will be a factor guiding what can usefully be monitored, eg recording periods for suitable monitoring information may not be well aligned with marine planning reporting cycles.
20. This document uses logic models to outline the framework of the intended impact of the plans, and what will be monitored to assess if the plans are having their intended impact (Section 3.1). Indicators will be developed and used to measure progress towards policy aims and contribution towards the high-level marine objectives (Section 1.2.1). Detailed information regarding indicators is outlined in Section 3.3.

2.1 Monitoring of plan implementation and outcomes

21. To understand how and why the marine plans are having a particular effect, the monitoring approach addresses two considerations. First, it is important to understand whether the marine plan is being effectively implemented. Second, when implementation occurs, it is also necessary to understand the resulting real world changes. In the approach proposed, indicators for both implementation of, and changes resulting from, the marine plan policies will be monitored.

2.2 Taking a framework approach

22. The monitoring approach is appropriate for all marine plans, but it is recognised that the marine planning process continues to develop, and that the monitoring approach may also need to evolve.
23. This monitoring framework approach uses the [Marine Policy Statement](#) high level marine objectives, providing commonality between marine plans that apply in different areas across England (and the UK). The marine plans use the high level marine objectives as plan objectives, though these are made specific to the vision of each plan by the evidence and issues that describe opportunities and challenges in the plan areas over the next 20 years. Where marine plan objectives may vary, such as in the East and South Marine Plans (which utilise unique plan objectives which

contribute towards the high level marine objectives), as well as those from devolved administrations, the high level marine objectives ultimately allow them to be set in a common context. By monitoring policy effects, we then use this objective approach to frame progress of the plan as a whole.

24. To understand the contribution of policy level effects towards high level marine objectives, the marine plan policies have been assigned to the high level marine objectives that they most directly contribute to (Table 4 of the respective adopted marine plan technical annexes). It is likely to be the case that policies will also indirectly contribute to the achievement of other high level marine objectives. Many of the plan policies will also contribute to other national policy objectives in addition to those set out in the Marine Policy Statement. This is explained in more detail in Chapter 3 of the adopted marine plans' technical annexes.

2.3 Plans are not the sole instrument of change

25. 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 updates to the marine licensing system and market forces. In this context, the marine plans are not the sole instrument of change; this is recognised in the marine plans through signposting to other relevant information, such as local authority policies. Marine plans complement existing marine management, helping to harmonise direction and increasing awareness of marine matters, but there will always be some matters that require individual, case- or decision-specific discussions.
26. As a result it will be challenging, and in some cases it may be impossible, to assess how an outcome or what portion of an outcome (such as a higher rate of employment) can be attributed solely to any of the marine plans. When reporting, the Marine Management Organisation will focus on how marine plans have contributed to an outcome. This contribution will not be described in the context of other contributing measures and there will be no exploration of the reasons to why a wider outcome has, or has not, been achieved.

2.4 Taking account of best practice and lessons learned

27. Development of the monitoring approach and framework has been informed by the [Government's Magenta Book](#) and the Department for Environment, Food and Rural Affairs' [A description of the marine planning system for England](#). When it was published in 2011, the marine planning description document represented Government understanding of best practice in marine planning. The Magenta Book is the recommended central government guidance on evaluation of policies, programmes and projects. The updates to the Magenta Book and supporting documents in March 2020 were also considered in the development of the monitoring approach. The evaluative approach, including associated logic models and indicators, will be kept under review for improvements, so that updates to guidance can be incorporated into the monitoring approach when they are available.

28. Refining the monitoring approach has taken account of experience in the development and application of the [South Marine Plan Approach to Monitoring](#), and experience and lessons learnt in preparing the [East Marine Plans three-year reports](#). Working collaboratively with third parties has also provided independent feedback and advice, which informed the development of the monitoring approach. This included engagement with Devolved Administrations, as well as reviews from the Department for Environment, Food and Rural Affairs' social researchers and Strategic Evaluation Team.
29. To ensure we identify and respond to opportunities for learning and improvement, independent reviews of each previous monitoring approach have been carried out. The [Review of Marine Planning Monitoring and Evaluation Framework and Development of Baselines \(MMO1087\)](#) outlined the East Marine Plan monitoring approach, making recommendations that were incorporated in to the [South Marine Plan Approach to Monitoring](#) and Annex of Indicators. The [Review of marine plan monitoring indicators and their associated logic chains: review of logic models \(MMO1151\)](#) reviewed the [South Marine Plan Approach to Monitoring](#) and Annex of Indicators, with recommendations incorporated into this monitoring approach. This will also inform the development of the Annex of Indicators for the marine plans.
30. As monitoring of marine plans becomes more established and experience is gained, learning will be used to improve the monitoring process. New tools or evidence may lead to updates to the monitoring approach or Annex of Indicators. What is monitored may also evolve as new or developing influences and ongoing monitoring insights are identified. As further evidence is collected, it may be possible to formulate new indicators that improve the ability to monitor existing plan content.

2.5 Promoting join up with existing monitoring

31. There are many monitoring programmes already in place externally that measure outcomes relating to health, well-being, employment and environment, ie aspects potentially impacted by the marine planning process. When developing the Annex of Indicators, an assessment will be undertaken to determine if any existing monitoring programmes can meet the requirements of marine plan monitoring. We will draw on these sources of evidence where possible, as a form of secondary data collection, thereby avoiding duplication of effort. However, we note that these may not always provide consistent data in line with the period being monitored. Where an appropriate monitoring programme or indicator is not available, the Marine Management Organisation will specify the gaps or weaknesses and consider possible solutions based on the significance of the gap, and the resource implications of filling it. As a form of primary data collection, the Marine Management Organisation also collects data through monitoring surveys, which aim to identify stakeholder use and understanding of the marine plans.
32. The Marine Management Organisation will consult with data owners in developing the Annex of Indicators, to support join-up and to encourage ownership of, and participation in monitoring.

33. The [UK Marine Strategy Part 3: Programme of measures](#) states that marine planning will make a positive contribution towards the achievement of 'Good Environmental Status'. This has been considered in developing the monitoring framework for the marine plans in light of the need to avoid duplication and highlight join-up.

2.6 Considering the Sustainability Appraisal and Habitats Regulations Assessment

34. In addition to the legal requirements for monitoring set out in the [Marine and Coastal Access Act 2009](#), monitoring should also meet the requirements of the Sustainability Appraisal and Habitats Regulations Assessment of the marine plans.
35. A requirement of marine plan preparation is that it be subject to a Sustainability Appraisal². This appraises the social, economic and environmental impacts of the marine plans against defined topics and ensures sustainable development is at the heart of the plan-making process. During plan development, the Sustainability Appraisal process tests how marine plans perform against predicted effects. Where it is identified that there is a possibility of undesirable sustainability effects following any mitigation action taken in plan development, monitoring has to be undertaken on such effects.
36. In addition to the Sustainability Appraisal, a Habitats Regulations Assessment³ of the marine plans has been undertaken in order to assess its effects on protected nature conservation sites (European and Ramsar sites). Where the possibility of likely significant effects remains following mitigation in plan development, monitoring can be used to understand whether such effects are happening. One policy measure to provide the necessary assurances, detailed in the marine plans Habitats Regulations Assessment, is a monitoring and iterative plan review. Although monitoring is not considered mitigation, this measure ensures that results from monitoring data, from consented projects and on-going research programmes, can be fed into subsequent developments.
37. The 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, for example to grant consent for particular activities, support new initiatives, or support new designations within the marine environment.
38. These assessments contain useful information contributing to plan monitoring, such as baselines or assumptions against which outcomes may be monitored. They will also inform the development of the Annex of Indicators, ensuring that where there is a possibility of undesirable sustainability effects as identified in the Sustainability Appraisal, these effects can be monitored and any remedial action taken as

² The sustainability appraisal incorporates the requirements of the European Union (EU) Strategic Environmental Assessment (SEA) Directive ([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](#)) and the requirements of the [Marine and Coastal Access Act 2009 Schedule 5 Section 7](#).

³ The Habitats Regulations Assessment incorporates the requirements of the European Union (EU) Habitats Directive ([Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora](#)) and Birds Directive ([Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds](#)).

appropriate. These assessments 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 information can improve the accuracy of assumptions made, leading to better predictions in the future.

3 What will be monitored and how?

39. This section describes the approach that will be taken to monitoring. Important elements include:
- Logic models – providing an overview of what plans will achieve and what will be monitored
 - Logic chains – describing sequential activities and assumptions within the logic model, clarifying how a marine plan and the policies will achieve an intended result
 - Indicators – something which can be measured to enable assessment of steps of the logic model
 - Process monitoring – examining the development and implementation of marine plans
 - Outcome monitoring – measuring progress towards real world changes resulting from the marine planning process
 - Contextual monitoring – recognising that marine plan monitoring must consider changes in the wider operating context
 - Baseline – assessing the plan area in its current state before plan adoption
 - Quality assurance and data management – describes processes necessary to support the monitoring approach

3.1 Logic models

40. The Marine Management Organisation will monitor the effectiveness of marine plans and policies based on logic models. Within this framework, marine plans and policies are interventions; vehicles used to deliver change in the marine area. A logic model describes the process by which this change is delivered, helping to communicate the framework against which progress towards an impact can be monitored (as defined in [The Magenta Book](#)). A logic model provides an overview of what marine plans will achieve by:
- clarifying the required inputs and necessary activities to apply a policy or intervention
 - defining a clear and appropriate scope of the monitoring process
 - describing what impacts are envisaged from a policy or plan (an intervention), and what logical steps are taken which generate impacts
41. Logic models can be formulated in different ways (eg with varying terminology), though they always utilise the same basic structure. Logic model terminology in relation to the marine plans' monitoring approach is provided in Table 1.

Table 1: Logic model and definition of terms for marine planning logic model

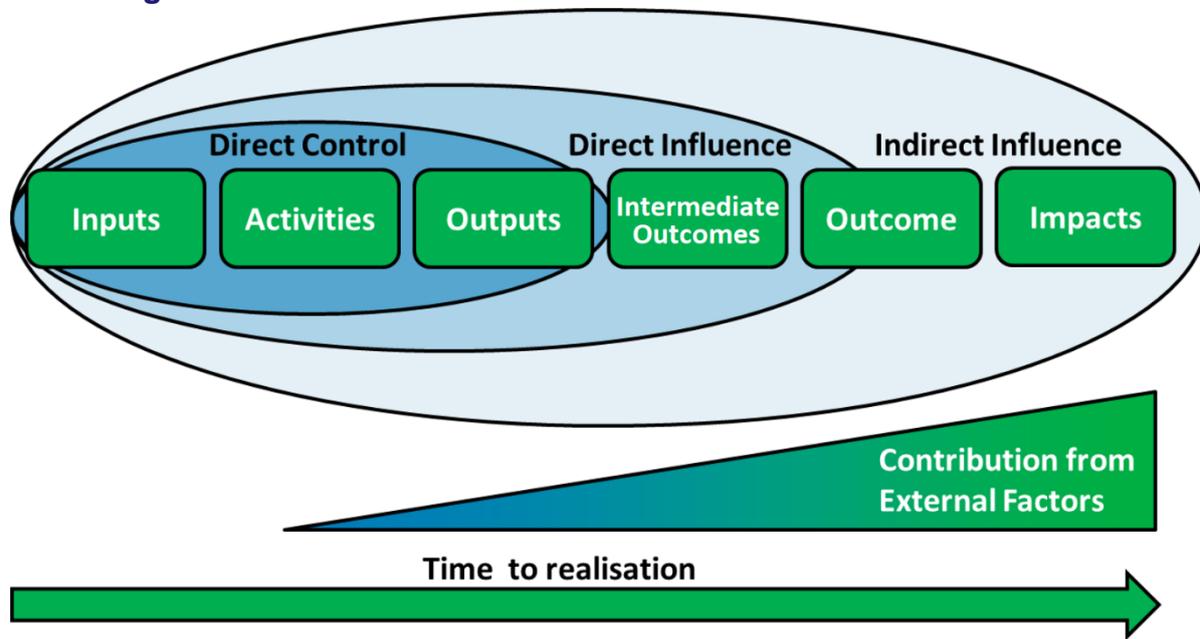
Term	Definition	Example
Inputs	Resources required to produce marine plans and the marine planning process, eg MMO and Defra staff	Staff skills, time, costs
Activities	The actions taken to facilitate use of the plan	Training and capacity building events, evidence commissioning, signposting etc
Outputs	Products delivered or produced as a result of activities	Marine plans and policies, evidence products, tools, communication routes
Intermediate Outcomes	What recipients do with, or receive from marine planning outputs	Increased certainty for applicants, improvements in process, compliance with policies in decision-making, increased integration of marine and terrestrial planning
Outcomes	Effects that occur upon achieving intent of marine plan policy or planning	Progress towards specific policy aims or objectives, eg offshore sites identified for future development of renewable energy, marine protected area objectives supported, increased coexistence of activities
Impacts	Contribution to larger scale and/or longer term aims or goals that are broader in scope than marine plans	Contributing to achievement of high level marine objectives, the 25 Year Environment Plan, or other government policy objectives

3.2 Characteristics of logic chains and logic models

42. Logic chains are simplifications of logic models, dividing continuous and iterative processes into separate steps, setting out sequences of linked dependencies, ie ‘if that happens then this can happen’. Multiple interlinked chains form a logic model. Interlinking allows for feedback loops to occur and for examination of interdependent logic.
43. Logic chains (and logic models) have the consideration of time implicit within them. Steps early in the logic chain, eg activities, must occur before elements towards the end eg impacts (Figure 1). It may take many years for the impacts on the right of the logic chain to accrue. For example, where marine plan policies seek social benefits from construction of infrastructure, proposals for infrastructure must be submitted and then approved in line with the marine plan policies; construction must then occur, which will lead to jobs, eventually realising the intended specific impact of the policy. In this way, the concepts of process monitoring and outcome monitoring (see Section 3.5) are both covered in the logic model. Context monitoring concerns

external factors and conditions that, despite sitting outside of the marine planning process, may still have an impact. Whilst context monitoring is not directly encompassed within the logic model steps, assessment of changes in context is undertaken by the Marine Management Organisation including to inform three-yearly reports.

Figure 1: The relationship between inputs and impacts in a logic chain and the increasing influence of external factors over time



44. As logic steps progress from inputs to impacts, the level of influence exerted by the marine plan and a specific marine plan policy is diluted by the effect of external influences. Preparation of marine plans is undertaken by the Marine Management Organisation on behalf of the Secretary of State who remains the marine planning authority. In this role, the Marine Management Organisation clearly has direct control over the inputs, activities, and outputs to produce a marine plan. The plan and the policies contained within them have direct influence on relevant decisions by public authorities, and finally, indirect influence on how proposals are undertaken as a result of those decisions. The potential effects of factors external to the plan/policy increase as the logic chain moves from intermediate outcomes to impacts. This is shown in Figure 1.
45. Central to logic models is the concept of “if that happens then this should occur”. The sequence of dependent steps within a logic model provides a framework for monitoring effects of a marine plan and the policies contained therein. This is because a logic model approach describes relationships, assumptions and dependencies between steps in the model. These steps are monitored using indicators. By matching monitoring indicators to the logic steps it is possible to track whether steps in the logic model have happened. This should confirm that the assumptions in preceding logic steps of how plans are expected to bring benefits are correct, and that the conditions are in place to support further logical steps that are yet to be reached. By assessing indicators at different steps in the logic chain, it is

possible to understand where a policy may not be performing as expected, enabling action to be taken either in terms of plan content or implementation activity (Section 2.1).

46. The logic models for the marine plans are based on the logic model developed for the [South Marine Plan Approach to Monitoring](#). The updated model incorporates specific recommendations related to logic models as provided in the [Review of marine plan monitoring indicators and their associated logic chains: review of logic models \(MMO1151\)](#). The application of these recommendations clarifies the line of sight between input and outcome within individual logic chains, and across the wider logic model. Updates have also been made based on experience of monitoring the East Marine Plan and the resulting three-yearly reports, and to reflect changes in legislation (context).
47. As there may be many interactions between steps of the logic models, arrows have been removed (from the model used in the [South Marine Plan Approach to Monitoring](#)) for improved presentation, with time still implicit as you move from left to right. There is also the addition of a problem or rationale at the start, to highlight what marine plans and policies (as interventions) aim to address. Further, whilst plan development is central to establishing the intervention, the activity of plan making does not need to be monitored following adoption and has hence been removed from the logic model. Through this, the logic models accurately represent the steps which will be monitored after plan development is completed and the marine plans are adopted.
48. Two 'nested' logic models have been developed for the marine plans in the form of a plan-level logic model (Figure 2) and a policy-level logic model (Figure 3). These models overlap, as the latter 'zooms in' on part of the process (selected logic chain steps) laid out in the former, albeit at a different scale/level of detail. The plan-level logic model provides the overall context for marine plan implementation; in Figure 2, inputs, activities, and outputs occur for all policies, therefore are considered at a plan-level. The policy-level logic model (Figure 3) provides more detail on the logic chain shown by the red box in Figure 2. The policy-level logic model highlights where policies specifically deliver change. Policy-level changes can be monitored at later stages of the logic model to understand the effects of different types of policy, and their specific outcomes. It is important to note how the models overlap/nest, describing different parts of the same process. Marine plans are monitored and applied at varying levels, and policy-level processes still contribute towards the delivery of plan-level objectives (represented by impacts in both models).
49. There is a feedback loop between the policy-level nested logic model and the plan level logic model, as well as from the monitoring process. For example, insights and learning feed back into the marine plan, where in turn adjustments can be made at a policy level in relation to plan content. Where identified, monitoring outcomes can inform and update future implementation and monitoring of marine plans.
50. The policy-level logic model also accounts for different types of policies, so all steps are not necessarily required for all types of policies. Most policies fit into two

categories, with the difference between these apparent in the outcome stages of Figure 3.

The first category covers policies that are supportive of activities that promote a positive change and includes:

- FISH-1: Proposals that support a sustainable fishing industry, including the industry's diversification, should be supported
- REN-3: Proposals for the installation of infrastructure to generate offshore renewable energy, inside areas of identified potential and subject to relevant assessments, will be supported

The second category covers policies that seek to avoid negative change and includes:

- INNS-2: Public authorities with functions to manage activities that could potentially introduce, transport or spread invasive non-native species should implement adequate biosecurity measures to avoid or minimise the risk of introducing, transporting or spreading invasive non-native species
- PS-2: Proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance must not be authorised within or encroaching upon International Maritime Organization routing systems unless there are exceptional circumstances

Policy examples provided are common to all of the marine plans. Some policies also include both categories (eg BIO-1 and MPA-2). Objectives are supported by a range of policies which factor in multiple types of policy.

51. By using this logic model framework we can understand in greater detail:

- how implementation has affected the work of marine users and decision-makers
- if the marine plans are being implemented as intended and if not, why not
- the benefits of marine planning
- the degree to which objectives are being met through application of policies and any other effects of the plan
- whether (and how) the marine plans need to be revised in the future
- whether or not (and why) the policies in the marine plans are achieving what is expected
- whether there are any incidental or unintended impacts as a result of the plan or policies, so these can be responded to as necessary

Figure 2: Marine plan-level logic model

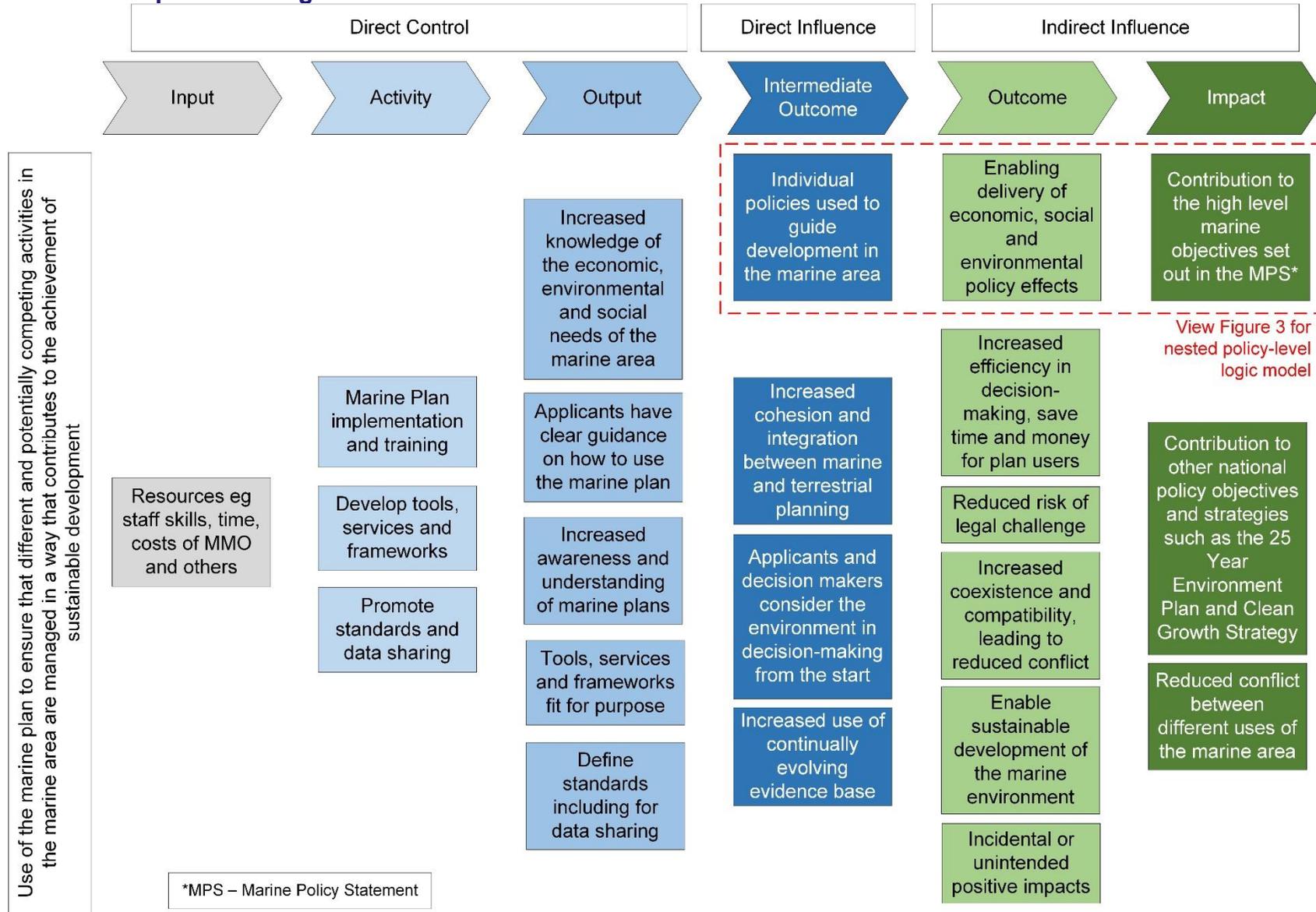
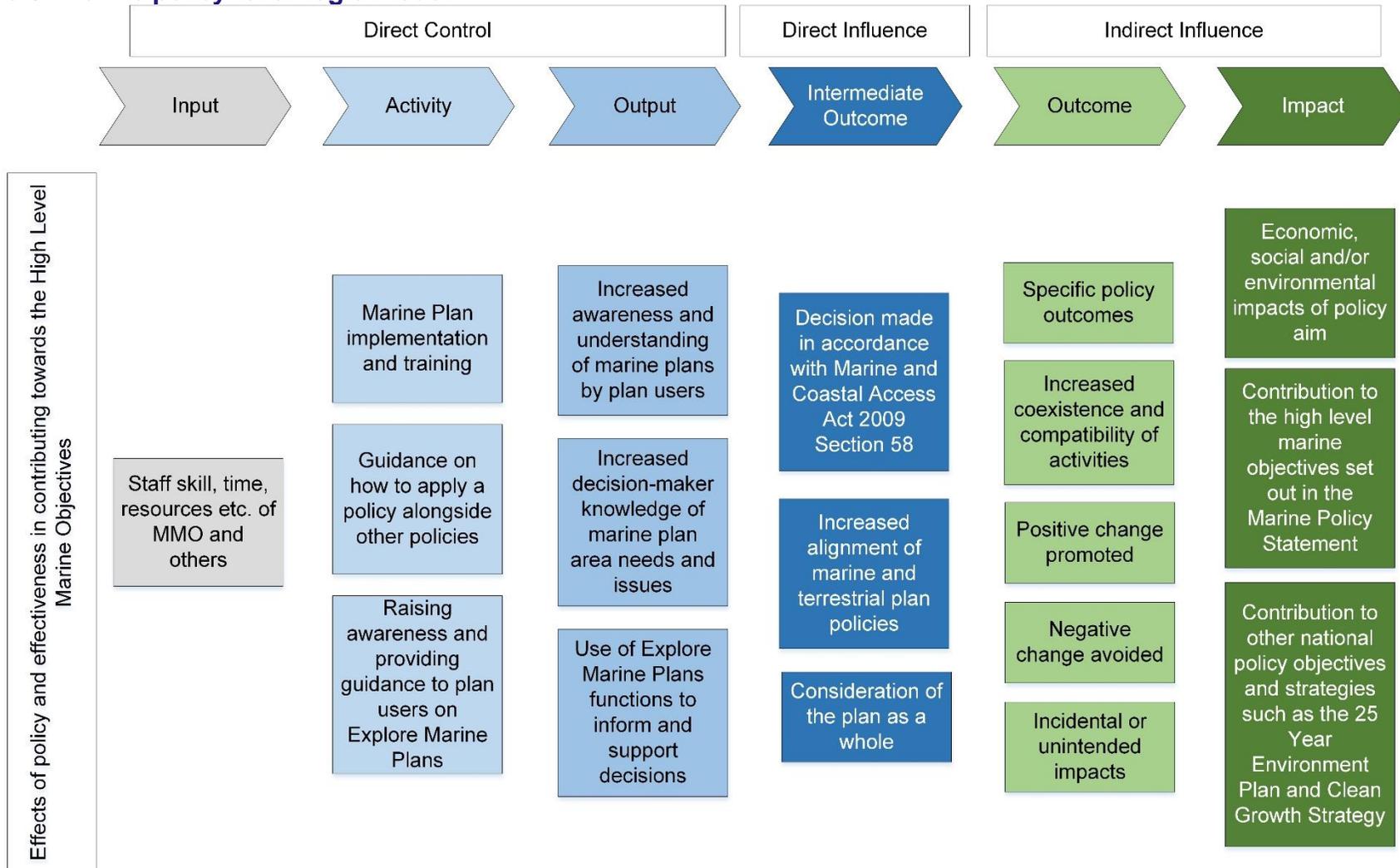


Figure 3: Marine policy-level logic model



3.3 Indicators

52. Indicators provide metrics which can be measured to evaluate progress of plan and policy aims. Boxes within the stages of the logic model can be measured by indicators, which are used to monitor plan use, progress towards policy aims, and the cumulative impact the policy effects contribute towards the high level marine objectives. Stages from activities to outcomes are measured using a range of primary and secondary data. Table 2 outlines examples of data which may be used to monitor stages of the logic model, which become Indicators. Process monitoring examines the implementation of the marine plans and their policies, with outcome monitoring assesses progress towards the intended impact (real world changes) of the marine plans and their policies.
53. Indicators are derived from both quantitative and qualitative data. We will ensure that we make extensive use of appropriate existing environmental, social and economic data collection programmes. Examples include designated site condition assessments undertaken and collated by Statutory Nature Conservation Bodies, heritage assets registers held by Historic England, and business data produced by the Office for National Statistics. The Marine Management Organisation will also use data from internal monitoring and feedback, including in relation to decision-making, and annual monitoring surveys, website statistics, and Marine Management Organisation customer feedback procedures.
54. Existing monitoring datasets are supplemented with new data collected by the Marine Management Organisation specific to those using the plans. This includes data from Marine Management Organisation systems used to manage applications and decisions (including authorisation and enforcement decisions, and all other decisions capable of affecting the south marine plan areas), such as the Marine Case Management System (MCMS). To monitor plan use by public authorities or stakeholders, the Marine Management Organisation will be seeking to draw upon low cost, accessible, and easy to use techniques that include a bespoke, targeted marine plans monitoring survey, the collation of case studies, and the testimonials of informed parties.

Table 2: Example marine plan indicator data

Logic model box	What we want to measure?	How will this be measured?
Marine plan implementation and training	Number of training sessions held; stakeholders and organisations in attendance; and feedback provided	Process monitoring: Internal data on implementation sessions held and number, and type, of stakeholders in attendance eg Local Planning Authorities, Statutory Harbour Authorities etc
Tools, services and frameworks fit for purpose	Understand use of the plans by decision-makers through monitoring surveys	Process monitoring: Annual survey data provides insight into how the plans are used and trends in plan use over time

Increased use of the continually evolving evidence base	Use of Explore Marine Plans and associated data	Process monitoring: Number of unique site visitors, clicks, and time spent on the page to understand visitor use of the service over time
Decisions made according to Section 58 of Marine and Coastal Access Act 2009	Proposals consider plan policies	Process and outcome monitoring: Marine Case Management System data – applicants consider marine plans when submitting applications for marine licences
Decisions made according to Section 58 of Marine and Coastal Access Act 2009	Compliance with policy in decision-making	Process and outcome monitoring: Marine Case Management System data – the Marine Management Organisation consider the policy in marine licence applications
Increased cohesion and integration between marine and terrestrial planning	Marine plans and policies are referenced in terrestrial plans, such as Local Plans	Process and outcome monitoring: Use a record of plan consultations MMO responded to; degree to which marine plans are referenced in other plans; and overlap of themes between terrestrial plans and marine plans to understand, and improve, cohesion
Specific policy outcomes	Changes in specific policy sector	Outcome monitoring: Increase in installed offshore wind capacity, increase in marine employment, increase in aquaculture in identified areas of potential
Enabling delivery of economic, social and environmental policy effects	Sector specific data such as marine industry employment	Outcome monitoring: Trends in line with policy aim such as increased employment

55. The Annex of Indicators will cover the full 20-year life of the plan, but it may not be appropriate to assess each indicator in detail as part of every reporting cycle. The indicators included will undergo a verification process and a check to ensure they do not duplicate other indicators. Where policies in the marine plans hold equivalents in other plan areas, the corresponding indicators may have already been verified.
56. In some cases, indicators will be reported on for the first time to establish a baseline. As impacts accrue over time, this use of such comparative data will enable later monitoring of policy outcomes to be measured against the baseline.
57. Information gathered through monitoring in this way will be analysed and used to inform the marine plans three-yearly reports. Monitoring information that enables an understanding of how effectively the marine plans are being implemented will be especially important in the early stages after plan adoption. In these cases, information gathered can be used to help address matters related to implementation as they arise ie ahead of reporting where possible.

3.4 Indicator selection

58. The indicators to be used for monitoring the marine plans build on previously established indicators (used for monitoring of the South Marine Plan) where they are still relevant, with amends or updates as necessary. These will be used alongside new indicators for new or different policies in the North East, North West, South East and South West Marine Plans but not in the East or South Marine Plans. The selection and development of indicators also takes account of lessons learned from monitoring the East and South Marine Plans.
59. The development of the indicator set for the marine plans is based on a series of sequential steps:
- development of a logic model for the marine plan and policies
 - scoping of relevant indicators for logic model steps
 - prioritisation of potential indicators
 - applying lessons learned from monitoring of the East and South marine plans
 - quality assessment of indicators (Section 3.7)

3.5 Types of indicator

60. A range of indicators have been identified that perform one or a number of functions:
- characterise value or effects from the wider planning process
 - confirm policy intent was achieved
 - monitor whether plan policies are being implemented effectively
 - track context in which plans must operate
61. Three types of monitoring are considered; process, outcome and contextual (as covered in Section 3.2, monitoring of context is not covered in the logic models but changes in context are considered to inform three-yearly reports).
62. Process monitoring examines the development and implementation of the marine plan, tracking progress through the direct control and direct influence steps of the logic model (Figure 1). Process monitoring confirms assumptions made regarding the steps necessary to achieve expected outcomes and, where these outcomes are not achieved, identifies the factors related to implementation and/or policies that are at work.
63. Outcome monitoring assesses progress towards real world changes resulting from the marine planning process (including engagement in development and later through implementation activities) as well as application of marine plan policies and objectives through decision-making. Outcome monitoring is focused on the indirect influence steps of the logic model (Figure 1). Particularly in relation to indirect influence steps, it is important to have in mind that marine plans are not the sole instrument of change (Section 2.3). Included in outcome monitoring is consideration and validation of assumptions upon which plan assessments are based.
64. Contextual monitoring describes the context in which marine plans operate. Changes in context may affect plan success and are useful in interpreting change in process

or outcome indicators. Contextual indicators are not defined by the logic model framework but are identified under Section 54 of the [Marine and Coastal Access Act 2009](#), which requires that 'a marine plan authority must keep under review the matters which may be expected to affect the exercise of its functions', which includes the legislative context for marine planning. Contextual monitoring will include a review to check that the policies and objectives remain in line with high level policy such as the [National Planning Policy Framework](#). It will also highlight pertinent evidence projects commissioned since the adoption of the marine plans, and any updates to legislation or national policy which may have an impact on the marine plan, such as EU Exit or new strategies.

65. The logic model approach enables the identification of the relevant social, environmental and economic outcomes to be monitored for each high level marine objective. Table 2 provides examples of the information that will underpin the development of a range of indicators. These provide examples for a selection of indicators therefore they are still subject to change.

3.6 Establishing a baseline

66. It is important to establish a baseline against which to measure progress towards achieving the plan objectives as far as is reasonable. 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 prior to plan adoption. It is acknowledged that baselines are dynamic and would be expected to change over time due to a range of other factors. Baseline evidence will be gathered in relation to indicators so that when three-year reports are prepared, change can be better understood. Such evidence will largely underpin the need for a given marine plan policy, identified in the Annex of Indicators, and will be gathered in support of the three year monitoring requirements. Baseline evidence will vary between policies, such as in its scale in time and space, or resolution, meaning that the way in which it is collected and analysed will depend upon the policy in question. Evidence gathered will be used to tell the story of change since the plans were adopted, helping to identify what impact marine plans have had over a given period.

3.7 Quality assurance and data management

67. The collection, collation and quality assurance of the data and information for plan monitoring are all important considerations. It is crucial to ensure that data and information is sound, 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.
68. As data is gathered, attention will be paid to its format, storage, management, accessibility, analysis, synthesis and interpretation. Where data is provided by third parties the Marine Management Organisation will ensure it is compliant with relevant standards.

69. Descriptions of the quality assurance criteria are detailed in Table 3. Once indicator development is complete the indicators will be available in the Annex of Indicators to support the monitoring approach for the marine plans.

Table 3: Criteria for indicator quality assurance

Term	Definition
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 link)	Where the data can be obtained and the role/responsibilities of those involved in data collection
Conceptual soundness	Relevance to measuring and monitoring across the geography/population. Capable of informing policy (marine and future policy considerations) in a time-bound manner. Level at which the meaning of the data is clear and its application easily understood by stakeholders. Extent to which the logic chain of the data is identifiable
Technical robustness	The data is statistically validated, and quality meets defined standards/codes of practice. Technical robustness 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