

National Marine Plan Review 2018:





NATIONAL MARINE PLAN REVIEW 2018: Three Year Report on the implementation of Scotland's National Marine Plan (encompassing inshore and offshore waters)

For period encompassing 26th March 2015 - 25th March 2018

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REPORT SUMMARY

Background

Scotland's first statutory National Marine Plan (the Plan) http://www.gov.scot/
Publications/2015/03/6517 was adopted and published in March 2015. The policies and objectives of the Plan set out how Scottish Ministers intend marine resources to be used and managed out to 200 nautical miles. It supports development and activity in Scotland's seas while incorporating environmental protection into marine decision-making to achieve sustainable management. The Plan applies to all decisions taken by public authorities which affect this marine area.

Legal requirement for the Review

In accordance with the Scottish and UK legislation, there is a requirement to review and report on the implementation of the Plan. The first review is due 3 years after adoption of the Plan. This report fulfils the commitment. Following consideration of the review report, Ministers must then decide if replacement or amendment of the Plan is required.

The Review Process

Two key strands of work were carried out to assess implementation and effectiveness of the Plan: 1) internal application within Marine Scotland Licensing Operations Team (MSLOT); and 2) broader consultation with key regulatory and decision making organisations in Scotland - through online questionnaire, a multi-stakeholder workshop hosted by the Scottish Coastal Forum (SCF) and bilateral meetings. These processes looked to determine the success of Plan policies and identify policies for revision, barriers to successful implementation and Plan areas where change could be beneficial.

1) MS LOT Case Study

The Plan is considered useful by MS LOT as it sets the national context and objectives of the Scottish Ministers and is considered to fit well with the existing legislation that MS LOT must apply. Recent modifications of the licence application process enable better consideration and implementation of the Plan.

Implementation and use by other statutory and non-statutory bodies

Planning and licensing authorities, regulators and statutory advisors stated they use the Plan and its policies in the discharge of their statutory functions. Overall, responses indicate some public authorities apply the Plan thoroughly to their decision making and service delivery, but not all are doing so with the same consistency.

Barriers to implementation

Those who engaged in the review, and cited barriers to the implementation of the plan attributed this to lack of awareness and resources and where elements of the Plan or policies are considered not have the required effect.

Effectiveness of Plan policy and progress towards securing objectives

The Review considered the use of data monitoring and other information sources to consider policy effectiveness. The strategic objectives of the Plan are the EU Marine Strategy Framework Directive (MSFD) http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm descriptors and the High Level Marine Objectives (HLMO) https://www.gov.uk/government/publications/our-seas-a-shared-resource-high-level-marine-objectives, which are arranged under the five guiding principles of sustainability to reflect a commitment to achieving sustainable use of marine resources. The Review Report outlines on-going work in relation to monitoring these objectives on an International, European and Scotland-wide basis and how this will help facilitate revision of the Scotland's Marine Atlas.

Stakeholder evidence as a measure of policy effectiveness

Effectiveness of policies in relation to decision or policy making

A number of policies and general aspects of the Plan were identified as being particularly effective or useful to decision making. New policies given statutory status by the Plan, such as those in relation to cables and Priority Marine Features (PMF) had influenced and underpinned decision making.

Policies which are considered challenging to the decision making process

It was suggested policy incompatibilities could be managed by taking a longer term vision for the Plan to allow development of policies over time and progression towards longer term goals. An assessment of whether Plan policies rely on voluntary measures or a regulatory mechanism to implement them could provide a useful analysis of how likely it is for a policy to deliver an outcome. This assessment could be considered in advance of the next Plan.

Moving forward

It was generally commented that given the large uncertainties around the UK leaving the EU, now is not the time to amend or replace the Plan. Only when full details of the future relationship with the EU are known, will it be possible to do an effective assessment of the impact on the Plan and determine what changes are needed. Other key developments to legal frameworks likely to impact on the Plan and the marine planning framework were noted to include the reform of Crown Estate assets through the Scottish Crown Estate Bill, the Islands (Scotland) Bill, the Community Empowerment Act 2015 and the Planning (Scotland) Bill. Once enacted, any relevant provisions within or outcomes arising from these legislative instruments will need to be reflected in any future marine plans.

In addition the Scottish Government has, or intends to, introduce a number of plans, policies and strategies which will have implications for the marine planning framework in Scotland.

For example, Scotland's first Energy Strategy sets out the Scottish Government vision for the future energy system in Scotland including the future development of offshore wind. A Climate Change Plan, will also provide the strategic framework for the transition to a low carbon Scotland.

The Review Report also recognises a number of emerging areas such as seaweed harvesting, invasive and non-natives species (INNS) and marine litter which will need to be given further accommodation in any future iteration of the National Marine Plan.

Next steps

Scottish Ministers will consider this report and determine whether to replace or amend the Plan. The issues raised along with those in the 'Report of the Scottish Coastal Forum's National Marine Plan Review Workshop, 2018' http://www.gov.scot/Topics/marine/seamanagement/national/SCFReviewWorkshop and 'National Marine Plan Review 2018: Survey Analysis Report' http://www.gov.scot/Topics/marine/seamanagement/national/AnalysisReport will be considered in detail, to develop an appropriate work programme to inform any future Plan, Regional Marine Plans (RMP) and the supporting data, research and assessment programmes.

OVERVIEW OF THE SCOTTISH NATIONAL MARINE PLAN

Legislative background

Marine planning in Scotland's inshore waters (out to 12 nautical miles) and offshore waters (12 to 200 nautical miles) is governed by the Marine (Scotland) Act 2010 https://www.legislation.gov.uk/asp/2010/5/contents, an Act of the Scottish Parliament and by the Marine and Coastal Access Act 2009 http://www.legislation.gov.uk/ukpga/2009/23/contents, an Act of the UK Parliament, respectively. The two Acts (referred to as the Marine Acts) establish a legislative framework for marine planning to enable demands on marine resources to be managed in a sustainable way across all of Scotland's seas (Figure 1).

Scotland's first statutory marine plan, the National Marine Plan (the Plan), was adopted and published in March 2015. The policies and objectives of the Plan establish how Scottish Ministers intend marine resources to be used and managed. The Plan supports development and activity in Scotland's seas while incorporating environmental protection into marine decision making to achieve sustainable management of marine resources. The policies and objectives of the Plan will also be reflected in the development of Regional Marine Plans (RMPs).

RMPs will be developed by Marine Planning Partnerships (MPPs) and will implement national policies at a regional level, taking account of local circumstances and issues. At the time of publication of this report, two MPPs have been established within Scottish Marine Regions although no regional marine plans have been adopted. Regional marine planning will be progressed further as other MPPs are established in due course.

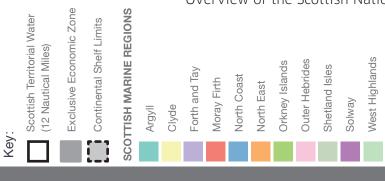
The Marine Acts require that public authorities must take authorisation or enforcement decisions in accordance with the Plan unless relevant considerations indicate otherwise. They must have regard to the Plan in taking decisions which do not relate to authorisation or enforcement and which are capable of affecting the marine area. This applies to Marine Scotland and wider Scotlish Government, MPPs, Local Authorities and other public authorities including statutory advisors, regulators and agencies.

National Marine Plan

Our vision for the marine environment is for clean, healthy, safe, productive and diverse seas, managed to meet the long terms needs of nature and people. The Plan contributes to delivery of this vision, as well as the High Level Marine Objectives (HLMOs), which are adopted by all UK Administrations and are published within the Marine Policy Statement (MPS). The adoption of the HLMOs as the strategic objectives for the Plan, reflect the commitment to the five guiding principles of sustainability, around which the HLMOs and policies of the Plan are organised.

The Plan specifies a core set of General Policies which apply to all plan making and decision making in the marine environment. These apply to all existing and future use and development of the marine environment and are supplemented by sector policies which address specific issues beyond those set out in the General Policies.

Detail Key





Requirement for monitoring of and review of marine plans

Section 16(2) of the Marine (Scotland) Act 2010 requires Scottish Ministers to keep under review and publish a report on:

- a) the effects of the policies in the plan.
- b) the effectiveness of the policies in securing that the objectives for which the plan was prepared and adopted are met,
- c) the progress being made towards securing the objectives,
- d) the progress being made towards securing that the objectives in the regional marine plan secure the objectives in the national marine plan.

Section 61(3) of the UK's Marine and Coastal Access Act requires a) to c) above and also

d) if a MPS governs marine planning for the marine plan authority's region, the progress being made towards securing that the objectives for which the MPS was prepared and adopted are met in that region.

At this time no regional marine plan has been adopted. Therefore, this review will exclude requirement 16(2)d of the Marine (Scotland) Act.

The Marine Acts dictate different timescales for review. For inshore waters out to 12 nautical miles, the Marine (Scotland) Act requires that the first report must be published within five years of adoption, after which successive reports must be published at interval of no more than five years. For offshore waters (12 to 200 nautical miles) the Marine and Coastal Access Act requires reporting within three years of the first Plan and within three years of successive reports thereafter.

In order to satisfy the requirements of both Acts and to ensure lessons are learned in the early stages of marine planning in Scotland, Scottish Ministers stated that the initial review of the Plan would take place within three years of adoption. This report fulfils that commitment

The approach to monitoring and review of the Plan

Review of the Plan at this relatively early stage of marine planning implementation in Scotland provides useful insight as to how the Plan is being used and how it is influencing decision making. It has therefore been conducted to provide an overview of issues and effectiveness to inform future iterations of The Plan as opposed to a detailed account of each policy.

The document entitled *National Marine Plan – Monitoring and Reporting* http://www.gov.scot/Topics/marine/seamanagement/national/monitor, published in 2016 by Marine Scotland provides an outline of the proposed approach to the review of the Plan and provides the basis for this report. It identified that in addition to the requirements of the Marine Acts in relation to review, there are other areas which are helpful in building a wider picture of whether the Plan is still relevant and whether it is being implemented effectively.

The document stated that the review would consist of:

- Monitoring implementation of the Plan and its policies through recording and feedback by Marine Scotland Marine Licensing Operations Team (MS LOT) and other public authorities,
- Qualitative assessment of implementation and effectiveness of policies through engagement with public authorities and wider stakeholders to determine the success of policies, identify policies for which revision may be required in future, identify barriers to successful implementation, and identify areas of the Plan where change would be beneficial,
- Consideration of existing monitoring programmes and other available data and statistical information for relevance to Plan objectives, and evaluate which of these may provide evidence on effectiveness of policies,
- Consideration of the extent identified effectiveness of policies can be attributed to the Plan and which other factors may be exerting influence.

To take this forward, the review process consisted of two main work areas. Firstly, existing data monitoring programmes and other data sources were considered for their relevance to informing the effectiveness of policies and progress towards objectives. Secondly, a questionnaire was developed upon which engagement with relevant sectors, public authorities and marine interests was based. The questionnaire was used to explore implementation and to gain qualitative, and in some cases quantitative, information on which policies were useful or otherwise. The questions focused on

- implementation of the Plan, and barriers to effective implementation,
- monitoring use of the Plan in order to identify information sources to help evaluate effectiveness.
- effectiveness of the Plan, its policies and how the policies contribute to delivering Plan objectives,
- what activities or uses of the marine area are emerging which may not be adequately covered by the current Plan,
- what factors may influence marine planning policy, or the timing of the next iteration of the Plan.

The targeted questionnaire was available online for 6 weeks and sent to all Local Authorities with a marine border, relevant regulators and advisors, key marine sectors, industries and Non-Governmental Organisations (NGO). It formed the basis for interviews with a number of organisations and Marine Scotland departments including MS LOT. It also informed the structure for a multi-stakeholder workshop hosted by the Scottish Coastal Forum (SCF) to help gather feedback for the review.

Details of the questionnaire and the feedback gathered through the process can be found in the *Report of the Scottish Coastal Forum's National Marine Plan Review Workshop, 2018* http://www.gov.scot/Topics/marine/seamanagement/national/SCFReviewWorkshop and the *National Marine Plan Review 2018: Survey Analysis Report.* http://www.gov.scot/Topics/marine/seamanagement/national/AnalysisReport Information gathered from these areas of work collectively provides the evidence base for the content of this report. The detail they provide will be revisited as issues informing future plans are considered further.

IMPLEMENTATION OF THE PLAN

For the Plan and its policies to be effective, implementation by the relevant public regulatory and decision-making authorities is essential. Understanding whether the Plan is being implemented, and what barriers exist, is therefore an important step to understanding effectiveness of the Plan. Information on whether use of the Plan is being monitored is also helpful as it can identify whether there is evidence to explore.

Following adoption of the Plan in 2015, all relevant public authorities in Scotland and across the UK were notified of the statutory obligation to take decisions in accordance with, or with regard to, marine plans. This was followed up in the review process whereby marine interests and relevant public authorities, Local Authorities with a coastline and Marine Scotland were invited to provide information on how the Plan was used, what barriers there are to implementation and whether implementation was monitored.

Responses suggest there is little direct monitoring being undertaken, although it should be noted that there is no statutory obligation to do so. Information provided indicates that the application of policies is sometimes audited within existing processes such as case handling documents. In such cases, extraction of information can be resource intensive. Therefore, while some information is available, it is not easily accessible and has not been accessed for this review.

A number of examples were provided by public authorities to illustrate there have been changes to internal procedures to facilitate implementation. MS LOT, for example has introduced internal audit and recording procedures while the Scottish Environment Protection Agency (SEPA) has changed internal and external advice to reflect Plan requirements. MS LOT has amended application forms to ask for information on how the proposed activity or proposal demonstrates alignment with the Plan.

The policies and objectives referred to in this report should be read in conjunction with *Scotland's National Marine Plan* http://www.gov.scot/Topics/marine/seamanagement/national and *A summary of Objectives and Policies* http://www.gov.scot/Publications/2015/04/2989.

Marine Scotland Licensing Operations Team – Implementation of the Plan

As a key regulator in the Scottish marine environment, MS LOT plays a significant role in ensuring that the policies of the Plan are reflected in authorisation decisions which affect the marine environment, namely the consideration and determination of marine licences and consents on behalf of Scottish Ministers. The document entitled *National Marine Plan – Monitoring and Reporting* http://www.gov.scot/Topics/marine/seamanagement/national/monitor sets out how consideration of MS LOT's implementation of the Plan can contribute to the Plan's review.

MS LOT incorporated the policies set out in the Plan into licence determination and consent recommendation procedures following its adoption. Policy use is reported in

case handling documents, the analysis of which provides information on the policies most frequently used. This has been supplemented with contextual information on the use of some policies by MS LOT through its engagement with the review process.

Licences issued by MS LOT

Since adoption of the Plan in March 2015 until the end of 2017 MS LOT issued 1,428 marine licences (including 277 variations) and 4 consents issued under Section 36 consents of the Electricity Act 1989.

Figure 2 illustrates the marine licences issued for a variety of activities of various scales, ranging from individual moorings through to large marine renewable energy arrays such as the Beatrice offshore wind farm in the Moray Firth.

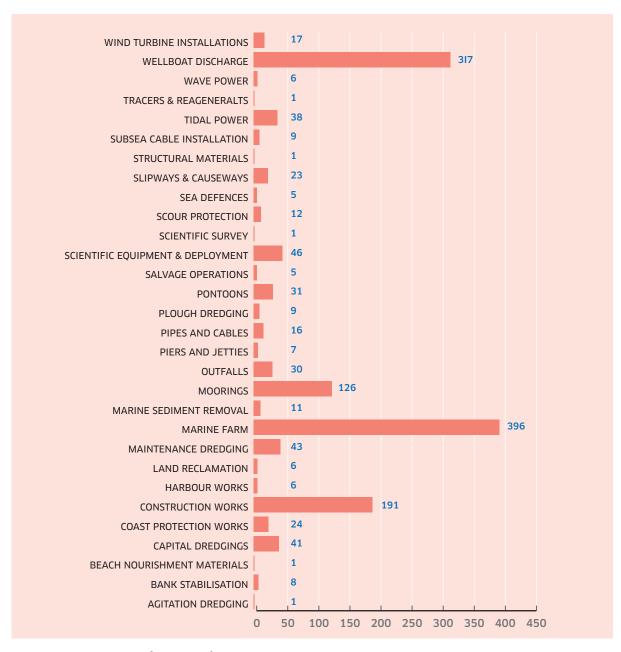


FIGURE 2. LICENCES (BY TYPE) ISSUED FROM ADOPTION OF THE NATIONAL MARINE PLAN (2015) UNTIL THE END OF 2017.

To enable a more detailed analysis of policy use the review has focused on the six month period between July 2016 and December 2016. In this time MS LOT issued 244 licences (including 15 variations). The number of licences issued by type is illustrated in Figure 3.

While all licences have a specified duration, some variations and new licences are sought by applicants to ensure continuity of business operations. This in part explains the large proportion of wellboat licences issued during the sample period.

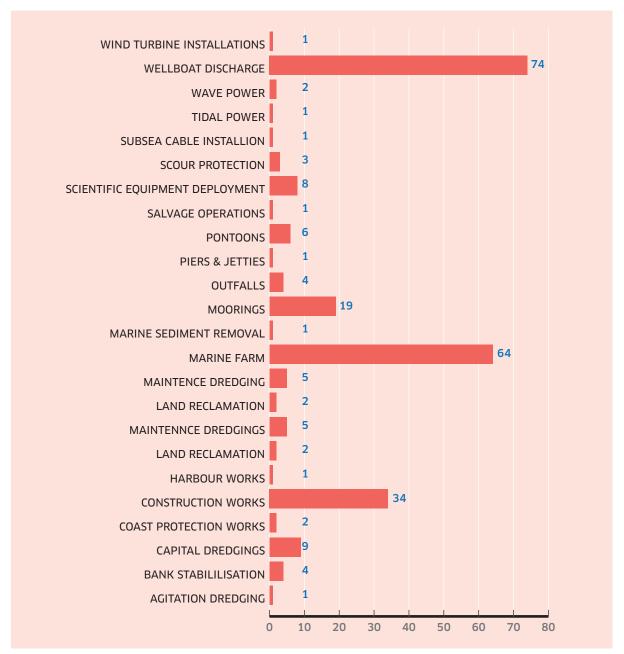


FIGURE 3. LICENCES ISSUED DURING SAMPLE PERIOD JULY TO DECEMBER 2016

Policy use in licence determination

An overview of policies applied to licence considerations is illustrated in Figure 4. To some degree the policies used reflect activities for which licence applications have been made and which have been particularly relevant to those applications. The use of nearly all aquaculture and renewable policies reflects the large number of aquaculture licences issued, whereas the renewable policies highlighted were used across a smaller number of licences.

While all general policies are applicable to almost all applications, policies of particular relevance to certain applications are recorded and these are reflected in counts of policies used. The most commonly used policies are Aquaculture policy 12, General policies 1, 2, 3, 4, 7, 9 and 12, Recreational and Tourism 2 and Wild Fish 1 which have all been recorded more than 15 times during the sample period.

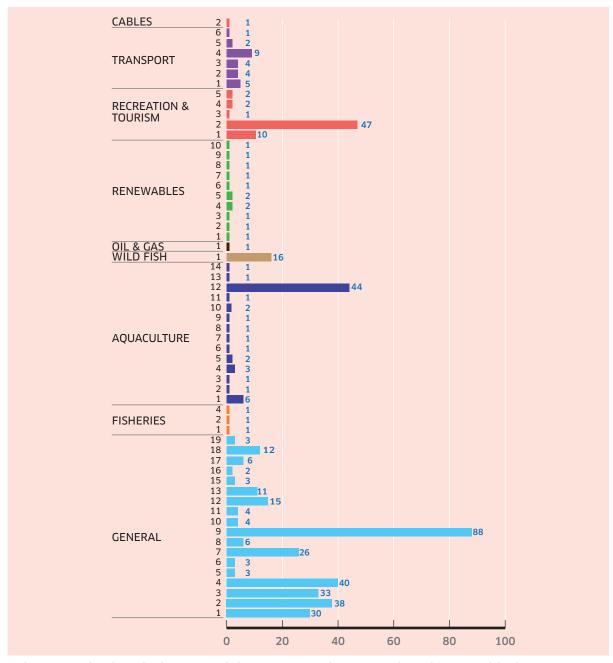


FIGURE 4. POLICY USAGE DURING SAMPLE PERIOD JULY TO DECEMBER 2016

Analysis of some of the policies applied in the sample period determined the following:

- Aquaculture policy 12 relates directly to wellboat discharges in that applications which "promote the use of sustainable biological controls... will be encouraged." Use of this policy reflects MS LOT's approach for alternative control methods to be considered in the determination process.
- Recreation and Tourism policy 2 advises on key factors that should be considered where a proposal may have an impact on recreation and tourism.
 Analysis indicates MS LOT has used this policy in relation to the potential impact on navigation by marine farms or other construction projects.
- Wild Fish policy 1 emphasises that MS LOT has consulted with relevant district Salmon Fishery Boards to determine whether proposals have negative effects on Salmon or other diadromous fish species.
- General Policies highlighted through the analysis suggest that some are specifically relevant to particular applications and have been considered either by the applicant or by MS LOT during its determination process. For example, General Policy 7 ensures that the visual impact of a project is taken into account and this has been used to help MS LOT identify whether it has been appropriately considered by the applicant. General Policy 4, which deals with co-existence, is identified as being useful by encouraging engagement between sectors where objections to an application were raised. Sea Fisheries policy 3 was also identified in the review process for the same reason, although it is not reflected in the sample period analysed.
- General Policy 9, which protects natural heritage is specifically mentioned in 88 of the 244 licences issued in the sample period. The reference to General Policy 9 reflects that statutory consultation with Scottish Natural Heritage (SNH) is required for all applications and that it has been of particular relevance in relation to applications near a protected site.

In their response to the review MS LOT noted that some policies are more challenging to apply

- Sea Fisheries policy 3, which is used but not reflected in the sample period analysed, is useful in encouraging discussion and engagement. However, its location within the structure of the Plan means that it has potential to be overlooked by readers and users of the Plan.
- Transport policy 4 was highlighted as being difficult to apply as it may conflict with some of the HLMOs.

Overall, MS LOT indicated that it was able to implement the Plan, adapt procedures to take account of it and encourage applicants to demonstrate their own consideration of Plan policies. The Plan is considered most proportionate to large scale projects whereas applicants for small projects, such as an individual mooring, find it challenging to relate the Plan to the scale of their project. Forthcoming regional marine plans may help address this by providing a regional and local context.

Implementation and use by other statutory and non-statutory bodies

Information was gathered from planning¹ and licensing authorities, statutory advisors, regulators, other public authorities and a variety of marine stakeholders regarding how they use the Plan and what they consider barriers to effective implementation.

Public authorities stated they used the Plan and its policies in the discharge of their statutory functions. In addition to issuing licence and planning consents, local and strategic development planning, river basin management planning and provision of advice were all specifically mentioned. Other bodies and organisations identified a range of non-statutory uses. The following provides an overview of responses provided on how the Plan is used:

- as a reference point when responding as a consultee,
- as a basis of discussion with other bodies regarding sharing of infrastructure and ensuring marine and coastal access,
- to encourage pre-application processes,
- as the basis of advice on marine and coastal issues to other areas of an organisation,
- to encourage consideration of impacts of proposals on other marine users,
- to demonstrate service delivery is in line with policies of the Plan,
- to promote development of voluntary measures to help deliver Plan policy,
- to direct funding in support of Plan policy aims.

Of the Local Authorities which responded, those with experience of marine planning and those which have a particular maritime focus demonstrated more integrated use of the Plan within their own processes than those which do not. This is further demonstrated by the work of authorities such as Orkney Islands Council and Highland Council to develop the pilot Pentland Firth and Orkney Waters Marine Spatial Plan. This seeks to pilot the process of implementing National Marine Plan policy at a local level and has been adopted as non-statutory planning guidance which is a material consideration in relevant planning applications.

A number of the Planning Authorities which responded indicated that their local or strategic development plan policies complied with those of the Plan and therefore the Plan was implemented indirectly. While some authorities provided evidence of compatibility between Local Development Plan (LDP) policies and Plan policies, others were less specific. In some cases it was difficult to determine if compliance was assumed because both marine and terrestrial planning frameworks have a shared goal of sustainability or because of any objective comparison of their own policies and those of the Plan had been undertaken.

¹The term 'planning authority' encompasses Local Authorities, Strategic Planning Authorities, Marine Planning Partnerships, Marine Scotland and National Park Authorities

There was a perception from respondents outwith Local Authorities that implementation of the Plan through inclusion in LDPs is not being undertaken consistently and therefore alignment of marine and terrestrial planning is not always achieved. The fact that some LDPs were published prior to the Plan and subject to a five year renewal process may in part explain why there is a lack of reference to the Plan in all relevant LDPs. As a statutory consultee, Marine Scotland engages in the LDP development processes and has returned comments to a number of Local Authorities to ensure that marine plans are recognised in LDPs which are being renewed.

The publication entitled *Planning Circular 1/2015:* the relationship between the statutory land use planning system and marine planning and licencing http://www.gov.scot/Publications/2015/06/5851 provides a brief outline of the legislative requirements for alignment between marine and terrestrial frameworks and opportunities where this could be achieved in practice. It sets out statutory responsibilities of both terrestrial and marine planning authorities to take account of respective relevant plans and this form the basis of future work to support Local Authorities in their implementation of the Plan.

Use of the Plan varies across other public authorities such as Marine Scotland, SNH, SEPA and Managers of Scottish Crown Estate Assets depending on their range of responsibilities and functions. In a number of review discussions it was deemed that the period from Plan adoption to review was not sufficiently long enough to allow for all areas of an organisation to adopt Plan policy into relevant strategies and processes.

Nevertheless the Plan is used for a wide range of purposes. It is used to align internal policy with that of Scottish Government and as the basis for some statutory advice and guidance. It also influences provision of funding in support of the Plan's policy aims, to inform leasing rounds for renewable energy development and to assess applications for marine licences.

In summary, responses to the review process indicate that although there are some public authorities which are applying the Plan thoroughly to their decision making and service delivery, not all are doing so with the same consistency. However, it is also worth noting that the relatively small number of response returns, particularly from Local Authorities, makes the extent of this unclear and worthy of further consideration.

Barriers to implementation

Barriers to implementation were suggested by those who stated they implemented the Plan as well as those who stated they did not. Barriers largely fell into two categories: attributes of the Plan or the policies which are thought to be ineffective in influencing decisions and lack of awareness and resources.

To improve awareness of the Plan, consideration will be given as to how Marine Scotland can further support public authorities by raising awareness of the statutory nature of the Plan and highlighting its relevance to local circumstances. No opposition to marine planning or implementation of the Plan per se is apparent and therefore it is assumed that implementation can be increased by improving understanding of marine planning, the Plan and its statutory nature.

Issues raised as attributes which lead to ineffectiveness include the absence of guidance to accompany policies, perceived ambiguity around or indirect wording and conflict between policies. At the strategic level, the perceived conflict between policies relating to oil and gas in contrast to climate change policies was mentioned most often. It was also suggested that voluntary measures may not be sufficient, or regulatory mechanisms not available, to effectively implement some policies such as those in relation to aspects of tourism and recreation. Some of these examples are discussed further in the next section of this report.

EFFECTIVENESS OF PLAN POLICY AND PROGRESS TOWARDS SECURING OBJECTIVES

Evaluation of policies will help determine their effects, progress being made towards securing the Plan's objectives and the relationship between policies and objectives. The process of understanding how a policy has been used and what effect it has had will help to determine whether or not policies are delivering as required. It will also help inform where policies could be improved in future plans.

In relation to the requirements for review, the legislation refers to 'objectives for which the plan was prepared'. These strategic objectives are outlined in Annex B of the Plan and are a combination of the EU MSFD descriptors and the HLMOs. Within the Plan these are arranged around the sustainability principles.

The approach taken to evaluate the effectiveness of policies and progress towards securing objectives is two-fold: assessing monitoring programmes and other available data and information for their relevance to evaluation, and gathering feedback from public authorities and relevant interests. The following sections reflect this approach. Part 1 outlines the use of data monitoring and other information sources. Part 2 reflects feedback received from stakeholders engaged in the review process in response to questioning about policy effectiveness, and how well they consider policies to be delivering the strategic objectives.

PART 1:

Using data monitoring and other information sources to consider policy effectiveness

The strategic objectives of the Plan are identified as the EU MSFD descriptors and the HLMOs. The presentation of HLMOs in the MPS are arranged under the headings of the five guiding principles of sustainability to reflect a commitment to achieving sustainable use of marine resources. These also provide a structure to the Plan. This section focuses on considering data and information in relation to these themes:

- EU MSFD: Good Environmental Status (GES) Descriptors,
- Achieving a sustainable marine economy,
- Ensuring a strong, healthy and just society,
- Living within environmental limits,
- Promoting good governance,
- Using sound science responsibly.

EU Marine Strategy Framework Directive: Good Environmental Status Descriptors

The aim of the EU MSFD, (Directive 2008/56/EC) is to achieve GES by 2020. The MSFD identifies 11 descriptors which cover aspects of marine ecosystem structure and function, as well as effects of human activities. The MSFD requires targets and indicators to be defined for each descriptor, a monitoring programme to collect data to measure progress, and a programme of measures to cause the positive changes to the environment to achieve the targets. Although a target of 2020 was set by the EU, the Directive operated on continuous 6 yearly cycles.

These descriptors and the concept of GES have been adopted both in the UK MPS and are contained as strategic objectives of the Plan.

The Plan identifies the descriptors (Annex B) and targets associated with the MSFD as part of Scotland's wider seas approach to marine nature conservation. It states that development and use of the marine environment must not compromise the achievement or maintenance of GES for UK waters (Plan section 4.58). As such these strategic objectives form part of the ecosystem approach adopted by the Plan.

It is important to note that the scale of assessment for MSFD is the North East Atlantic, with two sub-regions applicable to Scotland - North Sea and Celtic Seas. Assessments are currently being undertaken at the sub-regional scale.

The UK 2018 assessment of GES is being completed. This assessment will be published for consultation in mid-2018, and will include a range of indicator assessments to demonstrate progress towards GES.

Although the scale of assessments is larger than Scotland's seas, monitoring of Scotland's seas forms a substantial and important part of the UK assessment and will be reflected in the outcomes.

During 2017, the OSPAR Commission completed an "intermediate assessment" of the status of the North East Atlantic (IA 2017). This assessment served both the need for OSPAR to assess the environmental status of the North-East Atlantic, but also enabled development of common indicators for Contracting Parties to use for MSFD purposes. The resulting assessments cover 9 of the 11 descriptors (except commercial fish and hydrographic processes) and are based on 42 indicators (21 for human induced pressures, and 21 for biodiversity status). (http://marine.gov.scot/information/ospar-intermediate-assessment-2017).

Although the IA 2017 assessments were conducted at a scale much larger than Scottish waters the process developed a number of new methodologies and indicators which will be useful to assess the state of Scotland's seas. In addition, Scottish data was included in many of the OSPAR indicator assessments. Therefore, many of the highlights and key messages from the IA 2017 are relevant to Scotland and have been included on Scotland's marine data and information portal Marine Scotland information http://marine.gov.scot/ and Marine Scotland Maps (NMPI) http://marine.gov.scot/maps/nmpi.

The key messages from the OSPAR intermediate assessment show that there are improvements in many aspects of the North East Atlantic ecosystem arising from:

- expansion of the Marine protected Area network,
- decreasing discharges and concentrations of radioactive, hazardous substances and nutrient pollution from both land based and offshore installations.
- signs of improvement in fish communities.

However problems still exist or are increasing and include:

- localised impact of hazardous substances and eutrophication remain,
- problems are apparent for marine bird populations,
- benthic habitats impacted by bottom fisheries,
- a growing recognition that marine litter is a problem.

Many of these messages are likely to be true for Scottish waters as well as the North-East Atlantic as a whole.

In summary, it is not possible at the present time to definitively report on GES either at the sub-regional scale or UK-level and thereby derive information on Scotland's progress towards its strategic objectives. However, both the IA 2017 and emerging UK assessments will provide information from new monitoring and assessment process which will inform marine planning.

Consideration of some MSFD indicator assessments at a Scottish Waters scale may be useful in both understanding and communicating the state of Scotland's seas and helping inform management action through national and regional marine planning. Such work could be considered as part of a refresh of the assessments conducted under Scotland's Marine Atlas http://www.scotland.gov.uk/Topics/marine/science/atlas and would provide further information on the extent to which the Plan's strategic objectives are being achieved.

Achieving a sustainable marine economy

Marine Scotland is also making progress in developing its socio-economic evidence base for monitoring and reporting on the Plan's contribution to (a) achieving a sustainable marine economy and (b) ensuring a strong, healthy and just society through the Marine Scotland Maps NMPi. Further work is on-going to produce a marine economic statistics report that would bring together official statistical evidence to inform indicators for monitoring progress across the economic sectors covered in the Plan. The main considerations for the socio-economic outcomes of the Plan and proposals for indicators for future monitoring are presented below.

The Purpose of the Scottish Government is to focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth. The adoption of the HLMOs 1-4 as strategic objectives of the Plan sets out how this is envisaged to be achieved in Scottish waters.

- Infrastructure is in place to support and promote safe, profitable and efficient marine businesses. (HLMO 1).
- The marine environment and its resources are used to maximise sustainable activity, prosperity and opportunities for all, now and in the future. (HLMO 2),
- Marine businesses are taking long term strategic decisions and managing risks effectively. They are competitive and operating efficiently. (HLMO 3),
- Marine businesses are acting in a way, which respects environmental limits and is socially responsible. This is rewarded in the market place. (HLMO 4).

In 2015, Scotland's marine economy generated directly £5.1 billion in GVA and employed 79,000 people.² It accounted for 4.1% of total Scotlish GVA and 3.1% of total employment. Scotland's marine economy is diverse, and it split into five broad sectors as follows:

- Fish-related activities: fishing; aquaculture; and, fish processing,
- Transport-related activities: boat building, repair and maintenance; construction of water projects and water transport services; sea and coastal passenger transport; and, sea and coastal freight water transport.
- Oil and gas services: exploration services and test drilling,

² Marine Scotland (2017). Scotland Marine Economy. Topic Sheet No. 99, Ver 4: http://www.gov.scot/Resource/0052/00529390.pdf

- Offshore renewable energy: wind, wave and tidal energy,
- Marine recreation and tourism.

An overview of key sectors making up Scotland's Marine Economy is presented below.

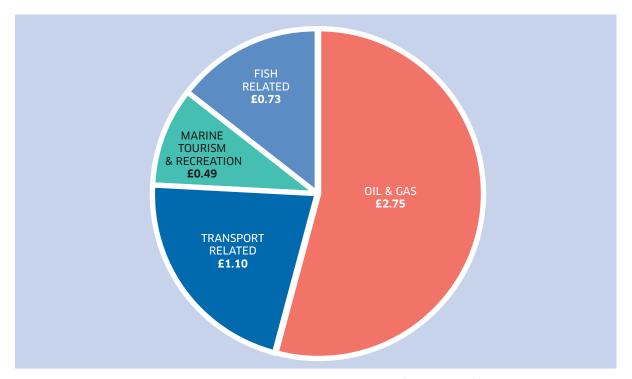


FIGURE 5. OVERVIEW OF SCOTLAND'S MARINE ECONOMY (£ BILLION), 2015**Data currently not available for marine renewables and cables sectors

Marine Scotland is working to develop its evidence base for monitoring trends in these sectors of the marine economy and for future assessments of the marine environment. This will provide evidence for on-going monitoring and for future reviews of the impacts of the Plan on achieving a sustainable marine economy.

Marine Scotland is also developing specific indicators for monitoring the Plan's impact. These indicators will include the following:

- economic contribution and profitability for the key marine economy sectors listed above (HLMO 1 & 3);
- infrastructure development for the marine economy (HLMO 1);
- patterns of employment in marine economic sectors (HLMO 1 & 2);
- diversity of Scotland's marine economy (HLMO 2);
- performance of key sectors against relevant environmental limits and trends for key economic activities (HLMO 4).

Ensuring a Strong, Healthy and Just Society

The HLMOs (5-10) for ensuring a strong, healthy and just society set out how it is envisaged that the marine environment will be appreciated and used to the benefit of communities and wider society. By providing healthy food and space for a wide range of recreational activities, Scotland's marine environment can contribute to longer and healthier lives. Provision of jobs and their role in maintaining populations in coastal and island regions can contribute towards building strong, resilient and supportive communities.

The spread of some marine economy sectors like aquaculture and fishing to remote rural and island communities contributes to reducing regional inequalities in economic performance and in Scottish society. For example, in island communities of Shetland, Orkney and Western Isles, the marine economy accounts for 28%, 18% and 13% of gross value added, respectively. The Scottish Annual Business Survey data for 2014 shows that marine economy labour productivity (GVA per worker) in these three islands is higher when compared to that of other sectors in the same locations.

The Plan seeks to ensure that:

- People appreciate the diversity of the marine environment, its seascapes, its natural and cultural heritage and its resources and act responsibly (HLMO 5);
- 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 (HLMO 6);
- The coast, seas, oceans and their resources are safe to use (HLMO 7);
- The marine environment plays an important role in mitigating climate change (HLMO 8):
- 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 (HLMO 9); and,
- 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 (HLMO 10).

Marine Scotland will develop specific indicators for monitoring various impacts of the Plan, including those relating to HLMOs 1-5. These indicators will include the following:

- the geographic distribution of marine economic activities and employment, and the relative importance in coastal and island communities;
- the level and patterns of engagement with Scotland's marine environment for recreation and tourism or cultural purposes (HLMO5 & HLMO 9);

- levels and patterns in the cleanliness and safety of Scotland's marine environment (HLMO 7);
- contributions of the marine environment to Scotland's total energy generation (HLMO 8); and,
- the extent to which Scotland's marine environment is contributing to activities of the UK defence industry (HLMO 10).

Living within environmental limits

In relation to this theme, the Plan contains the following strategic objectives

- Biodiversity is protected, conserved and, where appropriate, recovered, and loss has been halted. (HLMO 11)
- 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. (HLMO 12)
- Our oceans support viable populations of representative, rare, vulnerable and valued species. (HLMO 13)

Marine Scotland and its partners undertake a very wide range of marine environment monitoring in order to undertake assessments of the state of Scotland's seas and inform marine management. Most of this monitoring is undertaken according to a set of strategies and coordinated at a UK or Scottish level. At the UK level, the UK Marine Monitoring and Assessment Strategy (UKMMAS) provides a coordination framework for marine monitoring across the key themes of "Clean and Safe", "Healthy and Biologically Diverse", "Productive" and "Ocean Processes" (http://marine.gov.scot/information/ospar-intermediate-assessment-2017).

Each of these "Evidence Groups" coordinates the ongoing monitoring, assessment and data reporting of monitoring type. Monitoring is conducted according to the principles of the Scottish environmental monitoring strategy http://www.gov.scot/Publications/2011/12/05085553/0 with some monitoring types being subject to specific monitoring strategies such as the Scottish MPA network http://www.gov.scot/Topics/marine/marine-environment/mpanetwork/MPAmonitoring, with some Scottish level coordination provided by e.g. the Scottish Marine Monitoring Coordination Group (SMMCG).

An extensive range of environmental monitoring is undertaken in Scotland's seas. Key monitoring themes focus on:

- Fish and shellfish stock health Co-managed offshore stocks
- Fish and shellfish stock health Nationally managed inshore shellfish stocks
- Clean and Safe Seas
- Biodiversity MPA Condition
- Biodiversity Cetaceans

- Biodiversity Seabirds
- Impact of Aquaculture
- Prevailing Conditions Oceanography

Using Marine Scotland Maps NMPi and the Marine Scotland Information portal: http://marine.gov.scot/ an evidence base is being developed to bring monitoring results into the public domain.

Policies to protect and enhance natural heritage

HLMOs 14-18 are implemented by a range of policies across the Plan but most notably by General Policy 9 Natural Heritage which states that development and use of the marine environment must:

- (a) Comply with legal requirements for protected areas and protected species.
- (b) Not result in significant impact on the national status of Priority Marine Features (PMF).
- (c) Protect and, where appropriate, enhance the health of the marine area.

A number of work streams are underway which have associated reporting mechanisms which will, in the future, provide data and information of relevance in assessing the progress towards achieving HLMOs. These include a Report to Scottish Parliament on the status of the MPA network which will be submitted in 2018. In addition to this, there is a commitment under the Programme for Government to carry out a review of the level of protection given to the most vulnerable PMFs, particularly those in coastal waters. A scoping report on this will be published in 2018 for consultation.

Blue Carbon

A new research programme of work has been initiated to build on recent findings into the value of our blue carbon resource, which is estimated to be more effective at carbon capture and storage than the terrestrial environment. The focus will involve measuring the ability of various habitats to sequester carbon, understanding how it is stored for the long term, and building an evidence base on the effects that human activities may have on these processes. Once the research projects are complete the expectation is that we will be better informed on how the marine environment can benefit the Scottish Climate Change Adaptation Programme, and how the Plan can assist in delivering potential benefits through protection of ecosystems and further development of climate change policies.

Further information on the current research Programme can be found on Marine Scotland's Blue Carbon topic sheet: http://www.gov.scot/Topics/marine/Publications/TopicSheets/tslist/BlueCarbon

Promoting good governance

The HLMOs 14–18 characterise the way in which governance of marine environment is envisaged, while a number of policies throughout the Plan, most notably General Policies 15-18 intend to deliver these. In general, the framework of marine planning in Scotland supports these objectives by promoting engagement at national and regional levels and by encouraging integration of marine, land and water management mechanisms.

Regional marine planning

Marine planning is being implemented at a local level through Scottish Marine Region to take account of local circumstances. Within 11 SMRs (designated by order out to 12 nautical miles) marine planning will be undertaken by MPPs comprising of relavant local authorities and representatives of marine interests. Marine Planning Partnerships have been established in Shetland and Clyde Regions with others to follow in due course (starting with Orkney Islands). Regional plans have to comply with national policy. The Plan also sets specific regional policies for the purpose of steering regional marine planning. Both the established MPPs are in the early stages of regional plan development and therefore their experience has not been directly captured in this review. However, it is expected that as regional marine planning develops the process will be iterative in terms of exchange of information on policy effectiveness and progress of objectives from a national to regional level and vice versa.

The representation of multiple marine interests in MPP structure and governance is deliberate and is intended to ensure fair and equal participation in the plan decision making processes. Lessons learned from the establishment of the Shetland and Clyde partnerships will influence implementation of future partnerships and provide evidence as to how this level of participation and engagement in marine plans works. Engagement of public and wider interests will be undertaken by consultation at early stages of the regional plan development to enable a range of views to be reflected.

Local development planning and other management frameworks

The Marine (Scotland) Act 2010 recognises the importance of alignment between marine and terrestrial frameworks through the requirement for RMPs to be compatible with development plans for adjoining areas. This is mirrored in Town & Country Planning (Development Planning) (Scotland) Regulations 2008 as amended http://www.legislation.gov.uk/ssi/2008/426/contents/made. Policy consistency between marine and terrestrial plans is important for the activities and industries which span the terrestrial/marine interface. The Plan seeks to make these legal obligations explicit within plan led decision processes by the inclusion of policies in the Plan requiring alignment between marine plans and relevant statutory and non statutory plans.

As a key agency, Marine Scotland regularly responds to Local Authority consultation. It uses the Plan and its policies to encourage inclusion of Plan policy in local and strategic development plans and to encourage alignment of terrestrial and marine frameworks. As the cycle of renewal of development plans continues there is evidence that reflection of marine policy is beginning to emerge albeit not consistently.

With regards to other management frameworks and plans, some public authorities have indicated work areas where change had been implemented or where progress is being made. Crown Estate leasing for renewable energy development and the development of planning guidance, amendments of standing advice from statutory advisors and the representation of River Basin Management Coordinators on MPPs refers to the latter.

Further integration of River Basin Management Plans and flood management into marine planning were highlighted in responses as areas where progression was underway but which could be enhanced by closer working between Marine Scotland and relevant bodies.

This could equally apply to working with Local Authorities to make further progress on integrating marine policy across all relevant public authorities.

Using sound science responsibly

HLMOs 19, 20 and 21 set out how the Plan will take account of using sound science responsibly by:

- Our understanding of the marine environment continues to develop through new scientific and socio-economic research and data collection. (HLMO 19)
- Sound evidence and monitoring underpins effective marine management and policy development. (HLMO 20)
- The precautionary principle is applied consistently in accordance with the UK Government and Devolved Administrations' sustainable development policy. (HLMO 21)

The primary source of evidence to support the Plan is 'Scotland's Marine Atlas' http://www.scotland.gov.uk/Topics/marine/science/atlas with associated information and data layers available on Marine Scotland Information (http://marine.gov.scot/ and MS Maps NMPi (http://maps.marine.gov.scot) The portals act as central repositories for all spatial data currently available to Marine Scotland and are freely available to assist statutory authorities implement the Plan.

Although data and assessments in the Marine Atlas reflect those that were current at the time of developing the Plan, new evidence and data of the types underpinning the Atlas assessments are continually being sourced and made available on MS Maps NMPi. Content of NMPi is also regularly reviewed for currency and scope and displayed by a tool with improved functionality, under the direction of The Scotland's Seas Data and Assessment Group which includes Marine Scotland, SEPA, SNH, Joint Nature Conservation Committee (JNCC) and Marine Alliance for Science and Technology for Scotland (MASTS) representatives.

As new spatial data types become available, Marine Scotland has, where possible, made data sets available in an INSPIRE compliant and downloadable format via the MS Maps NMPi portal. Since the Plan came into force, Marine Scotland has sourced or created 439 new marine data layers and made them available on NMPi. Data have also been kept current during this period with 261 data layers being updated. The total number of data sets on NMPi is 940 layers (approx). Many of these will enable new assessments of the state of Scotland's seas to be undertaken and determine whether new management action is needed. This demonstrates an active evidence gathering and dissemination process supporting marine planning in Scotland.

Requirements for new evidence are assessed continually and priorities identified in accordance with existing strategies such as:

- the Scottish Marine Science Strategy 2010-2015 http://www.scotland.gov.uk/ Publications/2011/03/02092716/0
- the UK Marine Science Strategy 2010-2025 https://www.gov.uk/government/publications/uk-marine-science-strategy-2010-to-2025
- sectoral strategies such as the Aquaculture Science and Research Strategy http://www.scotland.gov.uk/Publications/2014/07/4459 and

 research frameworks such as the Scottish Offshore Renewables Research Framework (SpORRAn) http://www.gov.scot/Topics/marine/marineenergy/mre/ research

Prioritisation and commissioning of new evidence is often through a joined-up and collaborative process involving industry, academia, and other national and international bodies. Examples of these include Marine Alliance for Science and Technology for Scotland (MASTS) the UK Marine Management Organisation (MMO) the International Council for Exploration of the Sea (ICES) and the OSPAR Commission.

PART 2:

Stakeholder evidence as a measure of policy effectiveness

The review process, which involved engagement with a range of marine interests, indicates that overall the Plan is perceived as a valuable document which pulls together the appropriate policies and practices relating to marine planning. In general the HLMOs and policies are considered to be comprehensive and still relevant. The whole process of developing the Plan is reported as positive; building long-standing and effective stakeholder relationships has led to a collective understanding of each other's sectors and issues. However, issues were raised, including new and emerging policies, developments and initiatives, which the next Plan would be expected to address.

A number of those who participated in the review suggested it was too early to report on the effects of the Plan as internal policies of public authorities were still being aligned with the Plan and put into practice. The fact that the Plan has only been in effect a relatively short time was also thought to make it difficult to assign change directly to it. Others thought the Plan will not fully be delivered until RMPs are in place to apply national policy and objectives to local issues. Nevertheless, the review was considered timely and was regarded as an opportunity to refocus on the purpose of the Plan and the responsibility on public authorities to implement it.

Effectiveness of policies in relation to decision or policy making

Relevant public authorities, industries and sectors were asked to provide information or evidence which illustrated how useful, or otherwise, the Plan is to decision making or policy development. They were asked for examples of specific policies which are helpful to their decision making, or which cause difficulties. They were also asked which policies contribute, or are counterproductive, to meeting strategic or sector objectives of the Plan.

A number of policies and general aspects of the Plan were identified as being particularly effective or useful to decision making. The following refers to some key areas identified:

- New policies given statutory status by the Plan, such as those in relation to cables (Chapter 14) and PMFs (General Policy 9, natural heritage) had been helpful in influencing and underpinning decision making. These are examples of new policies introduced for the first time by the Plan and have therefore provided new direction to decision makers. The PMF policies have been central to action taken in Loch Carron to protect features of importance following damage by fishing activity.
- Sea Fisheries policy 3, which requires fishing mitigation plans to be developed, had resulted in the provision of information which had influenced decisions. It had also encouraged discussion between different interests.
- Marine litter and invasive non-native species have been given a focus within
 decision making. Both areas have become prominent in recent years in response
 to increasing awareness and evidence regarding their impacts. Inclusion of
 policies within the planning process highlights them as issues central to decision
 processes.

- The Plan has informed leasing approaches for commercial scale energy and has helped ensure policies of public authorities are aligned with those of Scottish Government. The Plan recognises marine renewable energy 'plan options' i.e. areas identified in sectoral plans as strategic development zones in which commercial scale operations should be sited. This has informed Crown Estate's leasing approaches.
- The objectives of the Plan have influenced business delivery planning.

In addition to these specific points, feedback highlighted that value was attached to the encouragement the Plan gives to different sectors and groups to work together within a marine planning framework. The information it provides about other marine users and how compatible, or otherwise, different activities may be was also considered helpful by various marine interests.

The statutory basis for taking terrestrial/marine interactions into account within LDPs was highlighted as beneficial. Previously this had mostly been influenced by advice from statutory advisors via consultation processes and had not been undertaken routinely. It was also highlighted that where the Plan's policies extend beyond LDP policies in relation to the coast, value is added to decision making in coastal areas.

Policies which are considered challenging to the decision making process

A number of policies or general attributes of the policies were identified as being challenging to the decision making process. The following refers to key areas identified in feedback:

- policy wording in certain areas, for example the inclusion of 'support' or 'should', was not considered strong enough to directly influence decision making,
- the socio-economic policies need to be more explicit and more directive for use within regulatory processes,
- while some policies are helpful and lead to better decision making, their
 positioning within the Plan means they can be overlooked. One example is Sea
 Fisheries 3; this requires fisheries mitigation plans to be developed in relation
 to proposed development and use, but its location in the Sea Fisheries chapter
 means it may not be noticed by all users of the Plan,
- Aquaculture 4 places a presumption on locating shellfish farms in areas
 designated as shellfish waters if these have sufficient capacity to support such
 development. A number of these currently have downgraded water quality and
 so there is a concern that directing shellfish farms to those particular areas
 would be disadvantageous for the sector.
- General Policy 9 regarding PMFs is helpful but there is no sufficient process to track accumulation of multiple impacts and therefore assess impact on national status as required.

• the cumulative effects of sectoral policies within decision making processes was challenging to determine.

It was also suggested that the Plan could be made more effective by introducing clearer priorities, or by introducing primacy of policies. This would offer clearer direction to decision makers. This and the introduction of guidance to help interpret policies were suggested as necessary to reduce ambiguity and lead to consistent application of policies. In particular conflict between oil and gas objectives and policies to maximise recovery and the climate change objective to facilitate a transition to a low carbon economy was referred to. However it was suggested that such incompatibilities could be managed by taking a longer term vision for the Plan as this would allow development of policies over time and a progression towards longer term goals.

A key point raised was that voluntary measures may not be sufficient, or regulatory mechanisms are not available, to effectively implement policies such as those in relation to aspects of tourism and recreation. An assessment of whether policies rely on voluntary measures or whether regulatory mechanisms exist to implement them could determine how likely it is for a policy to deliver an outcome.

The legislative basis for effectiveness of the Plan was also raised. It was suggested that if activities which do not have their management delivered through licensing, e.g. fishing, and are therefore not captured by legislation as 'authorisation and enforcement decision', the relevant authorities must only 'have regard' to rather than make decisions in accordance with marine plans. It was queried that if the relevant legislation differentiates between licensable and non-licensable activities on different footings, then the intention of a fair and level planning framework could be undermined and hinder the potential to deliver policies and objectives.

Aquaculture policies and objectives were raised in a number of responses. In particular the reflection of industry production targets within an objective was suggested to be in conflict with the approach taken for other sectors, and consequently arguably at odds with the environmental policies and sustainability principles of the Plan. While application of the Plan's policies apply to decision making to ensure sustainability, future iterations of the Plan will afford an opportunity to consider this issue further.

Policies which deliver strategic or sectoral objectives

Those engaged in the review process were asked to specifically consider the effectiveness, or otherwise of the policies in the Plan in achieving HLMOs and individual sector objectives. Relatively few specific examples were offered in response to this question, which may in part reflect that there is more of a focus on using policies to deliver outcomes than consideration of objectives, sectoral or strategic.

The following examples were provided

- The designation of the emergency MPA in Loch Carron through Plan Policy General 9(b) helped contributed to meeting the HLMO "living within environmental limits"
- Inconsistencies between aquaculture targets and the Plan's environmental commitments were highlighted with specific reference to HLMOs 2, 4, 11, 15

- and 20, general policies and sectoral policies relating to Wild Salmon and diadromous fish.
- Objectives relating to maximising oil and gas exploration and recovery of fossil fuel are considered to be in conflict with commitments to mitigating and adapting to climate change. This was seen to be contrary to general policy 5 and HLMO 2.
- The language applied in Plan policies and HLMO can result in challenges for decision makers in taking a clear direction from the Plan.

EMERGING ACTIVITIES

The General Policies of the Plan set out overarching environmental, social and economic policies which apply to all decisions regarding development and activity which may affect the marine area. Relevant interests were asked if they thought there are any emerging or new activities which would not be not adequately addressed by the general policies outlined in the Plan in the future, and which would require additional specific policies to ensure their sustainability.

Emerging activity

Activities raised by a number of stakeholders included wild seaweed harvesting/cultivation and decommissioning of infrastructure associated with oil and gas extraction and cables. Emerging marine renewable energy technologies were also suggested as requiring specific planning policy in future plans.

Several aspects of marine tourism and recreation were raised as areas which would require additional management and planning for. While it is considered an increasingly important and diverse sector, it was noted that an increase in activity also brings associated infrastructure challenges, such as that necessary for larger cruise vessels. Dredging in navigation channels and provision of facilities to accommodate a significant influx of passengers may also be required. Although control of such cruise visits remain wholly under individual ports, there are already good examples of wider community co-operation dealing successfully with increased success in attracting passengers.

Shifts in tourism and recreation activity type were also highlighted, such as an increase in 'swim with animal' activities. It was also noted that the potential growth of wildlife tourism as an economic sector is dependent upon good quality environment/ecosystems both of which could be further protected by aspects of marine planning.

The question of whether the General Policies sufficiently address these emerging activities was not specifically addressed in the feedback received. How well the General Policies are at managing emerging activity is an important aspect of how effective and flexible the Plan is at accommodating change and remaining relevant. The activities and issues highlighted by the review process (both in this section and in *Moving Forward*) provide some good examples with which to consider the effectiveness of the General Policies in ensuring that emerging activities can be managed sustainably.

Future policy

As well as identifying emerging activities, stakeholders provided comment on what future Plan policies should deliver. Given its increasingly high profile, there was agreement that Marine litter should have a bigger focus in a future plan as should policies relating to invasive non-native species and improvement to biosecurity practices. There were also suggestions that a future Plan could have a chapter on general infrastructure associated with land/sea interactions including investment and integration of transport networks e.g. road, rail, ferries for passengers and freight, and improved connectivity, especially between islands.

In more general terms, the following were identified as deliverables of a future Plan:

- clear benefits of the use of the marine area for local communities.
- an ability to take account of the varying socio-economic impacts that a development/activity may have in different areas according to factors such as landscape.
- enhanced flood risk management with a requirement to consider natural flood risk management, and coastal resilience and adaptation.
- due consideration of well-being and quality of life.
- recognition of the importance of partnership working between business, government, research and communities.
- priority for ship to ship oil transfer to occur in ports.
- management of current unregulated activity such as wild shellfish harvesting, and wild biota harvesting for commercial use.
- greater focus on climate change and consequences for a wide range of coastal activities. These include accommodating and responding to higher tides, more dynamic coastal and marine regimes, increased storm surges, implications for flood risk management and increased costs of protection measures.

Work that is already underway to better inform future marine plans is explored in further detail in the concluding 'Moving Forward' section.

MOVING FORWARD

The review process offered an opportunity to look to the future and consider what may influence marine planning in the short and long term, and what may influence the timing of a future plan. Influences may be legal, political or otherwise, or could include changes to the use of the marine area over time.

Engagement with the process by a wide range of statutory and non-statutory interests indicated there is widespread agreement that we are currently in a state of considerable change and uncertainty. Several emerging factors were identified which need either to be considered within marine planning, or which would significantly influence policy development or the timing of future plan development.

Legislation & Policy

UK Departure from the European Union

The UK's departure from the EU was the most frequency cited influence on content and timing of the next Plan during the review process.

Marine planning in Scotland is provided for by the Marine (Scotland) Act 2010 and the Marine Coastal and Access Act 2009 and these will continue to provide the legislative framework following exit from the EU. However, there will be implications for the Plan, for example with the UK's withdrawal from the Common Fisheries Policy (CFP). The removal of the CFP would mean that Scotland can redesign how its fisheries are managed in the future. Changes to the way that other sectors operate in Scotland's seas may also arise. How marine planning policy responds to such changes and the extent to which future marine plans are influenced by EU legislation will ultimately depend on the UK's future relationship with the EU.

It is also important to bear in mind that many of the requirements set out in EU legislation reflect international commitments that the UK has made. As a result, any future marine plans for Scotland will need to be compatible with relevant international commitments. Examples of such commitments include:

- Convention on Biological Diversity and the OSPAR Convention which include commitments to establish an ecologically coherent network of well-managed MPAs.
- Bern Convention which includes commitments to maintain or restore a range of marine habitats and species to Favourable Conservation Status.
- Bonn Convention in which the contracting parties committed to working together
 to conserve migratory species and their habitats by providing strict protection
 for endangered migratory species (listed in Appendix I of the Convention)

In conclusion, only when full details of the UK's future relationship with the EU are known, will it be possible to do an effective assessment of the impact on areas of the Plan and determine what changes to the Plan are needed.

Other legislative provisions

Other key developments to legal frameworks which are likely to impact on marine plans and the marine planning framework in general were noted to include the reform of Crown Estate assets through the Scottish Crown Estate Bill, the Islands (Scotland) Bill, the Community Empowerment Act 2015 and the Planning (Scotland) Bill. Once enacted, any relevant provisions within, or outcomes arising from, these legislative instruments will need to considered in relation to marine planning and reflected in any future marine plans.

Policies & Strategies

It can be expected that other Scottish Government policies, strategies and plans will emerge following the adoption of a Plan in response to arising issues. Some of these were highlighted in the review process as having implications for marine planning. Some such initiatives include Scotland's first Energy Strategy which sets out the Scottish Government's vision for the future energy system in Scotland and the forthcoming Final Climate Change Plan, which will sit alongside the Energy Strategy, and provide the framework for the transition to a low carbon Scotland. These provide examples of emerging policy which the current Plan will be applied alongside. Marine planning takes an adaptive approach to marine management, meaning that emerging information will be taken into account in decision making and will also influence future iterations of policy. Using the examples of emerging energy and climate change policy, it can be expected that iterations of marine plans, both national and regional, will respond in terms of consideration of future development of offshore wind energy and facilitating progression towards climate change targets.

Supporting Marine Spatial Planning Initiatives

Sectoral Initiatives

In addition to legislative and policy developments, the review process flagged a number of emerging activities for which work is already underway to inform future marine plans at both national and regional level. These include:

Seaweed cultivation and harvesting. In 2017 Marine Scotland published a cultivated seaweed policy statement to help facilitate development of the emerging farmed seaweed sector, initially as part of small scale integrated multitrophic aquaculture pilots. In terms of wild seaweed harvesting, some small scale activity occurs around the Scottish coast, and the feasibility of large scale harvesting is being considered by industry. Marine Scotland has consulted on a draft Strategic Environmental Assessment to assess the potential environmental effects of harvesting wild seaweeds and seagrasses. Highlands and Islands Enterprise have contracted research to consider the potential of seaweed harvesting as a diversification opportunity for fishermen. This aims to deliver a report that provides: guidance on mapping and location of seaweed for harvesting; guidance on the harvesting of seaweed and; Marine Licence scoping and economic feasibility of seaweed harvesting. It is expected to report early in 2018. The findings will help inform how the sector develops and how this can be facilitated and managed through marine planning going forward.

Decommissioning. Decommissioning responsibilities and powers for offshore renewable energy installations in Scottish Waters and Scottish parts of the Renewable Energy

Zone transferred from the UK Government to Scottish Ministers in April 2017. Work to review current decommissioning procedures for offshore wind and small scale offshore renewables will help to inform new policy guidance, which will be produced later this year. The guidance will cover what Scottish Ministers will expect from decommissioning plans for offshore renewable energy developments.

Offshore wind energy: In November 2017, Crown Estate Scotland announced a further leasing round for offshore wind energy around Scotland. As noted above, the Scottish Energy Strategy, published in December 2017, outlined the key role offshore wind energy will play in the future development of the Scottish Energy sector. In response, Marine Scotland will undertake a sectoral marine planning exercise in order to identify Plan Option areas considered to be the preferred strategic locations for the sustainable development of offshore wind. This provides the opportunity for Scottish Ministers to review the Plan Options (included within the National Marine Plan) for conventional offshore wind technologies in light of locational requirements and possibilities emerging as a result of deep water wind technologies. The result will be a new Plan for Offshore Wind Energy which will enable consideration of strategic marine grid options.

Marine and coastal tourism: Aspects of marine and coastal tourism, highlighted in the review process as emerging or changing, will be given consideration within the context of how marine planning can facilitate change, encourage investment and help manage impacts to ensure environmental sustainability and sustainable economic development within communities. Work has already been undertaken to address data knowledge gaps identified through the development of the Plan. The Scottish Marine Recreation and Tourism Survey 2015 was designed to gather information for 23 different recreation and tourism activities undertaken at sea or around the Scottish coastline and to provide baseline information – not only for marine planning purposes but also to examine areas for potential investment to expand the visitor economy.

Marine litter and non-native invasive species: The management challenges posed by the increasing threat of INNS as well as prevailing societal recognition of the impacts of litter on our marine and coastal environment indicate a need to revisit policies in relation to these areas. In both cases, improved understanding of impacts on the natural environment and economy requires a role for marine planning and the related assessment processes.

European Marine Spatial Planning Projects

Marine Scotland is currently participating in a number of EU funded projects focusing on improving knowledge and best practice around marine spatial planning. These include SIMCelt (Support Implementation of Maritime Spatial Planning in the Celtic Seas) http://www.simcelt.eu/, MUSES (Multi-Use in European Seas) https://muses-project.eu/ and NorthSEE (A North Sea Perspective on Shipping, Energy and Environmental Aspects in Maritime Spatial Planning) http://www.northsearegion.eu/northsee. The conclusions and outcomes of the work packages associated with these projects will be considered in future marine planning initiatives to ensure the most relevant and up-to-date processes and practises are integrated appropriately.

Next steps

In accordance with the Marine Acts, Scottish Ministers will consider this review report and determine whether or not to replace or amend the Plan.

In any event, the issues raised in this report, and the further detail contained within the Scottish Report of The Scottish Coastal Forum's National Marine Plan Review Workshop, 2018 and the *'National Marine Plan Review 2018: Survey Analysis Report'* will be considered in detail to develop a work programme which will inform future national or regional Plans and also research and assessment programmes.

Some of the issues raised in this report which merit further investigation include:

Implementation of the Plan: Feedback received from public authorities regarding their use of the Plan illustrates the Plan is used for a wide range of purposes, many of which extend beyond informing authorisation decisions and the development of statutory plans. However the evidence suggests that there are some areas of statutory function to which the Plan is not being addressed, or if it is, without consistency. The extent of this is difficult to assess based on the limited number of responses to the review questionnaire from Local Authorities for example. There will be therefore be merit in taking forward further engagement with authorities to raise awareness of statutory obligations, better understand the challenges and barriers to implementation, and consider what mechanisms and support can be offered to ultimately ensure the Plan is implemented more effectively.

Effectiveness of the Plan: Feedback suggests that voluntary measures may not be sufficient, or regulatory mechanisms not available, to effectively implement some policies in the Plan. An assessment of Plan policies in terms of whether they rely on voluntary measures or whether a regulatory mechanism exists to implement them could provide a useful analysis of the how likely it is for a policy to deliver an outcome.

Use of information available from data monitoring and other information sources: The review period of 3 years from adoption of the Plan was suggested by some to be too short to allow for its effects to be fully considered. A review of data sources for their relevance to determining effectiveness of the Plan's policies and how objectives are being met indicated that while this is limited at the current time, data and information will soon become available. This includes MSFD monitoring and assessments, the development of a marine socio-economic evidence base for monitoring and reporting on the Plan and ongoing outputs of UKMMAS.

Implications of withdrawal of the UK from the EU on the Plan: The Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 provide the framework for marine planning in Scotland and this will continue following withdrawal from the EU. However as further detail on the UK's future relationship with the EU emerges, the implications for the Plan will be further assessed to inform both the development and timing of future marine plans.

Implications of new legal frameworks: Emerging legislation and frameworks which could impact on the Plan and the marine planning framework were noted to include the reform of Crown Estate assets through the Scottish Crown Estate Bill, the Islands (Scotland) Bill, the Community Empowerment Act 2015 and the Planning (Scotland) Bill. Once enacted,

any relevant provisions within or outcomes arising from these legislative instruments will be considered in terms of how they influence marine planning, related policy and licensing frameworks.

Emerging policies and activity: Feedback received highlighted a number of areas of emerging activity, strategies and policy areas which will influence future Plan policy and content. The Plan recognises that characteristics and use of the marine environment will change over time and that an adaptive approach to decision and plan making will be required for marine plans to remain relevant (General Policy 20). Some of the matters raised provide a basis against which the adaptability of the Plan could be considered. How effective the General Policies are to informing decisions on emerging activities could also be considered as more detail about the nature of the activities transpires.

Marine planning initiatives: A number of spatial planning initiatives are underway which aim to improve knowledge and best practice on marine planning. The outputs of these will be considered in terms of how they will influence future Plan iterations and planning practices.

GLOSSARY

CFP - EU Common Fisheries Policy.

GES - Good Environmental Status.

GIS - Geographical Information System.

GVA - Gross Value Added.

HLMO - High Level Marine Objectives.

IA - Intermediate Assessment.

IMTA - Integrated Multi Trophic Aquaculture.

INNS - Invasive non-native species.

INSPIRE - Infrastructure for Spatial Information in the European Community. EU directive for spatial data requirements.

JNCC - Joint Nature Conservation Committee.

LDP - Local Development Plan.

Marine Acts - Marine (Scotland) Act 2010 and UK Marine and Coastal Access Act 2009.

MASTS - Marine Alliance for Science and Technology for Scotland.

MMO - Marine Management Organisation.

MPA - Marine Protected Area.

MPP - Marine Planning Partnership.

MPS - Marine Policy Statement.

MSFD - EU Marine Strategy Framework Directive.

MS LOT - Marine Scotland Licensing Operations Team.

MUSES - EU funded project: Multi-Use in European Seas.

NMPi - National Marine Plan Interactive.

NorthSEE - EU funded project: A North Sea Perspective on Shipping, Energy and Environmental Aspects in Maritime Spatial Planning.

Offshore waters - Term used generally to refer to waters more than 12 nautical miles from baselines (i.e. the area stretching from 12 nautical miles out to limits of UK jurisdiction). In relation to marine renewable energy, it does not necessarily mean outside 12 nautical miles; it can refer to activity in the marine environment often within 3 nautical miles.

OSPAR - The Commission which manages work under the OSPAR Convention (Convention for the Protection of the Marine Environment of the North East Atlantic).

Plan - Scotland's National Marine Plan.

PMF - Priority Marine Features.

RMP - Regional Marine Plan.

SEPA - Scottish Environment Protection Agency.

SCF - Scottish Coastal Forum

SIMCelt - EU funded project: Support Implementation of Maritime Spatial Planning in the Celtic Seas.

SNH - Scottish Natural Heritage.

SMMCG - The Scottish Marine Monitoring Coordination Group.

SMR - Scottish Marine Regions.

UKMMAS - UK Marine Monitoring and Assessment Strategy.

WFD - EU Water Framework Directive.



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